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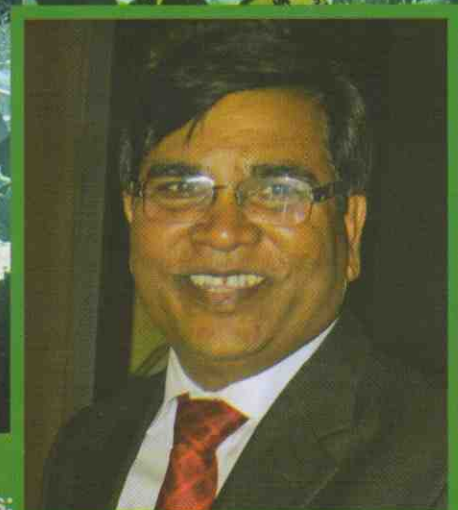
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## Diving Deep

**Indian Insurers Are Learning To Navigate Big Data & Analytics To Discover New Insights On Customers and Markets**



**"India remains as a Key Strategic Market for our Group"**  
Victor Peignet, CEO, SCOR Global P&C SE



**Transforming Trends:**  
Milind Kharat, CMD, United India Insurance



# Data Discovery



Big data analytics after benefiting areas like loss assessment, loss experience analysis, fraud is now tracking emerging fields like catastrophe modeling, telematics, says Kamal Kishore Das

### The case for analytics

Analytics is not a new science for stakeholders in insurance. Analytics has been deployed by Insurers to fulfill regulatory reporting and compliance needs on the one hand, and for key decisions such as capital modeling, pricing, reinsurance program design and reserving on the other. However emerging challenges provide analytics opportunities in entirely new contexts, some of which are discussed below.

### Analytics focused around resolving emerging Business problems

Owing to the rapid pace of growth and expansion of the Insurance industry, particularly post opening up of the sector, a fresh set of problems have manifested which have had far reaching impact. Owing to increased size of the industry, these problems too have large financial implications. For illustrative purposes, two such major problems are lapsation of policies as observed in the life insurance industry and the impact of fraud, especially around claims across both life and non-life insurance sectors. Both these problems have persisted over the past few years and yet are difficult to size up.

### Policy Lapsation

Lapsation is the discontinuation of a policy owing to non-payment of premium. Lapsed policies can be revived, however the revival percentages tend to be in single digits for most insurers. A study by IRDA on Lapsation Impact in 2008 had revealed that

lapsation percentages were high for both Unit Linked products and Term Insurance plans. Lapsation figures assessed recently reveal that the problem has persisted.

Given the nature and scale of the problem, predictive analytics frameworks can be set up to utilize the various streams of structured and unstructured data such as those around customer interactions, contact center records or intermediary related information along each product line in



a life insurance context. The predictive model can generate measures such as probability of a policy lapsing, scorecards around product portfolios and intermediaries/channels. Customer segments can be generated based on these measures. Insurers could run customer or intermediary oriented campaigns or review product design elements basis the model output.

### Tackling Fraud

There is a clear need to look at

industrywide measures for fraud monitoring and control. In this regard, the initiative of the Indian insurance regulator to have a scaled up analytics framework is a welcome step. The proposed analytics project would utilize health insurance data across Insurers and therefore would truly bring together a view, which does not exist today.

The other major driver to tackle fraud whether at individual company or industry level could be additional data sources - that could be utilized to either enrich case history or improve predictive capabilities regarding fraud. These additional data sources could be derived from either credit bureaus, or other data bases such as driver and vehicle databases. eKYC details of customers from Insurance Repositories is likely to be another major source of data, which could add to accuracy of predictive capabilities of fraud modeling frameworks.

### Emerging analytics applications for insurance

#### Scoring Techniques

Scoring techniques can be used to develop frameworks which aid systematic monitoring of core processes. For instance, persistency of policies as a business process has multiple sub-processes which support the Insurer to meet desired objectives. A scoring framework can aid the decision-makers track each element that goes into achievement of the final outcome.

Scoring techniques have been deployed



effectively in Banking for various core processes such as customer analytics, credit assessment and early warning MIS.

**The promise of Big Data**

In a simplified sense, the essence of big data analysis is of shifting the paradigm of decision making based on sample data to that based on an understanding of complete data sets. Further, the big data technology architecture has the promise of delivering analytics across complete range of volume, variety and velocity of data. Coupled with the capability of handling of data across formats, big data analytics environments bring together a whole set of statistical processing techniques such as simulation, decision trees and stochastic modeling, which empower high impact analysis.

In the insurance context, this shift has the promise of empowering stakeholders to shift to decision making basis the complete history of data available rather than analysis based on samples and more recent data sets. Given that most processes in Insurance generate good amount of structured data such as tables and unstructured data such as images, emails, call records, website records, etc, utilization of the complete set can

deliver actionable insights.

For early adopters internationally, Big data analytics is finding usage in usual and common place processes such as loss assessment, loss experience analysis and fraud tracking to the more emerging fields such as catastrophe modeling, telematics, etc

**The analytics adoption journey in insurance in India**

The analytics roadmap undertaken by entities in the insurance industry has varied widely. While Insurance companies have invested in sophisticated data warehousing and analytics software, utilization of this infrastructure for business impact remains a concern. On the other hand, the multinational brokers have had access to strong analytics frameworks set up by the parent organization.

Outside of regulatory reporting requirements, analytics has often been looked at in terms of "projects". Therefore there has been an approach to taken on analytics projects for certain time periods and then depending upon priorities, these projects have been continued or discarded. In a way, the objective has been to check whether a given problem could be solved with

the help of analytics tools, the project based approach has led to expectation of immediate results in a crunched down time period.

Although the project based approach has been a pragmatic one, the adoption of analytics, as one would understand, is however a systemic change. The analytics adoption framework is poised to undergo sea changes, as data generation and the need to explore the same become imperative. The range of data touch points are emerging rapidly and adoption of insightful analytics has to include analytics technology viz. Big Data clusters apart from innovative statistical models on the one hand and the evolution of an array of roles like data scientists, statisticians, etc, on the other.

However the core to the adoption of an analytics approach is the identification of exact business problems, which is sought to be solved.

*The writer is a Insurance Practice Lead- Marketing and Brand, Aureus Analytics*

**Big Data & Analytics to make products cheaper : TS Vijayan, Chairman, IRDA**

Indigenous and authentic data, being built by the Insurance Information Bureau (IIB), will make products cheaper besides enabling faster launch, Insurance Regulatory and Development Authority (IRDA) Chairman T. S. Vijayan

"The insurance sector thrived upon the segregated data and its analysis for devising the price of a product against a certain risk."

The Insurance Information Bureau

of India (IIB), the single source of insurance sector data and analytics, he said such analysed data would help insurers to justify the premium for an insurance offering.

He raised that many insurance companies do have essential data "but have little respect for it".

"Even today, when we call for the products to be filed and approved by the Irda, I ask my product team why things are getting delayed. It is because,



sometimes, companies had not been able to provide the justification for the price of the product," Vijayan said.

"We don't want them to have unjustified pricing... excess premium, too low a premium ... we do not want such things. As a regulator, I expect companies to explain and justify the price for an insurance product." he said.