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# Small Company, Modern Data Strategy

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**P**redictive analytics and big data have become buzzwords of the insurance industry and actuarial profession. Before companies can dip their hands into the ocean of big data, they need a solid foundation for managing and analyzing their existing internal data. This requires an infrastructure that acquires, integrates and manages the entire enterprise data resources. Many companies have been conducting actuarial and financial transformation projects for the past few years to establish this foundation, which has led to streamlined reporting processes, improved financial analytics and enhanced internal controls.

While large companies are busy with their technological and actuarial innovations, many small and medium-sized life insurance companies are still trying to figure out how to participate in the world of new technology and big data. This article will

outline why small insurance companies should act now to enhance their reporting and analytical capabilities, how to start a seemingly overwhelming project, and what critical factors are needed to ensure the success of such technological and business transformation projects.

Historically, many small companies have been successful by occupying niche marketplaces, providing high-quality customer service and enjoying a capital-rich operating environment. While the industry is gearing up for significant industry changes like principle-based reserves (PBR), some small companies have not felt the same pressure because of PBR's small company exemption. So do small insurance companies need to conduct transformation projects like the big companies have been doing? The answer is YES, and they need to start NOW, for the following reasons.

- The insurance industry has an aging sales force, which is projected to retire in massive numbers in the coming years. InsurTech startups have started their disruption of the traditional distribution model and are attempting to establish new relationships with the end customers. The niche markets that some small companies have been occupying will undoubtedly be affected by this sea change as well. The mom-and-pop approach to customer care will also slowly lose its appeal as the new generation of customers are more technology savvy and demanding of information at their fingertips. Small companies need to upgrade their front and back office technologies in order to stay in the marketplace.
- An increasing demand for better controls and risk management from regulators and auditors has been an industry theme for many years. As more states adopt the model audit rule (MAR) and modern risk management framework (i.e., own risk solvency assessment (ORSA)), companies need to enhance their reporting capabilities and streamline their reporting and control processes to meet the regulatory requirements.
- A changing marketplace brings challenges as well as opportunities. Some companies pursue rapid growth following a merger and acquisition (M&A) strategy. A robust data infrastructure is one of the prequests for successful business integrations and winning the M&A game.

Fortunately, many business leaders already recognize the need to change. However, they are hesitant to act due to the perceived large size of potential investment and the scope of the projects. In addition to the common industry issues, such as legacy administration systems and outdated data infrastructure, small companies may have additional challenges such as limited analytical capabilities and fragmented reporting processes. Some critical business analyses are heavily reliant on



capable individuals (mostly actuaries) and performed on desktop applications using personal computing technologies (instead of enterprise technology solutions). So is it possible for small companies to take on transformation projects? The good news is that the technological advancements in the past few years have created many different solutions and now allow companies to take a more flexible approach to such projects.

- Cloud-based database and computing technology has matured to the point that it is a viable alternative to on-premises hardware and software and their associated support costs.
  - The technology, architecture and best practices associated with data warehouse design are mature and well understood by practitioners. Cloud computing offers quick and flexible scalability. If architected correctly, a data management/business intelligence system can be implemented at small scale with modest cost initially and can grow quickly to meet expanding business needs. In fact, systems can be configured to scale dynamically up and down as data volume and computing loads increase and decrease at various times.
  - Significant data management and reporting benefits can be realized with a modest initial investment, allowing a re-engineering effort to be started without a large financial commitment. Since the effort can be started on a small scale, a great deal of the risk associated with a large, traditional IT project is automatically eliminated.
- Extensive cloud-based development can be undertaken by a very small team. Relieved of the need for space in the local data center, resources from a backlogged infrastructure support staff, and the delay required to obtain and install new server hardware, a few knowledgeable individuals can create a surprisingly extensive system. A nimble development team can also form a close relationship with the business units and provide quick responses to changing requirements. An agile project management approach will increase communication frequency, improve information handoff and shorten release cycle.
- The vendors of cloud-based database platforms have responded to modern regulatory requirements by implementing such features as database auditing, encryption at rest and geo-replication of data. These features allow an organization to meet Sarbanes-Oxley Act (SOX) and MAR requirements in their databases without the need to build and maintain such functionality themselves.
- Some administrative systems and software tools that companies have been using have added analytical capabilities as an extension to their existing systems. These new modules

can produce canned or customized visual analysis of the business data residing in the system. This allows companies to bypass data validation, because the analyses come directly out of those systems, and to produce control documents and management reports with a few clicks. While disparities among different systems still exist, this option can provide an immediate solution for data and analytical needs to companies as they explore long-term enterprise data solutions.

- Many InsurTech startup companies have come to the marketplace providing technology solutions to one specific area of the insurance business processes, such as application, sales management, underwriting, claim process, etc. Insurance companies can strategically select the areas that they would like to address and establish business relationships with these companies. Like other technology companies, InsurTech companies may not follow a traditional business model and may allow more flexible forms of relationships other than the traditional buyer-seller relationship; hence, a more flexible cost structure for insurance companies.

People in the “transformation business” know that transformations must happen in all aspects of the business, not just technology. Business process, organization structure and personnel need to go through transformations as well. The human factor is as necessary as the machine factor. Without one, the other will be unlikely to succeed. Companies need to train their existing staff and acquire new talents to accommodate the new processes. Actuaries, especially those who are the primary producer of the business intelligence in the small companies right now, can and should become the leading force of these transformations.

Last and most important, no transformation can be successful without a strong commitment and support from company business leaders. A visionary leadership, strategic investment and commitment to success will take small companies to the brave new world of big data and predictive analytics, and find business growth and success in the new era of the insurance industry. ■



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