TAKING STOCK

A PERIODIC EXAMINATION OF KEY ISSUES AND TRENDS FROM MARSH'S RETAIL/WHOLESALE PRACTICE

MAKING BETTER-INFORMED DECISIONS WITH DATA AND ANALYTICS

A Fortune 500 retailer sought objective, data-driven guidance to help determine an optimal insurance structure. The company conducted a risk financing optimization (RFO) exercise for its general and excess liability programs and undertook an economic cost of risk (ECOR) study. Upon completion, the company increased deductibles for its primary coverage, and moved its lead umbrella to another insurer. The results: a 50% improvement in program efficiency and casualty premium savings of $2 million.

BIG DATA QUANTIFIES RISK

The above is just one example of the enormous advantage that analytics is giving today's retailers. The retailer's RFO exercise combined actuarial loss simulations, company-specific historical loss experience, and large-loss industry data. The ECOR study evaluated the efficiency of current program pricing and assessed alternative program structures.

By using data-based tools to quantify and model risk, retailers can assign a value to the unknown, forecast the extent of potential financial damage, and determine what steps can be taken to prevent, manage, or transfer risk. In short, data and analytics can help drive intelligent business decisions and change.

Assessing the frequency and severity of exposure to both insurable and non-insurable risks enables retailers to balance risk-financing decisions against their overall corporate risk tolerance and ability to invest in new products and operations. With big data and analytics, companies can explore — either on their own or with the support of experts — how key factors such as volatility and the cost of capital impact various aspects of business strategy, such as expected pricing and transfer of risk.

EVALUATING CYBER RISK

Big data can enable retailers to calculate and evaluate the balance sheet impact of one of their most significant business risks: data breach. For example, using loss simulation tools, companies can assess first- and third-party exposure and the associated costs of a potential data breach based on the type and number of records. Statistically credible metrics provide a decision framework around the overall financial impact of a cyber data breach, allowing a company to best determine where and how much capital to allocate toward cyber risk prevention, mitigation, and risk transfer options.

Analytics also can help retailers assess potential liabilities associated with evolving risks, such as cloud computing disruptions and the increasing use of new technologies.

MORE WAYS TO QUANTIFY VALUE

Following are other ways that big data and analytics can help retailers place a value on the unknown:

- **Organize data.** With more data produced every day, it's critical to have a methodical system to capture and evaluate it. Having an effective system to consolidate data can help companies assess their needs, decisions, and strategies regarding potential solutions.
- **Capture and analyze potential volatility across risks.** For example, property exposures specific to expanded store locations and new facilities, employee risks from staffing levels or wage/hour exposure, and the introduction of new product lines all require analysis of risk versus potential financial returns.

  Retailers regularly analyze the upfront capital requirements of new store openings, product launches, and increased staffing, and assess the return on these potential investments. However, any growth strategy carries increased risks. Loss-simulation tools provide data around expected losses and associated volatility. By overlaying a specific cost of capital against these results, financial metrics can guide decision making around the potential financial impact of those risks — and how to mitigate or include them in overall risk-return analysis.
- **Forecast the probability of potential losses against comparable industry data.** Applying data and analytics does not guarantee a precise forecast of catastrophic losses, but it can fill in visibility gaps and create a credible understanding of the company's overall risk. By comparing potential exposures or existing claims to benchmark peers, companies can predict the potential financial impact of an incident, allowing them to take appropriate action.
- **Identify all potential risks,** including those that haven't historically led to losses. Retailers buy insurance to offset a portion of their risk and the uncertainty around the potential size and scope of losses. The key to balance-sheet protection is to identify risks that have a low probability of occurrence and a potentially high level of loss, and to find risk financing options that protect the company.

By helping to identify and quantify risks quickly and efficiently, big data and analytics allow retailers to minimize their total and economic cost of risk.

This briefing was prepared by Marsh's Retail/Wholesale Practice, in conjunction with Marsh's Global Analytics and Marsh ClearSight.

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