13th Current Issues Seminar on Health Care Insurance (CIHCI)

2nd Aug 2019

Insights on Health Insurance - India

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About Us



RELX Group is a global provider of information and analytics for professional and business customers across industries. The Group serves customers in more than 180 countries and has offices in about 40 countries.

It employs approximately 30,000 people of whom almost half are in North America. www.relx.com

RELX Group operates in four major market segments:

SCIENTIFIC, TECHNICAL & MEDICAL



RISK & BUSINESS ANALYTICS (RBA)





www.risk.lexisnexis.com

www.reedbusiness.com

LEGAL



www.lexisnexis.com/enus/home.page **EXHIBITIONS**



www.reedexpo.com



Our Solutions

Our solutions help our customers across industries to solve their daily business challenges such as identity authentication, fraud defense, streamlining workflows and due diligence, and increased productivity and revenue.



Identity Management

Our Identity solutions let you validate and authenticate identities with confidence by quickly leveraging the deepest and most accurate information in the market so you can better understand who you are doing business with.



Fraud Defense

Increase your ability to detect and prevent fraud with technology, data and analytics. By leveraging over 82 billion public records with LexID® linking, access the most reliable and current information about people, businesses and assets to uncover hidden connections or patterns and stop fraud in its tracks.



Compliance

With an ever-changing regulatory landscape, our compliance solutions will help you be nimble and adapt so you can reduce financial and reputational risk by complying with evolving regulations and streamlining due diligence.



Investigation

Our Investigative solutions help you discover links between people, assets, and locations. So whether you are trying to pinpoint suspects, criminals, debtors, or just suspicious behavior, you have access to the relevant information you need.



Data Management

We help you be proactive with your data management strategy by providing robust data sources and powerful linking technology for the clearest, most complete customer view.





Key India Assignments





Life Insurance - Risk Insights

Risk Insights paints a comprehensive picture of your customer by harnessing the power of contributory data. It enhances your risk assessment process, allowing you to mitigate application fraud & misrepresentation, and improving business efficiencies for more precise underwriting and claims decisions.



Improve Risk Assessment

enable more accurate decisions, using historical policy and claims records, including information related to previously declined applications.



Reduce Fraud, Waste and Abuse

Mitigate fraud and misrepresentations by leveraging industry- wide policy and claims data at the point of underwriting.



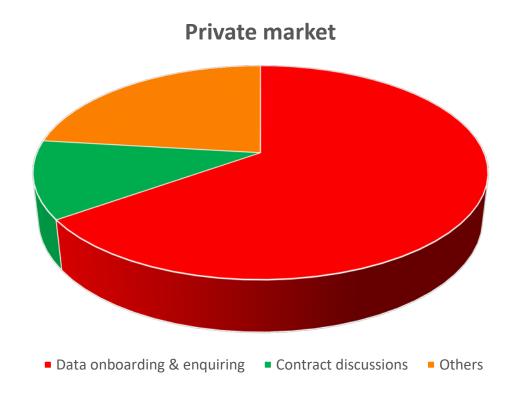
Improve Business Efficiencies

Integrate comprehensive insights into your workflows to reduce errors, shorten turn around time and improve system efficiencies.





Present Status



Onboarded and signed companies



















General Insurance



- Health and Motor Insurance engagement
- Engagement with General Insurance Council and Major insurers
- Concluded a POC on PM-JAY







Our engagements activities for knowing stakeholders

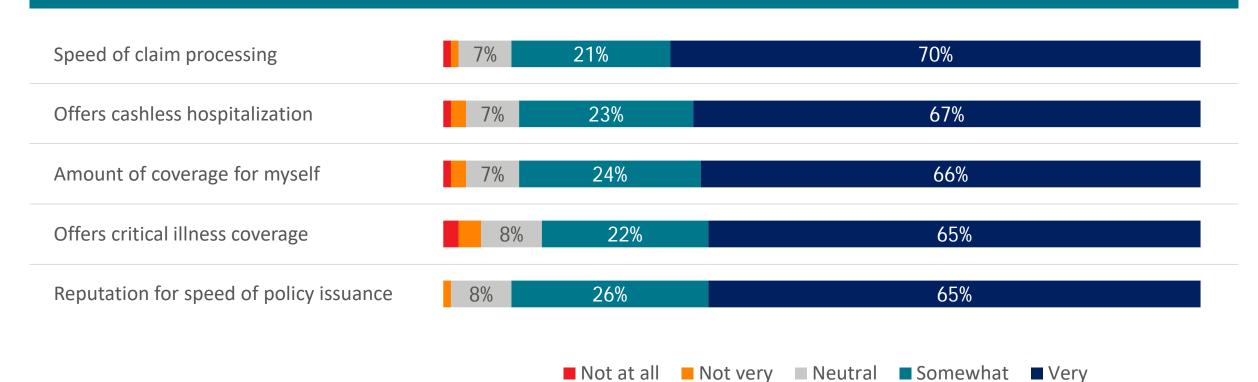






What customer want

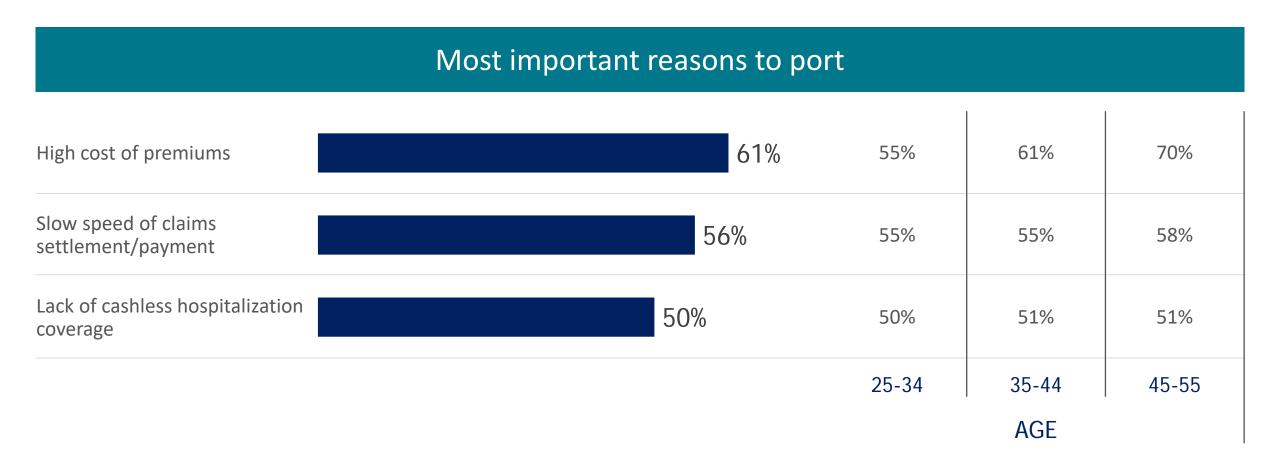
Importance Factors when choosing insurance company







Reasons for porting a Health insurance policy







What insurer want



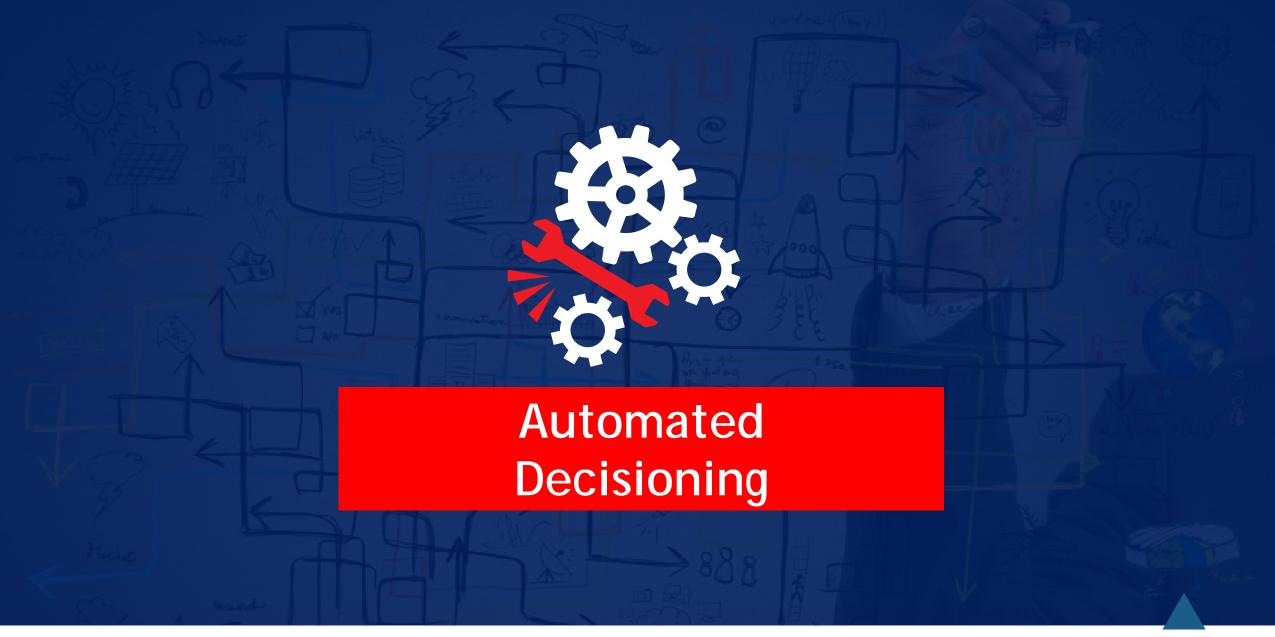
















What is automated Decisioning

Machine Learning

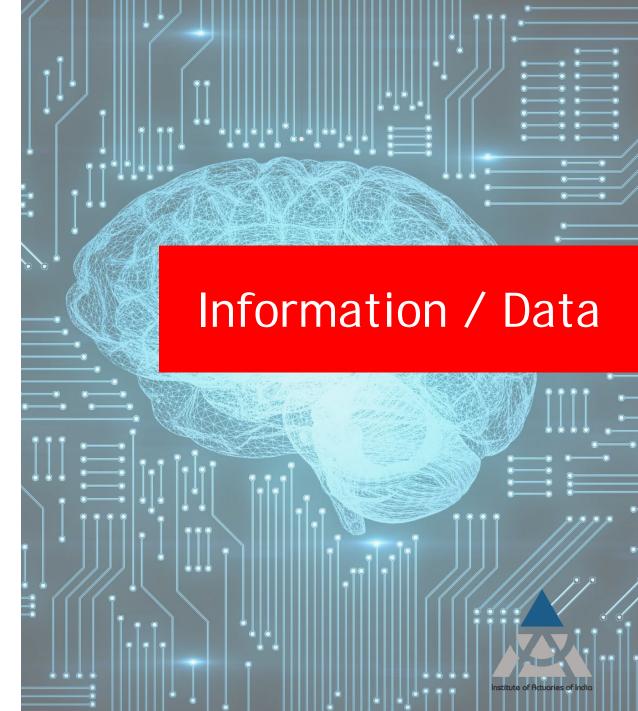
Artificial Intelligence

Big Data

NLP

Predictive Modelling







Do we have right information?

Data Fill Rate

| Data Category | Required | Required Conditional | Optional | Total | Remarks – Field Names |
|-----------------------|----------|----------------------|----------|-------|--|
| Key ID Details | 99% | 23% | 20% | 66% | Insurer Insured ID, Family Link ID, Policy Number, Claim Number |
| Other Details | 100% | 2% | 7% | 63% | Enhancements, Addendums |
| Policy Details | 99% | 50% | 22% | 62% | Policy Type, Policy Dates, Policy Status, |
| Claim Details | 97% | 56% | 12% | 41% | Claim Dates, Claim Type, Claim Nature, Claim Status, Claim Amounts |
| Industry Average | 99% | 42% | 20% | 35% | |
| Bill Break-up Details | NA | NA | 35% | 35% | Room Rent, Surgery, Consultation, Investigation, Medicine, Misc. Charges |
| Hospital Details | 86% | 54% | 24% | 33% | Hospital Name, Hospital Address, Hospital City, Hospital State, Hospital PIN Code |
| PII Details | NA | 38% | 27% | 29% | Name, DOB, Address, ID, Contact Details |
| ICD-PCS Details | NA | NA | 29% | 29% | Diagnosis Codes, Procedure Codes |
| Underwriting Details | 90% | 50% | 17% | 21% | Gender, Height, Weight, Habits, Medical History, Bonus-Malus |
| Coverage Details | NA | NA | 15% | 15% | Coverage Codes, Sum Insured, Deductible |





Data Availability in Indian scenario



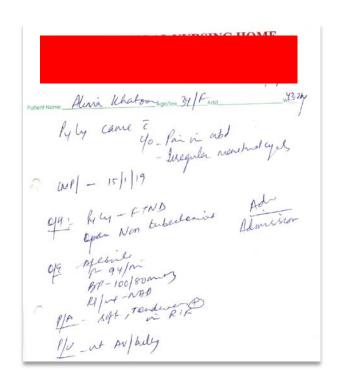
Digital Data

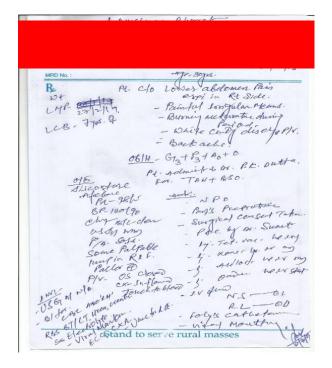
Basic claim level data



Scanned Data

Detailed discharge summary, hospital bills, etc









Digital Data

- Entered by the TPA, Insurer.
- Essential for claim processing.
- Few times, a detailed data entry is needed eg Hospital name and address, etc
- Disease coding (Multiple diagnosis)





Example of a "Detailed" data

| HOSPITAL NAME | ADDRESS |
|--|---|
| MAX SUPER SPECIALITY HOSPITAL (EAST WING) A UNIT OF DEVKI DEVI | (EAST WING) DEVKI DEVI FOUNDATION, 2, PRESS ENCLAVE ROAD, SAKET, NEW DELHI - 110017SAKET, |
| FOUNDATION | NEW DELHI - 110017 |
| MAX SUPER SPECIALITY HOSPITAL (EAST WING) A UNIT OF DEVKI DEVI FOUNDATION | 2 PRESS ENCLAVE ROAD |
| MAX SUPER SPECIALITY HOSPITAL - EAST BLOCK- NEW DELHI | 2 PRESS ENCLAVE ROAD SAKET |
| MAX SUPER SPECIALITY HOSPITAL - WEST BLOCK - NEW DELHI | 1 PRESS ENCLAVE ROAD SAKET |
| MAX SUPER SPECIALITY HOSPITAL SAKET | |
| MAX SUPER SPECIALITY HOSPITAL SAKET | PRESS ENCLAVE MARG |
| MAX SUPER SPECIALITY HOSPITAL SAKET WEST | PRESS ENCLAVE MARG |
| KOKILABEN DHIRUBHAI AMBANI HOSPITAL | RAO SAHEB ACHUTRAO PATWARDHAN MARGFOUR BUNGLOWS |
| KOKILABEN DHIRUBHAI | A UNIT OF MANDKE FOUNDATIONFOUR BUNGALOWS ANDHERI |
| KOKILABEN DHIRUBHAI | RAO SAHEB ACHUTRAO PATWARDHAN MARGFOUR BUNGLOWS |
| KOKILABEN DHIRUBHAI AMBANI HOSPITAL | |
| KOKILABEN DHIRUBHAI AMBANI HOSPITAL | FOUR BUNGALOWSANDHERI WEST |
| KOKILABEN DHIRUBHAI AMBANI HOSPITAL | FOUR BUNGLOWS LOKHANDWALA ANDHERI WEST MUMBAI MAHARASHTRA 400 053 |
| KOKILABEN DHIRUBHAI AMBANI HOSPITAL | LOKHANDWALA FOUR BUGLOWS RAO SAHEB ACHUTRAO PATWARDHAN MARG ANDHERI(W) |
| VOVII ADENI DIJIDI IDHALAMDANI HOSDITAL | RAO SAHEB ACHUTRAO PATWARDHAN MARG, FOUR BUNGLOWS, ANDHERI |
| KOKILABEN DHIRUBHAI AMBANI HOSPITAL | WEST,,MUMBAI,MAHARASHTRA |
| KOKILABEN DHIRUBHAI AMBANI HOSPITAL | RAO SAHEB ACHUTRAOPATWARDHAN MARGFOURBUNGLOWSANDHERI-WEST |
| KOKILABEN DHIRUBHAI AMBANI HOSPITAL & MEDICAL RESE | A UNIT OF MANDKE FOUNDATIONFOUR BUNGALOWS ANDHERI |
| KOKILABEN DHIRUBHAI AMBANI HOSPITAL & MEDICAL RESE | RAO SAHEB ACHUTRAO PATWARDHAN MARGFOUR BUNGLOWS |
| KOKILABEN DHIRUBHAI AMBANI HOSPITAL & MEDICAL RESEARCH INSTITUTE | A UNIT OF MANDKE FOUNDATIONFOUR BUNGALOWS ANDHERI |

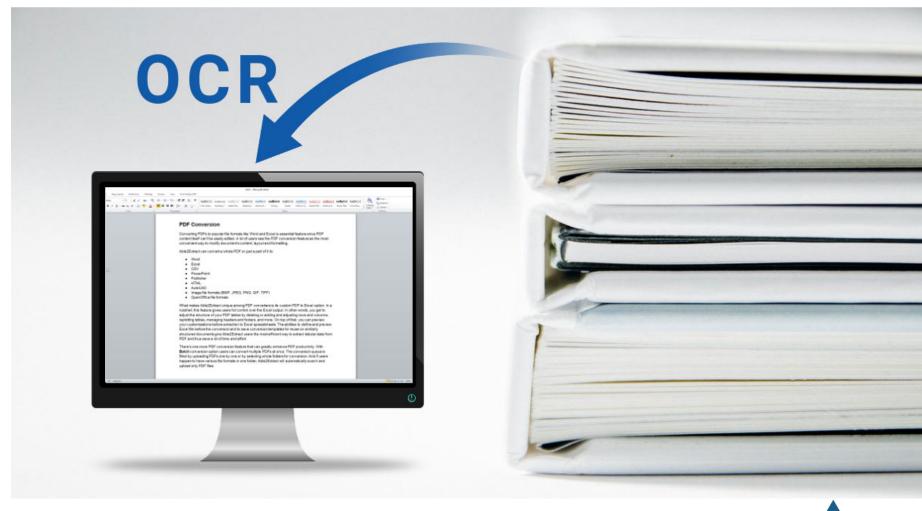


Role of OCR

Optical Character reader

Reads the required things

Helpful ??



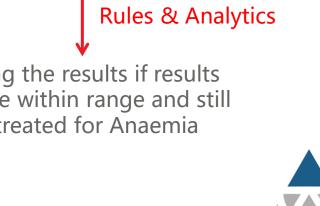




OCR

OCR for Anaemia

| 4,000 - 10,000 4.5 - 6.0 14 - 18 40 - 50 82 - 98 27 - 31 32 - 36 11 - 16 mm3 140,000 - 450,0 | OCR Picks Haemoglobin results Data Matching and sorting Compares the result with LNRS reference range for |
|---|--|
| 14 - 18 4.5 - 6.0 14 - 18 40 - 50 82 - 98 27 - 31 32 - 36 11 - 16 | Picks Haemoglobin results Data Matching and sorting Compares the result with |
| 14 - 18 40 - 50 82 - 98 27 - 31 32 - 36 11 - 16 | Picks Haemoglobin results Data Matching and sorting Compares the result with |
| 40 - 50 82 - 98 27 - 31 32 - 36 11 - 16 | Data Matching and sorting Compares the result with |
| 82 - 98 27 - 31 32 - 36 11 - 16 | Compares the result with |
| 27 - 31 32 - 36 11 - 16 | Compares the result with |
| 32 - 36 11 - 16 | Compares the result with |
| 11 - 16 | Compares the result with |
| | |
| mm3 140,000 - 450,0 | |
| | |
| | Haemoglobin |
| 40 - 75 | 9 |
| 15 - 45 | Rules & Analytics |
| 2 - 12 | |
| 2 - 6 | Flag the results if results |
| 0 - 1 | were within range and still |
| 0-3 | treated for Anaemia |
| | 2 - 6 0 - 1 |



Institute of Actuaries of India

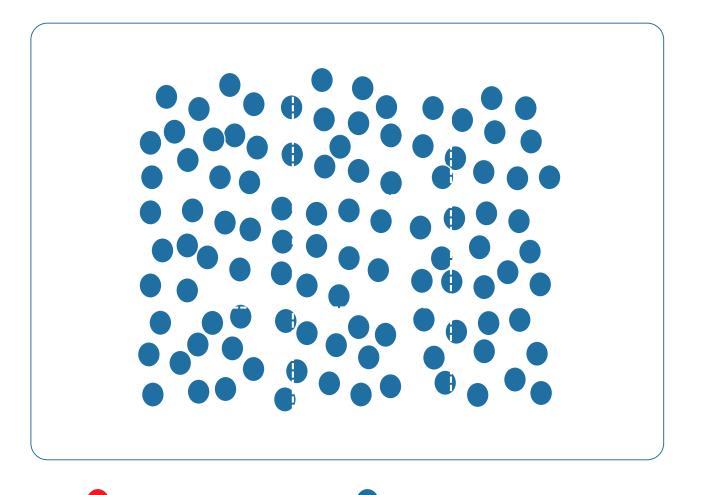


A Normalization Application – Are these comparable?





Normalized Data Leads to Actionable Insights









It can make difference in



- Improve Risk Assessment
- Stop Premium Leakages
- Enhance TAT



- Faster Claim Settlement
- Focus on suspicious cases only
- More informed decisions



- Reduce Frauds
- Abuse clinical frauds, over stay, over charge etc
- Leakage on the claim processing





Impact area



Right Pricing



New Product Developments



Profitability





Our AIM

Immediate Steps

- De-duplication of existing hospital data base.
- Linking of same insureds & families across different policies.
- Standardise a uniform data schema (with insurers) to start capturing basic critical fields.

Long Term Goals

- Linking the Motor, Health and Life database.
- o Include data from 3rd party sources (Credit Bureau, Health and Wellness firms, Telecom Industries, Etc).

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Short Term Goals

- Improvise on the data capture quality from Claims, Policy and U/W side.
- Linking of the claims and pre-policy data from partners used by insurers.
- o Improvement of hospital's data quality.

