Realistic Steps for Improving Your Return on Insurance Data

Written by Dan Jones & Jim Toole | *Published June 29, 2017 on CarrierManagement.com*

The insurance industry's return on investment has reached its lowest level in decades, according to the 2016 Annual Report on the Insurance Industry by the U.S. Federal Insurance Office. Primary causes include increased weather-related events and increased competition that has exacerbated soft pricing, constrained profit margins and inhibited premium growth.

To survive and thrive, insurance companies must find new ways to economically compete for new customers while gaining more value from existing customers.

This is a tall order when faced with legacy issues and internal competition for scarce resources. However, as shown in the related FTI Consulting Client Example, rewards can be substantial for companies that have met the challenges. Examples of objectives related to increasing the value gained on customer data include:

- Anticipating and preventing customer churn.
- Segmenting customers to allow companies to focus on the most profitable groups.
- Identifying factors most likely to optimize acceptance of a new offer.
- Pinpointing customers with a propensity to buy additional products or services.
- Optimizing distribution and customer communication channels.

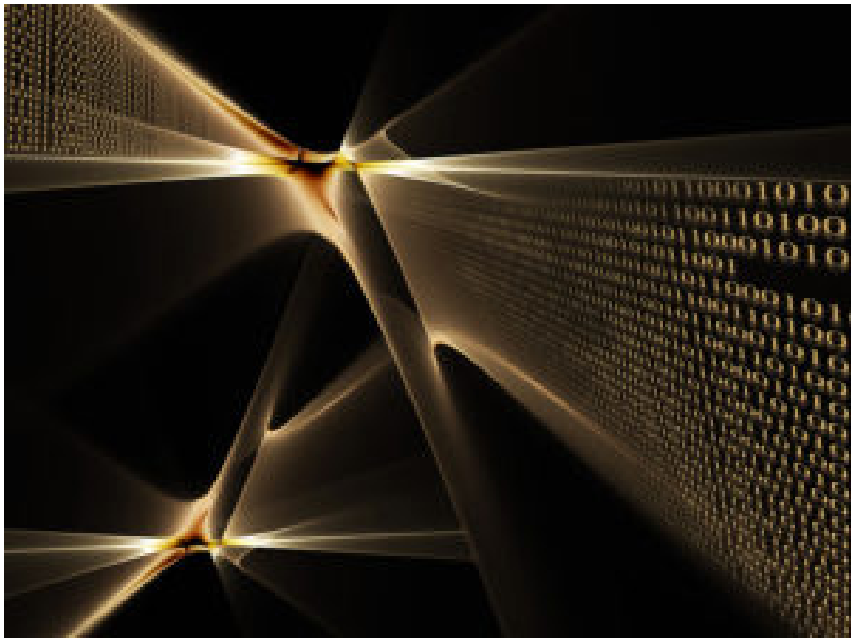**Discovering the Gold in Latent Data Assets**

In spite of the promise of big data, artificial intelligence, machine learning and other advanced technology, many insurers have been unable to effectively leverage existing or newly acquired data assets. In our experience, this deficiency is based on several fundamental issues and requirements related to customer-focused initiatives elaborated below.

- Understanding and acting on legacy issues.
- Creating a business case and shaping expectations.
- Developing actionable plans and mobilizing resources.
- Executing and measuring results continuously.

Understanding and Acting on Legacy Issues

Insurers have amassed enormous pools of data on their customers and transactions. That customer data is poised to grow exponentially with the proliferation of new information sources and feeds such as remote sensors, wearable technologies, SMS messages, intelligent agent logs and the massive consumer datasets recently released by government agencies such as the U.S. Department of Health and Human Services.

Various forms of customer and transactional data may exist in a variety of legacy systems that prevent developing a single approach to capturing, storing or analyzing the data. Some potential solutions are more expedient than others. For instance, collecting relevant data in a data lake, to be harmonized as the need arises, will take less time than pulling the plug on legacy systems, implementing a consolidated system or connecting legacy software through middleware. But any approach—whether incremental or big bang—will require due diligence, time and investment. In addition, existing IT infrastructures may not support the requirements for a timely, robust analysis of large datasets.

To achieve the full benefits of analytics, management must be willing to alter existing processes, implement educational and change-management initiatives to overcome internal institutional resistance, and incorporate and act on the new intelligence the technologies deliver. Furthermore, it may be difficult to find or attract the talent required to help in applying data analytics.

Thus, it may be appropriate to consider partnering with third parties that can introduce technology solutions and that retain the experienced professionals needed to deal with legacy issues and the analytics required.

Creating a Business Case and Shaping Expectations

Boards undoubtedly will insist on a business case that includes clear definitions of specific business objectives and their contribution to the company's corporate strategy—i.e., your expectations and what they will look like financially, operationally and from a risk/reward perspective.

A good approach is to start with a project that's likely to yield a significant return in a short time frame, achieving initial analytics "wins" as steps toward expanding to other processes or functions ripe for improvement. The FTI Consulting Client Example indicates what can be done. While this particular case is related to a large multinational insurer, it can apply to any size insurance company.

To drive broad organizational buy-in, make the benefits of adoption clear and address potential change-management issues proactively and consistently.

Developing Actionable Plans and Mobilizing Resources

Project plans at a minimum must include identification and definition of resources and deliverables, schedules and milestones, issues resolution tracking, and management reporting. For analytics projects, this includes preparing the data for analysis.

- Conducting a data inventory (customer, transactional and cost data) to ensure that only relevant data is used to populate customer databases used for analytics and to gather intelligence on potential data issues.
- Exploring, preprocessing and conditioning data for building effective predictive models, an essential but intensive process typically consuming 80 percent of project time.

Resources include appropriate technology tools, as well as a multidisciplinary team with domain experience and expertise in project and change management, data management, analytics, and process engineering.

If you lack any of these resources, seek third-party help that has a track record, including a collaborative approach and knowledge transfer that enables your team to sustain the improvements made.

Executing and Measuring Results Continuously

Achieving improved return on data assets is not a one-off situation. Achieving sustainable change requires continuous diligence and persistence. The schedules, deliverables and milestones in your project plan provide the execution road map, facilitated by embedded analytics that enable continuous measurement and the intelligence for making required adjustments.

Accordingly, execution of your project becomes a model for other analytics-driven transformations within your organization.

Additional Applications of Analytics to Improve Performance

In customer-centric organizations, all processes ultimately support the customer. Accordingly, analytics should be applied to all core processing systems to improve process flows, reduce redundancies, and improve decision quality and customer service, including:

- Increasing and improving the quality of underwriting data points and decision-making.
- Forecasting likely claim outcomes at various interven-

tion points to help insurers adjust their claims management efforts to maximize returns.

- Correlating spending on third parties, such as attorneys, auto repair shops and medical providers, to focus outlays on vendors most likely to improve outcomes.
- Focusing fraud detection efforts on high-risk areas and developing proactive fraud management strategies based on predictable patterns of customer behavior.

- Evaluating and improving performance of distribution channels and supply chains.

Summary

Analytics in its many forms is rapidly becoming an inherent component of core processing within the insurance industry, offering many benefits previously available only to large insurers.

The benefits derived from analytics include not only sustainable improvements in profitability and growth

potential but also in the ability to adapt to the changing business environment.

To gain these benefits as quickly as possible, companies may need to seek the help of third parties that have the experience and expertise to accelerate adoption. This may include creating an internal "Data Science Center of Excellence" with dedicated staff focused on advanced analytics that enable your company to accelerate analytics-driven improvements. **CM**

Case Example - Building a More Profitable Customer

One multinational insurance group used existing customer data to better understand customer behaviors across product lines, building a more profitable customer base and improving its return on data. While this company, like many others, had a plethora of data on its customers, it was not able to create a single view of a specific customer. For example, producers or customer service employees were unaware that a household carrying an automobile insurance policy with the company also carried its home insurance or might at one time have considered purchasing pet insurance. As a result of this inability to have a single view of the customer, the company lacked a clear understanding of the potential profitability of each customer.

Working with third party assistance, historical customer data was extracted from the company's data warehouse and transformed, standardized and cleaned before being loaded in an AaaS ("Analytics as a Service") platform. This effort was required since the customer data – including demographics, products, premiums and customer care information – was both structured (in spreadsheets) and unstructured (in notes and ema*ils).*

Two years of historical revenue and cost data that could be associated with each household, including profit and loss numbers, reported claims, losses, premiums, and claims handling costs, were then loaded in a data base for analysis via the AaaS platform. Various data modeling techniques were used to create, for the first time, a single view of each household. The process included calculating overall profitability per household by breaking down the costs and revenues per customer over the prior two-year period.

With this robust portrait of the customer in hand, the company began analyzing its customers' behaviors to create behavioral profiles of key customer segments. Using machine-learning algorithms, households were clustered into one of six distinct segments.

Ultimately, the analytics process enabled the company to calculate retention rates per household for each segment and develop retention strategies targeted to the needs and behaviors of each one, considering profitability, product holdings and life stage. The analysis was also used to cross-sell and upsell products more effectively to households in each segment.

To improve conversion rates, the company developed a model predicting the likelihood that a customer requesting a product quote would end up purchasing a policy before it was routed to a sales professional. This improved the company's quote-to-win ratio by 40 percent and increased its annual gross written premiums by 10 percent.

Dan Jones is a Managing Director at FTI Consulting. He is a CPA with 36 years of experience as a management consultant, executive manager and chief financial officer. Jones is a past Chapter President and Area Leader Board Member of Financial Executives International.

Jim Toole is a Managing Director at FTI Consulting. He has over 25 years of management and technical experience in the life, health and property/casualty insurance industries. Toole is a past board member of the Society of Actuaries, a frequent speaker and author, and was co-editor of the textbook "Insurance Industry Mergers and Acquisitions," published by SOA.