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# Spreadsheet Controls Add Risk Resilience

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**D**ata is the foundation of an actuary's success. But what happens when the data, typically located in spreadsheets (from which analysis is based), is inaccurate or incomplete? This article will discuss common causes of data integrity issues relative to spreadsheets. It will also offer insight into controls that can be utilized to help actuaries solve these issues and ensure the accuracy and consistency of the data on which they base their analysis.

## DATA IS MIRED IN ARCHAIC, INFLEXIBLE SYSTEMS

Excel spreadsheets have stood the test of time because they continue to meet the analytical needs of actuaries, especially for analyzing and providing evidentiary support for decision-making. For complex calculations where data is continuously changing and for those that require the use of cell functions, Excel is often the go-to tool that actuaries use to get the job done. Yet many of the current techniques and tools used to manage spreadsheet data are either manual processes or homegrown systems. Both approaches are difficult to use and nonresponsive to rapid business change.

For example, rudimentary, last-generation “compliance checkers” often end up as shelfware. Even if compliance checkers are successfully implemented, they cover only a small amount of the total exposure and businesses end up explicitly or implicitly “self-insuring” this ever-growing risk. The exposure, coupled with a restrictive tool set, leaves actuarial teams spending far too much time being risk-reactive, focused on finding and reacting to risk rather than managing and reducing it.

Another issue is outdated data management tools. These archaic tools lack the insight actuaries need to maintain accuracy and compliance and lack the functionality needed to be truly responsive to risk in today's increasingly complex and volatile business environment. Respondents to a recent survey by McKinsey and Company<sup>1</sup> acknowledged that their enterprise had not yet adequately implemented emerging best practices that build their resilience to respond quickly and competently to late-breaking circumstances. Because existing data management systems can't



capture the incoming and potentially damaging information, their company has no opportunity to respond when it doesn't know the risks it now faces.

## NEW LIFE TO AN AGING TECHNOLOGY

Since their introduction, spreadsheets have provided exceptional insight into data sets, facilitating analysis across each section and category of the document. However, along with an advancing digital age, Excel has been labeled as an aging tool unable to manage increasingly complex data metrics and forms, most of which don't fit neatly into its trusted cells. Not only are traditional spreadsheets not configured to adapt to new data models, but as a stand-alone tool, they are also notoriously fallible.

With the recent addition of automated intelligence (AI) capabilities to Microsoft Office 365, spreadsheets have been given new life. Microsoft has been steadily rolling out new Office 365 AI capabilities—most notably Insights in Excel, which automatically detects and highlights patterns. It analyzes large, complex data within Excel and does so significantly faster than a single human being could. Because it is powered by machine learning, Insights in Excel will provide increasingly advanced analysis as use of the feature grows over time.

While this is exciting news for actuaries, the risk exposure synonymous with Excel remains the same, particularly when building models using AI. Now, however, there is an added risk when relying on Microsoft's models and assumptions—and the assumption that spreadsheets are accurate. Average users will likely click on the Insights button and be thrilled with the new AI-powered charts that Excel now provides, without understanding the possible implications. An equally alarming issue, especially for compliance-driven organizations, is the lack of transparency.

While it's easy to envision the advantages that can be gained using AI, users must proceed with caution. While not all transparency issues can be solved, there are some steps users can take to minimize potential issues—and spreadsheet issues in general. A solid first step is to put controls and technology in place to ensure that the data from which actuaries base their analysis is accurate and complete.

### REGAINING CONTROL

Fortunately, advances in technology enable actuaries to overcome many of the aforementioned spreadsheet issues. Automated risk and analysis solutions provide much-needed insight into potential risk and errors that may be hiding in spreadsheets. Yet most organizations don't utilize spreadsheet management solutions simply because they are unaware this technology exists.

Taking a methodical approach to understanding where risks may hide is the first step in managing spreadsheets across an organization. Spreadsheet management solutions offer detailed insight into spreadsheets regardless of where they reside on a network or how many exist. These solutions provide actuaries visibility into who is working on a file, how many people are working on it, when something changes, what changed and who made those changes. Monitoring and tracking this (workflow) information over a period of time provides valuable insight into whether policies are being met. At the same time, it's significantly easier for actuaries to identify potential risks. The ability to document this information enables actuaries to demonstrate that they are following policies and procedures and that they have the right checks and balances in place.

Automation capabilities reduce time-consuming, error-prone manual processes. Spreadsheet management technology features automation capabilities that test for accuracy in both formulas and calculations and seek out documentation that tracks the sheet's functions. They also identify a lack of audit controls, access authority and other critical oversight mechanisms so changes can be made to repair those gaps. With automation, actuaries can count on consistent risk management oversight across all corporate spreadsheets.

### ACHIEVING RISK RESILIENCE

Spreadsheet controls add risk resilience, a state in which actuaries are able to quickly iterate processes in a way that boosts flexibility and agility, no matter what is thrown at them. Applying automation gives actuaries speed, scalability and transparency into information. Work is more easily standardized, improving overall performance and alleviating employee fatigue. Out-of-the-box solutions make it easy to adjust practices when requirements and expectations change.

When actuarial teams have the visibility and control they need to manage risks, they are more engaged, productive and valued. By anticipating change-driven needs, actuaries can respond agilely. Using a modernized approach to spreadsheet management and intelligence enables actuarial teams to plant themselves firmly in a risk-resilient posture, which is necessary to succeed and grow.

Want to learn more? In the next issue of *CompAct*, Diane will offer even greater insight into spreadsheets and risk resilience in Part 2 of this two-part series. Stay tuned. ■



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### ENDNOTE

- 1 How to create an agile organization. mckinsey.com, October 2017, <https://www.mckinsey.com/business-functions/organization/our-insights/how-to-create-an-agile-organization> (accessed March 2, 2019).