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Getting Smarter With Business Intelligence

By Jose Tribuzio

Because workers' compensation is rich in data, an effective way to improve the performance of a risk management program is by mining claims information for insights. There's a significant amount of information being collected in the claims process and stored in transactional databases. However, traditional reporting capabilities are based on programmed data queries that generate a static report. Oftentimes, the resulting reports do not contain the information needed, so new queries and reports have to be run. The process has been cumbersome, time-consuming, and overall ineffective for sophisticated forecasting.

Today, risk managers are turning to business intelligence (BI) tools to identify hidden opportunities to reduce risk and prevent future claims. BI is incorporated into many claims solutions and risk management information systems, and they're also broadly available through common office applications, such as Excel, and via cloud-based solutions.

What is Business Intelligence?

BI is an umbrella term referring to a variety of tools designed to analyze raw data. BI as a discipline is made up of several activities, including data mining, analytics, predictive modeling, and dynamic reporting. These capabilities can improve and focus an organization's risk management efforts.

In a 2013 survey of North American insurance professionals conducted by Earnix, a provider of pricing and customer analytics to banks and insurers, and ISO, the property and casualty insurance rate and information service, 82 percent of participants said they use BI capabilities. The most common application is in the areas of pricing and underwriting. The industry is beginning to expand the use of BI tools, but it's still not a standard practice in claims and risk management processes.

Before launching into a detailed discussion of how BI can help improve performance, it's important to understand a few terms:

- **Data Mining.** This process analyzes data from different perspectives to uncover trends and relationships between seemingly disparate pieces of information.
- **Data Analytics and Predictive Modeling.** Data analytics can uncover meaningful patterns; predictive modeling is a subset of analytics that identifies relationships, which ultimately help to predict outcomes.
- **Dynamic Reporting.** With dynamic reporting, organizations can "drag and drop" new data elements and dimensions into their analysis, drill down or up into hierarchies of information, and "slice and dice" data to get to the kernels of information that drive meaningful program improvements.

Leveraging BI for Improved Results

The workers' compensation claims process results in vast stores of data, which can be mined to enhance program performance in these key areas:
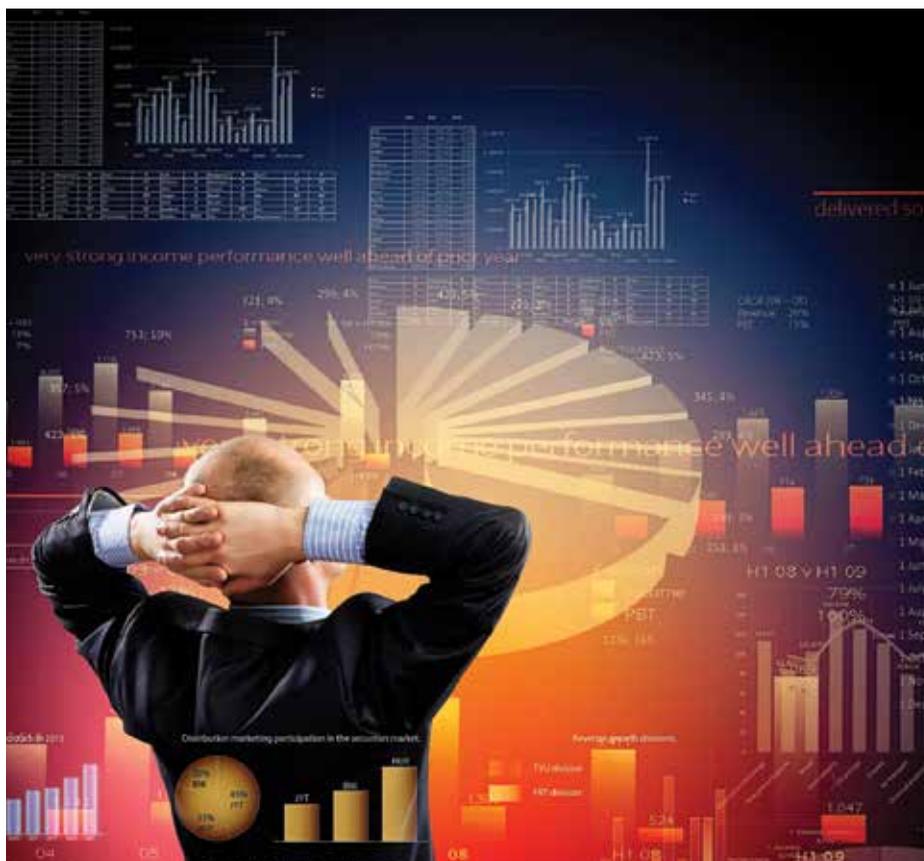
1. **Fraud.** Perhaps the most popular use of BI in claims and risk management is identifying the potential risk of fraud. It's estimated that 10 percent of all claims are fraudulent, and annual losses to fraud total $30 billion a year. According to the National Insurance Crime Bureau, fraud in the U.S. rose 27 percent from 2010 through 2012, reaching more than 100,000 suspicious claims. Predictive analytics detect subtle indicators of fraud, so organizations can direct these claims for further investigation.

2. **Litigation.** Significant workers' compensation costs go to legal expenses. Using BI, organizations can identify claims that have a high probability for litigation and legal representation, and assign those cases to senior claims professionals who have the experience to settle cases sooner and for lower amounts. With some cases, they may even be able to avoid litigation entirely.

3. **Early Warning on Runaway Claims.** One of the more interesting ways to use BI is in the identification of seemingly routine cases that have a high potential to become problematic over time. At the first indication that these cases are headed in a bad direction, they can be routed to specialized experts, who can intervene early and guide cases toward optimal costs and outcomes.

4. **Loss Prevention.** Another benefit of BI is in support of identifying high loss areas or frequent types of injuries. Organizations can then apply loss control, safety, and injury prevention to these areas.

Key Considerations for BI Implementation

The main requirement for BI is data—the deeper the claims history, the better. In fact, missing, incomplete, or erroneous data can have a negative impact on BI performance. Organizations must ensure that data is clean, accurate, and complete. Besides data quality and integrity, other factors that organizations should consider for effective implementation include:

- **Actionable Intelligence.** BI should be able to deliver an actionable output, such as a predictive score, which can easily be viewed, understood, and acted upon by claims professionals and risk managers.

- **Consistency Throughout the Claims Process.** BI models must be applied not just at a claim's intake, but also throughout the claim's lifecycle. New data can emerge and should be incorporated for improved analysis and output.

- **Coupled With Claims Expertise.** Once scored, organizations must consider how claims will be routed for proactive management and cost containment. For example, with a complex injury, a clinical team could be formed to review medical management issues. Intervention on these cases can help drive better outcomes.

Real-life Implementation and Savings

BI has the power to revolutionize the way organizations analyze and act upon claims data. One county in California with 2,200 employees had a self-insured workers' compensation program with 250 claims and costs totaling $2.5 million a year. The county wanted to reduce both its claims and costs. Using BI capabilities, it analyzed five years worth of claims data and identified the most frequent and costly claims areas. It found a high rate of ergonomic injuries, back injuries, and stress claims, which were driving high claims costs.

The county used targeted risk management programs that resulted in a 50 percent reduction in overall claims within the first year. From there, claims leveled off and were costing less because safety programs resulted in less-severe injuries. Overall, the county saved $4 million in workers' compensation costs over four years and lowered absenteeism by 50 percent over the same period.

The Future of BI

Today, organizations are facing tremendous pressure to improve their program results. By using BI to mine data, companies can gain valuable insights to target high-loss areas with effective risk management strategies.

On the horizon, rather than using complex, programmed queries, organizations will be able to enter requests using common, everyday language—similar to what they might type for a Google search. Companies that invest in BI today can leverage immediate savings and also look forward to ongoing BI enhancements that will help drive continued program improvements. ∎

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