

AI and Blockchain's Role in Insurance Claims Fraud Detection: A Qualitative Study at Care Health Insurance

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About Care Health Insurance



Since its inception in July 2012, Care Health Insurance (formerly known as Religare Health Insurance) has become one of India's leading health insurance providers with a stellar records.

It is one of India's leading Health Insurance providers, with 58 Lakh+ insurance claims settled since inception. Care Health Insurance provides comprehensive health insurance benefits, including in-patient hospitalization, pre and post-hospitalization medical expenses, access to advanced medical treatments, daily allowances during hospitalization and cover for AYUSH treatments.

Mission:

Our main goal at Care Health Insurance is to provide health insurance solutions advantageous to all parties involved, including our clients, distributors, staff, and shareholders. We make sure that every segment of our society, from the social to the rural, benefits from our services.

Vision:

We aspire to become a leading and promising health insurance provider in the business, establishing standards for customer service, product selection, and open communication with customers.

INTRODUCTION

The Problem

- ✓ The insurance sector is highly susceptible to fraud, leading to substantial losses, operational inefficiencies, and increased premiums.
- ✓ Traditional fraud detection methods (rule-based systems, manual interventions) are often inadequate.
- ✓ Fraud isn't just financial damage; it erodes the industry's foundation.
- ✓ Fraudsters are becoming more sophisticated and creative in their methods, outpacing traditional detection techniques.

INTRODUCTION

The Solution & Study Focus

- ✓ AI and Blockchain can revolutionize fraud detection.
- ✓ **AI:** Acts as a 'super-smart analyst' that learns from vast data to spot subtle red flags and predict fraud.
- ✓ **Blockchain:** Provides highly secure, unalterable data, offering transparency and immutability for recording the entire claim process.
- ✓ This study investigates current fraud detection methods, obstacles, and the potential role of AI and Blockchain at Care Health Insurance.

FRAMEWORK

Research Objectives

- ✓ To investigate the current fraud detection strategies, tools, and everyday processes.
- ✓ To pinpoint the limitations, snags, and challenges that the teams at Care Health Insurance.
- ✓ To explore what AI and Blockchain could genuinely offer in tackling those fraud-related problems.
- ✓ Understand stakeholder perceptions.

APPROACH

Methodology

- ✓ **Research Design:** Qualitative, exploratory research design employed at Care Health Insurance.
- ✓ **Data Collection:** In-depth semi-structured interviews with eight key stakeholders.
- ✓ **Key Departments Interviewed:** Fraud Control Unit (FCU), Information Technology (IT), Claims, and Audit.
- ✓ **Sampling Method:** Purposive sampling, selecting individuals with specialized roles and extensive experience.
- ✓ **Data Analysis:** Thematic analysis, following Braun and Clarke (2006, 2012), to identify recurring patterns and themes from interview transcripts.

FINDINGS

Current Fraud Detection at Care Health Insurance

- ✓ Relies heavily on basic rule-based flagging within its internal claims management process.
- ✓ Involves rigorous manual scrutiny and staff expertise.
- ✓ FCU focuses on in-depth analysis of flagged claims, combining on-site fieldwork.
- ✓ Claims department uses basic system rules and 'human touch' to detect suspicious activity.
- ✓ Audit team conducts pre- and post-payment audits, manually analyzing claim records and financial information.

FINDINGS

Common Types of Fraud Encountered

- ✓ Charging higher fees/inflated billings.
- ✓ Absence from hospitals.
- ✓ Not reporting pre-existing conditions.
- ✓ Challenges with validating medical records.
- ✓ Tariff fraud, false bills, patient fraud (bogus hospitalization).
- ✓ Collusive fraud (patients and providers working together).
- ✓ Upcoding (charging for more expensive service).

FINDINGS

Existing Challenges in Fraud Detection

- ✓ Manual Processes
- ✓ Insufficient Data Integration
- ✓ Increasing Sophistication of Fraudsters
- ✓ High Caseload
- ✓ False Positives

STAKEHOLDER PERCEPTIONS

Potential of AI in Fraud Detection

- ✓ Advanced Data Analysis and Complex Pattern Recognition.
- ✓ Predictive Risk Scoring.
- ✓ Identifying Anomalous Billing Patterns and Validating Documents.
- ✓ Real-Time Fraud Scoring.
- ✓ Decreased False Positives.
- ✓ Automation of Repetitive Tasks.

STAKEHOLDER PERCEPTIONS

Potential of Blockchain in Fraud Detection

- ✓ Dependable, Unalterable, and Transparent Records.
- ✓ Reduced Manual Verification.
- ✓ Secure Claims Submission and Processing.
- ✓ Prevention of Duplicate Claims.

THE FUTURE

Synergy of AI and Blockchain

- ✓ **Reliable Data for AI:** Blockchain provides AI algorithms with trustworthy, non-manipulated data, enhancing prediction accuracy.
- ✓ **AI Analysis of Blockchain Data:** AI can analyze blockchain transaction data to identify fraudulent activities, anomalies, or collusive networks.

ROADBLOCKS

Barriers to Implementation

- ✓ High Initial Investment
- ✓ IT Infrastructure Upgrades
- ✓ Specialized Expertise and Training
- ✓ Regulatory Compliance

MOVING FORWARD

Recommendations

- ✓ **Phased Adoption:** Target specific high-impact use cases initially.
- ✓ **Investment in Data Infrastructure:** Essential for supporting AI and Blockchain.
- ✓ **Workforce Upskilling:** Invest in training existing staff and recruiting specialized talent in AI/Blockchain.
- ✓ **Pilot Projects:** Initiate pilot projects for AI in document verification and Blockchain.
- ✓ **Develop Internal Training Programs:** Foster cross-functional tech implementation teams.

Thank You