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How Analytics Helped an Auto Insurer Detect Fraud

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In the recent past, a New York City court convicted 13 people including six medical professionals who had, over several years, milked auto insurance companies of millions in fraudulent claims. How did the team of fraudsters manage this – by staging 'fake' accidents in rental cars and then 'treating' the alleged victims to a battery of unnecessary tests including expensive EKGs and MRIs.

The magnitude of insurance fraud today is startling, and it occurs wherever the insurance business is booked. Insurance fraud accounts for at least 10 percent of all insurance premiums, a percentage that has remained relatively constant over the past two decades. In reality, the entire scale of insurance fraud is unknown. Even if there were a single body charged with tracking all fraud, the task would be impossible, as the types of fraud are diverse and continually changing.

Auto fraud, too, is clearly on the rise in the U.S. The concern is that detection of auto fraud is already a challenge, and will only worsen for the following reasons:

- **Scarce resources -** The underwriting resources necessary for detecting fraud claims are falling in number. A Deloitte Consulting report has forecast a likely shortfall of 84,000 in insurance claims workforce by 2014. It is believed that North America alone will experience a 40 to 50 percent shortfall in underwriting resources across all lines of the insurance business.
- **Overworked staff -** Existing staff of investigators are already overburdened by the number of claims that they track. Therefore, their ability to manage a larger number of claims efficiently is a challenge.
- **Undetected fraud -** Less than one percent of all claims are typically referred to for further investigation, implying that not enough number of claims are being scrutinized; and of that too, less than 0.5 percent of all claims are dismissed as fraudulent.
- **Changing buying behavior -** An increasing number of new auto policies are being purchased online. As the sales channels become more diversified, an insurance company's underwriting resources requires more expertise to track claims from a growing number of sales channels.

Analytical Solutions

A variety of integrated models and other solutions are necessary to arm insurance professionals with appropriate automated capabilities for fraud prevention, detection and management. Business rules can be combined with other detection methods such as anomaly detection, predictive modeling, and social network analysis for use in identifying suspicious applications, potentially fraudulent claims and other anomalies.

One way to trace likely fraud is by analyzing the information siloed in companies on a person's claims history, payment of premiums and residential addresses. By using computing power and statistical tools, it is possible to analyze information in order to throw up trends or profiles of potential fraud. Unlike traditional approaches, an approach that deploys analytics will provide -

- Information on anomalous patterns that can help insurance companies investigate cases that would otherwise miss scrutiny
- Objective analysis of information that allows for the processing of larger volumes in a transparent manner

Frequently, fraud begins during the initial insurance application process. This "underwriting fraud" or "rate evasion" is the result of misrepresentation of facts that directly affect the rating. Individuals may underreport the mileage driven for an auto, claim only personal use for a commercial vehicle, fail to report previous claims, lie about their health history, or misrepresent the characteristics of their property. In the U.S. in 2009, rating errors resulted in USD 15.9 Billion in lost revenue for private-passenger auto premiums, an amount equal to about 10 percent of all insurer premiums for this line.

As an example, WNS has worked closely with a leading auto insurance company that wanted to minimize application-stage fraud by understanding the profiles of fake customers, identifying patterns, and putting in place a proactive early warning system to support their investigation and fraud management teams.

Using analytics, the company was able to improve the rate of genuine claims and significantly reduce costs associated with fraud claims investigation. Auto insurance fraud costs genuine consumers, companies and the economy at large. Combating fraud with a well-thought-out analytics plan will help insurance companies conduct their business efficiently, increase customer satisfaction and enhance their overall brand image.

To learn more, please write to us at **marketing@wns.com**