WHY SPREADSHEETS ARE RISKY BUSINESS

WHITEPAPER

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ABSTRACT

Spreadsheets are the killer application of our time, but their very success has led to overuse and even misuse of this technology. This can actually increase a company's risk profile because data maintained on spreadsheets is unstructured, unsecure and cannot be shared with key decision makers. Strengths and weaknesses of spreadsheets in the area of risk management are reviewed, and suggestions made for the integration of spreadsheets into structured applications.

Spreadsheets are risky, why add them to your Risk Portfolio!!

In the wake of the worldwide market upheavals of 2008 and 2009, managing risk has become a critical issue—if not the paramount issue—for financial managers. As they seek to avoid repeating past mistakes, they must determine how to manage not only historical risks, but also new and emerging risks. And they must respond to a changing regulatory environment that calls for greater operational transparency. This paper looks at the serious limitations of spreadsheets as a risk management tool and the necessity for complex software solutions for effectively and efficiently administering organizational risk.

The iPhone of Risk Management

The iPhone has revolutionized the mobile communication landscape and has reduced hundreds of mobile handsets to dust. So, what's the modern day iPhone for effective Risk Management? It's certainly not the spreadsheets anymore, nor is it the collaborative Microsoft SharePoint. Given the complexity of risk management which involves greater participation from across the organization, a reliable process to capture risks, and a mechanism by which to document and administer the organization's response, a risk management software solution has become an inevitable requirement. Using spreadsheets for identifying the critical risks of the organization across functions, business lines and geographies, establishing the relationships and interactions between them, documenting and tracking how they evolve over time and all the while trying to communicate a synthesized version to the CXOs and the senior management is like watching a TV without a remote. You will be able to watch your favorite shows, but you'll truly understand your need for a remote and a comfortable couch in a real way!

The Good Old Spreadsheets

Before you think that I am an anti-spreadsheets lobbyist, let me make it clear, I use Spreadsheets almost every day. The spreadsheet—that wonderful, two dimensional, rows and cells everybody in the world knows how to use, the "All-In-One" toolkit of data manipulation and analysis. The spreadsheet empowered us to expand our understanding of the business world and our impact on it; it democratized business by extending into the masses a multipurpose tool of business planning, analysis, what-if scenarios, along with a world of fonts, colors, lines, boxes, and shadings to make the ugliest profit and loss statement look beautiful.

Spreadsheets for Risk Management – Ahem!

Spreadsheets are a vital business tool - they close the gap between the information you need and what your central processing systems can deliver. But this flexibility comes with cost, risk and occasional fraud leading to financial and reputational damage. A simple search in your company may be surprising, as it will likely reveal thousands, if not millions, of spreadsheets in use. Do you know who manages them? What is the purpose of these spreadsheets? How reliable are their calculations? Who ensures the results they produce are valid?

Spreadsheet is not just an incompetent tool for risk management, but is a risk in itself. Spreadsheets grow. Over time, they become huge and complex, they become difficult to manage and maintain. A study by PWC claims that a spreadsheet with more than 300 lines has a 100% chance of error. Current risk management strategies and instruments today are complex and that significantly increases chances of human error. Spreadsheets also lack accessibility to roll-up information into an enterprise wide picture. This is a critical barrier to systematically identify dependencies and track change. Spreadsheet data is unstructured and is largely inaccessible to infrastructure tools like business intelligence, content management and business process management functionality and the cost of maintenance of this data is unreasonable. Data security in spreadsheets is questionable and it is very difficult to prevent unauthorized changes and almost impossible to eliminate version control issues and concerns over passing spreadsheets back and forth—oftentimes through unsecure e-mail systems. There is almost no spreadsheet software quality assurance and people who create or modify spreadsheets are almost entirely self-taught. They also do not enable collaborative working and the ability to share information based on prior incidents or experiences. Spreadsheets lack the ability to be audited, something that the Sarbanes-Oxley Act targeted. The regulatory pressure and increasing focus from auditors on higher standards of accountability and transparency brings a headache to risk managers during every closing season.

Get Up and Take Control – Move to a Risk Management System

Having a specialized risk management software system not just beats the most evolved and complex spreadsheets, but delivers a broader solution that not only makes the process more responsive and

effective, it also enables the organizations to optimize risk and empower the managers to participate in the risk management process.

Manage the Burden of Compliance – Accurate and effective implementation, management and monitoring can be easily accomplished with a specialized risk management system. They provide for reports to jump over the hurdles an organization faces from myriad agencies including SEC, FDA and others.

A picture speaks a thousand words – An expert software system provides for easy-to-understand 3D visualizations of risk through different kinds of charts and graphs. These deal a body blow to the tabular 2D structure of spreadsheets data. Charts with different colors and views can help understand the risks, analyse their relationships and study their cumulative impacts. In addition, the system presents a dashboard view that builds itself for each individual user and provides them with relevant overviews of their reports and responsibilities.

Build your own tale – Every company, unit and department has special and exclusive reporting requirements. In addition to providing out-of-the-box reports, a system will allow for building reports by pulling together key data. One could save and share these custom reports so that these are available in future with a click of a button.

Providing answers to Who, When and What – A specialized risk management system tracks and records every detail of every action made by any user, which is unattainable with spreadsheets. Dates, times and explanations are recorded as well, making it very simple to ensure the security and integrity of data.

Create a community – Spreadsheets don't create a community of risk intelligence to be shared or used for future analysis. An online system helps users make "risk-adjusted" decisions and invite subject matter experts into the process of identifying, prioritizing, and responding to risks. It supports collaborative risk management by identifying risk owners and items associated with the risk, sharing data among the units, and picking up from prior actions used while handling similar risks.

Build a firewall – Security and access control are critical aspects of any software system. A system designed with these concerns as vital components is a fine system. To preserve sensitive and confidential information, a system can have multiple levels of access controls. Systems cater to the requirement that not all users require access to all the components of a system. Also, securing data should be left to the experts and not to risk managers.

One size does not fit all – Every organization has specific processes and procedures that have evolved over time based on experience and company's know-how. And each process is right, if it serves well. A top-of-the-line system caters to configurable processes and customizable workflows so as to provide for organization specific risk assessment and handling procedures.

Need a polygot – Many organizations have disparate systems and/or spreadsheets spread out across departments and units that need to be consolidated to bring out data required for risk management. A system has the ability to map to these different core processing systems and extract out the information required to standardize a common risk language. From data import capabilities to

automated data feeds, a significant amount of valuable time can be shaved off the entire process by using a flexible system.

Instant results and additional services – A real-time system records, registers and updates risk information as it happens, and uses it to re-calculate risk matrices immediately. It gives users easy access to input and view their data, take periodic backups, track and version changes and alerts for possible pending actions. Availability of an online system is also much better, even if it is with the company's firewall or over the Internet.

"Hidden costs" Read the fine print – Spreadsheets are cheap. A robust system will be much more expensive at the start, but in the long run, one would realize the "hidden costs" of spreadsheets. As risks grow, and the desire to understand, monitor and measure them in more detail increases, you need other tools for modeling, reporting, project management, versioning and collaboration. All these would again need to be integrated to work together. Add all of these up and you will realize that spreadsheets are not a bargain deal.

Tying the Knot – Uniting Spreadsheets and Systems

There is no doubt that the spreadsheet is not going away any time soon. It's in our blood, so what do we do? Rather than making a decision of This "Vs" That, it will be optimal to have This "And" That. A solution for maximized efficiency and peak performance needs to be a hybrid solution - a solution that can marry spreadsheets with a software solution. Major players like Microsoft and Google that are in the online productivity suites are providing solutions that allow for a "cloud-based" spreadsheet environment. If softwares are able to harness these features and plug the cloud spreadsheets in, a very powerful solution can be built.

As stated earlier, each organization has custom processes and procedures and over time, they have been well defined on spreadsheets. I have come across various client spreadsheets that embed complex macros and formulae that help them in efficient risk analysis. The logic embedded in these spreadsheets continues to evolve based on new inputs, experience, change in processes and newer regulations. Accommodating any change across all of the thousands of spreadsheets in an organization is a nightmarish scenario. Many times, slight improvements in the process are discarded just because adapting to the change is a huge undertaking. For a software system to mimic the spreadsheet logic and keep updating itself is not a simple proposition either, although it is much easier than spreadsheets.

An elite solution would be for users to prepare a spreadsheet template with their macros and formulae, but let the system use it for its evaluations and analysis. It is easy for users to create the logic and define the process around it and hand it over to the system to run the calculations over and over again and report back the results. The system houses structured data, it can send it over to the spreadsheet, let the computations happen there and then bring back the results for further steps. A software system is very well-suited to run repeated tasks with 0% error-rate, a huge improvement over humans. Using this approach, a system gets the best of both worlds. It is a consolidated and structured system, capable of roll-up reporting, collaboration, versioning, controlled access, and many more, but

at the same time it can leverage a whole bunch of customized formulae and processes that is in control of the user. The user defines, the system follows!

SUMMARY: THE WAY FORWARD

Although the Risk Management technology industry continues to evolve, there are very few true enterprise risk management software solutions in the market that deliver the ability to visualize risks and provide a platform for risk analysis and valuation in a flexible process oriented manner packed with a bundle of regulatory reporting requirements. The advent of "cloud computing" is bringing the SaaS model to the forefront of technology delivery, changing the cost model of application development and services to the industry. If finally what you want are informed managers, satisfied auditors and happy users, you need to move beyond spreadsheets and adopt an appropriate and suitable risk management software solution.

About the Author

Abhinav Kothari is a Senior Consultant at ARMtech. Over the last 3½ years, he has led many efforts in designing and building innovative on demand web-based financial systems. He has vast experience in successfully leading project teams and delivering diverse large-scale enterprise technology solutions. Prior to ARMtech, Abhinav was a Senior Technical Lead at Larsen & Toubro Infotech Ltd. where he architected and delivered applications for clients such as Procter & Gamble, Audible Inc. and Eaton Corp.

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