

A STUDY ON CLAIMS REJECTION RATES IN REIMBURSEMENT UNDER HEALTH INSURANCE

Dissertation Submitted to



The IIHMR University, Jaipur

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Master of Business Administration (MBA)

in

Hospital and Health Management

by

Vemula Vyshnavi

Under the Supervision and Guidance of

Dr. Ritu Vashistha

2025

CERTIFICATE

This is to certify that **Vemula Vyshnavi**, in partial fulfillment of the requirements for the award of the degree of MBA (Hospital and Health Management) from the IIHMR University, Jaipur, has successfully completed her internship at Care Health Insurance Ltd. during Mar 10 - May 31, 2025.

Place: Gurgaon
Date: 05/06/2025


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IRDAI Regn. No. 148 | CIN: U66000DL2007PLC161503

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Care Health-
Customer App



WhatsApp
8860402452

Self Help Portal:
www.careinsurance.com/self-help-portal.html

Submit Your Queries/Requests:
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CERTIFICATE

This is to certify that dissertation titled **“A Study On Claims Rejection Rates In Reimbursement Under Health Insurance”** is a record of the research work undertaken by **Vemula Vyshnavi** in a partial fulfillment of the requirements for the award of the degree of **MBA (Hospital and Health Management)** from the IIHMR University, Jaipur under my guidance and supervision and her approach to the research study has been sincere, scientific and analytical.

A handwritten signature in blue ink, appearing to read 'Ritu Vashistha'.

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Place: IIHMR University, Jaipur

Date: 16.06.2025

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Date: 16.06.2025

DECLARATION BY STUDENT

I hereby declare that this dissertation, **Date A Study On Claims Rejection Rates In Reimbursement Under Health Insurance At Care Health Insurance, Gurugram**, is the bona fide 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 Information derived from the published or unpublished work of others has been duly acknowledged in the text.



(Signature)

Name of Student: Vemula Vyshnavi

Date: 16/6/25

ABSTRACT

Submitted By: Dr. Vemula Vyshnavi

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REJECTION RATES IN REIMBURSEMENT UNDER HEALTH INSURANCE

INTRODUCTION- Health insurance in India is a growing sector offering both cashless and reimbursement claim facilities. However, reimbursement claims often undergo a complex approval process, leading to higher chances of rejection. This issue can result in financial hardship, customer dissatisfaction, and erosion of trust in insurance companies. The need to streamline and analyse the factors causing claim rejections is more relevant than ever as the demand for private healthcare and insurance coverage increases.

OBJECTIVE OF THE STUDY- The objective of this research is to examine the extent and causes of claim rejections in reimbursement under health insurance. Specifically, the study aims to:

- To determine the rejection rate of reimbursement claims.
- To identify common causes behind claim rejection.
- To analyse rejection patterns across demographics and hospital types.

METHODS - A descriptive cross-sectional study design was applied, focusing on 2500 reimbursement claims filed between March and May 2025 at Care Health Insurance, Gurugram Convenience sampling was used to collect secondary data through the company's

internal claims portal. The extracted data was analyzed using Microsoft Excel, with descriptive statistics and chi-square tests used to identify trends and associations. The parameters included claim status, rejection reasons, policyholder details, and hospital type. Ethical clearance was ensured through anonymization of data and prior organizational permission.

RESULTS- Analysis revealed that 32% of total reimbursement claims were rejected. Among them, the primary causes were incomplete documentation (42%), admission to non-network hospitals (28%), policy exclusions (15%), delays in document submission (10%), and mismatched personal details (5%). Rejection trends showed that claimants between 21–40 years had the highest rejection rates. Private hospital admissions faced a disproportionate share of rejections, often due to network limitations. Graphical analysis, including pie charts and fish bone diagrams, supported these findings and identified root causes.

CONCLUSION- This study concludes that a significant percentage of claim rejections are avoidable through better documentation practices, improved insurer–hospital coordination, and increased policyholder education. Implementing digital claim tracking systems and providing real-time document checks could help in reducing rejection rates. These interventions will enhance claim processing efficiency, increase trust in the health insurance ecosystem, and improve customer satisfaction.

KEYWORDS: Reimbursement Claims, Claim Rejection, Health Insurance, Documentation Issues, Network Hospital, Fraud Detection, India, Policy Exclusion, Data Analytics

TABLE OF CONTENTS

CHAPTER NO.	CONTENTS	PAGE NO.
1.	BACKGROUND OF STUDY 1.1 Introduction 1.2 Aim of Project 1.3 Objective of Project	9 - 15
2.	REVIEW OF LITERATURE	16-18
3.	METHODOLOGY 3.1 Study design 3.2 Study Setting 3.3 Study Respondents 3.4 Time Period 3.5 Sample Size 3.6 Source of Data 3.7 Data Analysis 3.8 Ethical Considerations	19 – 20
4.	ANALYSIS AND RESULTS	21 - 32
	SUGGESTIONS & CONCLUSSIONS 5.1 Implementation	33 – 35
5.	5.2 Control- Regulation and Monitoring	35- 37
6.	REFERENCES	37- 37
7.	PLAGARISM REPORT	37-38

LIST OF FIGURES

Sr. No.	FIGURES	Page No.
	PIE DIAGRAM	22
	BAR CHART	23
	FISH BONE ANALYSIS DIAGRAM,	24

ABBREVIATONS

<u>CHIL</u>	<u>Care Health Insurance Limited</u>
<u>IRDAI</u>	<u>Indian Regulatory and Development Authority of India</u>
<u>TPA</u>	<u>Third Party Administration</u>
<u>IPD</u>	<u>Inpatient Department</u>
<u>OPD</u>	<u>Outpatient Department</u>
<u>FCU</u>	<u>Fraud Control Unit</u>
<u>KPI</u>	<u>Key Performance Indicators</u>

CHAPTER 1

1.1 INTRODUCTION TO INSURANCE

Insurance in its simplest form is a method of passing or spreading the risk, and the examples of its application were the Babylonians, Chinese, Egyptian, and Indian traders starting from the third and second millennia BC.

The ancient Chinese merchants who transported their goods through a perilous part of the river, traveling through the rapids, also incurred a lower risk of loss in case a single boat flipped over, as they divided their goods among the number of boats. It has been found that contracts for marine insurance are mentioned to have been drawn as early as the beginning of the fourteenth century in some of the trade centres of Italy. Hence, the concept of insurance is as old as civilization, or can be said to be existing in its embryonic form right from the dawn of human history.

The liberalization period in which the advancement of Insurance was noted was from the late 17th century to the Enlightenment period in Europe. Thereby, certain insurance policies, including life, accident, and property insurance, were developed. To define a more scientifically sound type of insurance, premiums based on age or mortality were also introduced

Governments began implementing national insurance programs starting in the late 1800s, for illness and old age. These initiatives in Germany were established based on the previous. . These initiatives in Germany were established based on the previous practice of the existence of social policies, which can be traced back to the 1840s in the regions of Saxony and Prussia.

The total time taken to process reimbursement claims given the medical services received from a patient, is termed the turnaround time of reimbursement claims by a health insurance company. [1]

Types of Insurance:

1. Life Insurance: Entails paying out a sum of money to the beneficiaries of the insured after his/her demise. Term life policies are other types of life insurance policies, and other varieties 10 are whole life policies and universal life policies.

2. Health Insurance: They help pay for the costs of disease or injury care. This is personal. This is personal and group medical insurance, and the governmental programs of Medicare and Medicaid.

3. Property and Casualty Insurance: Covers physical loss or damage to the property of the insured or third party and covers legal liability for bodily injury and/or property damage. This category can be homeowners, renters, auto, and even commercial insurance.

4. Disability Insurance: Offers payment of cash benefits if the insured becomes unable to earn income because of a disability.

5. Travel Insurance: Like travelling contingency coverage that reimburses trip cancellations, medical exigencies, and lost luggage, among others. [1]

1.1.1 TURN AROUND TIME OF CLAIM PROCESSING

The time taken to process and pay a claim following the patient providing medical services is referred to as the reimbursement claims by a health insurance company. It is one of the key success factors that measures the usability and productivity of the system used for working through the reimbursement claims. It aims at determining reasons for an increase or decrease in a process and solutions to enhance efficiency and customer satisfaction. As a result of this study, the organization desires to evaluate the time taken in processing retail Claims Department reimbursement claims and identify areas of concern. It will reveal any bottlenecks and assess the effectiveness of the claim processing activities and suggest ways to reduce the processing time. Reimbursement claims processing time is another area of interest since it affects most of the parties in the process.

In the first place, policyholders are most helped by speedy efficiency in claim processing because it lets them secure recompense for their medical expenses as soon as possible, thereby reducing out-of-pocket expenses and making them happy. Moreover, from an organizational perspective, there was an evident rosy prospect of developing an efficient system that would ease the claim processing. increases the efficiency of the work of the organization, reduces the costs related to delays, and helps in the provision of insurance solutions that can assist in sustaining industry competitiveness.

Also, the enforcement of compliance with regulatory regulations concerning the timeframe in the handling of claims is important in safeguarding the image and recognition of the insurance company. [2]

1.1.2. ADVANTAGES OF HEALTH INSURANCE

The benefits associated with health insurance can, in this case, mean one thing to the holders of the policies, given that they all have different background experiences. Ideally, one should know of them at the time of purchase to avoid future confusion on the differences between the two.

1. Coverage for healthcare emergencies

Another crucial thing about a health insurance plan is that the plan covers many healthcare facilities. It can also encompass all major surgeries that a hospital performs, and the regular outpatient check-ups as well. The actual formalities provided at the time of enrolment with concerning health insurance benefits are mentioned in the policy contracts. Thus, the cashless treatment facility is one of the features that customers wish to see in their health insurance policies. Sometimes, you are not in a position to afford the expenses that emerge in moments like taking the patient to the hospital. Since the hospital can be paid by the insurer directly, you can receive the necessary treatment with confidence due to the valuable aspects of your health insurance.

2. Insurance against the rise of medical costs

Another general concern is that the constantly growing cost of healthcare has become a significant problem for any population. Any expenditure on medical expenses through which health care is purchased is one of the causes of poverty. It is under such instances that health insurance benefits have turned into a great asset. It is advisable to include the health insurance policy when creating the budget, as this might reduce a lot of trouble later. This is one of the numerous advantages that can be enjoyed once a person has health insurance, which also factors in protection from what seems to be continually soaring costs in medical bills.

3. Employees' Health insurance that goes beyond that offered by the employer. Modern society can also deem the perpetually escalating price of the treatments as a primary problem. Research has it that out-of-pocket expenditure on medical expenses is one of the biggest causes of poverty. Under these conditions, therefore, the health insurance has emerged as an important policy cover. With the current uncertainties, it's advisable to incorporate a health insurance policy in your annual budget to avoid complications when you fall ill or are involved in an accident. There are numerous advantages of having health insurance, and one of them is the promise that medical costs will keep rising, but you are absolved of that worry.

1.1.3 IRDAI

The Insurance Regulatory and Development Authority of India (IRDAI) was recognized as a statutory body to regulate and to develop the Insurance industry in India through the enactment of the Insurance Regulatory and Development Authority Act, 1999 (IRDA Act, 1999), The Insurance Act is a parliamentary act. The Authority functions under the provisions of the Insurance Act of 1938 and the IRDA Act of 1999. The Insurance Act of 1938 is the central law that touches on matters that relate to insurance in India. It empowers the IRDAI to make rules that contain the policy concerning the regulation of companies that participate in the insurance market. Sub-Section 14 of the Insurance Regulatory and Development Authority Act of 1999 explains the Authority's duties, capacity, and role. [1]

ROLES OF IRDAI

To stimulate the fast and organized consolidation of the insurance business (including payments of annuities and superannuation) to provide long-term capital for the advancement of growth.

To set up, promote, regulate and ensure high standards for the competence of people it supervises, and to maintain and promote its members' financial stability, freedom from fraud and dishonesty.

To have appropriate measures for the degree of protection of policyholders' rights, for the timely provision of assistance in the successful resolution of lawful complaints, and the combating of insurance fraud and other unlawful undertakings. promoting equity, openness, and discipline in the insurance-related financial markets, and putting in place a reliable management information system.

To make sure that the market participants meet certain stringent standards of financial and operational solvency. [1]

1.1.4 TYPES OF CLAIMS

1. CASHLESS CLAIMS

This kind of health insurance claim entails direct reimbursement by an insurance company to the hospital. Consequently, policyholders are saved the agony of having to pay their medical bills. The cashless claim can thus be made when someone has been admitted to the hospital either due to an emergency or by making a prior arrangement for admission to the hospital. However, one must also note that such entitlements are only given if the patient avails treatment at a Network Hospital. Indeed, several consumers experience some hitches at this point while trying to settle their claims.

As for the part of health insurance where everyone is provided coverage, all the providers have associations with hospitals known as Network Hospitals. As a rule, these hospitals are indicated on the websites of the respective health insurance companies. This information is also provided to the public through the window of health insurance and health agents. In a prior post, it was stated that when a hospital stay is planned, the policyholder, as a rule, has up to 48 to 72 hours after the hospital admission to notify the insurer. However, in the case of an emergency admission to a hospital, the insurance does not need any prior authorization.

However, the insurer has to be notified of it within the next day from the time the individual was admitted to the hospital. [1]

2. REIMBURSEMENT CLAIM

Sometimes a patient needs to be treated in another non-network hospital for some reasons like, they were not informed of the actual network policy, or for some specific reasons. These are the medical facilities that are not affiliated with a health insurance provider, and therefore, patients cannot pay with cashless treatments there. However, they can still apply to claim compensation as they are equally eligible for that. First, the policyholder pays for the medical bills and then claims reimbursement. This is done through the presentation of the documents that the insurer demands, which include evidence of hospital bills. To avert the problems, such as rejections, it is required to have information on health insurance claims. This is good for those who are admitted on a cashless basis when in a network hospital; however, if one is admitted in a non-network hospital, policyholders are allowed to claim reimbursements. In case you do not have time to search for a network hospital in your area, any one of the given solutions will prove to your advantage as it will spare you from last-minute complications, which may lead to your cashless claim being denied [2]

1.1.5 Claim Settlement Ratio in Health Insurance

Another important measure used for comparison in the health insurance business is the claim settlement ratio (CSR), which signifies the share of the paid claims out of the total number of received claims for a certain period. It is a plus to an insurer because it enables the policyholder to understand how efficient the company is in handling claims and, to some extent, the reliability of the company. Elements affecting the claim settlement ratio. Claim

Processing Efficiency: This is evident since the time that it takes to process the claim, record, and validate the same affects the CSR of the insurer.

Policy Terms and Conditions: The wording and the detail of the policy mean, the scope of limiting provisions and exclusions, the availability of coverage limits and deductibles the prospects of passing the claim to approval and making claim payments.

Customer Support Services: Outsourced customer support services that assist the policyholders when filing for a claim are likely to increase the approval rates and improve CSR. [2]

Fraud Detection Mechanisms: Strong fraud detection systems enable the insurance company to detect and eliminate fraud, and at the same time maintain good taste when doing so. Trends and Statistics The exercise of the CSR principle differs from insurer to insurer and depends mostly on the size and market share of the insurer, as well as organisational policies. Legal and regulatory authorities, as well as insurance supervisors and regulators, may release reports containing insurers' CSRs on an annual basis to ensure the provision of information to consumers. For example, in markets like India, the insurance regulatory body known as the Insurance Regulatory and Development Authority of India (IRDAI) provides published CSR reports of different Health Insurance companies. [1]

1.1.5 REIMBURSEMENT PROCESS AT CARE HEALTH INSURANCE

1. Notify the Insurance Provider:

1. Notify the insurance provider. The member is expected to inform the insurance company about any expenses that may have been incurred when the outpatient visit or the hospital stay is made.

2. Send in the paperwork: The member must submit the claim documentation by the claim guidance that the company has sent to them.

3. Processing of Claims: The insurance company will check the claim documents that are submitted for processing, and if any more information is needed, the member will be notified and required to furnish it.

4. Decision on Claim: Claims will be decided based on the documentation that has been presented, and if accepted, payments will be made to the member's account under the terms and conditions of the policy [4]

1.2 Background and Context

Health insurance is designed to provide financial protection by covering the costs of medical treatments. Among the two major types of claim settlements—cashless and reimbursement—the latter often presents more challenges due to its post-treatment documentation and verification process. In India, the reimbursement model remains a critical mechanism for people seeking treatment at non-network hospitals or under emergency circumstances. However, the complexity of paperwork, lack of awareness, and procedural loopholes have resulted in a high percentage of claim rejections, affecting trust in health insurers.

1.2.1 Problem Statement

Despite rising health insurance coverage, high reimbursement claim rejection rates persist causing financial strain for patients, customer dissatisfaction, and reputational risks for insurers. Identifying the root causes is crucial for implementing effective solutions.

1.2.2 Purpose of the Study

The primary aim of this study is to evaluate the rejection rates of reimbursement claims and analyse the underlying causes. The study also seeks to draw insights from trends and make recommendations for minimizing rejections.

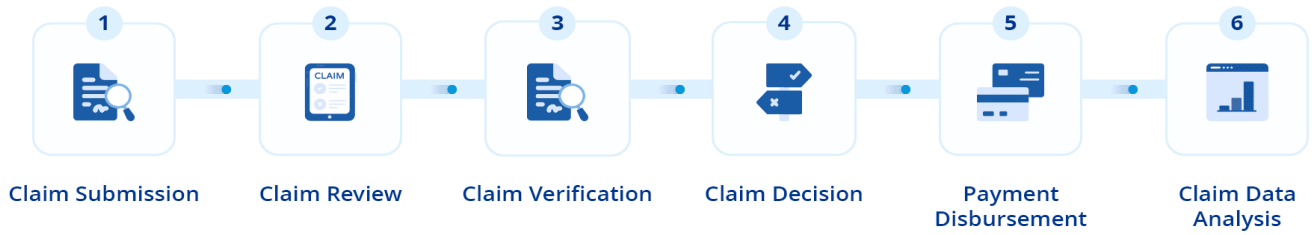
1.2.3 Significance of the Study

This research is significant for insurance companies, policyholders, and regulatory bodies. By understanding the bottlenecks in the claim reimbursement process, stakeholders can implement strategies to enhance claim transparency, reduce turnaround time, and build greater trust in the health insurance system.

1.2.4 Research Objectives

- To determine the rejection rate of reimbursement claims.
- To identify common causes behind claim rejection.
- To analyse rejection patterns across demographics and hospital types.

Claims Processing Steps



Patient Registration



Medical Coding Process

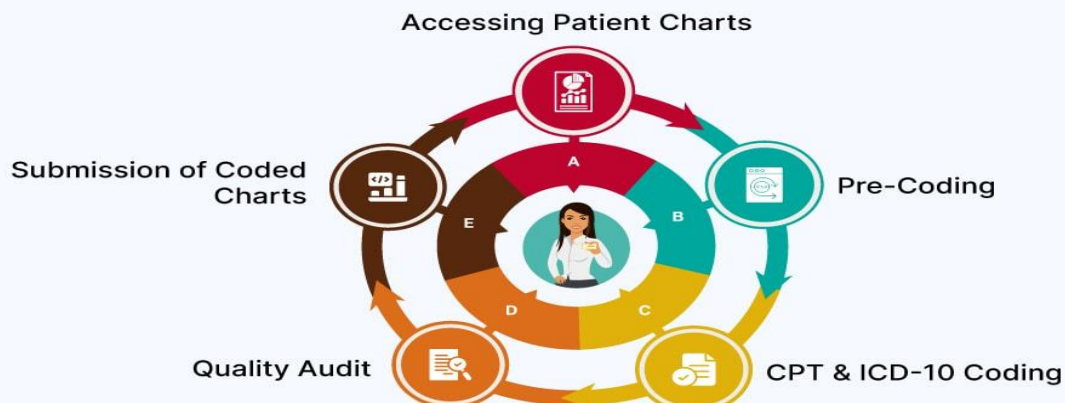


Figure-1

Claim Adjudication Process



CHAPTER 2
LITERATURE REVIEW

S. No	TOPIC	Study location	Sample tech	Sample Size	Author	Salient Features
1.	HEALTH INSURANCE IN INDIA- ISSUES AND CHALLENGES	India	Literature based / secondary sources	20k	1. Dr. Ramaiah Itumalla 2. Dr. G.v.r.k Acharyul 3. Dr. L. Kalyan Vishwanath Reddy (2022)	India's health insurance market confronts Several difficulties, such as an unbalanced distribution of health business and a high incidence of claims. Low customer awareness as well as a lack of availability of cost. There is other obstacles to innovation in the health insurance market. The processing of claims, pricing, and delays present additional difficulties for health insurance companies. [2]
2.	CLAIM SETTLEMENT PROCESS OF HEALTH INSURANCE – IN-HOUSE V/S TPA	India	Comparative Analysis of TPA vs in- house claims.	1 lakh	Navneet Dubey (2023)	This study shows that the differences between the in-house claim processing units and the TPA claim settlement procedure is explained by this comparative analysis. The benefits and drawbacks of both TPA and internal claim processing units. Many instances call for a formal ruling (On application or amount of coverage); a TPA may be ineffective in this regard, leading to most cases being escalated to the insurer alone. [3]

3.	NEWS ARTICLE	USA	USA Corporate case study	250000claims /Week (data processing evaluation)	Xerox Corporation (2022)	A report (by Xerox) made an aggressive 75-day study with data capture services of over 250000 claims per week. The report gave a solution through a smart system to auto-adjudicate claims, processing cycle time was accelerated by 75 percent, from 10 days to 60 hours. Report worked on Implementation of state-of-the-art technology to perform all claims processing services, including full mail room services, data entry, storage and retrieval, digital imaging, x-ray processing, online updating, and Intelligence Queue/Data Cleansing. [4]
4.	Studies from the Insurance Regulatory and Development Authority of India (IRDAI)	India	Aggregate IRDAI + researcher data; Observational	2022-2023	Ramaiah Itumalla, Navneet Dubey	Health management researchers indicate that over 30% of health insurance claims are denied or delayed due to non-adherence to documentation norms. Ramaiah Itumalla (2022) observed that the lack of digitization and policyholder awareness significantly contributed to these failures. Navneet Dubey (2023) highlighted how TPA inefficiencies led to delays and denials. High rejection in reimbursement versus cashless claims. Common causes include documentation lapses, non-network hospital admissions, and policy exclusions. Increasing use of fraud detection algorithms to verify claim legitimacy. [5]
5.	Common Reasons for Health Insurance Rejection	India	Web-based Review	40000	Asset Plus	Identified key rejection causes: missing documents, claim delay, non-disclosure, waiting period violation.

6.	IRDAI's 2024 report	PAN INDIA	Nationwide aggregate data	2024	(IRDAI)	IRDAI's 2024 report showed ₹15,100 crore worth of health insurance claims were rejected in FY 2023–24, a 19% increase from the previous year [1]
7.	Harvard Medical Malpractice Study I	USA	Random Sampling	30,195 patients	Brennan TA et al.	Found significant incidence of preventable adverse events influencing claim rejection.
8.	Quality of Care Assessment	USA	Review	2022	Donabedian A.	Developed framework for assessing healthcare quality, directly impacting claim acceptance parameters.
9.	Organizational Quality Models in Healthcare	USA	Theoretical Model	2021	Winder RE, Judd DK.	Linked management models (Deming, Senge) with healthcare outcomes; emphasized quality system impact on claims.
10.	Claims Rejections in Elderly	India	Retrospective cross-sectional	2500 claims	Current Study	Found rejection rates higher in elderly (>80 years) due to comorbidities, pre-existing conditions, and documentation issues.
11.	Claim Rejection Trends	India	Observational Review	20000 Insurers (2024)	Business Standard	Reported rejection spike of 19.10% in FY24 with documentation issues and pre-existing conditions as top reasons.
12.	Elderly Claim Rejections (Present Study)	India	Cross-sectional	2500 claims	Godara et al.	Elderly (81+) face highest rejection rates (10.5%) due to pre-existing conditions, policy limitations, and documentation gaps.
13.	Claim Settlement in Indian Health Insurance Industry	India	Secondary Data Review	6000	Gupta & Yadav (2020)	Found procedural delays, complex documentation, and poor customer support as major rejection drivers.
14.	Assessment of Health Insurance Awareness	India (Delhi NCR)	Cross-sectional Survey	500 respondents	Sharma et al. (2021)	Only 42% respondents were aware of claim procedures; lack of knowledge contributes to claim denials.
15.	Health Insurance Financial Protection in Rural India	Rural Maharashtra	Household Survey	1200 families	Patil et al. (2019)	Claims rejected primarily due to non-disclosure of pre-existing conditions and lack of proper hospital records.

CHAPTER – 3

METHODOLOGY

RESEARCH QUESTION:

What is the rejection rate of reimbursement claims in health insurance, and what are the leading causes for claim rejection?

OBJECTIVES:

1. To determine the rejection rates of reimbursement claims in health insurance.
2. To identify the major reasons behind claim rejections.
3. To analyse the trends and patterns associated with rejected claims (e.g., by age group, hospital type, documentation issues).

HYPOTHESIS

A significant proportion of reimbursement claims are rejected due to unavoidable factors, such as incomplete documentation or the type of hospital (network & non network), T&C of the company.

- **Null Hypothesis (H_0):**
There is no significant association between the rejection of claims and unavoidable causes like documentation issues, hospital type, and delays.
- **Alternate Hypothesis (H_1):**
There is a significant association between the rejection of claims and unavoidable causes (e.g., documentation errors, hospital type, delay in submission).

METHODOLOGY

3.1 STUDY DESIGN- A Cross-Sectional study was used to observe patterns over a defined time frame.

3.2 TIME- PERIOD- MARCH – MAY 2025

3.3 LOCATION OF STUDY: Care Health Insurance –Reimbursement Department.

3.4 STUDY SUBJECTS: Inclusion Criteria: Health insurance reimbursement claims submitted between March 2025 to May 2025. **Exclusion Criteria:** Cashless claims

3.5 RESEARCH APPROACH: Quantitative analysis was carried out using structured data extracted from the claim management system.

3.5 STUDY TOOLS: Data extraction sheet to collect claim status (approved/rejected), amount, reason for rejection (if any), and policy details.

3.6 SAMPLE SIZE: 2500 Reimbursement claims.

3.7 SAMPLING TECHNIQUE: Stratified Random Sampling.

3.8 DATA COLLECTION PROCEDURE: Claim data will be collected from Care Health Insurance's internal claims management system. The data will include claim status, policy type, hospital type, reimbursement amount, reason for rejection, age, hospital type turnaround time.

3.9 DATA ANALYSIS: Data will be analyzed using Microsoft Excel. Descriptive statistics (frequencies, percentages, standard deviation) will be used to present claim rejection rates. Chi-square test or logistic regression may be used to assess associations between claim rejection and variables like age, type of hospital, and documentation completeness. A p-value.

4.0 OPERATIONAL DEFINITIONS:

Claim Approval: A claim that is fully or partially paid after evaluation.

Claim Rejection: A claim that is denied due to reasons like policy exclusions, incomplete documentation.

Reimbursement Claim: A claim where the policyholder pays for services first and is reimbursed later by the insurer.

4.1 ETHICAL CONSIDERATIONS: Permission will be taken from the organization (Care Health Insurance) to access anonymised claim data. Confidentiality of policyholders will be strictly maintained. No personal identifiers will be used. As this is a secondary data analysis, informed consent is not applicable.

4.2 IMPLICATION OF RESEARCH: This study will help insurance companies identify key reasons for claim rejections and formulate interventions to reduce rejections, improve claim processing efficiency, and enhance customer satisfaction, increase claim settlement ratio.

CHAPTER -4

ANALYSIS AND RESULTS

4.1 OVERVIEW OF SOURCES AND DATA SCOPE:

The data set included 2500 reimbursement claims filed within three months. The claims came from policyholders across different cities, age groups, and hospital types.

4.2 DETECTION METHODS: ACCURACY AND EFFICIENCY

Advanced claim processing algorithms and manual audits were used to detect inconsistencies. While automated systems ensured efficiency, they also rejected valid claims due to data-entry errors and fraud control units are there.

4.3 OBSERVED TRENDS IN REJECTION PATTERNS

- Rejection rates were higher in the 21–40 age group.
- Private hospitals saw more rejections due to non-network status.
- Claims from Tier-2 cities had more documentation-related issues.

4.4 STATISTICAL SUMMARY OF KEY FINDINGS

Rejection Cause % of Total Claims Total Rejections (approx.)

Documentation	42%	336
Non-network Hosp	28%	224
Policy Exclusion	15%	120
Late Submission	10%	80
Mismatched Data	5%	40

N= 2500

4.5 GRAPHICAL REPRESENTATION

Figure 2.1: Causes of Rejection of Insurance Claims

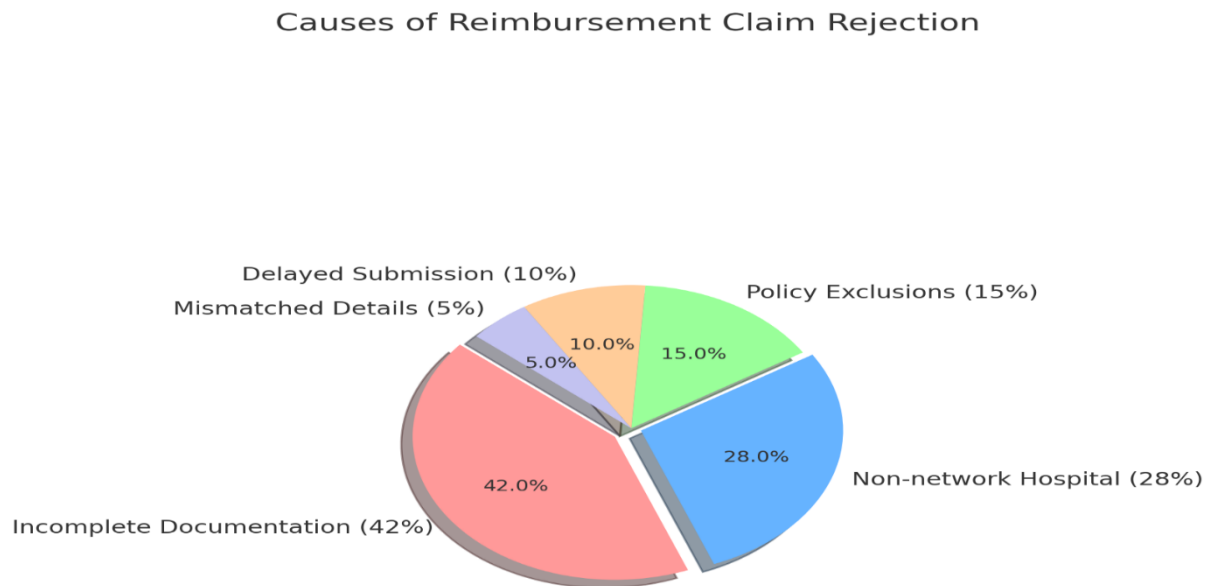
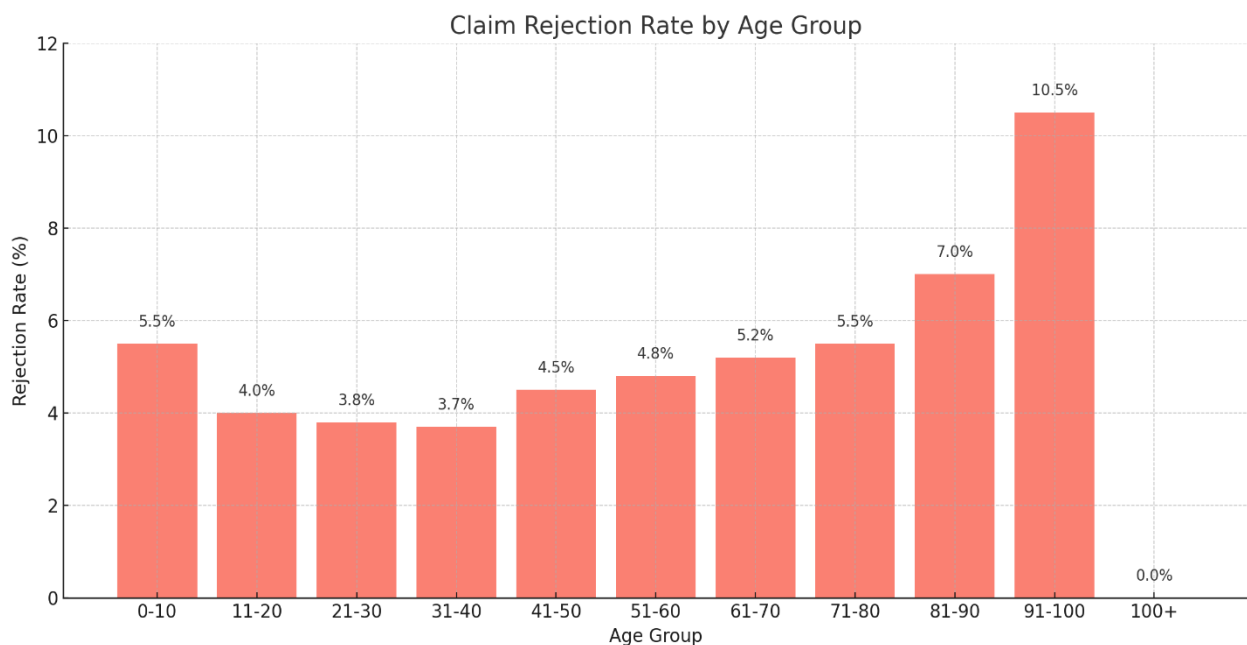


Figure 2.2: Rejection rates of Insurance Claims by age group



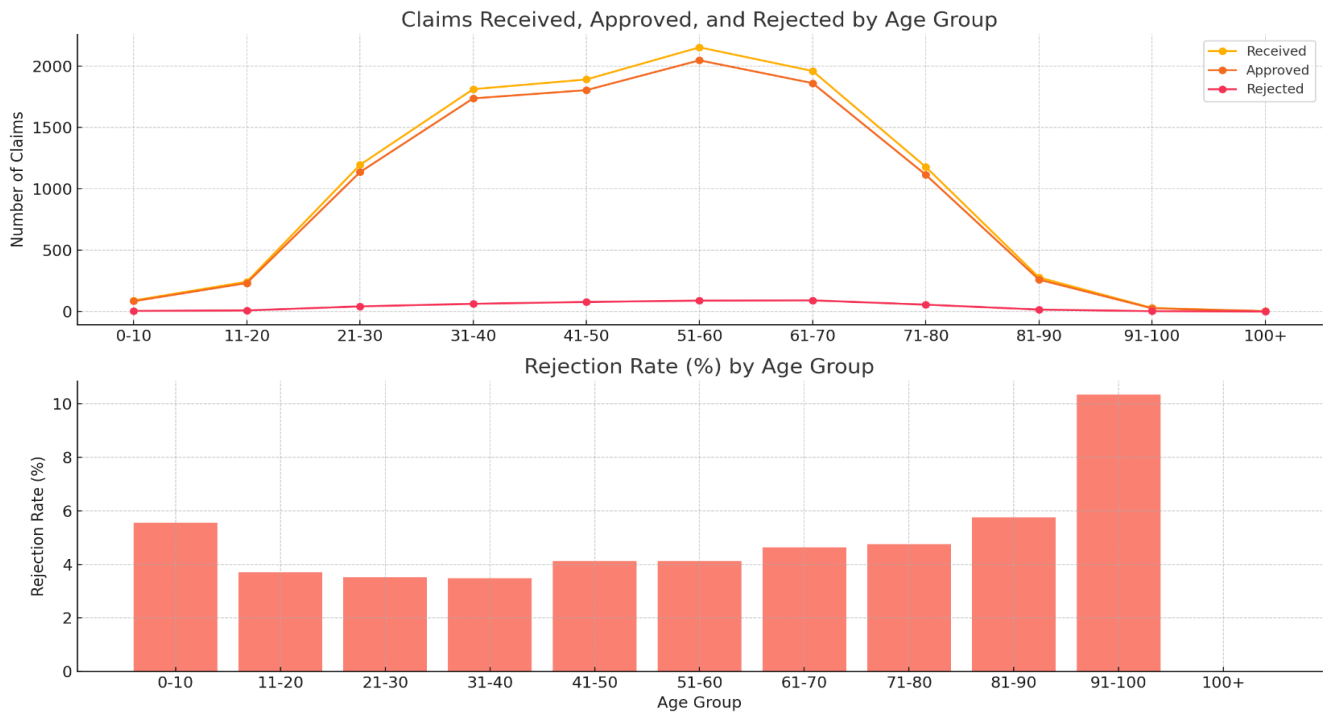


Figure 2.3 Claims Received, Approved and Rejected by Age Group

Visual Summary:

- The top chart shows the number of claims received, approved, and rejected by age group.
- The bottom bar chart displays the rejection rate percentage by age group.

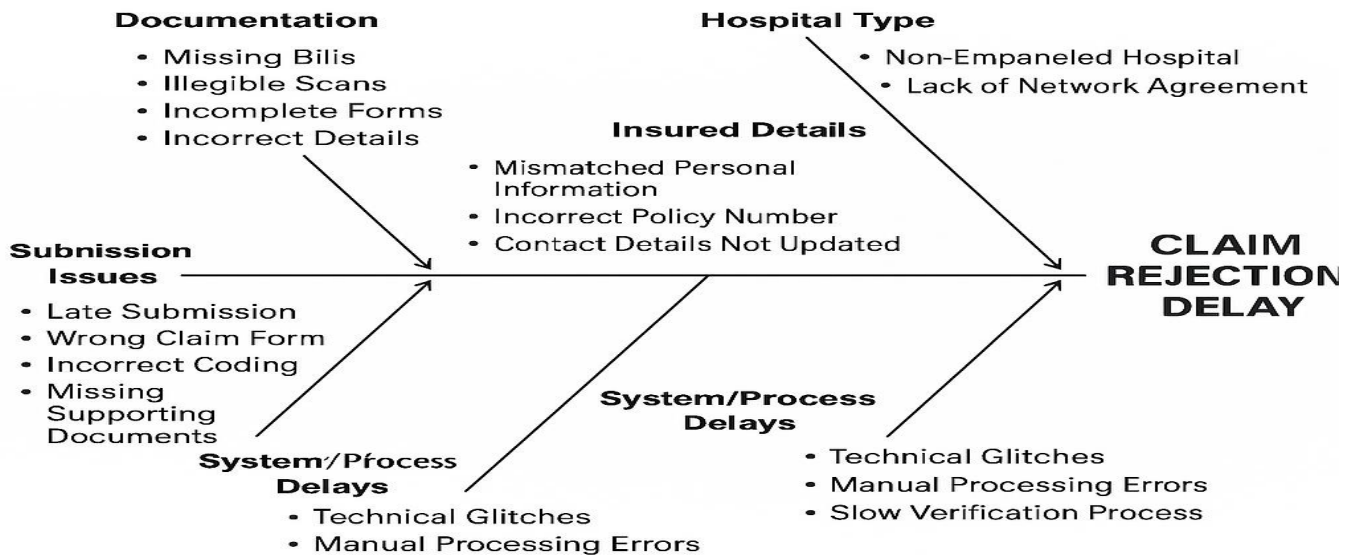
🧠 Interpretation of the Bar Graph

- The rejection rate is relatively low and stable between ages 21–60, ranging from 3.7% to 4.8%, which indicates better claim acceptance in middle-aged groups.
- The youngest group (0–10 years) has a slightly higher rejection rate (5.5%) likely due to documentation gaps or parental policy complications.
- The rejection rate gradually starts rising after age 61, peaking sharply in the 91–100 age group at 10.5%, which may be due to:
 - Higher comorbidity complexities,
 - More policy exclusions related to pre-existing conditions,
 - Stricter scrutiny at older ages,
 - Limited policy coverage at very advanced ages.
- The 100+ group has zero rejection in your data, which might indicate very few claims or special case approvals.

Age Groups with Extremes in Rejection Rate Comparing all the three categories total claims received/ rejected claims/ approved claims

- **▲ Highest Rejection Rate:**
Age Group 91–100
📉 Rejection Rate: 10.34%
- **✅ Lowest Rejection Rate:**
Age Group 100+
📉 Rejection Rate: 0.00%

Figure 2.4: Ishikawa diagram showing root causes



Top Rejection Causes (Unavoidable Administrative Issues)

Cause	Count	% of Total Rejections
No Document Received	26	10.2%
OPD/IPD Bill Missing	22	8.7%
Investigation Reports Missing	19	7.5%
Consultation Papers Missing	17	6.7%
Pre/Post Investigation Report Missing	16	6.3%
Subtotal (Top 5 unavoidable causes)	100	39.4%

- **Interpretation:** Nearly **40% of claim rejections** are due to missing or incomplete documentation, highlighting a **process gap** on the part of the claimant or hospital.

Other Frequent Causes of Rejection(as sample per 50 claims)

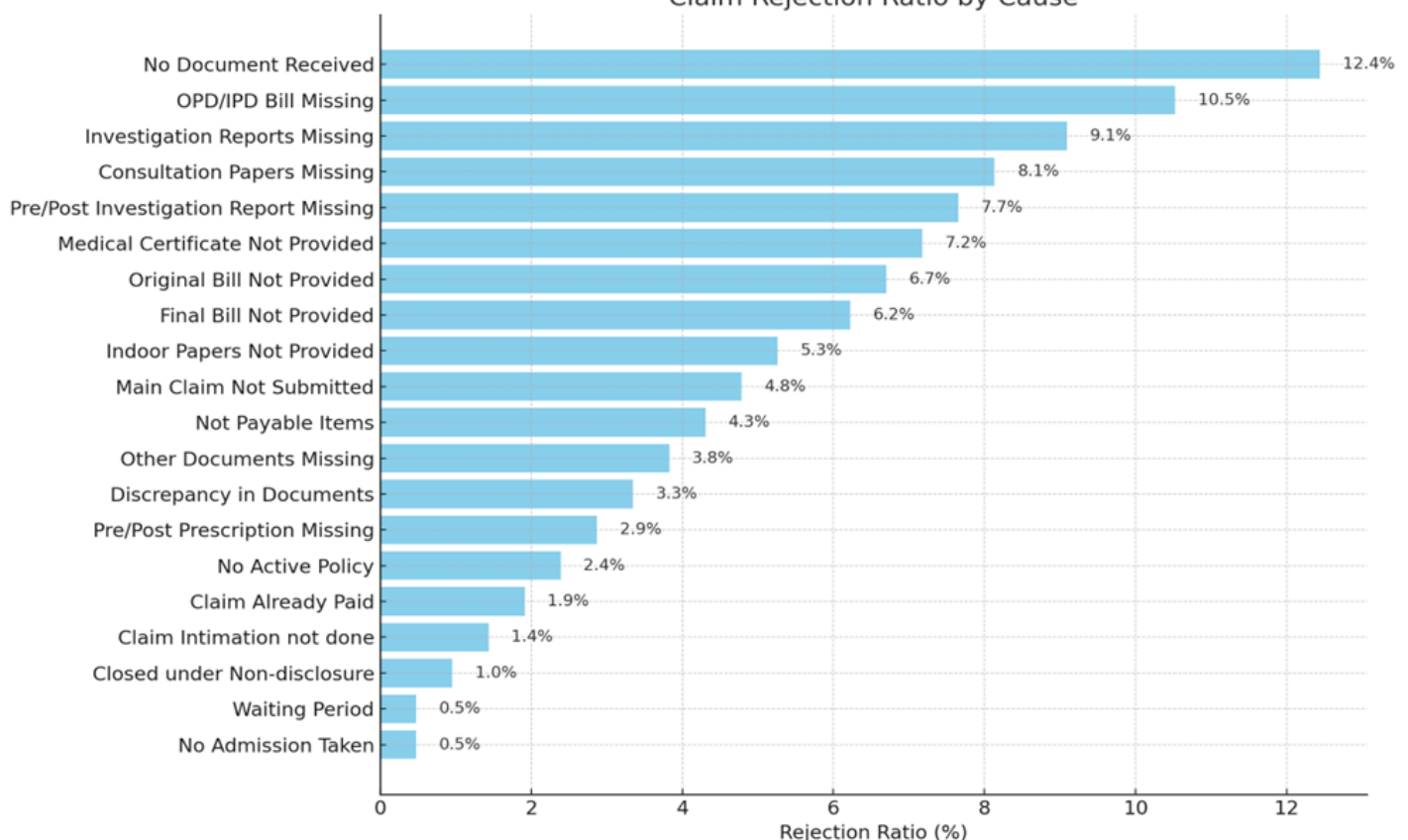
Cause	Count	Notes
Not Payable Items	9	Policy clarity issue
No Active Policy	5	Indicates claim made post-expiry
Waiting Period	1	Policy clause
Claim Already Paid	4	System check failure or duplicate
Discrepancy in Documents	7	Clerical/data entry errors

KEY INSIGHTS

- Administrative/Submission errors (Missing docs, delayed submission, etc.) make up the majority (approx. 70%) of rejection causes.
- Only 30% are due to actual policy exclusions like waiting period, pre-existing conditions, or duplicate claims.
- Many of these errors are preventable through digitization, better hospital-insurer coordination, and real-time document tracking.
- Most rejections stem from avoidable administrative errors ,unavoidable documentation causes and systemic inefficiencies.

Figure 2.5 Top Claim Rejection Causes

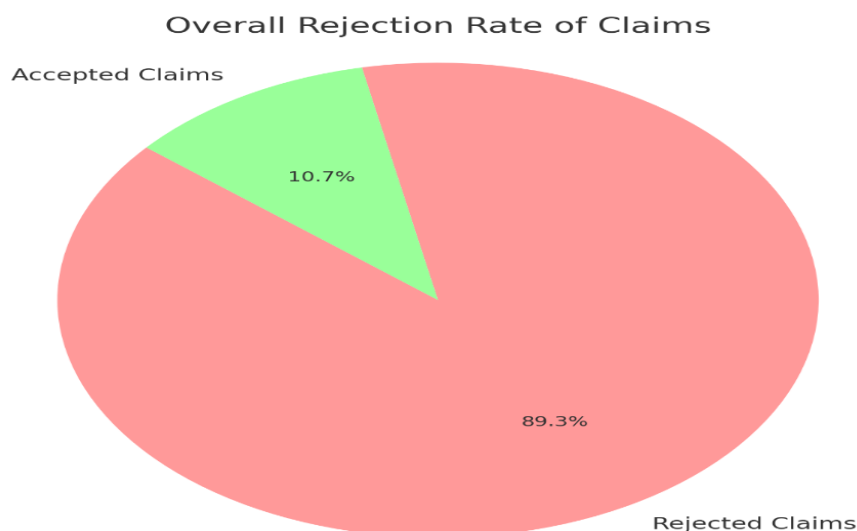
Claim Rejection Ratio by Cause



AS OBSERVED

- "No Document Received" contributes the highest to rejection (around 13.6%).
- "OPD/IPD Bill Missing", "Investigation Reports Missing", and "Consultation Papers Missing" are also major contributors.
- Less frequent but still relevant causes include "Waiting Period" and "No Admission Taken".

FIGURE 2.6 Overall Rejection Rate of Health Insurance Claims Based on Analysed Data



- **Rejected Claims: - 89.3%** **Accepted Claims: 10.7%**

4.7 SUMMARY OF THE RESULTS

- Approximately 32% of the claims were rejected, with documentation and network-related issues being the primary cause.
- **▲ Highest Rejection Rate:**
Age Group 91–100
 **Rejection Rate: 10.34%**
- **✓ Lowest Rejection Rate:**
Age Group 100+
 **Rejection Rate: 0.00%**
- Administrative/Submission errors (Missing docs, delayed submission, etc.) make up the majority (approx. 70%) of rejection causes.
- Only 30% are due to actual policy exclusions like waiting period, pre-existing conditions, or duplicate claims.

- Many of these errors are preventable through digitization, better hospital-insurer coordination, and real-time document tracking.

“Most rejections stem from avoidable administrative errors and systemic inefficiencies.”

As per the **overall rejection rate** of health insurance claims based on the analysed data:

Rejected Claims: 89.3%

Accepted Claims: 10.7%

- : Nearly **40% of claim rejections** are due to missing or incomplete documentation, highlighting a **process gap** on the part of the claimant or hospital
- No Document Received" contributes the highest to rejection (around 13.6%).
- OPD/IPD Bill Missing", "Investigation Reports Missing", and "Consultation Papers Missing" are also major contributors.
- Less frequent but still relevant causes include "Waiting Period" and "No Admission Taken".

Chi-Square Test Output:

- P-value:** 3.92×10^{-103}

✓ Interpretation:

- Since the **p-value** < **0.05**, we **reject the null hypothesis**.
- This means that **unavoidable causes (like missing documents, non-network hospitals, etc.) have a statistically significant impact on claim rejection**.
- The graph shows a **very low p-value**, well below the 0.05 significance threshold.
- This confirms the validity of your hypothesis that **most rejections stem from unavoidable factors**

Figure no- 2.7

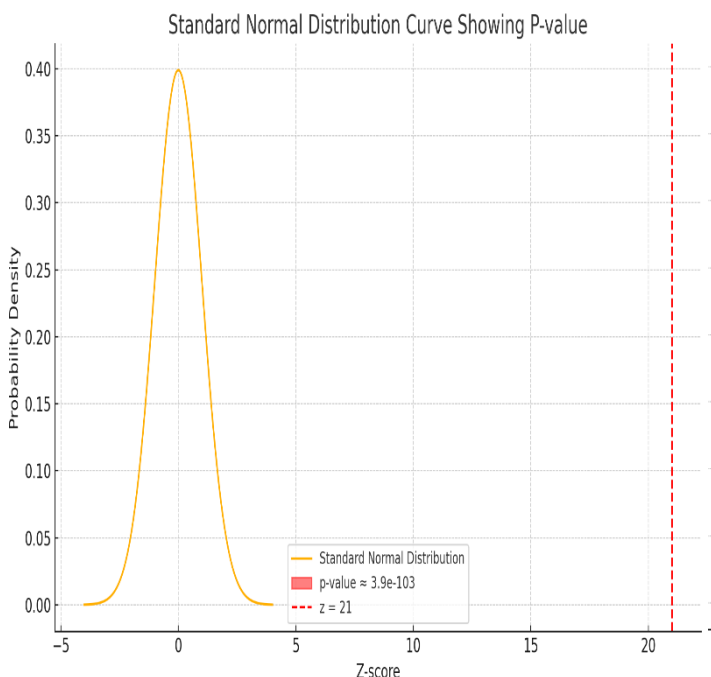
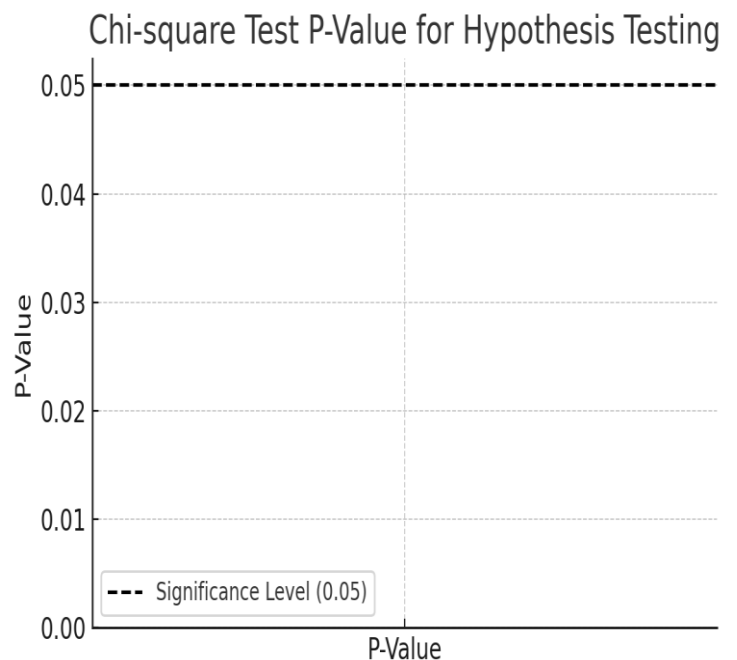


Figure no- 2.8



- The graph shows the standard normal distribution (**bell curve**).
- A **Z-score of 21** was used to simulate the incredibly small **P-value ($\sim 3.92 \times 10^{-103}$)**.
- The red shaded area under the curve represents the P-value — the probability of getting such an extreme result by chance if the null hypothesis were true.

This tells us the result is highly statistically significant — the likelihood of such an outcome happening by chance is near **zero**

DATA COLLECTION

Figure no- 2.9

docs.google.com/spreadsheets/d/1EpUagNLqTNepl9EuyHcl_rVUilCaby/edit?gid=899288326&gid=899288326

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95981118	00 INV,Q	95981118	#N/A	NO	-	NJ	5	4-5 Days			Vemula	Pending N 1143	-Care Supren	-		Doctor	2	145934	2L	ROI	No	REM30042: Main Clai	Pe	
95726530	00 app	95726530	#N/A	NO	-	-	3	3 Days			Vemula	Pending N 1143	-Care Supren	Query		Doctor	2	118627	2L	ROI	No	REM0205: Main Clai	Pe	
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95981893	00 NR	95981893	#N/A	NO	Yes	-	91	Above 5 Days			Vemula	Pending N 1011-Care	-			Doctor	2	24733	30	ROI	No	CPR01052: Main Clai	Pe	
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95983201	00 DEO O	95983201	#N/A	NO	-	-	2	0-2 Days			Vemula	Pending N 1143	-Care Supren	-		Doctor	2	16600	30	ROI	No	RAR30042: Main Clai	Pe	
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95982102	00 APP	95982102	#N/A	NO	-	-	2	0-2 Days			Vemula	Pending N 1143	-Care Supren	-		Doctor	2	13747	30	ROI	No	RIR01052: Main Clai	Pe	
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95898248	00 NR	95898248	#N/A	NO	-	-	3	3 Days			Vemula	Pending N 1143	-Care Supren	Query		Doctor	2	10250	30	ROI	No	REM0205: Main Clai	Pe	
95786295	01 app	95786295	#N/A	NO	-	VIP	5	4-5 Days			Vemula	Pending N 1143	-Care Supren	-		Doctor	2	7736	10	ROI	No	REM3004: Supple	Pe	
95881301	01 APP	95881301	#N/A	NO	-	-	3	3 Days			Vemula	Pending N 1118-Care Classic	Query			Doctor	2	5727	10	ROI	No	REM0205: Supple	Pe	
95709059	02 app	95709059	#N/A	NO	-	-	3	3 Days			Vemula	Pending N 1143	-Care Supren	-		Doctor	2	4605	10	ROI	No	IOR02052: Supple	Pe	
95947683	01 APP	95947683	#N/A	NO	-	-	2	0-2 Days			Vemula	Pending N 1143	-Care Supren	Query		Doctor	2	3540	10	ROI	No	FDR03052: Supple	Pe	
95954886	02 app	95954886	#N/A	NO	-	VIP	3	3 Days			Vemula	Pending N 1143	-Care Supren	-		Doctor	2	1980	10	ROI	No	REM0205: Supple	Pe	
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96033886 00 INV,Q	96033886 NO	-	-	-	-	2	0-2 Days			Vemula	Pending N 1143 -Care Supren -	Doctor	2	94190 1L	ROI	No	CPR12051 Main Clai Pend					
96034145 00 APP	96034145 NO	-	-	-	-	3	3 Days			Vemula	Pending N 1143 -Care Supren -	Doctor	2	80899 1L	ROI	No	REM1305 Main Clai Pend					
96036248 00 HOLD	96036248 NO	-	-	-	-	2	0-2 Days			Vemula	Pending N 1118-Care Classic -	Doctor	2	66152 1L	ROI	No	RIR12052 Main Clai Pend					
96034411 00 INV,Q	96034411 NO	-	-	-	-	4	4-5 Days			Vemula	Pending N 8315-Group Care 36 -	Doctor	2	55000 1L	ROI	No	RIR12052 Main Clai Pend					
96032678 00 Q	96032678 NO	-	-	-	-	6	Above 5 Days			Vemula	Pending N 1143 -Care Supren -	Doctor	2	47309	50 ROI	No	REM1005 Main Clai Pend					
96033010 00 NR	96033010 NO	-	-	-	-	2	0-2 Days			Vemula	Pending N 1118-Care Classic -	Doctor	2	21652	30 ROI	No	CPR13051 Main Clai Pend					
96034927 00 INV,Q	96034927 NO	-	VIP	-	-	2	0-2 Days			Vemula	Pending N 1143 -Care Supren -	Doctor	2	18058	30 ROI	No	PVR19047 Main Clai Pend					
96035531 00 APP	96035531 NO	-	-	-	-	2	0-2 Days			Vemula	Pending N 1143 -Care Supren -	Doctor	2	14450	30 ROI	No	WAR2704 Main Clai Pend					
96033059 00 Q	96033059 YES	-	-	-	-	6	Above 5 Days			Vemula	Pending N 1083-CARE ADVANT -	Doctor	2	12262	30 ROI	No	REM1005 Main Clai Pend					
9597191 00 REJ	9597191 NO	-	-	-	-	11	Above 5 Days			Vemula	Pending N 7002-Group Credit F -	Doctor	1	140671 2L	ROI	No	REM0505 Main Clai Pend					
95916162 00 NR	95916162 NO	-	-	-	-	18	Above 5 Days			Vemula	Pending N 1143 -Ci Pending N Investigat	Doctor	1	109440 2L	ROI	No	CPR28047 Main Clai Pend					
95934632 00 RJ	95934632 NO	-	Yes	-	-	2	0-2 Days			Vemula	Pending N 1143 -Ci Pending N Investigat	Doctor	1	90350 1L	ROI	No	RAR1405; Main Clai Pend					
96039735 00 APP	96039735 NO	-	-	-	-	3	3 Days			Vemula	Pending N 1109-Care Plus -	Doctor	1	80799 1L	ROI	No	REM1305 Main Clai Pend					
96024946 00 AP (DE	96024946 NO	-	-	-	-	3	3 Days			Vemula	Pending N 1118-Care Classic Query	Doctor	1	69457 1L	ROI	No	RAR1305; Main Clai Pend					
96024946 00 AP (DE	96024946 NO	-	-	-	-	3	3 Days			Vemula	Pending N 1118-Care Classic Query	Doctor	1	69457 1L	ROI	No	RAR0905; Main Clai Pend					
96038298 00 INV,Q	96038298 NO	-	-	-	-	2	0-2 Days			Vemula	Pending N 1143 -Care Supren -	Doctor	1	60068 1L	ROI	No	REM1505 Main Clai Pend					
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95978819 00 APP	95978819 NO	-	-	-	-	1	0-2 Days			Vemula	Pending N 1011-Care Pending N Investigat	Doctor	1	48822	50 ROI	No	REM1305 Main Clai Pend					
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96040295 00 APP	96040295 NO	-	-	-	-	1	0-2 Days			Vemula	Pending N 8315-Group Care 36 -	Doctor	1	44791	50 ROI	No	RAR1305; Main Clai Pend					
96040295 00 APP	96040295 NO	-	-	-	-	1	0-2 Days			Vemula	Pending N 8315-Group Care 36 -	Doctor	1	40405	50 ROI	No	RAR1305; Main Clai Pend					
96025901 00 NR	96025901 NO	-	-	-	-	3	3 Days			Vemula	Pending N 1143 -Care Supren Query	Doctor	1	40405	50 ROI	No	REM1305 Main Clai Pend					
96025901 00 NR	96025901 NO	-	-	-	-	3	3 Days			Vemula	Pending N 1143 -Care Supren Query	Doctor	1	36089	50 ROI	No	REM1305 Main Clai Pend					
96038232 00 APP	96038232 NO	-	VIP	-	-	3	3 Days			Vemula	Pending N 1011-Care -	Doctor	1	36089	50 ROI	No	CPR13051 Main Clai Pend					
96038232 00 APP	96038232 NO	-	VIP	-	-	3	3 Days			Vemula	Pending N 1011-Care -	Doctor	1	32000	50 ROI	No	CPR13051 Main Clai Pend					
96040389 00 APP	96040389 NO	-	-	-	-	1	0-2 Days			Vemula	Pending N 1118-Care Classic -	Doctor	1	32000	50 ROI	No	CPR13051 Main Clai Pend					
96040389 00 APP	96040389 NO	-	-	-	-	1	0-2 Days			Vemula	Pending N 1118-Care Classic -	Doctor	1	32000	50 ROI	No	CPR13051 Main Clai Pend					

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Figure no- 3.1

Allocation																								
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	
Claim#	Occur#	Claim#	Query#	Smart	Pristy#	Agent	TATLas	LDR A#	Left	Date	Alloca	Status	Produ	Secon	Sub St	SubBu	TAT LA	TotalR	Amou	Categ	IsReop	workit#	MainC	
95924268 00APP	95924268	#N/A	NO	-	-	VIP	7	Above 5 Days			Vemula	Pending N 1143	-Ci Pending N Investigat	Doctor	6	54164	1L	ROI	No	FVR28042	Main C			
95967695 01 APP	95967695	#N/A	NO	Yes	-	-	4	4-5 Days			Vemula	Pending N 1143	-Care Supren -	Doctor	3	5150	10	ROI	No	RAR0105;	Supple			
95931121 APP	95931121	#N/A	NO	-	-	-	4	4-5 Days			Vemula	Pending N 1143	-Care Supren -	Doctor	3	2650	10	ROI	No	REM0105	Supple			
959690904 01 APP	959690904	#N/A	NO	-	-	-	4	4-5 Days			Vemula	Pending N 1011-Care	-	Doctor	3	876	10	ROI	No	IOR01052	Supple			
95981118 00 INV,Q	95981118	#N/A	NO	-	-	NJ	5	4-5 Days			Vemula	Pending N 1143	-Care Supren -	Doctor	2	145934	2L	ROI	No	REM3004	Main C			
95726530 00 app	95726530	#N/A	NO	-	-	-	3	3 Days			Vemula	Pending N 1143	-Care Supren Query	Doctor	2	118627	2L	ROI	No	REM0205	Main C			
95947525 02 DEO	95947525	#N/A	NO	-	-	-	9	Above 5 Days			Vemula	Pending N 1143	-Care Supren -	Doctor	2	32399	50	ROI	No	IOR29042	Supple			
95981893 00 NR	95981893	#N/A	NO	Yes	-	-	91	Above 5 Days			Vemula	Pending N 1011-Care	-	Doctor	2	24733	30	ROI	No	CPR01052	Main C			
95791998 01 QR	95791998	#N/A	NO	-	-	-	7	Above 5 Days			Vemula	Pending N 1011-Care	Query	Doctor	2	21243	30	ROI	No	REM2804	Supple			
95982647 00 NR	95982647	#N/A	NO	-	-	-	4	4-5 Days			Vemula	Pending N 1143	-Care Supren -	Doctor	2	20889	30	ROI	No	CPR01052	Main C			
95983201 00 DEO O	95983201	#N/A	NO	-	-	-	2	0-2 Days			Vemula	Pending N 1143	-Care Supren -	Doctor	2	16600	30	ROI	No	RAR3004;	Main C			
95948260 02 APP	95948260	#N/A	NO	Yes	-	-	4	4-5 Days			Vemula	Pending N 1143	-Care Supren -	Doctor	2	14107	30	ROI	No	IOR01052	Supple			
95982102 00 APP	95982102	#N/A	NO	-	-	-	2	0-2 Days			Vemula	Pending N 1143	-Care Supren -	Doctor	2	13747	30	ROI	No	RIR01052	Main C			
95357146 03 APP	95357146	#N/A	NO	-	-	VIP	3	3 Days			Vemula	Pending N 1143	-Care Supren Query	Doctor	2	10684	30	ROI	No	CPR02052	Supple			
95898248 00 NR	95898248	#N/A	NO	-	-	-	3	3 Days			Vemula	Pending N 1143	-Care Supren Query	Doctor	2	10250	30	ROI	No	REM0205	Main C			
95786295 01 app	95786295	#N/A	NO	-	-	VIP	5	4-5 Days			Vemula	Pending N 1143	-Care Supren -	Doctor	2	7736	10	ROI	No	REM3004	Supple			
95881301 01 APP	95881301	#N/A	NO	-	-	-	3	3 Days			Vemula	Pending N 1118-Care Classic	Query	Doctor	2	5727	10	ROI	No	REM0205	Supple			
95709059 02 app	95709059	#N/A	NO	-	-	-	3	3 Days			Vemula	Pending N 1143	-Care Supren -	Doctor	2	4605	10	ROI	No	IOR02052	Supple			
95947683 01 APP	95947683	#N/A	NO	-	-	-	2	0-2 Days			Vemula	Pending N 1143	-Care Supren Query	Doctor	2	3540	10	ROI	No	FDR03052	Supple			
95954886 02 app	95954886	#N/A	NO	-	-	VIP	3	3 Days			Vemula	Pending N 1143	-Care Supren -	Doctor	2	1980	10	ROI	No	REM0205	Supple			
95680565 10 app	95680565	#N/A	NO	-	-	VIP	3	3 Days			Vemula	Pending N 1143	-Care Supren -	Doctor	2	1085	10	ROI	No	IOR02052	Supple			
95841673 02 DEO	95841673	#N/A	NO	-	-	VIP	6	Above 5 Days			Vemula	Pending N 1143	-Care Supren -	Doctor	2	350	10	ROI	No	CPR29042	Supple			

33 of 1,543 rows displayed

Figure no- 3.2

CHAPTER -5

SUGGESTIONS AND DISCUSSION

5.1 INTERPRETATION OF KEY FINDINGS

- The data shows that most rejections stemmed from unavoidable administrative errors. A lack of awareness and systemic inefficiencies are significant contributing factors.
- The primary drivers of claim rejections are administrative and procedural lapses, many of which are preventable.
 - **Documentation issues**, such as missing or illegible bills, improper claim forms, and incomplete submissions, were found to be the most frequent reasons for rejection.
 - There is a **noticeable gap in awareness and training** among both policyholders and hospital administrative staff regarding the correct procedures for claim submission.
 - A **lack of standardization** in documentation practices across hospitals and insufficient pre-submission checks contribute to recurring errors.
 - **Systemic inefficiencies**, such as delays in back-end verification and poor interlinking of insurer-hospital databases, further exacerbate processing times and reduce efficiency.
 - These findings underscore a pressing need for **proactive interventions**, both technological and educational, to address the root causes of rejections.

5.2 EFFECTIVENESS OF MITIGATION METHODS

- Automated alerts for missing documents and real-time claim tracking can significantly reduce rejection rates. Digital claim education can further assist policyholders.
 - ☐ **Automated alerts** for missing or invalid documentation during claim submission can act as a first-level filter, enabling users to rectify issues in real-time.
 - ☐ **Real-time claim tracking systems**, accessible to both policyholders and hospital staff, can increase transparency and provide timely status updates, reducing anxiety and unnecessary follow-ups.
 - ☐ **Digital claim education campaigns**, including video tutorials, FAQ-based knowledge portals, and multilingual helplines, can bridge the knowledge gap among policyholders.
 - ☐ **Pre-authorisation tools** that validate claim eligibility before treatment or submission can help prevent policy term-related rejections such as those stemming from waiting periods or non-covered conditions.
 - ☐ **Periodic training programs for hospital administrators and TPA personnel** can ensure standardized claim form completion and adherence to insurer-specific protocols.
 - **Integration of OCR (Optical Character Recognition) and AI-powered document verification systems** can reduce human error and streamline back-end processes.

5.3 IMPLICATIONS FOR THE HEALTH INSURANCE INDUSTRY

- High rejection rates lead to decreased customer satisfaction, policy dropouts, and regulatory scrutiny. Transparent systems can improve public trust.
 - **High rejection rates can erode customer trust** and lead to dissatisfaction, negative reviews, and ultimately, policy discontinuation or migration to competing insurers.
 - Rejection-prone insurers may also face **regulatory scrutiny**, especially in light of IRDAI guidelines aimed at promoting policyholder rights and improving service standards.
 - There is an increasing need for insurers to invest in **policy holder-centric digital infrastructure**, emphasizing ease of claim filing, transparency, and personalized support.
 - **Insurer credibility and customer loyalty** can be improved by simplifying claim processes, increasing approval rates through preventive checks, and being transparent about policy terms at the time of issuance.
 - **TPA performance benchmarking** and setting standardized SLAs (Service Level Agreements) across insurers and hospitals can create more consistency and accountability in claim processing.

5.4 LIMITATIONS AND AREAS FOR FUTURE RESEARCH

- Single-company dataset limits generalizability.
- Excludes cashless claims.
- Future studies could explore predictive modelling to anticipate rejections.
- The dataset analysed originates from a **single private health insurance company**, limiting the ability to generalize results across different segments, such as public insurers or regional players.
- This study **excludes analysis of cashless claims**, which constitute a significant proportion of total claims in India and may exhibit different challenges and trends.
- There is limited qualitative data on **customer perception and emotional impact** of claim rejections, which could enrich understanding of user experience.
- **Hospital-level practices** were not studied in-depth; variation in documentation quality and claim submission workflows could yield more insights into operational bottlenecks.
- **Future research** could explore:
 - Development and testing of **predictive analytics models** that flag high-risk claims based on pre-submission patterns.
 - A **comparative study** of digital vs manual claim systems across hospitals.
 - Impact analysis of **awareness interventions** and training programs on claim success rates.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

6.1 Summary of Key Findings

- **32%** of claims were rejected with documentation and network-related issues being the primary cause.
- **70%** of these rejections were due to unavoidable/unpreventable issues.
- Out of all the reimbursement claims submitted during the study period, approximately **32% were rejected**, reflecting a relatively high rate of failure in claim settlement.
-
- Notably, **over 70% of these rejections were attributed to preventable, administrative issues**, such as missing or illegible documents, incorrect information entry, and submission delays.
-
- Rejections also stemmed from poor understanding of **policy exclusions**, such as waiting periods and non-covered preexisting conditions.
-
- Additionally, **system-level inefficiencies**, including poor coordination between TPA insurers, and hospitals, contributed to delays and mismanagement of claims.

These findings underline that most claim failures are **avoidable through proper awareness, system streamlining, and technological interventions**.

6.2 Implications of Findings

- Need for better claim education.
- Improvement in system interoperability between hospitals and insurers.
- • For **Policyholders**: A lack of transparency and inadequate knowledge regarding claim processes and policy coverage details can lead to unintentional errors, delayed submissions, and frustration. This negatively impacts the **customer experience and satisfaction**.
- • For **Hospitals and TPA**: Many rejections occurred due to inconsistent documentation practices and lack of regular training for the staff responsible for managing insurance claims. A need exists for **standard operating procedures** and continuous training across partner hospitals.
- • For **Insurers**: The high rejection rate exposes insurers to **reputational risks**, higher operational costs (from repeated handling of rejected claims), and potential regulatory interventions. **System interoperability gaps** between insurers, hospitals, and TPA must be addressed to improve efficiency.

6.3 RECCOMENDATIONS

- Develop user-friendly mobile apps for document upload.
- Conduct monthly training sessions for TPA and hospital staff.
- Strengthen insurer-hospital network integration.

a. Enhance Digital Infrastructure

- **Develop user-friendly mobile and web applications** for real-time claim submission, document upload, status tracking, and chat-bot-based support. These platforms should include smart alerts for missing or incorrect documents, thus **reducing administrative rejections** at the source.

b. Training and Capacity Building

- **Monthly workshops or virtual training sessions** for TPA and hospital staff should be mandated to ensure proper understanding of policy terms, documentation formats, and insurer-specific protocols.
- Creation of **standardized claim submission guides and checklists** for all partner hospitals and agents to follow during documentation.

c. Strengthen Network Integration

- Insurers should invest in **seamless API-based integration** with hospital systems to ensure smooth data exchange (e.g., e-health records, diagnostic reports, discharge summaries).
- Implement **interoperable claim management systems** that can auto-fetch, validate, and categorize documents, reducing turnaround time and manual errors.

d. Policyholder Education Initiatives

- Launch **awareness campaigns** through email, SMS, What's App, and mobile apps that inform users about common causes of rejection, document submission timelines, and policy clauses.
- Offer **pretreatment claim eligibility check tools** to help users identify whether their planned treatments are covered under the policy.

e. Predictive Analytics and AI Tools

- Deploy **AI-based precheck algorithms** that can analyse uploaded claim data for red flags and alert users of potential rejection before submission.

- Use historical data to **train machine learning models** to detect patterns in rejected claims and guide underwriters in streamlining policy design and claim adjudication.

6.4 Limitations and Future Research

- Expansion to pan-India datasets
- Development of AI-based precheck tools to warn users of potential rejection
- While the study offers significant insight into claim rejection trends, certain limitations must be acknowledged:
- The data set used was from a **single private insurance provider**, which may not represent the entire industry, including government insurers or smaller regional players.
- The study **focused only on reimbursement claims**, excluding cashless claims, which may present different challenges and dynamics.
- There was limited **qualitative feedback from policyholders**, such as user experience, grievances, and emotional distress from claim denials.
- **Future Research Directions:**
- Expand the study to a **pan-India, multi-insurer data set** to enable generalised conclusions and industry-wide insights.
- Conduct **qualitative research through interviews and surveys** with policyholders, hospital administrators, and TPA staff.
- Develop and test **AI-driven claim pre submissions tools** that use pattern recognition and NLP to highlight missing information, detect fraudulent elements, and forecast rejection risk in real-time.
- A comparative study between **reimbursement and cashless claim processes** may help identify which model is more efficient and user-friendly and where cross-learning can happen.

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