Turnaround Time of In-House Health Reimbursement Claims

Dissertation Submitted

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in

Hospital and Health Management

By

Dr.Jayeeta Das

Under the Supervision and Guidance of

Dr.Goutam Sadhu
Professor

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DECLARATION

I hereby declare that this dissertation Turnaround Time of in house reimbursement claims 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 Information derived from the published or unpublished work of others has been duly acknowledged in the text.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.Jayeeta Das
Stream: MBA health 26
Roll no: 1303

CERTIFICATE

This is to certify that dissertation titled Turnaround Time of In house reimbursement claims is a record of the research work undertaken by Dr Jayeeta Das in partial fulfilment 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 his/her approach to the research study has been sincere, scientific, and analytical.

Dr.Goutam Sadhu	Dr.Mahendra
Professor and Faculty Guide	Dean IIHMR
IIHMR University, Jaipur	IIHMR University, Jaipur
Date	Date

ABSTRACT

The claims settlement process is one of the most important aspects of an insurance policy, especially if it is a health cover. A policyholder's health insurance claim can get settled by an insurer in two ways: third-party administrators (TPA) and through the insurer's in-house claims processing department. One of the major advantages of having an in-house claim settlement process is that the turnaround time (TAT) for resolving a query or claim is faster and hassle-free as the decisions are directly taken between insurers and policyholders since there is no TPA in between. Now when the claims comes to the insurance company it gets divided into- retail claims and group claims , then it further gets divided into cashless claims and reimbursement claims , and in this study we are dealing with the reimbursement claims.

This study addressed the challenges faced by the in-house claim processing departments to process the reimbursement claims, identified the bottlenecks for delay in processing the claims as it has direct effect on the turnaround time and recommended strategies to streamline the claim work flow which will lead to improve operational efficiency and customer satisfaction.

The study comprised of the sample size of **10000 reimbursement** in-house health claims, from which it has been observed that **479 in-house** reimbursement health claims have breached the TAT of 15 days. Interest paid after the TAT breach is 8.50%, so accordingly Yearly Interest Rate was calculated and Interest Paid for excess date. Now after calculating the total excess days, it was 8372 days, and calculating the interest on it, total interest paid by the insurance company was Rs 18591 more on the actual amount .The number of claims that breached the TAT was minimum in the month of January, then there was a spike in the breach of claims in the month of February and as compared with the last month in the month of March the claims were less that breached the timeline.

The study suggest that in-house claim processing department can significantly shorten the time it takes to process claims by eliminating bottlenecks in manual procedures, introducing automation and digitization, streamlining communication channels, optimising workflows, and streamlining regulatory requirements.

Healthcare providers, insurers, patients, and regulatory authorities all gain from shorter turnaround times. Faster claim processing benefits healthcare providers' financial security and their capacity to deliver better patient care.

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I would like to acknowledge my sincere regards to all mighty, my parents, family members, teachers, and my guides throughout the MBA curriculum, without their constant support this dissertation would not be possible.

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Dr.Jayeeta Das

Table of Contents

LIST OF FIGURES

LIST OF TABLES

ABBREVIATIONS

- ABHI- Aditya Birla Health Insurance Co. Limited
- CAGR – Compound Annual Growth Rate
- DCN – Document Control Number
- DNF- Data Not Found
- FWA – Fraud Waste Abuse
- GMC – Group Mediclaim
- HB- Health Buzz
- IPD – In Patient Department
- IRDAI – Insurance Regulatory and Development Authority of India
- LDR – Last document received.
- MIS – Management Information System
- NEFT – National Electric Fund Transfer
- OPD – Out Patient Department
- PAC – Pre –Authorization Closure
- POD – Proof of Delivery
- PPN – Preferred Provider Network
- RACI: Responsible, Accountable, Consulted, and Informed
- SI – Sum Insured
- TPA – Third party administrator
- UTR – Unique Transaction Details
- VCM- Virtual Care Manager

Chapter 1 : Introduction

1.1BACKGROUND

The healthcare sector in India is expanding quickly. The Indian healthcare industry is anticipated to grow by three times, at a CAGR of 22% between 2016 and 2022, from US$110 billion to US$372 billion. By 2023, the Indian hospital sector, which currently accounts for 80% of the global healthcare market, is predicted to reach US$132 billion.[I] The burden of communicable diseases, which the nation hasn't been able to completely eradicate, and the rising burden of non-communicable or lifestyle-related diseases like diabetes, hypertension, and cancer present the Indian healthcare industry with enormous challenges. The cost of noncommunicable diseases is a major concern because they necessitate ongoing medical treatment and expenditures.

1.1.1 Insurance

According to the World Health Organisation, India's out-of-pocket health expenditure (% of private expenditure on health) in 2020 was 50.59%. With escalating health care costs, a one-time large expense, or ongoing costs of treating a chronic illness can erode all savings, even send some people into debt, and tragically, for others, put them below the poverty line. In India, people are starting to accept insurance as a practical means of reducing the risk of future medical expenses. This has caused the insurance industry in India to expand as a result. One of the key drivers of the general health insurance sector's expansion in India is the health insurance sector, which accounts for around 29% of the country's overall general insurance premium.[II]

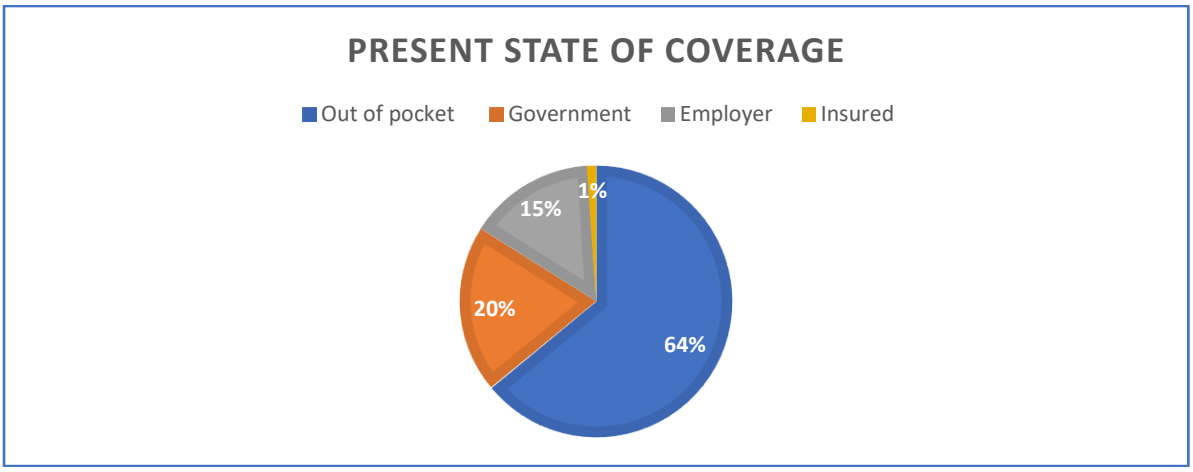

Fig 1 – Present Health state coverage

Indian health infrastructure must overcome formidable obstacles like achieving health goals and dealing with complications brought on by evolving illness patterns. Exploring health financing solutions is now necessary to address issues brought on by rising health care expenses because of the spread of various health care technology and rise in care prices. The importance of health insurance as a tool for meeting peoples' demands for medical care is growing quickly. Even though there is a great need for health insurance, it has grown slowly. The regulations in this industry have contributed to its sluggish growth. The sector has changed since the IRDA (Insurance Regulatory Development Authority) Bill 1999 was passed. Private players now have access to the insurance market. The insurance sector in India presents significant investment opportunities for both domes8c and foreign companies due to its enormous population base and unexplored market. India currently ranks sixth among the world's emerging insurance markets in terms of market size and is expanding by 32–34% annually. This market's rapid expansion has been fuelled by liberalisation, which has brought in new competitors, greatly increased product recognition, and encouraged consumer education and information. The country's strong growth potential has also prompted interest from foreign parties in the Indian insurance sector. The Indian healthcare market, which was worth approximately INR 5200 crores between 2005 and 2008, increased to INR 60497 crores in 2015 and is projected to expand to a size of $50 billion by 2025. Due to the fast-rising expense of healthcare and the burgeoning middle class, demand for health insurance has been increasing at a rate of 25% annually.[III]

1.1.2 Turnaround Time

Insurance is more than simply a commodity that customers can purchase to protect their future; it's also a promise that customers expect the insurance provider to keep when they confront their most trying circumstances. Thus, the concept of claim settlement and fulfilment forms the most crucial aspect of any kind of insurance product. Therefore, the idea of claim fulfilment and payment constitutes the most important component of any kind of insurance policy. The traditional insurance model has dominated the market thus far, making claim settlement a time-consuming procedure for both customers and insurance providers. Making an accurate choice quickly is extremely difficult due to risk and fraud-related difficulties, which causes excessive delays in settlement. According to recent studies, 38% of health insurance providers settled claims on average in 5 working days; however, there have been complaints of additional delays. Covid has been a significant indicator of the nation's urgent medical problem. Furthermore, according to reports, Covid claims totalling 117 crore have not yet been resolved for the FY 21 that ends in March 2021.In the individual life insurance sector, there were 3,055 claims outstanding at year's end totalling $623 crore, while there were 9,527 claims repudiated totalling $865 crore. Claim settlement continues to be a major issue for the category, having an equal impact on consumers and insurers. The future of claim settlements in the nation is digital, powered by technologically enabled data analysis tools. To accurately develop individual risk profiles, insurers can leverage big data analytics and artificial intelligence. Digital, driven by technology-enabled data analysis solutions is the way forward for streamlining claim settlements in the country. Insurers can use artificial

intelligence and big data analytics to create accurate individual risk profiles. All these make the underwriting process seamless, and, at the time of claim, the risk profiles can be verified quickly, which can reduce the turnaround time for claim processing to hours and even minutes.[IV]

1.1.3 Claim process in ABHI

Aditya Birla Capital's ABHI which stands for Aditya Birla health Insurance deals in healthcare insurance domain. Now there are two types of policies that any healthcare insurance company provides –

1) Retail health policy
2) Group health policy

Now in Retail health policy the customer purchase the healthcare insurance policy through brokers, agents or they might have seen an advertisements online through policy bazar.

Group health policies are also known as GMC (Group Mediclaim), here the insurance companies hire a broker and through that broker provide health policies to corporates/company's employees , spouses, parents, in-laws.

Underwriter – now the policy has been provided to the individual customers or a GMC then the policy comes to the Underwriter where the team analyses the risk associated with the policy , check the demographic details if it is an individual policy or in case of group policy check the premium and number of employees can be enrolled in the policy and how much business that corporate can give us. Then the policy is placed.

Operations – after the policy is being placed ,underwriter has given the confirmation, the operations team fit every details in the system of the health insurance company.

Claims- Then the policy comes to the claims team, now here first the MIS team (Management information team) separates the claims into two parts – cashless and reimbursements, then provide the individual claims to the In House Processing team and the GMC to the TPA.

An organization's internal team of people that handle and oversee various processing processes and activities is referred to as a "in-house processing team." These teams, which are often devoted to particular departments or activities within the organisation, are essential for ensuring the efficient running of daily operations. Depending on the organization's type and sector, an in-house processing team may have different specific duties. However, frequent jobs and duties that these teams might perform include:

- Data processing: Tasks including data entry, data validation, data cleansing, and data analysis are frequently handled by internal processing teams. They make certain that the data produced by the company is accurately recorded, arranged, and processed.

- Invoices, purchase orders, contracts, and customer forms are just a few examples of the many different types of documents that these teams may be tasked with managing and processing. They make sure that the required paperwork is properly handled, noted, and stored.

- Financial Processing: Internal processing groups may handle financial transactions like payroll processing, expense reimbursements, accounts payable and receivable processes, and financial reconciliations. They make certain that accounting records are correct and consistent with applicable laws.

- Order processing: The in-house processing team may manage order fulfilment, tracking, and shipping procedures for businesses engaged in sales or e-commerce. They make sure that customer orders are appropriately processed and delivered on schedule.

- Customer Service Processing: These groups may respond to questions, grievances, and support requests from customers. They make ensuring that client issues are resolved quickly and effectively, and they might also handle feedback and suggestions from customers.

- Quality Assurance and Control: Internal processing teams frequently play a part in quality control, making sure that the procedures they manage adhere to the organization's standards and any applicable laws. To increase efficiency and accuracy, they might do audits, quality checks, and apply enhancements.

- Collaboration and communication: Internal processing teams frequently collaborate closely with other organisational divisions including IT, operations, finance, and customer support. They cooperate and talk to each other to make sure that information is processed smoothly, to solve problems, and to maintain efficient workflow.

Depending on the size, complexity, and unique requirements of the organisation, an in-house processing team's makeup can change. It might have people with knowledge of data entry, office work, accounting, customer service, and other pertinent fields. Team members could also have access to specialised software tools and technology to help them with their processing jobs. In order to streamline internal processes,

guarantee accuracy and efficiency, and support an organization's overall functioning, an in-house processing team is essential.

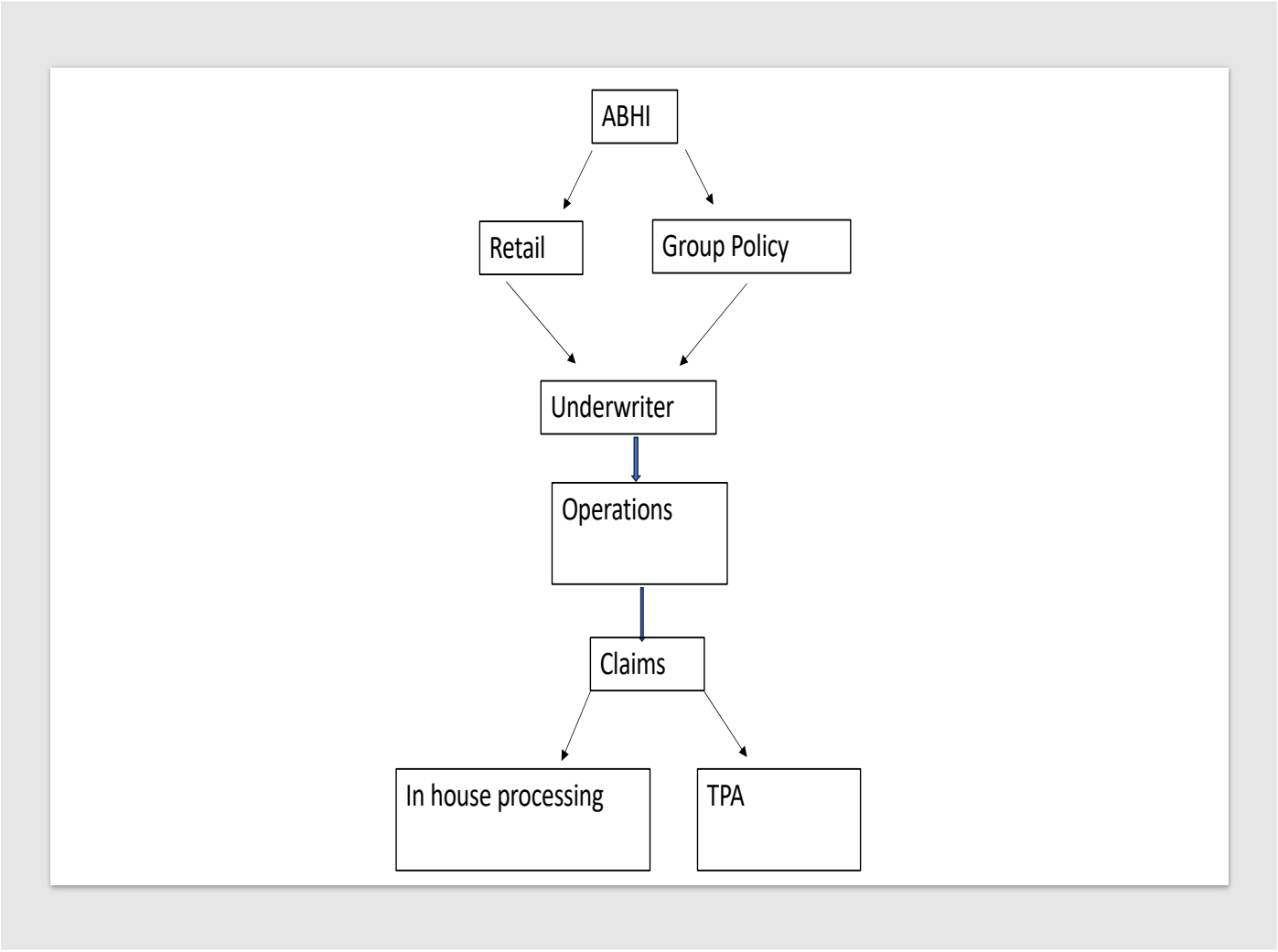

Fig 2 – ABHI claim process

1.1.4 Function of TPA cell :-

- serving as a patient's facilitator for using the hospital's cashless system.
- This comprises obtaining authorization for an expected treatment cost at the time of the patient's admission.
- Sending the interim bill with a request for improvement in the event that the expenses exceed the anticipated amount.
- obtaining a discharge authorization for the patient on the day of discharge.
- expediting the procedures in order to facilitate cashless transactions in emergency situations.
- answering patients' query.
- To act as a mediator in the settlement of claims between the Hospital and the TPA: assembling the patient file after discharge and sending the relevant TPAs the documentation in order to get the receivables.

- to keep track of statistics regarding TPA patients who receive hospital care.

Chapter 2: Literature Review

1) **The role of time constraints in consumer understanding of health claims** (Authors: Violeta Stancu, Liisa Lähteenmäki, Klaus G. Grunert)- Public policy must consider how well consumers understand health claims since there is a risk that they could be deceived. The current study demonstrates that consumer's comprehension of health claims is decreased when they are time-constrained. Furthermore, regardless of whether they are under time constraints or not, customers transfer some of the carrier product's perceived benefits to the interpretation of the health claims. The evaluation of pre-formulated statements that represented various interpretations of the two health claims under consideration involves determining how well consumers understood them. They were instructed to see themselves out shopping and coming across the stimulus product with the specified information on its package in the group where respondents were exposed to products with claims. Customers must comprehend the advantages claimed by the health claims on food goods in order to make educated decisions. This study looked at how time constraints affect consumers' comprehension of health claims and whether changing the language or including more details can help. Additionally, the relationship between comprehension and purchase intention was looked at.[V]

2) **Insurance claim processing using RPA along with chatbot** (Authors: Oza D, Padhiyar D, Doshi V, Patil S)- RPA is one of the main competitors in the current booming industry as the area of interest for many organisations globally due to the variety of benefits it offers to the market. RPA bots will automate the manual tasks. The consumer interaction will be significantly more interactive thanks to RPA chatbot. Insurance providers only need to provide the necessary files, and the online database will instantly verify the fundamentals of the policy. The entire process will be instantaneous thanks to the car damage detection in RPA, which will analyse the damage to the car and anticipate the claim value based on it. By making the process hassle-free, it will improve the insurers' entire experience. RPA will be used to handle insurance claims, which will reduce the number of man hours required for manual processing while also increasing customer service and lowering customer dropout rates . When used in conjunction with other tools and technologies, RPA improves both overall functioning and user experience. Numerous businesses have realised that RPA automation doesn't work well when used independently, meaning that automation can't develop on its own. As a result, when it is combined with other tools and software, it transforms into a very strong and

adaptable tool with numerous capabilities for automating tasks. When used in conjunction with other tools, programmes, and human workers, RPA creates an enterprise-wide, cutting-edge liveware.[VI]

3) **Data mining to predict and prevent errors in health insurance claims processing** (Authors:Mohit Kumar , Rayid Ghani ,Zhu-Song Mei)- Costs for health insurance have significantly risen recently all around the world. Payment errors made by insurance firms while processing claims are a significant contributor to this rise. Up to 30% of the administrative workforce at a typical health insurance is dedicated to fixing these errors, which frequently necessitate additional administrative work to re-process (or rework) the claim. By anticipating claims that will need to be revised, creating justifications to assist auditors in revising these claims, and experimenting with feature selection, concept drift, and active learning to gather feedback from auditors and improve over time, described a system that aids in reducing these errors using machine learning techniques. On the basis of claims data from a significant US health insurance, methodology, issue formulation, assessment metrics, and experimental findings have been discussed. The study has demonstrated and compared to existing methods, our system achieves an order of magnitude higher precision (hit rate), which is accurate enough to possibly save a typical insurer $15–25 million. [VII]

4) **Prospective growth of health insurance in India : Trends and Challenges** (Authors: Dr.Harinder Singh Gill , Pooja Kansra)- The achievement of the millennium development goals and general well-being depend on good health. According to the theory of endogenous growth, better productivity, a crucial component of economic growth, is a result of overall population health. The goal of the current research was to explore the developments and difficulties in Indian health insurance. It was discovered that the CAGR for the number of policies was 19.50%, for members it was 24.84%, for claims it was 32.10%, for premiums it was 39.88%, and for claims it was 40.29%. It was noted that the percentage of claims paid increased more than the percentage of premiums paid. Individual policies, followed by individual floaters, declarations, other, group floaters, and groups, were shown to be more popular. However, group floater insurance have the biggest premium share, followed by individual policies. After analysing claim payments by state, it was discovered that Delhi had the highest claim payments, followed by Maharashtra and Goa. The state of Tripura had the lowest average claims, while the highest average claims were made for circulatory conditions, followed by malformations/deformations and injury. The lowest average claims were made for clinical findings. Thus, even though the penetration levels are still in the single digits, the increase in the health insurance portfolio has been amazing during the past ten years. Consequently, the future of the health insurance business appears to be quite promising. In order to raise customer awareness, both public and private health insurance providers should develop consumer-related innovation.[VIII]

5) The Impact of health insurance of health (Authors:Levy H, Meltzer D)- The study observed firstly association between insurance and good health may be influenced by other, unobservable factors, many

studies that claim to demonstrate a causal effect of health insurance on health do not do so convincingly. Second, strong evidence suggests that health insurance can enhance some population subgroups' health metrics; some of these populations, though not all, are those that would probably be the objectives of programmes to expand access to coverage. Third, we need to determine if the findings of these studies are broadly applicable for policy reasons. Only with the considerable investment of resources in social experiments does it appear possible that solid answers to the plethora of crucial issues concerning how particular health insurance policy options may affect health will be forthcoming. [IX]

6) <u>Valuing human resources : key to the success of a National health insurance system</u> (Authors: Laetitia C Rispel, Peter Baron)- The NHI reforms provide South Africa intriguing chances for health system development that are uncommon in most other nations. However, our study has demonstrated that the health system's 2009 performance in relation to a few HRH measures has significant flaws. The 2011 NHI Green Paper and the updated HRH strategy fall short in their attempts to address the widely acknowledged production, recruiting, retention, and management crises in HRH. The HR information systems are still not up to pace, and there appears to be a disconnect between the goals of the rules and their actual execution as well as between those intentions and what front-line healthcare personnel perceive and experience. To make sure that the NHI is implemented successfully, a number of important challenges must be resolved. Consistent consultation with a variety of stakeholders and implementers, accurate costing of implementation requirements, coordinated efforts to strengthen implementation at various levels of the health system, addressing health system governance and accountability, and ongoing monitoring and evaluation of the reforms are a few of these. However, for the NHI to succeed in the long run, it will be necessary to value human resources in the health sector and take swift, decisive action to solve the serious human resource issues that the South African health care system is currently confronting.[X]

7) <u>The Indian market scenario of insurance sector</u> (Author: Mannar BR)- Regarding customer awareness, the current situation of the life insurance industry in India is astounding. The modern consumer is well aware of the various options available to them that best enable them to achieve their goals. The LIC of India has done a good job of embracing the competitive spirit, which has aided the company in continuing to grow and contribute to the development of the nation. A few other sectors in the life insurance industry require updating in terms of the corporation's participation. Thus, the current research study identifies those crucial sectors where LIC of India has to contribute more. The first is to grow the number of offices, both in urban and rural locations, since this would aid the company in expanding their customer base and business. To truly fulfil its goals of spreading the life insurance industry throughout the entire nation, LIC of India should also open more Life-Plus offices and authorised collection centres. LIC of India should focus on agents' training to keep them current with market demands and professionally prepared to handle customers' questions and issues sparked by other life insurance competitors in the market. Since agents are the foundation of the business, LIC of India

must expand its agent base to keep its monopolistic market share. The larger number will aid the company in expanding both the scope of their market visibility and the amount of business they conduct. [XI]

8) **Tech can reduce turnaround time for claim settlement by 70%** (Author: Kingson) - This article states that insurance is just not a product that consumers can buy and safeguard for the future but is a commitment that consumers expect the insurance company to fulfil when they face crisis in their lives. Risk , fraud related issues, making prompt decisions without error is a massive challenge leading to inordinate delays in the settlement . Around 38% of the health insurance companies settled the claims on an average in 5 business days. Covid claims amounting to Rs 117 crore have remained unsettled, for FY 21, ending march 20221. Artivatic.AI have already 400 plus APIs and many patents, which have been developed with different insurance companies. Insurer using Artivatic's deep technology have witnessed 90% reduction in TAT for policy issuance, 70% reduction in claim TAT, 15% reduction in AML, risk and fraud.[XII]

9) **Turnaround time affecting insurance business growth** (Author: Mohit Sharma)- This study focuses on the growth barriers of the insurance company due to longer turnaround time. It states possible reason for the longer TAT like short of workforce, staff is overburdened because of that, unable to leverage the latest technology and facing issues with the process development. Moreover having more backlogs affects the morale of the employees. Longer TAT impact operations, brings inconsistency in the process, leads to loss of cash and customers. Improving and updating the software would lead to faster automation and reduces human error and reduces the TAT time.[XIII]

10) **Claim settlement process of health insurance : TPA Vs In house claim department** (Author: Navneet Dubey) - This comparative analysis explains the difference between the claim settlement process by TPA and in-house claim processing units . have explained the pros and cons of both the TPA and in-house claim processing units but overall there is not much difference , as both implement the process that has been setup by the IRDAI. Building an in-house claim processing department allows the insurer to provide special offerings to their policyholder from time to time. there are a large number of cases requiring a formal judgement (on applicability or quantum of cover), a TPA may be inefficient and will end up escalating most cases to the insurer only. So, in case of in-house claims processing department where the entire process is done within the insurance company itself, claim process is more hassle-free and takes less time as compared to TPAs.[XIV]

11) **Delivering quality service: Balancing customer perceptions and expectations** (Authors: Zeithaml VA, Parasuraman A, Berry LL, Berry LL) - This empirical study looks at how quickly insurance claims are processed and how it affects consumer satisfaction. Surveys and conversations with policyholders help researchers get information about how quickly claims are resolved. In order to increase customer happiness

and loyalty, the study emphasises the value of rapid and transparent communication, streamlined documentation procedures, and timely claim resolution.[XV]

12) **Strategies for Enhancing Turnaround Time in Life Insurance Claims** (Authors : Kweilin Ellingrud, Alex Kimura, Bira Quinn, Jason Ralph) - This comparison analysis looks at how quickly life insurance claims are processed at various insurance firms. The study outlines a number of techniques used by insurers to shorten processing times, including the digitization of claim paperwork, the use of electronic medical data, and the adoption of collaborative platforms for effective beneficiary communication. The study emphasises the significance of technology adoption and process enhancements in hastening the resolution of life insurance claims.[XVI]

13) **Efficiency Improvement in Auto Insurance Claims Processing** (Author : Bhavani)- The auto insurance industry is the subject of this case study, which also looks into the factors that affect how quickly claims are processed. The researchers examine claims data from a sizable vehicle insurance company and pinpoint possibilities for improvement, including enhancing lines of communication with repair facilities, putting in real-time tracking systems, and utilising predictive analytics for quicker claim evaluation. The study offers perceptions on excellent practises that can be applied in comparable settings.[XVII]

14) **Impact of Automation on Turnaround Time in Property Insurance Claims** (Author: Varad Mohan)- The effect of automation technology on the processing time for property insurance claims is investigated in this study. It assesses how a significant insurance business has implemented digital claims systems and cutting-edge analytics tools. The results show that automation, by removing human processes, increasing data accuracy, and enabling quicker decision-making, dramatically reduces the amount of time needed for claims processing.[XVIII]

15) **Analysing Turnaround Time in Health Insurance Claims Processing** (Authors: Hee Jung Chung , Sail Chun) - This study focuses on the healthcare insurance industry and investigates the variables influencing how quickly claims are processed. It evaluates data from a sizable insurance provider to spot process bottlenecks including the difficulty of medical coding and the need for extensive paperwork. The study offers methods for speeding up the claims process and lowering response times, which will increase client happiness and operational effectiveness.[XIX]

Chapter 3 : Methodology

3.1 Type of study- Correlational Quantitative Study.

3.2 Research Question- What strategies can be used to streamline the processing of internal medical reimbursement claims?

3.3 Research Objectives –

- To study the current turnaround time of in-house health reimbursement claims.
- To identify the reason of turnaround time breach of in-house reimbursement claims.
- To identify the factors influencing the TAT of inhouse claims.
- To suggest recommendations accordingly to improve its efficiency.

A claim is a formal request for compensation for medical expenses incurred by the covered person made to the insurance company by the policyholder or a healthcare professional. A person files a claim with the insurance provider after receiving medical care that is covered by their health insurance policy in order to be reimbursed for the applicable charges.

Here are the key aspects related to claims in health insurance: -

- Submission: The insurance company receives the claim from the covered party or the healthcare practitioner. The claim contains information about the patient, a description of the services rendered, medical codes (such as CPT or ICD codes), the dates of the services, and any related expenses.
- Adjudication: After receiving the claim, the insurance provider examines it to determine whether it is legitimate and in accordance with the terms and conditions of the policy. This procedure entails checking the coverage, determining whether the services are medically necessary, and applying any necessary deductibles, copayments, or coinsurance.
- Payment: The insurance company reimburses the insured person or the healthcare provider for the covered share of the medical costs if the claim is accepted. The agreed-upon rates between the insurance company and the healthcare provider are normally the basis for the reimbursement amount.
- Explanation of Benefits (EOB): The insurance company sends the insured person an EOB statement after processing the claim. The EOB offers a thorough summary of the claim's handling, the amounts paid, any modifications or deductions, and the balance due, if any.

Claims when it comes to the health insurance company it gets divided into either cashless claims or reimbursement claims. Now the MIS of the insurance company sends the respective claims to their respective departments, that is, it sends the cashless claims to the cashless department, and it send the reimbursement claims to the reimbursement department. Now

here we are more concerned about the reimbursement claims. Now when the reimbursement claims come, then the documents associated with it comes by: -

- Courier/ post.
- System portal.
- In hand (by coming to the office and submitting it).
- Helpdesk in respective corporate branch.

Now that we have received the documents, inward or registration takes place that is the basic details of the policyholder like name, age, sex, policy coverage, policy period, who all are covered within the policy, what is the premium etc. Then it goes to the non-medicos for the billing purpose. After the billing has been done, it comes to the medicos, they go through the claim documents, if all the documents are present for which they have claimed then they approve the claim and it goes to the finance team, then raise the debit note and take the UTR details and the claim is ready to pay. But the claims that gets denied, because the medical team does not feel that the documents are present for the aliment that they have claimed, then it goes for query, where they contact the policyholder and ask for the details that are missing , does cross verification and if they don’t submit the documents even after 3 reminders and within 45 days then the claim gets cancelled automatically.

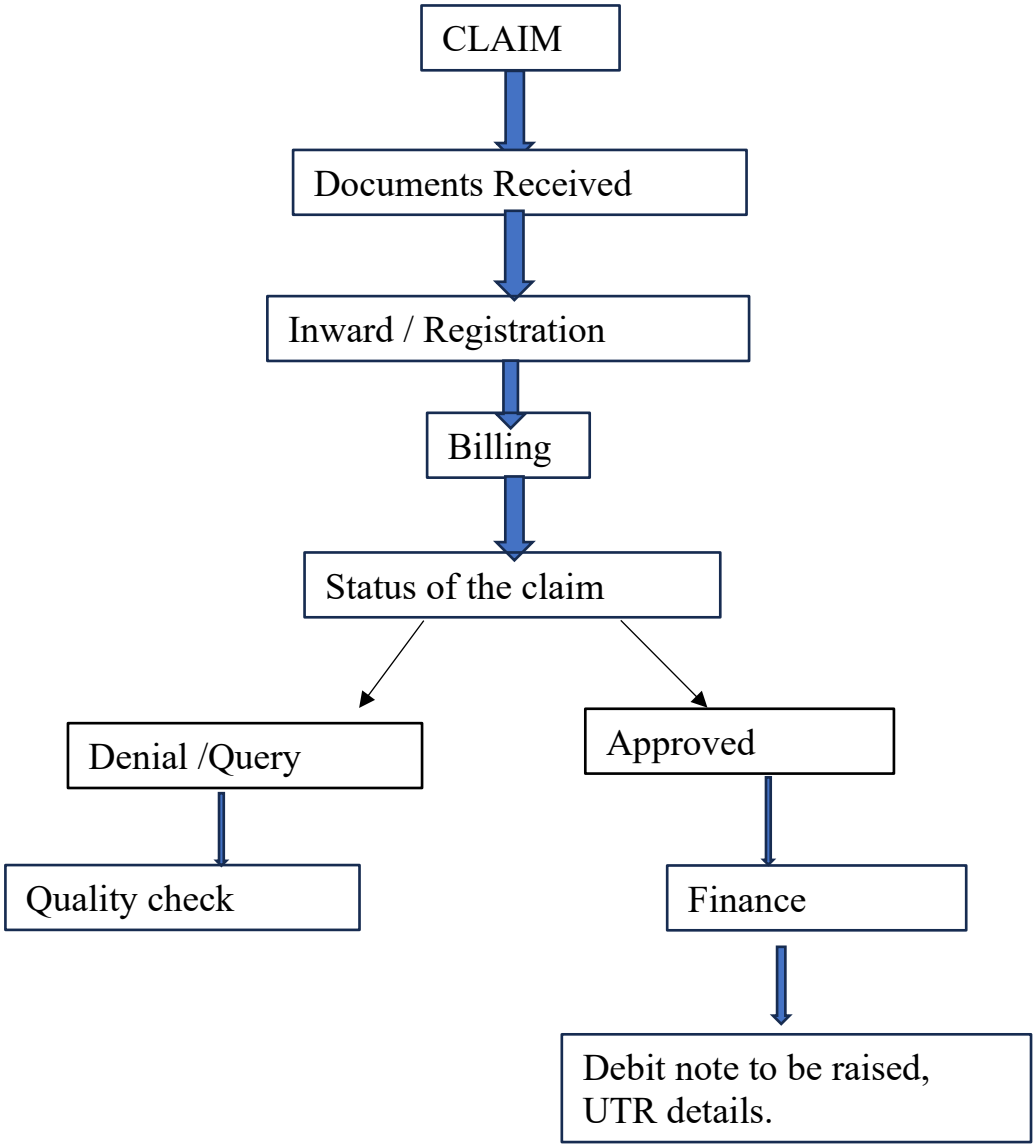

Fig 3 – In-house claim process

3.4 Sampling technique – Simple random sampling technique.

3.5 Type of study – Correlational Quantitative Study.

An analysis of the link between two or more variables is the goal of a correlational quantitative study, a form of research design. Researchers gather numerical information on the variables of interest in this kind of study, then employ statistical analysis to ascertain the nature and strength of their relationships.

As described above our study is also a correlational quantitative study which is non- experimental in nature, the main characteristics of our study are as follows: -

- Relational Analysis – here we have investigated the relation between the variables like the - paid amount, last document received, turnaround time, excess days, total interest rate , and interest paid.
- Quantitative data collection – the data of the number of claims that have taken more than 15 days' time to process have been collected from the MIS team of Aditya Birla Health Insurance, Mumbai. These data are of the month of January, February, and March of 2023.
- Multiple variable – as correlational studies look at the connections between two or more variables, here we have observed that all the variables that we have taken into considerations are interlinked with each other, like, if the last document received data gets delayed then it has a major effect on the TAT and as a result interest paid will increase, ultimately affecting the entire process.

3.6 Setting - ADITYA BIRLA HEALTH INSURANCE, MUMBAI.

3.7 Study population -

- **Inclusion criteria** – Internal Reimbursement claims.
- **Exclusion criteria**– External Reimbursement and cashless claims.
- **Study tool -** Secondary Data.

3.8 Duration of the study - 3 Months (22nd Feb 2023 – 21st May 2023).

3.9 Sample size – 10000 internal in-house health reimbursement claims.

3.10 Data collection method - Retrospective data.

Information or data gathered from prior events or circumstances are referred to as retrospective data. It includes looking back and analysing old records, papers, or other data sources to discover new information or respond to research inquiries. I have gathered the retrospective data in the following ways: -

- Sources like administrative databases, financial records, medical records, and historical papers are examples of sources that include existing records.
- Surveys and interviews: information like how the claim is being processed in the ABHI , who all are our TPA partners, how much time do we need to process a claim, how the MIS team work , how to do automation in the financial report so that we can easily find out where we are going wrong.

Here we have analysed the reimbursement claims received by the Aditya Birla Health Insurance company in the last three months.

3.11 Mode of data collection – Collected the data of last three months, that is of January, February, March from the **MIS** (Management Information System) team of Aditya Birla Health Insurance.

3.12 Data analysis plan - MICROSOFT EXCEL (VERSION 2016):

With the rest of Microsoft's Office 2016 Productivity Sheet, it is the entry into the Excel series of spreadsheet programmes. MICROSOFT EXCEL has some of the newly added features in this version, including Histograms (to visualise frequency in data), Pareto charts (showing data trends), and Power Pivot, which enables the import of higher levels of data and comes with its own language. Data will be entered into MICROSOFT EXCEL and reviewed for accuracy and completeness before being used for further research..

3.13 Ethical considerations

Confidentiality of the data is maintained throughout the study, as the data provided by organization is encrypted in special codes, so it can't be linked to other data by anyone else.

Chapter 4 : Results

Here we have used 10000 in-house reimbursement health claims of the month – January, February, March 2023. Now out of those 10000 in-house reimbursement health claims, we have selected the data that has crossed the TAT (Turnaround time) of 15 days.

MONTH	Paid Amount	Interest Paid for excess date	Excess Day	No.of Claims
JAN	691102	7462.00	1369	20
FEB	2178801	7529	5698	365
MARCH	621408	3600	1305	94

Table 1 – TAT breach claim distribution of 3 months.

Following are the claims that have breached the TAT of 15 days out of the sample size. The above table reflects that there were 20 claims in January, 365 claims is February and 94 claims in March that have breached the TAT of 15 days that is it took more that 15 days for those many number of claims we get processed. For 20 claims in January month, it took overall 1369 days, for 365 claims in the month of February it took 5698 extra days and in the month of March it took 1395 days for 94 claims to processed and with 8.50% yearly interest, the interest paid for excess days have also been mentioned where we can clearly observe that maximum interest paid was in the month of February.

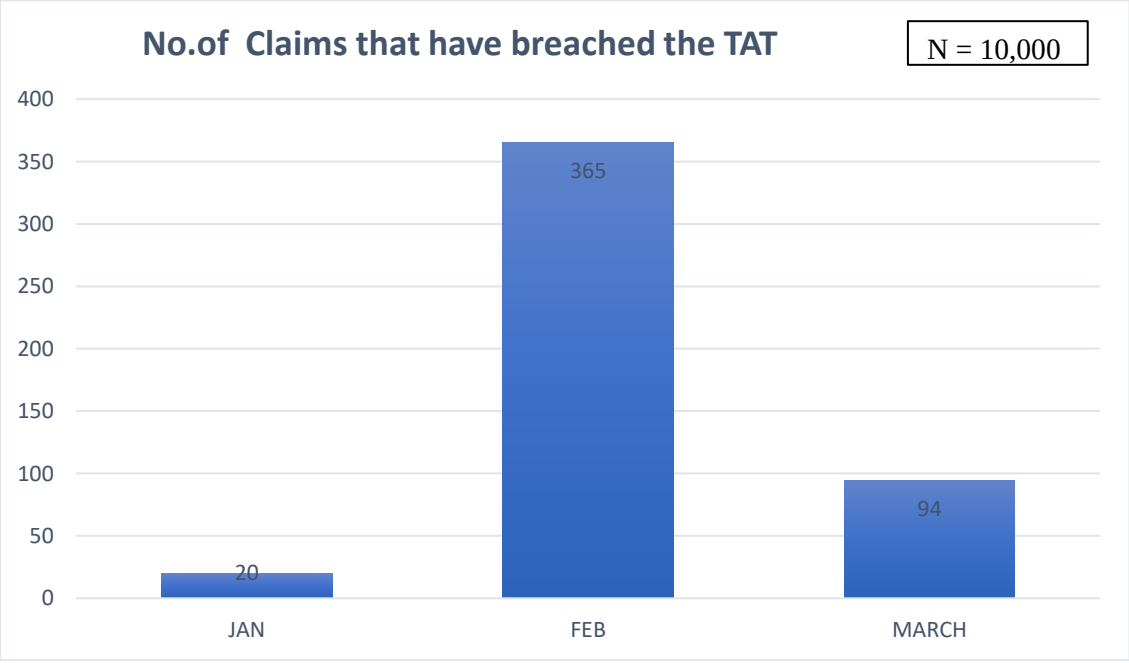

Figure 4 – No. of claims that have breached the TAT.

From the above figure-4 on number of claims that have breached the TAT , It can be clearly observe that in there were 20 claims that breached the TAT in the month of January, 365 claims in the month of February and as compared to the previous month that is February the number of claims that breached the TAT came down to 94 claims in the month of March.

When we calculate TAT, the claims are broadly divided under these categories: -

- Claim number.
- Paid amount.
- LDR (last document received).
- Paid Date.
- TAT.
- Actual TAT.
- Excess day.
- Total interest rate.
- Total yearly interest.
- Interest paid for excess date.

Now on further bifurcation it is divided into –

- Internal bucket.
- External bucket.

The internal bucket is the one that is taken into considerations, which basically deals with the in-house claim processing team, and helps us to understand why delay in processing is there and closing the claims withing 15 days from our team. It takes into considerations –

- Pending for medical adjudication.
- Pending for insurer approval.
- Medical assessment.
- Debit note to be raised.
- Under quality check.
- Pending for financial adjudication.

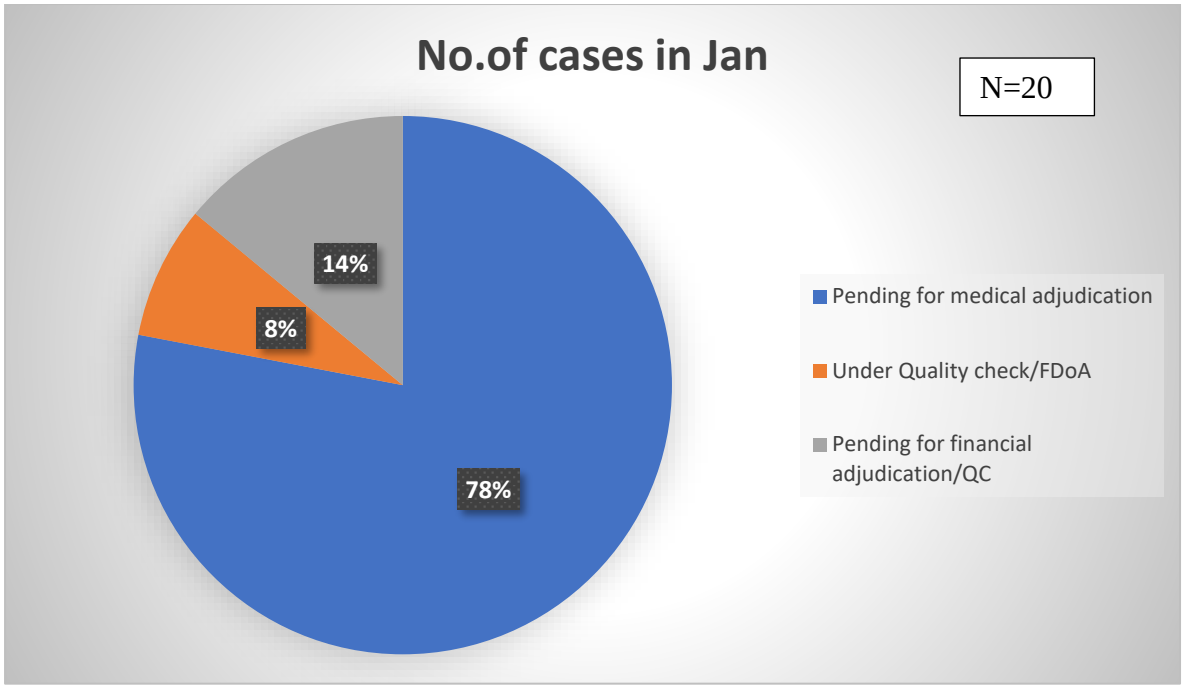

Figure 5 – Reasons for TAT breach in Jan

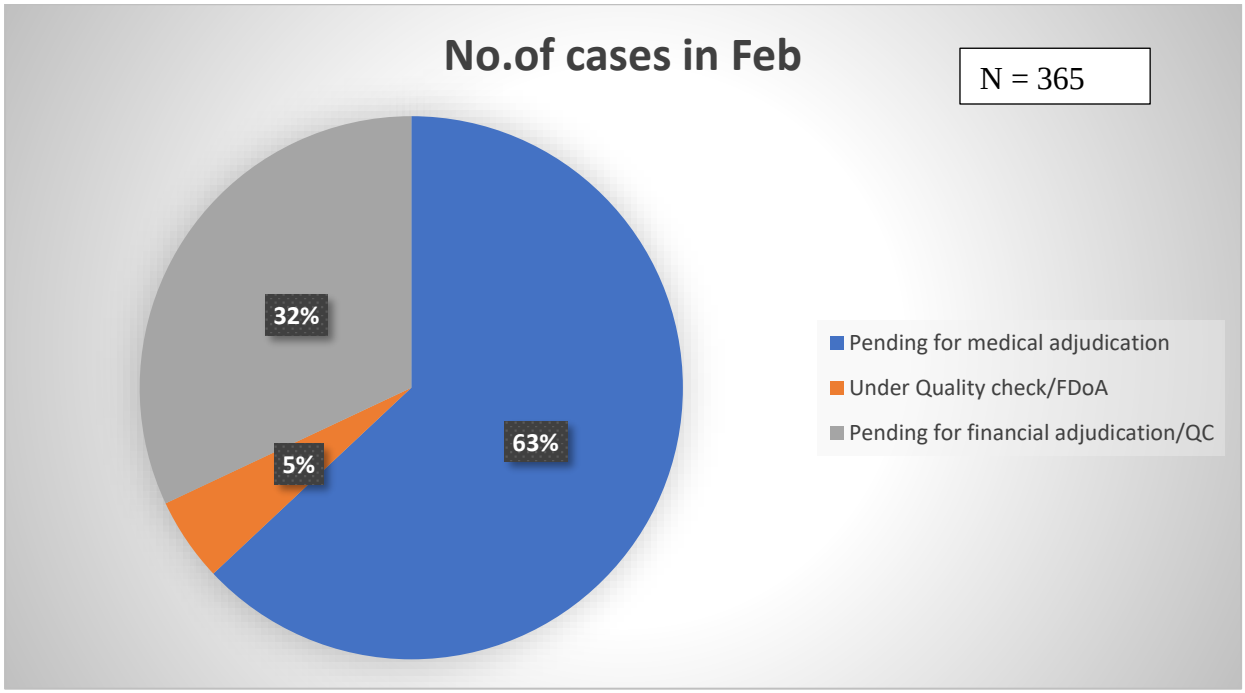

Figure 6 – Reasons for TAT breach in Feb

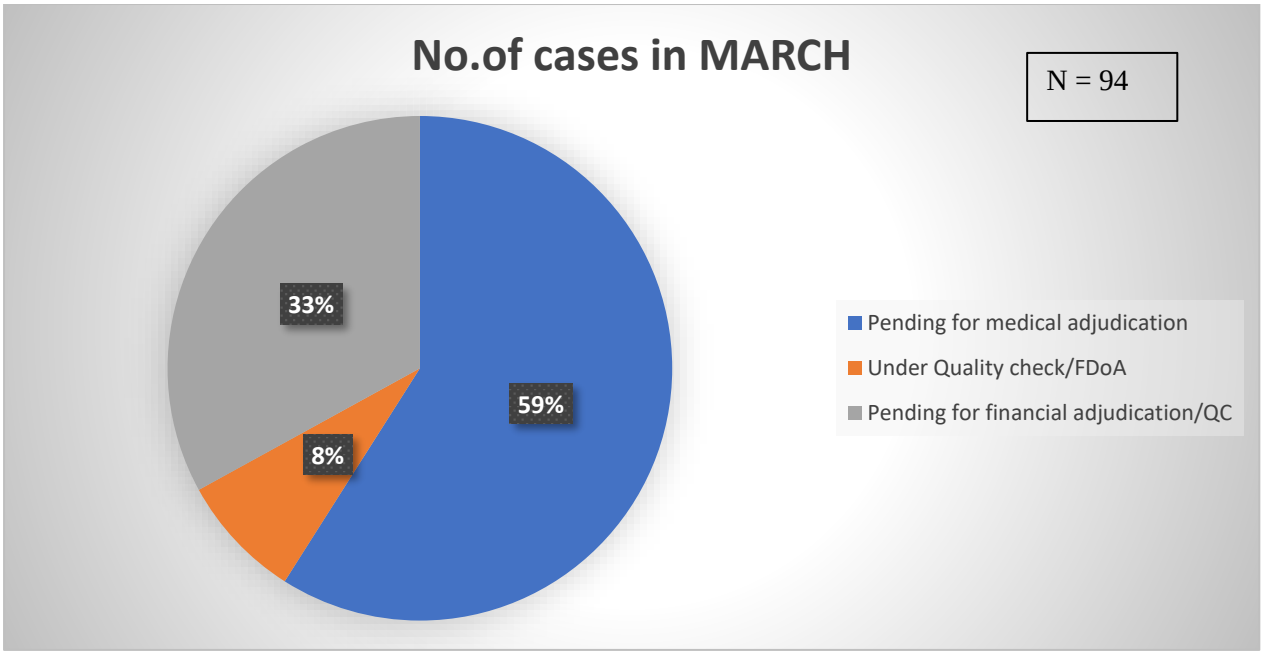

Figure 7 – Reasons for TAT breach in March

Now, as mentioned above that there are various reasons why the claims take time to process which ultimately results in breaching of the turnaround time of 15 days. So, on the basis of that we have gathered the data where following three are major reasons for the TAT breach: -

- Pending for medical adjudication.
- Under quality check/ FDoA
- Pending for financial Adjudication/QC

It has been observed that in all the three months that is January, February, March, the majority of the times due to medical adjudications the claims takes time to process, followed by financial adjudication /quality check where the there is delay is getting the bank details from the policyholder .

Calculating the interest rate

Total Interest Rate always remain at **8.50%.**

Yearly Interest Rate = Paid Amount * Interest rate *365 days

Interest Excess Rate = Total yearly interest * TAT days
365 days

Month	Total yearly interest	Interest paid for excess date
Jan	58743	7461
Feb	185298	7528
March	54373	3600

Table 2 – Calculation of interest paid of 3 months.

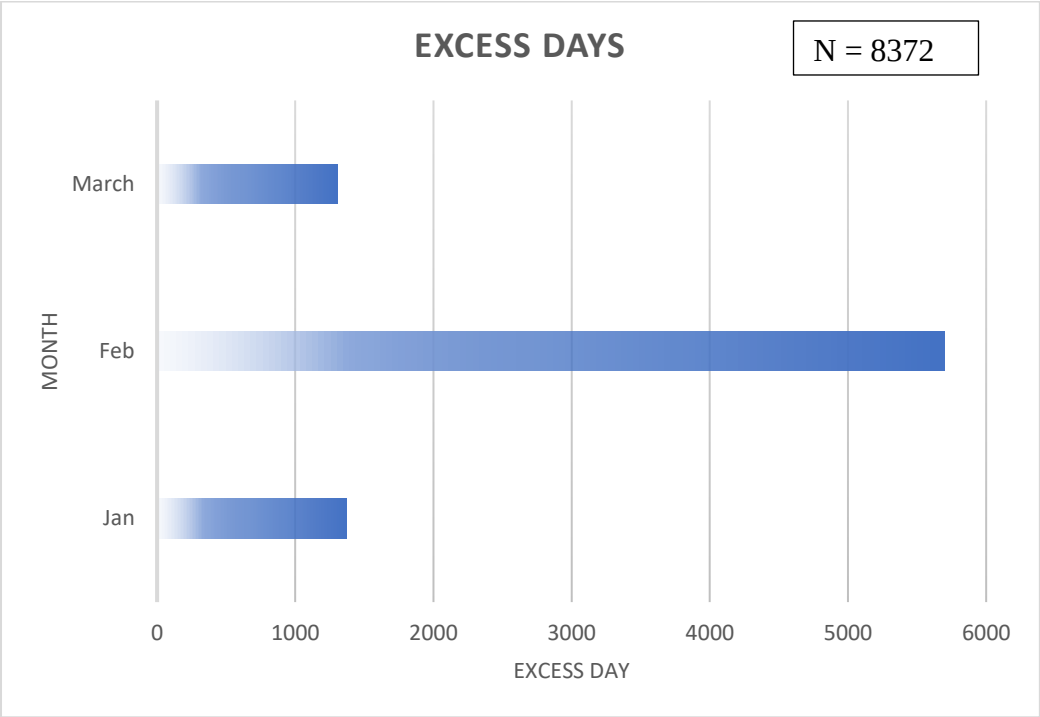

Figure 8 – TAT breach days of 3 months

In the following table of total interest paid and total excess days ,we have represented the total excess days of three months that was 8372 and the overall interest paid by the Aditya Birla Company was Rs 18591.

overall interest paid for excess days	**total excess day**
Rs.18591	8372

Table 3 – Total interest paid and total excess days.

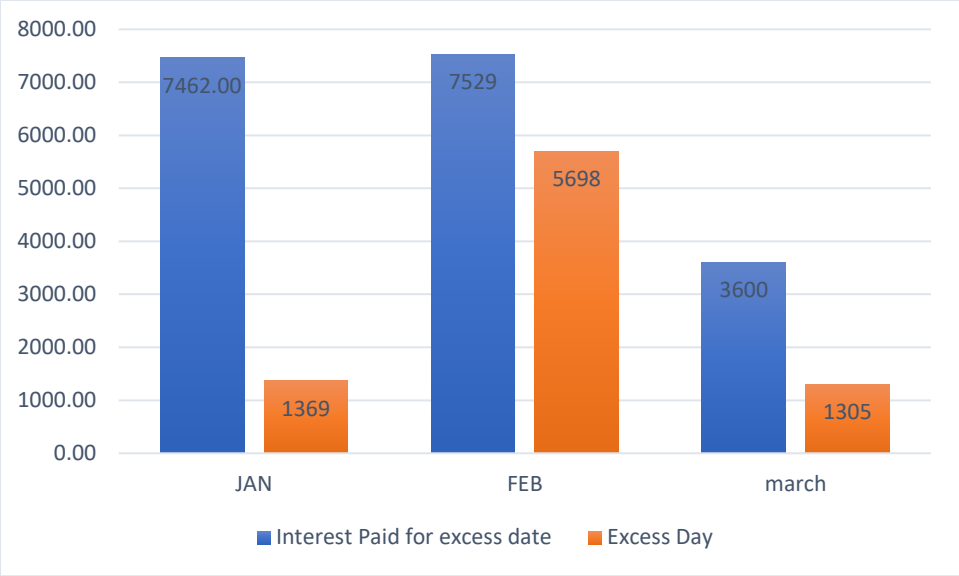

Figure 9 – Interest paid for excess days.

The above figure on interest paid for excess days, depicts the excess days in the month of January, February and March and the interest paid due to those excess days, and the interest we have calculated using the above mentioned formula.

Sample Size **(N)**	No. of Claims that have breached the TAT **(n)**
10000	479

Table 4 – Probability calculation of TAT breach.

So, by applying the formula of simple random sampling, the probability of no. of claims breaching the TAT of 15 days = $\frac{n}{N}$

$= \frac{479}{10000} * 100$

= 4.79 %

Major findings of the study

Current TAT of in-house health reimbursement claims-

- The study comprises of the sample size of **10000 reimbursement** in-house health claims, from which we have seen that **479 in-house** reimbursement health claims have breached the TAT of 15 days.
- In the month of January 20 claims, in February 365 claims and 94 claims in the month of March have breached the TAT.

- 20 claims that have breached the TAT in the month of January have excess days of 1369, 365 claims that have breached the TAT in the month of February have 5698 days and 94 claims in the month of March have excess days of 1305.
- Now yearly interest paid is 8.5%, so if the claims have not breached the TAT then the amount paid in the month of January would have been Rs 691102, and with the interest rate Rs 7462 extra was paid , in the month of February would have been Rs 2178801and with the interest rate Rs 7528 extra was paid, and similarly in the month of March , it would have been Rs 3600 and with the interest paid Rs 3600 extra was paid.
- Now after calculating the total excess days, it was 8372 days, and calculating the interest on it, total interest paid by the insurance company was Rs 18591 more.
- The number of claims that breached the TAT was minimum in the month of January, then there was a spike in the breach of claims in the month of February and as compared with the last month in the month of march the claims were less that breached the timeline.

Reason of turnaround time breach of in-house reimbursement claims-

1)Delay of process stakeholder's level.

STAKEHOLDERS	RESPONSIBILITY
HO Mail room	• Receipt of courier from Insured/ Hospital and recording entry details in the Inward register. • Handover of documents to Claims team and obtaining acknowledgement.
Provider Network	Sharing updated Hospital Tariffs
FWA Team	Investigating fraud triggers and sharing report with Claims
Finance team	Processing claims pay out to the Insured and sharing pay out confirmation details.
Dispatch vendor	Dispatching claim decision letters to Insured/ Hospital
Claims MIS team	Responsible for Managing the Data.

Table 5 – Delay of process at stakeholder's level.

2)Delay in Inward System.

- Delay in receiving the hard copy of claim documents from the hospital.
- Delay in updating the sender details, POD number, hospital details, claim categorization and policy number in inward tracker.
- Generating inward number in Health buzz takes time.
- Delay in response after intimating the non-Medico team via mail.

3) Factors affecting the outstanding category status-

- Approved – Debit note to be raised.
- Debit note sent – UTR confirmation.
- Deficiency.
- Intimated but document not received.
- NEFT failure – Awaiting new account details.
- Pending for insurer approval.
- Pending for medical assessment.
- Pending for registration/bill entry.
- Under investigation.
- Under quality check.

4) Claim is not admissible due to non-submission of deficient documents-

- Detailed discharge summary with reason for hospitalization.
- Significant findings, procedure and treatment provided during the hospital stay.
- Provide letter from treating doctor for exact diagnosis of patient.
- Pre-number paid receipt for the amount collected from the patient.
- Provide original pre-numbered final bill.
- Nominee details for NEFT.

5) Insurer not sharing the remarks properly and so the claim goes for re-processing and process gets delayed.

6) Sum insured or sub-limit gets exhausted.

7) Delay in response from the policyholder, even after 3 reminders delay in sending documents and these 3 reminders itself takes 45 days.

8) If the insured person is claiming for reimbursement claims after 60 days of discharge from the hospital, then the claim stands repudiated.

9) If the insured person is claiming for benefits like vaccination, infertility, well baby charges, cosmetic surgeries which are not covered in the policy then also then claim stands denied.

Chapter 6: Discussion

The study has reflected the reasons for breach in the turnaround time of the in-house claim processing department of an insurance company and have suggested the strategies to reduce the TAT breach and how to streamline the entire process. Through data analysis and stakeholder interviews, we discovered many important findings, manual handling of health claim papers and information has been recognised as a major bottleneck that causes processing delays and higher error rates, ineffective communication and collaboration, the failure to coordinate communication and efforts across the many departments involved in processing claims led to misunderstandings, duplication of effort, and extended processing times, complex regulatory requirements, the time-consuming nature of regulatory compliance and documentation made the workflow for processing claims more complex, which caused delays and mistakes. Reducing the turnaround time for processing health claims has broad ramifications for numerous stakeholders-

- Healthcare providers: Quicker claim processing makes it possible for them to get paid on time, which enhances their financial security and lets them give their patients better treatment.
- Insurance companies: shorter turnaround times promote communication and cooperation between insurance companies and healthcare providers.
- Patients: Patients are more satisfied with the healthcare system when claims are processed quickly because they receive payments more quickly and have less financial stress.

- Regulatory organisations: By speeding up the process, regulatory organisations can guarantee adherence to the deadlines for reporting requirements and enforce tougher standards for claims processing.

The healthcare sector can benefit greatly from a reduction in the turnaround time for processing health claims. It boosts patient pleasure, fosters confidence between insurers and providers, improves financial outcomes for healthcare providers, and assures regulatory compliance. But it's crucial to consider the costs and viability of putting the suggested solutions into practise. Additionally, additional investigation and testing of the suggested remedies are required to confirm their efficacy and gauge their potential influence on various healthcare settings. Now there were various studies that were conducted to reduce the turnaround time in the health insurance sector and stating the importance of that in the life of the policyholder and the insurance companies. Let's discuss the similarities and contradictions from the studies that were conducted with our study: -

- **Tech can reduce turnaround time for claim settlement by 70%** - This study on the importance of insurance and its impact in the life of the consumer by author Kingson in the year 2021 clearly stated that the reasons for TAT breach like fraud related issues, human error and many more , but there top reasons remains- fraud related issues and human error. By fraud related issues they have highlighted that the consumers make fraud OPD receipts of the hospitals, fraud receipts of the pharmacy bills, and due to the human error refers to the inefficiency of the in-house processing team, their ignorance to check the documents properly, and also the policy coverage. These reasons for delay in processing of the claims resembles with our study, where as in present study, the top three reasons found was remains – pending for medical adjudication, pending for financial adjudication and the quality check(that includes the fraud, abuse and risk management). The author further suggested that technology can reduce the turnaround time for claim settlement by 70%, because advance level software reduces the human error and also process the claims faster which is very much coherent with the present study and study also suggest the same.
- **Turnaround time affecting insurance business growth** – This study conducted by Mohit Sharma in the year 2022, which similar to the present study and the previous study that is tech can reduce turnaround time for claim settlement by 70%, where fraud related issues and human error were pinpointed as the main reason of concern for the delay of the claim processing , but in this study they have highlighted other issues like – short of workforce, staff is overburdened because of that, unable to leverage the latest technology and facing issues with the process development. Here they have basically discussed the issues of the staff and the latest technology , similar to our study. In this study they have mentioned that how important it is to have a well equipped staff or workforce , who are efficient and also sometimes when the workforce is less and the number of claims are more to process , the staff gets overburdened and they have tendency to clear the claims from their bucket and in this process mistakes in processing the claims happens and not only that but more backlogs emotionally

lowers the employees mindset. That is why author further suggested that hiring more efficient employees and leveraging the technology will benefit the insurance companies.

- **Claim settlement process of health insurance : TPA Vs In house claim department**- This study was conducted by Navneet Dubey in the year 2022, where he stated the pros and cons of the in-house claim processing department of the insurance company and when the insurance companies hires a third party administrator to process the claims. The present study is similar to this study in dealing with the in-house claim department, and also there is not much difference as both conduct the process that has been implemented by the IRDA. . That is why author further suggested that building an in-house claim processing department allows the insurer to provide special offerings to their policyholder from time to time. there are a large number of cases requiring a formal judgement (on applicability or quantum of cover), a TPA may be inefficient and will end up escalating most cases to the insurer only. So, in case of in-house claims processing department where the entire process is done within the insurance company itself, claim process is more hassle-free and takes less time as compared to TPAs.
- **Delivering quality service: Balancing customer perceptions and expectations**- the authors of this study have conducted the study in the year 1990 where he highlighted the connections between the faster processing of the claims with the customer satisfaction. This study resembles with our study as the reasons for delay in processing of health claims are almost the same which includes – payment errors made by the insurance companies, since there is payment error made by the operations and finance department by not collecting the proper UTR details , bank details , by entering the incorrect bank account number , and these payment errors are also from the in-house processing time when they approve the claim without checking properly the policy coverage and premium that policyholder have purchased and also approving the claims even when the insured have not purchased it. To streamline the process flow study emphasises the value of rapid and transparent communication, streamlined documentation procedures, and timely claim resolution, and this will lead to increase in customer satisfaction and loyalty, the insurance company will not loose more clients and will not run in losses or end up paying more interest on TAT breach.
- **Efficiency Improvement in Auto Insurance Claims Processing, Strategies for Enhancing Turnaround Time in Life Insurance Claims** – The mentioned two studies was conducted in the year 2022 that deals with the recommendation part of our study , where they have discussed a number of techniques used by insurers to shorten processing times, including the digitization of claim paperwork, the use of electronic medical data, and the adoption of collaborative platforms for effective beneficiary communication, and pinpoint possibilities for improvement, including enhancing lines of communication with repair facilities, putting in real-time tracking systems, and utilising predictive analytics for quicker claim evaluation. They have highlighted the reasons by which our processing of claims can be done faster.

- **The role of time constraints in consumer understanding of health claims** – This study was conducted in the year 2021, it reflected another aspect of delay in processing of the claims that is less understanding of claims by the consumers, which we also found out while processing the claims during our survey time in the insurance company. It has been observed that less understanding of health claims by the consumers have led to delayed processing of claims, when they have submitted the documents for the policy to get approved , now when they ask for reimbursement of that claim for a particular ailment , now there are certain set of documents that are necessary for that claim to get approved and the consumers to get the money back , due to time constraints and less understanding of health claims they don't submit the documents at the first time itself, even after multiple reminders these documents gets delayed and as a result of which the entire process gets delayed. Everything is inter-related here, if one thing gets delayed it automatically starts affecting the other process one after the other. According to the theory of endogenous growth, better productivity is a crucial component of economic growth and provides an overall population growth. It was observed in a study that the CAGR for the number of policies was 19.50%, for members it was 24.84%, for claims it was 32.10%, for premiums it was 39.88% and for claims it was 40.29%. It was observed that the percentage of claims paid increased more than the percentage of premium paid.
-

While the results of our study are encouraging ,but the study was conducted within a single corporate insurance company and cannot be generalized but we have observed that as compared to the previous studies that has been made in this field of reduction of turnaround time , there is definitely breach in the TAT but not much loss is faced by the insurance company and also we have identified various reasons for delay from the in-house processing time like - delay in the inward system which includes delay in receiving the hard copy of claim documents from the hospital or from the insured person, delay in updating the policyholder details in the system, delay in response after intimating the non-medico, so basically if one thing gets delayed it affects the entire process. Other reason are like pending in the outstanding category , improper document submission, sum insured getting exhausted, inhouse processing team not sharing the remarks properly as a result it does not get updated in the system software that is Health buzz and it again sends back to the department and then it has to be done properly and it is time consuming. We have recommended various strategies to reduce the breaching of days by – appointing more efficient manpower, continuous strict monitoring within the department, by asking the processing unit to maintain an excel sheet where they will update how many claims come each day , their outstanding category status , and how many they have completed and how many are still there in their bucket, the automation , by installing more advanced software to reduce the human error. Auditing is very important from time to time and also by providing training to the staffs so that they can upgrade their skills.

Chapter 7: Conclusion

Our research was focussed on what strategies can be used to streamline the processing of internal medical reimbursement claims and to identify the current turnaround time of in-house health reimbursement claims, the reason of turnaround time breach of in-house reimbursement claims, the factors influencing the TAT of in-house claims and to suggest recommendations accordingly to improve its efficiency.

The current turnaround time of in-house reimbursement health claims

1. There are not much significant loss the in-house processing claims have faced as compared to the TPA processing team of the Aditya Birla Health Insurance company, because the in-house health claims are being processed by the efficient medical trained doctors as compared to the processing team of the third party.
2. The number of claims that breached the TAT was minimum in the month of January, then there was a spike in the breach of claims in the month of February and as compared with the last month in the month of march the claims were less that breached the timeline.
3. Reasons for the fluctuations in the breaching of claims are –
    - Internal factors – Internal changes within the organization took place in the month of February where they were upgrading their Health Buzz system, and the software installation.
    - Workforce – it was observed that in the month of February employees left the job and their were deficiency of the manpower.

Now after observing the current TAT of in-house health claim , we have identified the reason for turnaround time breach , the various reasons are –

1. when we calculate the TAT ,the claims gets broadly divided into - claim category(cashless or reimbursement), claim type, paid amount, last document received, paid date, TAT, actual TAT, excess day, total interest rate, interest paid for excess date, **some times mapping of data happens incorrectly from the MIS team** of the insurance company and is one of the reasons for delay in the processing part of the claim.

2. Now further bifurcation happens of these claim category – internal bucket and the external bucket , now the internal bucket is the main part of concern since the medicos of the insurance company takes hold of that. In that internal bucket it gets classified into - pending for medical adjudication , pending for insurer approval, under quality check, medical assessment, debit note to be raised , pending for financial adjudication. Now out of all the reasons, the top three reasons were – pending for medical adjudication, under quality check and pending for financial adjudication for the three months.

The various factors influencing the turnaround time breach are-

1. Delay in the inward system which includes delay in receiving the hard copy of claim documents from the hospital or from the insured person.
2. Delay in updating the policyholder details in the system.
3. Delay in response after intimating the non-medico, so basically if one thing gets delayed it affects the entire process.
4. Pending in the outstanding category .
5. Improper document submission.
6. Sum insured getting exhausted.
7. Inhouse processing team not sharing the remarks properly as a result it does not get updated in the system software that is Health buzz and it again sends back to the department and then it has to be done properly and it is time consuming.

Hence it can be finally concluded that:

1. Healthcare organisations can significantly shorten the time it takes to process claims by eliminating bottlenecks in manual procedures, introducing automation and digitization, streamlining communication channels, optimising workflows, and streamlining regulatory requirements.
2. Healthcare providers, insurers, patients, and regulatory authorities all gain from shorter turnaround times. Faster claim processing benefits healthcare providers' financial security and their capacity to deliver better patient care.
3. Faster reimbursement benefits patients by lessening their financial load and raising their level of satisfaction with the healthcare system as a whole.
4. Regulatory organisations can enforce tougher standards for claims processing and make sure that timely reporting requirements are followed strictly.
5. To confirm the efficacy of the solutions identified and gauge their suitability for various healthcare settings, more investigation and piloting are required.
6. Health claims processing turnaround time reduction is a dynamic, ongoing activity.

Chapter 8 : Recommendations

The analysis of the study highlighted the necessity for accelerating the processing of health claims by shedding light on the challenges faced and potential solutions. By implementing the offered techniques, healthcare organisations can enhance their operations, boost stakeholder satisfaction, and contribute to a better healthcare system overall. Shorter turnaround times benefit patients, healthcare providers, insurers, and regulatory bodies . The ability of healthcare providers to provide better patient care and maintain their financial stability are both improved by quicker claim processing. Prompt reimbursement improves the connection between insurers and healthcare providers. Some general strategies that can be commonly used to reduce the turnaround time of in-house reimbursement health claims during processing are:-

1. **The current turnaround time of in-house reimbursement health claims** -

- Process Automation – Implementing automated systems and technologies can help streamline various steps in the claims processing workflow, such as data entry, eligibility verification, and adjudication. This can significantly reduce manual errors and processing time.
- Standardization and simplification – Establishing standardized processes and forms can simplify the claims submission process for both healthcare providers and payers. This reduces the need for additional clarification or back and forth communication, resulting in faster turnaround times.
- Electronic Data Interchange (EDI) – Using electronic data interchange systems allows for the secure and efficient exchange of claims information between healthcare providers and payers. EDI can expedite the claims processing cycle by eliminating the need for paper-based transactions and enabling faster data transfer.

2. **Reducing the reason for turnaround time breach –**

- Reduction errors in mapping -Using higher quality data mainly the input data that comes to the MIS team of the insurance company.
- Implement error correction method mechanisms to the mapping process, by using advance level of statistical functions.
- Validate and cross-reference data-verify the accuracy of the mapped data by cross-referencing with the multiple sources(like different data sets).

- Real-time adjudication – Implementing systems that support real-time adjudication can help determine claim eligibility and reimbursement amounts immediately at the point of service. This reduces the need for manual review and speeds up the payment process.
- Performance Monitoring and Continuous Improvement – Regularly monitoring key performance indicators (KPI's) related to claims processing time can help identify bottlenecks and areas for improvement. By continuously analysing and optimizing the workflow, organizations can reduce the TAT.

3. **Reduction of factors influencing the turnaround time breach are-**

- Workforce- Hiring more efficient manpower can lead to faster processing of the health claims. appointing more efficient manpower, continuous strict monitoring within the department, by asking the processing unit to maintain an excel sheet where they will update how many claims come each day , their outstanding category status , and how many they have completed and how many are still there in their bucket, the automation.
- CRM- Hiring an efficient customer relation team, because it has been observed that less understanding of health claims by the consumers have led to delayed processing of claims. That is why an efficient customer relation team should be there whose main objective is to contact the customer and make them understand the importance of the policy, the coverage period, what all are covered within the policy and what are the documents to be submitted, so that the insurance company saves the time by not giving three reminders that takes approximately 45 days just to get a clearance from the policyholder side.

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Chapter 10 :Annexures

Serial No.	Title	Author Name	Findings
1	The role of time constraints in consumer understanding of health claims	Violeta Stancu, Liisa Lähteenmäki, Klaus G. Grunert	Public policy must consider how well consumers understand health claims since there is a risk that they could be deceived. The current study demonstrates that consumers' comprehension of health claims is decreased when they are time-constrained. Furthermore, regardless of whether they are under time constraints or not, customers transfer some of the carrier product's perceived benefits to the interpretation of the health

			claims. The evaluation of pre-formulated statements that represented various interpretations of the two health claims under consideration involves determining how well consumers understood them. They were instructed to see themselves out shopping and coming across the stimulus product with the specified information on its package in the group where respondents were exposed to products with claims. Customers must comprehend the advantages claimed by the health claims on food goods in order to make educated decisions. This study looked at how time constraints affect consumers' comprehension of health claims and whether changing the language or including more details can help. Additionally, the relationship between comprehension and purchase intention was looked at.
2	Insurance claim processing using RPA along with chatbot	Oza D, Padhiyar D, Doshi V, Patil S	RPA is one of the main competitors in the current booming industry as the area of interest for many organisations globally due to the variety of benefits it offers to the market. RPA bots will automate the manual tasks. The consumer interaction will be significantly more interactive thanks to RPA chatbot. Insurance providers only need to provide the necessary files, and the online database will instantly verify the fundamentals of the policy. The entire process will be instantaneous thanks to the car damage detection in RPA, which will analyse the damage to the car and anticipate the claim value based on it. By making the process hassle-free, it will improve the insurers' entire experience. RPA will be used to handle insurance claims, which will reduce the number

			of man hours required for manual processing while also increasing customer service and lowering customer dropout rates . When used in conjunction with other tools and technologies, RPA improves both overall functioning and user experience. Numerous businesses have realised that RPA automation doesn't work well when used independently, meaning that automation can't develop on its own. As a result, when it is combined with other tools and software, it transforms into a very strong and adaptable tool with numerous capabilities for automating tasks. When used in conjunction with other tools, programmes, and human workers, RPA creates an enterprise-wide, cutting-edge liveware.
3	Data mining to predict and prevent errors in health insurance claims processing	Mohit Kumar , Rayid Ghani ,Zhu-Song Mei	Costs for health insurance have significantly risen recently all around the world. Payment errors made by insurance firms while processing claims are a significant contributor to this rise. Up to 30% of the administrative workforce at a typical health insurance is dedicated to fixing these errors, which frequently necessitate additional administrative work to re-process (or rework) the claim. By anticipating claims that will need to be revised, creating justifications to assist auditors in revising these claims, and experimenting with feature selection, concept drift, and active learning to gather feedback from auditors and improve over time, described a system that aids in reducing these errors using machine learning techniques. On the basis of claims data from a significant US health insurance, methodology, issue formulation, assessment metrics, and experimental findings have been discussed. The study has demonstrated and compared to existing methods,

			our system achieves an order of magnitude higher precision (hit rate), which is accurate enough to possibly save a typical insurer $15–25 million.
4	Prospective growth of health insurance in India : Trends and Challenges	Dr.Harinder Singh Gill , Pooja Kansra	The achievement of the millennium development goals and general well-being depend on good health. According to the theory of endogenous growth, better productivity, a crucial component of economic growth, is a result of overall population health. The goal of the current research was to explore the developments and difficulties in Indian health insurance. It was discovered that the CAGR for the number of policies was 19.50%, for members it was 24.84%, for claims it was 32.10%, for premiums it was 39.88%, and for claims it was 40.29%. It was noted that the percentage of claims paid increased more than the percentage of premiums paid. Individual policies, followed by individual floaters, declarations, other, group floaters, and groups, were shown to be more popular. However, group floater insurance have the biggest premium share, followed by individual policies. After analysing claim payments by state, it was discovered that Delhi had the highest claim payments, followed by Maharashtra and Goa. The state of Tripura had the lowest average claims, while the highest average claims were made for circulatory conditions, followed by malformations/deformations and injury. The lowest average claims were made for clinical findings. Thus, even though the penetration levels are still in the single digits, the increase in the health insurance portfolio has been amazing during the past ten years. Consequently, the

			future of the health insurance business appears to be quite promising. In order to raise customer awareness, both public and private health insurance providers should develop consumer-related innovation.
5	The Impact of health insurance of health	Levy H, Meltzer D	The study observed firstly association between insurance and good health may be influenced by other, unobservable factors, many studies that claim to demonstrate a causal effect of health insurance on health do not do so convincingly. Second, strong evidence suggests that health insurance can enhance some population subgroups' health metrics; some of these populations, though not all, are those that would probably be the objectives of programmes to expand access to coverage. Third, we need to determine if the findings of these studies are broadly applicable for policy reasons. Only with the considerable investment of resources in social experiments does it appear possible that solid answers to the plethora of crucial issues concerning how particular health insurance policy options may affect health will be forthcoming.
6	Valuing human resources : key to the success of a National health insurance system	Laetitia C Rispel, Peter Baron	The NHI reforms provide South Africa intriguing chances for health system development that are uncommon in most other nations. However, our study has demonstrated that the health system's 2009 performance in relation to a few HRH measures has significant flaws. The 2011 NHI Green Paper and the updated HRH strategy fall short in their attempts to address the widely acknowledged production, recruiting, retention, and management crises in HRH. The HR information systems are still not up to pace, and there appears to be a disconnect

			between the goals of the rules and their actual execution as well as between those intentions and what front-line healthcare personnel perceive and experience. To make sure that the NHI is implemented successfully, a number of important challenges must be resolved. Consistent consultation with a variety of stakeholders and implementers, accurate costing of implementation requirements, coordinated efforts to strengthen implementation at various levels of the health system, addressing health system governance and accountability, and ongoing monitoring and evaluation of the reforms are a few of these. However, for the NHI to succeed in the long run, it will be necessary to value human resources in the health sector and take swift, decisive action to solve the serious human resource issues that the South African health care system is currently confronting.
7	The Indian market scenario of insurance sector	Mannar BR	Regarding customer awareness, the current situation of the life insurance industry in India is astounding. The modern consumer is well aware of the various options available to them that best enable them to achieve their goals. The LIC of India has done a good job of embracing the competitive spirit, which has aided the company in continuing to grow and contribute to the development of the nation. A few other sectors in the life insurance industry require updating in terms of the corporation's participation. Thus, the current research study identifies those crucial sectors where LIC of India has to contribute more.The first is to grow the number of offices, both in urban and rural locations, since this would aid the company in expanding their

			customer base and business.To truly fulfil its goals of spreading the life insurance industry throughout the entire nation, LIC of India should also open more Life-Plus offices and authorised collection centres. LIC of India should focus on agents' training to keep them current with market demands and professionally prepared to handle customers' questions and issues sparked by other life insurance competitors in the market. Since agents are the foundation of the business, LIC of India must expand its agent base to keep its monopolistic market share. The larger number will aid the company in expanding both the scope of their market visibility and the amount of business they conduct.
8	Tech can reduce turnaround time for claim settlement by 70%	Kingson	This article states that insurance is just not a product that consumers can buy and safeguard for the future but is a commitment that consumers expect the insurance company to fulfil when they face crisis in their lives. Risk , fraud related issues, making prompt decisions without error is a massive challenge leading to inordinate delays in the settlement . Around 38% of the health insurance companies settled the claims on an average in 5 business days. Covid claims amounting to Rs 117 crore have remained unsettled, for FY 21, ending march 20221. Artivatic.AI have already 400 plus APIs and many patents, which have been developed with different insurance companies. Insurer using Artivatic’s deep technology have witnessed 90% reduction in TAT for policy issuance, 70% reduction in claim TAT, 15% reduction in AML, risk and fraud.

9	Turnaround time affecting insurance business growth	Mohit Sharma	This study focuses on the growth barriers of the insurance company due to longer turnaround time. It states possible reason for the longer TAT like short of workforce, staff is overburdened because of that, unable to leverage the latest technology and facing issues with the process development. Moreover having more backlogs affects the morale of the employees. Longer TAT impact operations, brings inconsistency in the process, leads to loss of cash and customers. Improving and updating the software would lead to faster automation and reduces human error and reduces the TAT time
10	Claim settlement process of health insurance : TPA Vs In house claim department	Navneet Dubey	This comparative analysis explains the difference between the claim settlement process by TPA and in-house claim processing units . have explained the pros and cons of both the TPA and in-house claim processing units but overall there is not much difference , as both implement the process that has been setup by the IRDAI. Building an in-house claim processing department allows the insurer to provide special offerings to their policyholder from time to time. there are a large number of cases requiring a formal judgement (on applicability or quantum of cover), a TPA may be inefficient and will end up escalating most cases to the insurer only. So, in case of in-house claims processing department where the entire process is done within the insurance company itself, claim process is more hassle-free and takes less time as compared to TPAs.
11	Delivering quality service: Balancing customer	Zeithaml VA, Parasuraman A, Berry LL, Berry LL	This empirical study looks at how quickly insurance claims are processed and how it affects consumer satisfaction. Surveys and conversations with policyholders help

	perceptions and expectations		researchers get information about how quickly claims are resolved. In order to increase customer happiness and loyalty, the study emphasises the value of rapid and transparent communication, streamlined documentation procedures, and timely claim resolution.
12	Strategies for Enhancing Turnaround Time in Life Insurance Claims		This comparison analysis looks at how quickly life insurance claims are processed at various insurance firms. The study outlines a number of techniques used by insurers to shorten processing times, including the digitization of claim paperwork, the use of electronic medical data, and the adoption of collaborative platforms for effective beneficiary communication. The study emphasises the significance of technology adoption and process enhancements in hastening the resolution of life insurance claims.
13	Efficiency Improvement in Auto Insurance Claims Processing	Bhavani	The auto insurance industry is the subject of this case study, which also looks into the factors that affect how quickly claims are processed. The researchers examine claims data from a sizable vehicle insurance company and pinpoint possibilities for improvement, including enhancing lines of communication with repair facilities, putting in real-time tracking systems, and utilising predictive analytics for quicker claim evaluation. The study offers perceptions on excellent practises that can be applied in comparable settings.
14	Impact of Automation on Turnaround Time	Varad Mohan	The effect of automation technology on the processing time for property insurance claims is investigated in this study. It assesses how a

	in Property Insurance Claims		significant insurance business has implemented digital claims systems and cutting-edge analytics tools. The results show that automation, by removing human processes, increasing data accuracy, and enabling quicker decision-making, dramatically reduces the amount of time needed for claims processing.
15	Analysing Turnaround Time in Health Insurance Claims Processing	Hee Jung Chung , Sail Chun	This study focuses on the healthcare insurance industry and investigates the variables influencing how quickly claims are processed. It evaluates data from a sizable insurance provider to spot process bottlenecks including the difficulty of medical coding and the need for extensive paperwork. The study offers methods for speeding up the claims process and lowering response times, which will increase client happiness and operational effectiveness