

UNDER NEW MANAGEMENT

Insurers must implement data-management building blocks to give business intelligence and predictive analytics the right fuel.

by Bill Jenkins

Industry surveys and articles continue to highlight the fact that the use of data to help drive better decision-making around business strategies and operations is key to an insurance organization's ability to compete in today and tomorrow's insurance market.

Proper use of data can help an organization achieve its objectives around key business drivers such as profitable growth, operational efficiency, regulatory compliance, customer intimacy and human resource management. Studies show that organizations that have put into place proper data management processes have the best chance of being the most profitable and efficient in the industry.

However, despite the significant benefits to be achieved in the use of high quality and good data, few carriers have been successful in their efforts to transform data into the actionable information they need in order to provide them a competitive advantage. Companies need to have the "clean fuel" of data to feed into the sophisticated and

expensive decision support and analytic engines that will allow the company to make the management decisions they need to compete.

Today, most insurance carriers are using predictive analytics to compete. Many are trying to deal with new data-driven marketing trends including telematics and usage-based insurance; increased use of third-party data, including "big data;" unstructured and semi-structured data; and data available from social media. One only needs to point to the success achieved by Progressive Insurance in its use of data to understand the value that analytics can provide.

The phrase "garbage in, garbage out" continues to be the norm. Few insurers have in place the needed components of people, processes, technologies or structure to manage data properly. Discussions over the past year with more than 50 P/C carriers regarding their readiness to be more data- and fact-based revealed that few are managing data successfully.

Two key highlights of the discussions are:

- Millions of dollars continue to be spent to achieve "one source of the truth" with limited "triumphs."
- While there have been some isolated successes with predictive analytics initiatives, many organizations do not have in place the proper

Key Points

- **The Background:** Few insurers have the needed components of people, processes, technologies or structure in place to manage data properly.
- **The Situation:** More than 70% of U.S. insurance carriers do not possess data management strategies.
- **What Needs to Happen:** Seven basic data building blocks are needed to place data into a position of "readiness" for business intelligence and predictive analytics use.

data management processes to take full advantage of these efforts for competitive gain, thus resulting again in unsuccessful attempts.

Without adopting a holistic and building-block approach to data management, insurers will continue to repeat the mistakes of having poor data to use in their reporting.

Insights and Themes

Comments received from several C-Level officers revealed the ongoing frustration and dismay with the data initiatives being undertaken by their organizations. A few examples include:

- "We have had two predictive analytics projects under way for over two years and have not been able to implement either." (CIO at a Midwest P/C carrier with \$1.5 billion in direct written premium.)

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• "We are up to our eyeballs with a pricing analytics initiative. The project status is good. Actuaries excited? Not very much." (CIO at a Northeastern P/C carrier with \$150 million in direct written premium.)

• "We have invested millions of dollars into an enterprise data warehouse but the contents are not trustworthy. I have no credibility in any of the information I get from it." (CFO, multinational P/C carrier with \$24 billion in direct written premium.)

• "I am unable to determine who our policyholders are. We are unable to obtain a single view of our customers. This lack of insight does not bode well for our ability to compete." (CEO/President of a regional P/C carrier with \$500 million in direct written premium.)

These executives continue to struggle with inconsistencies in key definitions for information, such as standard methods of calculation and methods of measurement for things like premium, loss ratio or claim counts. Many organizations continue to "speak different languages," or the same language with a different dialect. Several consistent themes have since emerged as to why business intelligence, predictive analytic and data warehousing efforts have not succeeded:

1) Lack of an organization-wide data strategy inclusive of the major components of people, process, technology and organizational structure.

2) Ad hoc and one-off data/analytic projects with no overall enterprise business intelligence vision in place or planned.

3) Business users did not understand their respective roles and responsibilities as they relate to the management and support of data. In effect, this: limited data governance processes and formal data quality programs; meant senior-level management awareness, support or participation in proper data management was missing; little sense of urgency prevailed within the organization regard-

ing data usage and data management; and data ownership was seen solely as an IT responsibility.

4) Limited understanding of what information foundation pieces were required.

Which Direction to Go?

While improvements in technology have been remarkable in the handling, cleansing and migration/integration and storing of data, the ability of most organizations to manage, analyze and apply data has not kept pace. In effect, information system technology architectures have not been developed with business intelligence and analytics in mind.

Even with new processing systems being marketed, sold and implement-

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ed today, many insurance carriers embrace a "best breed approach" with architecturally component-centered systems that continue to "speak different languages"—each having its own data models, data definitions, data formats and the like. At best, minimal attention is being paid to putting in place the proper foundation for data management processes, technologies and tools.

Gartner estimates that most organizations underestimate the costs and time related to data acquisition by 50%. Until the needed building blocks are addressed, carriers will continue to mismanage their data and be unable to provide the business intelligence and predictive analytic tools with the right fuel.

So how to address these ongoing issues? There are basic data building blocks needed for an organization to place data into a position of "readi-

ness" for business intelligence and predictive analytics use. These building blocks need to be proactively coordinated during and through implementation in order for companies to minimize data problems and to get to a "one-version of the truth" and a "single view of its customer" repository.

These are the building blocks of sound/basic data management processes and technologies that need to be sequentially and fully implemented:

1. Data/Information Governance Council.

This is a strategic decision-making body, comprised of representatives from all of the processing and support organizations within the company. This group directs and decides the company investment for data initiatives; how these investments are to be prioritized; sets the data standardization policies of the organization; and sets responsibility for appropriate data quality initiatives and data stewardship/ownership.

2. Enterprise Data Dictionary/Business Glossary.

An enterprise business glossary is the basis for the organization to speak the "same language." Confusion around the meanings of "claim count" or "earned premium" is addressed by a common data glossary. Development and administration of the organization's business glossary is an important responsibility and objective of the Data Governance Council for establishing an enterprise standard.

3. Enterprise Data Model(s).

There are various types of models that are used to create common meanings within the organization. Data models are graphical depictions of the organization's business. They assist with the definition of data and data relationships and provide the framework/methodology for all data sharing, master data and data warehousing efforts.

4. Metadata.

Metadata represents information

about data. It describes data elements; logs the data element's definition; the element's structure; rules around the data (such as how it is used, why it is used, area of ownership and others) leading to understanding the data.

5. Metadata Repository.

Metadata is best stored in a metadata repository that acts as a reference source to be used by the organization for understanding the data and its use in the organization. It provides insight into the data: where it is used, how it is used, its flow through the organization and the history behind data in the organization. Not only does this tool offer great advantages to business users and IT but also addresses the new regulatory and compliance requirements being placed on insurance organizations.

6. Data Quality, Cleansing and MDM Tools.

Profiling, matching and data scrubbing tools exist that help to synchronize and integrate data from multiple sources into a single, standardized and high-quality format. These tools create a golden record of data (single view of the customer, product and the like) and can help provide the clean fuel for analytic and BI use.

7. Data Repository(s)/Data Warehouse.

The processes and tools above allow for the placement of clean, integrated and understood data being loaded into a relational database, in many cases a data warehouse for end-user query and analysis. The repository/warehouse usually contains historical data from multiple systems/sources and can also be structured to include data from other/third party sources. It becomes the basis for analytics and BI for the organization and ultimately becomes the "one source of truth" for organizational reporting.

Data as the 'Fuel'

The foundational building blocks represent the owner's manual for

selecting the level of octane of the fuel (the data) to put in the car. Without these proper management tools and processes, data duplication, missing or inaccurate data and a host of other data quality problems will be prevalent.

In one particular case, an insurance carrier did not have these proper building blocks in place took more than 18 months to extract the needed data from its disparate operational systems to feed the predictive model it had purchased.

After putting into place the appropriate data building blocks, the carrier was able to extract the needed, high-quality data from its disparate operating systems for use in its analytics engine in just two months—a ninefold increase in time to market.

Studies have indicated that data quality and the wasted time that surround these issues, represent 6% of the revenue of a company.

Furthermore, these same studies revealed that the main cause of inaccurate and faulty data stems from the fact that many companies do not have an organizationwide data management strategy nor the necessary building blocks in place. In fact, more than 70% of U.S. insurance carriers do not possess data management strategies.

It is apparent that insurance carriers that possess and put into place proper data management strategies are the most profitable and efficient carriers in the insurance industry.

As companies begin their journey toward becoming more fact-based and data-driven, they need to keep in mind the need to have "clean fuel"—high quality data to feed the decision-making and analytic engines needed to compete.

Otherwise the sins of the past will prevail again and time, money and opportunity will be wasted. **BR**



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