

MOVING BEYOND THE SPREADSHEET: Unlocking the Latest Technologies to Drive Performance-Based Management

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INNOVATIONS BRIEFING

Executive Summary

2008 marks the 30th anniversary of the release of the Excel® spreadsheet. This 30-year old technology is still at the core of many organizations' performance management efforts and falls short of today's demands for transparency and accountability. This whitepaper explores the many process issues and business consequences of widespread spreadsheet use in business and government and recommends that organizations adopt a comprehensive performance management system.

Major Process Issues with Spreadsheets:

- Errors from manual intervention
- Lack of automated data population
- Problems with roll-up for planning and management purposes
- Time-consuming reporting
- Limited auditability and security
- Poor visualization and utility

Business Consequences of Process Issues:

- Poor decision-making based on erroneous performance information
- Limited line-of-sight to agency mission and goals jeopardizes alignment
- Regulatory and compliance failures
- Inability to manage dynamically, be responsive to real-time conditions
- Limited understanding of cause-effect relationships



Shifting from Spreadsheets to True Performance Management

Key Recommendations

1. Establish Goals and Measures that are tied to the Strategic Plan

Effective performance management starts with a comprehensive top-to-bottom performance improvement plan. Linking mission goals, quantifiable outcomes, measurable strategies and key output metrics to the strategic plan is essential to executing strategy and engaging employees.

2. Adopt a Performance Management System that Ensures Sustainability

Deploying an enterprise-wide performance management solution for management and line employees helps to institutionalize the performance management process and, therefore, is an important factor in the long-term success of government programs.

3. Implement Regular Executive-Level Performance Review Sessions

Reporting results in regularly scheduled, high-level performance review sessions is a key action-forcing mechanism in the organizational adoption of a performance management system.

4. Adopt a Positive Change Management Approach to Implementation

The largest cultural hurdle in moving from spreadsheets to true performance management systems is fear of transparency and accountability. For success to occur, the system must be supported largely through positive reinforcement and not the fear of retaliation, blame or other negative consequences.

ABOUT THE AMERICAN STRATEGIC MANAGEMENT INSTITUTE

The American Strategic Management Institute (ASMI) is the nation's leading authority on measurement and management methodologies for improving individual and organizational performance. ASMI's mission is to identify, study and disseminate the leading strategic management and performance measurement practices pioneered by best-in-class organizations.

Introduction

In 2004, the historical records of a US governor's entire tenure in office were lost due to a simple spreadsheet error. That year, the records of former Wisconsin Governor Tommy Thompson were supposed to be sent to the Wisconsin Historical Society for preservation. Instead, the records were sent to a local paper mill and promptly shredded. The resulting investigation concluded that an employee had incorrectly adjusted a spreadsheet listing records that could be destroyed and records that should be retained.¹

Over the past 30 years, organizations have seen momentous change, including a drive towards performance-based management and the adoption of sophisticated reporting tools designed to help manage performance and demonstrate results to citizens. Increased scrutiny from the media, volatile shifts in operating environments and an epidemic of budget shortfalls have all left very little "1970s technology" in place.

Except for the (still) prominent use of Excel spreadsheets.

In spite of more recent technological advancements, the same spreadsheet technology of 1978 remains the performance manager's principal data management tool in many agencies. Executives continue to collect data from non-automated sources, and

¹ How history hit the shredder. *Wisconsin State Journal*. www.madison.com. June 5, 2004.



fail to adopt comprehensive platforms. Such widespread use of spreadsheets to collect and report performance information hampers the organization's ability to capitalize on its analytic potential and puts agencies at risk of underperforming and failing to meet compliance requirements.

In more recent years, advancements in technology and connectivity have fostered an environment of accountability and transparency not possible 30 years ago. New communication interfaces, made possible by the development of intranets, email and corporate networks, have opened the door to the creation of cutting-edge performance management technologies. The adoption and implementation of a comprehensive performance management system is a key indicator that

an organization will use evidence, rather than intuition, to drive both long-term strategies and short-term tactical decision-making.

However, the real problem we face today in both private and public sectors is cultural, not technological. Management faces major roadblocks when implementing initiatives geared towards fostering accountability through an accurate, timely and unified approach to performance management.

This whitepaper explores how a technical shift from the individual's desktop towards a comprehensive performance management system enables an organizational shift from the simple collection of data to true management, driven by strategy and results.

Detailed Analysis

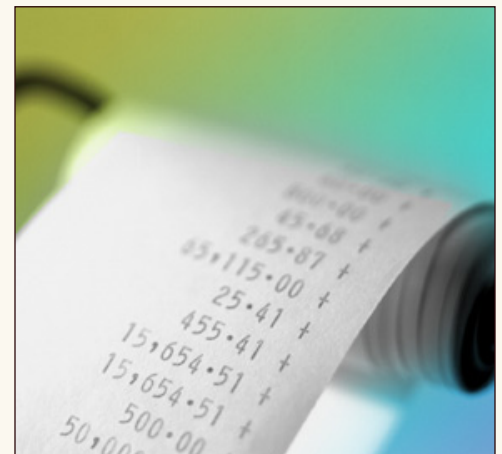
Erroneous Performance Information Leads to Poor Decisions

Uncontrolled errors are a widely documented issue in spreadsheets. ComputerWorld™ has reported that 9 out of 10 spreadsheets contain at least one error. While individuals perceive

these errors as minor, consider what happens when single errors are combined as data is rolled up to the enterprise level. The inaccuracy of information grows exponentially. The result is a precarious gap in perceptions: line managers have a much more accurate view of reality, while executives see the performance of an organization through a deceptive lens.

And then consider this...what unintended consequences could result when an executive makes an important decision about the future of your agency based on inaccurate information?

In many agencies, using spreadsheets to manage performance may be worse than no performance management program at all.



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Detailed Analysis

Spreadsheet Silos Jeopardize Alignment

High performing organizations that effectively utilize performance management share a common characteristic. They use carefully designed and reported data sources which enhance the ability of management to understand the interrelationships of key indicators throughout the enterprise. However, inconsistent interpretation of data by senior management is a frequent obstacle in performance management initiatives. The use of spreadsheets, which are siloed and largely unmonitored, amplifies this problem. One user with one spreadsheet can invalidate the communication of information, not just between individuals, but among entire units, divisions and even entire geographic

regions. Incorrect specifications, biased or agenda-driven spreadsheet design and vague collection directives result in alignment issues which radiate throughout the organization.

Beyond simple misinterpretation, however, use of siloed file-management systems put “blinders” on individuals, work groups and divisions. The result is a phenomenon known as limited line-of-sight (the impression that an individual’s activities and performance impacts only the person doing the work). To the contrary, aligned organizations can show a clear linkage between activity and results across multiple individuals and functional areas.

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Auditability and Compliance at Risk

Audit and compliance requirements also prohibit the use of spreadsheets because of the inability to view and track data changes during the reporting process.

Spreadsheet limitations that can result in noncompliance include simple problems like the lack of cell-locking and wider issues like uncontrolled access and data management.

The siloed data-chain nature of individually controlled spreadsheets further increases the risk of noncompliance. In almost any medium to large organization, original-source spreadsheets become unverified data sources for higher-level reports. For that reason, an organization which uses spreadsheets for any purpose beyond low level reporting will be unable to comply with the strict reporting structures required by Sarbanes-Oxley, International Accounting Standards, International Financial Reporting Standards and similar regulations.

Compliance issues resulting from the use of spreadsheets regularly impact organizations across the spectrum of public and private sector.

One of the most visible issues was uncovered at the National Aeronautics and Space Administration (NASA), now regarded by many as one of the best managed departments in the Federal Government. In 2000, according to testimony to the House of Representatives provided by the Government Accountability Office (GAO),

“congressional staff members found a \$644 million misstatement in NASA’s fiscal year 1999 financial statements—an error not previously detected by NASA or its



independent auditor.”

The discovery led to years of follow up investigations by the GAO and mainstream press attention and was the result of a single spreadsheet formula error.

NASA was by no means alone, and such widespread errors in financial reporting have led to the development of more robust technologies being applied to the problem.

The automated management of performance reports featured in the latest performance management solutions can help avoid similar compliance issues.

‘Compliance issues resulting from the use of spreadsheets regularly impact organizations..!’

Detailed Analysis

Dynamic Organizational Change Requires Timely Performance Reporting

High performing federal, state and local agencies are currently experiencing a shift to more timely short- and intermediate-term measures. While long-term outcomes can be developed through program and project evaluations, quickly addressing short-term tactical issues is seen as increasingly important given the dynamic operating environments brought about by a volatile economy.

Today, with a much greater emphasis on “real time” dashboard reporting, the ability to view and automatically deliver data is vitally important. In the early stages of government’s experiment with performance management, agencies primarily used performance measures as indicators of long-term trends. Best-in-practice organizations are now working to focus more rapidly on performance shortfalls in order to provide corrective action before tactical misalignment becomes a bigger organizational issue.

Examining performance shortfalls using spreadsheets is time-consuming and inefficient because of the arduous process required to generate high-level reports. Even with static



reports which do not change over time, report generation is a lengthy process. Creating a report on a spreadsheet requires manual entry, non-automated collection of data from lower-level reports, formula generation, and verification that source data is accurate. When senior management needs an important new report on an underperforming program, the process by which the spreadsheet user designs, presents and assesses data is lengthy by its very nature.

On the other hand, modern business intelligence applications allow information to be presented in whatever timeframe is appropriate (daily, weekly, monthly etc.), with built-in alerts when thresholds are met, to provide the proper personnel, directors and/or managers with up-to-date, often “self-service” views of the current situation. The result is data-driven decision-making based on the latest and most accurate information.

Enhanced Visualization Improves Understanding

From the corporate boardroom to entry-level employees, the need for enhanced visualization in data and performance measures is evident in all organizations. We are now living in a technologically sophisticated business culture that relies on clarity and standards. Represented through intuitively designed color schemes and symbols, comprehensive, next-generation performance management platforms show meaningful and customized comparisons and trends which contextualize performance information for the individual, and enhance the decision-making process.

Industrial psychologists are now finding even more evidence that the use of ambient information, which utilizes simple red, yellow and green color schemes to provide at-a-glance performance updates, is a subconscious trigger for employee action that has led to demonstrable increases in the quality of government services.² The latest performance management solutions employ this color-coded performance information in a “drill-down” hierarchy in order to provide the users with a clear visualization of the entire organization’s performance. Such visualizations highlight the cause-and-effect relationships

between an individual’s activities and the overarching performance of the organization. The combination of action-provoking mechanisms and clear line-of-sight vision drives the entire organization towards the execution of strategy. Many factors, including lack of connectivity and basic visual limitations, prevent spreadsheets from providing this type of strategic drive.

Beyond enhanced usability and line-of-sight clarity, business intelligence and performance management tools can also tailor performance information to match the strategic framework utilized by an individual agency. Matching performance reporting to the strategic framework ensures consistency in tracking and evaluating information in appropriate timeframes, accurately customizing the way information is presented and correctly choosing the type of reports to be produced. Spreadsheets are not designed to support strategic frameworks, but to show tabular data in a report. Performance management and strategic planning are two sides of the same issue. Together they plan and provide evidence of where the organization is heading. Spreadsheets capture only a slice of this complete story and fail to create the linkages between strategy and vibrant daily measures which drive execution in high performing organizations.

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² National Public Radio, Future Tense, American Public Media, November 2006

Detailed Analysis

Performance Management in Real Life

In 2002, a large organization³, with more than 13,000 employees in 10 regions around the country came to a major Performance Management decision. With operations in all fifty states and abroad, it was no longer efficient or effective to allow separate divisions and regions to report individually using their choice of spreadsheets and presentation software. Executive Management was clearly disappointed by the variety of tools used and the low quality of data validity. Remarks to the Chief of Staff and Performance Management team communicated that it was taking so long to decipher every different chart and tool, they ran out of time to actually use it the information and make data-driven decisions.

After tasking the Performance Management team to research all available software options, Executive Management stressed three main attributes they was looking for:

1. Valid and verified data at all levels, with an emphasis on automated data.

3 Actual agency name intentionally left anonymous.

2. Transparency for every employee into organizational performance, meaning a web based system that allowed all employees access to all organizational measures.
3. Accountability and real-time decision making – Every measure needed a point of contact who would be accountable for answering questions and interpreting the data. The measures needed to be updated as quickly as possible as needed to inform the agency decision-makers, who would now meet regularly for Quarterly Performance Reviews.

Five years later, the organization has been recognized as a performance leader, the system has outlasted the leadership team that introduced it and valid, quantifiable measurement is taking place at all levels from the long-term strategic all the way to the individual employee.

A comprehensive performance management solution brings together the individual threads of

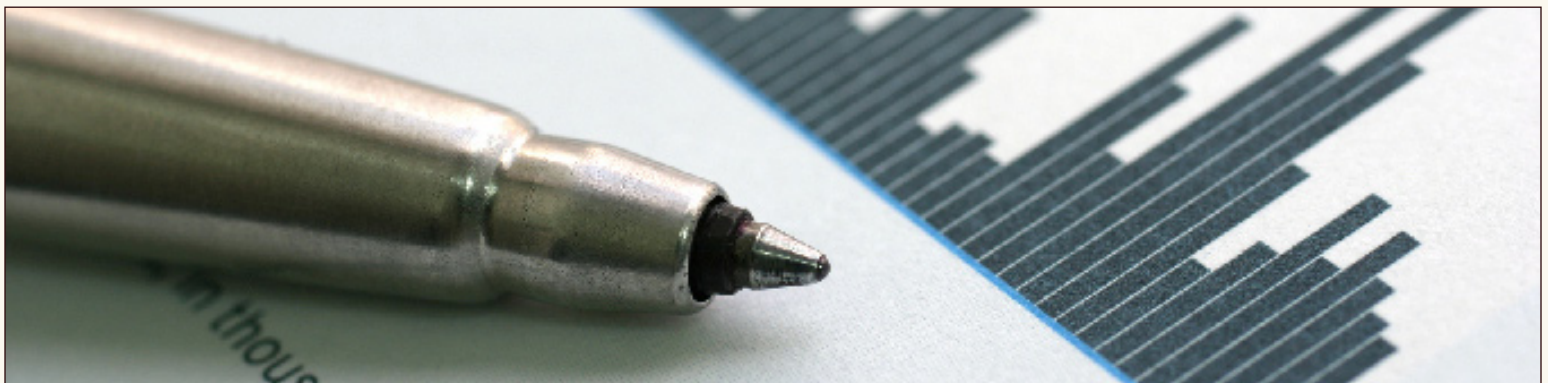


The Bottom Line: Creating One Performance Solution

organizations to form a complete picture. And it does so without the mire, risk and management challenges endemic in spreadsheets. The emphasis moves from where “I’m going” to where “we’re going” and creates a new way of solving problems, thinking about enterprise-wide outcomes and dissipating stovepipes. A true performance management solution offers the entire organization a common and shared vision of key data and important performance information. Most importantly, the accurate, timely, and visually enhanced data forms the

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map for which the entire organization can move towards the future vision and ultimate success.



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