New Risk: Data Visualization

Insight

A Better Way of Looking at Risk

Insurers need to discover the truth in their data or face the consequences.

For any company that deals with a titanic amount of data, data visualization is and will remain a fundamental tool for risk management and business analysis. Insurers have long been skilled in collecting information. But they now generate and acquire exponentially growing, disparate and complex quantities of data—and depend on them, in some ways, for their very survival in a competitive marketplace.

Today, analytics and its effects on business management and risk mitigation are based on the science of data mining. Insurers have indeed come far in that pursuit, but much more could be done. Data visualization plays a significant role in the next generation of improvements for the insurance industry. The industry isn't spending enough effort aggregating its data across functional silos, integrating internal data with third-party data, analyzing the data and distributing the resulting actionable insights.

For example, imagine a claim for hail damage to a car in Tulsa on a given day. A claims adjuster may know the garaging address for the policy and he or she may know what the weather was in Tulsa that day. But would all those pieces of data come together in a way that's easy to analyze? That's highly unlikely and exactly where visualization can help.

What else can data visualization enhance? Catastrophe risk management has come far in its 25-year history, resulting in fast, intuitive insight into what drives risk. Today's climate models can

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With visualization capability, seeing truly is believing.

effectively project the impact of storms as they approach coastlines or geographic regions. Such models can assess the total number of policyholders expected to be affected, when an event is anticipated to worsen or when it will be safe for insurance personnel to enter the area. Visualization models enable the decision-maker or assessor to analyze at the individual building level, often facilitating a preplanning process to mitigate damage.

As for enabling better business decisions, bar, line and pie charts have served us well. But when the complexities of relationships are more nuanced and the data becomes more unstructured, visual analytics must be more dynamic, multidimensional and customized.

For property/casualty insurers, visualization can help identify a range of data issues quickly, such as a high-level overview of exposure location as well as exposure composition and completeness, including breakdowns by occupancy and construction, building age and height, or geo-code quality.

Further, the technology can provide a multidimensional understanding of policy performance, consumer behavior and industry trends. In addition to finding red flags in claim data, mapping techniques often pinpoint thousands of errors in a fraction of the usual time.

In commercial and personal auto, telematics programs use sensors to determine factors as simple as vehicle miles traveled and as sophisticated as camera-based recording, which can be used for immediate or deferred analysis, meaningful interpretation and/or visualization.

Beyond collecting endless data, insurers need to discover its truth or face the consequences. **BR**

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