

Beyond Spreadsheets: The Value of BI and Analytics

Spreadsheets represent one of business' most compelling conundrums. While the technology remains one of the most popular and ubiquitous applications ever to be unleashed, spreadsheets are also characterized as a 'clear and present danger' when it comes to information, security, and risk management. Aberdeen's research has shown that organizations are facing pressures to deliver information that is timely and effective in meeting business goals. This requires companies to have access to the information, the ability to combine, aggregate and integrate this information, and then deliver it to people when, where, and how they need it.

No matter the popularity or ease-of-access to spreadsheets, if used improperly and not controlled, they pose a threat that is larger than most people can imagine. Aberdeen's Business Intelligence (BI) research practice conducted surveys of over 4,500 companies in the 18 month period between June 2007 and December 2008. This research has revealed that there is a role for spreadsheets to play, and also several instances in which spreadsheets should not be used. This Analyst Insight provides a view into this research and presents information and recommendations to help end users and management determine the right approach toward determining when BI and analytics technology should be considered versus allowing continued use of spreadsheets.

The research revealed that the IT and BI skill sets required to meet this demand are in limited supply, resulting in delayed, over-budget projects lacking the data and information necessary to meet business goals. The perceived complexity of BI tools has led some organizations to 'look the other way' and allow users to fall back on their spreadsheet habits. Not only does this perpetuate the risks associated with uncontrolled data use (often referred to as "spread-marts"), but it also severely limits an organization's ability to achieve a Return on Investment (ROI) from their BI expenditures.

Business Context

Spreadsheets remain the predominant technology in use today for reporting, analysis, budgeting and forecasting purposes and are used at uniformly high levels by all companies, regardless of competitive status. Aside from email and word processing applications, spreadsheet software is the most popular and widely used software in the world. Many end-user organizations have been incorporating spreadsheets into their BI strategies from the beginning, and in many cases, BI capability is based on spreadsheet functionality. Aberdeen research has found that 32% of Best-in-Class organizations - those reporting the top 20% performance across several

Analyst Insight

Aberdeen's Insights provide the analyst perspective of the research as drawn from an aggregated view of the research surveys, interviews, and data analysis

"We simply use Excel spreadsheets because they are familiar to everyone, and there is very little training required. One of the downsides to this approach is that we continually have to audit the data and determine if there have been mistakes or corrupted formulas."

~Operations Director,
Mid-Tier Health Services
Organization

metrics - reported a direct impact to revenue through increasing the number of people in the workforce with relevant BI skills sets. Meanwhile, Industry Average performers (the middle 50%) and Laggards (the bottom 30%) have remained reliant on the use of spreadsheets, and are less than half as likely to emphasize the growth of BI skill sets in the organization. Aberdeen Group has extensively researched companies' use of spreadsheets within a variety of BI environments. In fact most BI products in the market today include an "export to spreadsheet" function as a standard feature. End users report that the ability to export data to spreadsheets is among the top criteria when it comes to the purchase of BI technology.

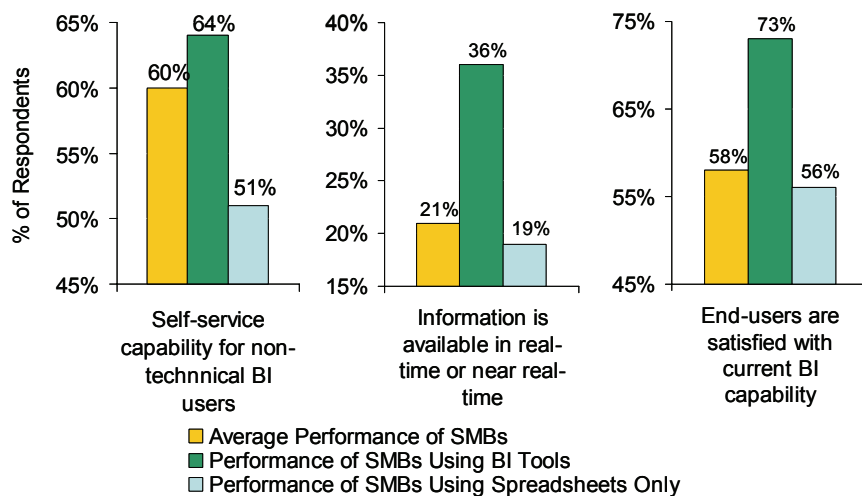
The Role of Spreadsheets in the SMB Market

Aberdeen's prior research demonstrated that organizations lacking in relevant BI skill sets were poorly positioned to drive value from an analytical solution. This notion weighs heavily on the minds of Small to Medium sized Businesses (SMBs) due to the fact that many SMBs lack the resources to develop and nurture those types of specified competencies. However, Aberdeen's October 2008 benchmark report, *Business Intelligence for the Small to Medium Sized Business (SMB)*, demonstrated that the top performing SMBs were able to drive substantial performance improvements through their use of BI and analytical tools. The question is: what tools were they using? As might be expected, spreadsheets play a key role in the SMB market as they do at the large enterprise level as well, but the research shows that Best-in-Class SMBs were using BI tools (traditional on-premise client-server BI, web server based, BI incorporated into enterprise applications, BI appliances, etc...) at a far greater rate than all other companies. The research also shows that SMBs using some type of BI were performing at a higher level than those that reported that spreadsheets were their primary BI tool (Figure 1).

Best-in-Class Performance

Aberdeen's research reveals the strategic and tactical actions that Best-in-Class companies are taking versus their industry peers. Best-in-Class (top 20% of performance), Industry Average (middle 50%) and Laggard (bottom 30%) status is determined based on the level of performance that survey respondents are achieving. Aberdeen used several performance metrics to establish this benchmark, including budget accuracy, percent of overall revenue and margin growth, employee productivity, customer retention, and several other KPIs.

Figure 1: Primary Usage of Spreadsheets Causes Below-Average Performance for SMBs



Source: Aberdeen Group October 2008

While it is accepted by many respondents that spreadsheets are suitable as input data sources, Best-in-Class companies are far less likely to use them for budget consolidation purposes, or as a method of communication and data transfer throughout the process. Respondents interviewed for Aberdeen's April 2008 report *Financial Planning and Budgeting* agree that the likelihood of data corruption and human error is greater when budget and forecast information is shared within spreadsheets. Aberdeen research has revealed that these activities are far more likely to occur at Industry Average and Laggard companies where accuracy, agility, cost control, and timeliness are suffering. Spreadsheets, therefore, have their place in the budgeting process, but can also be the cause for serious problems.

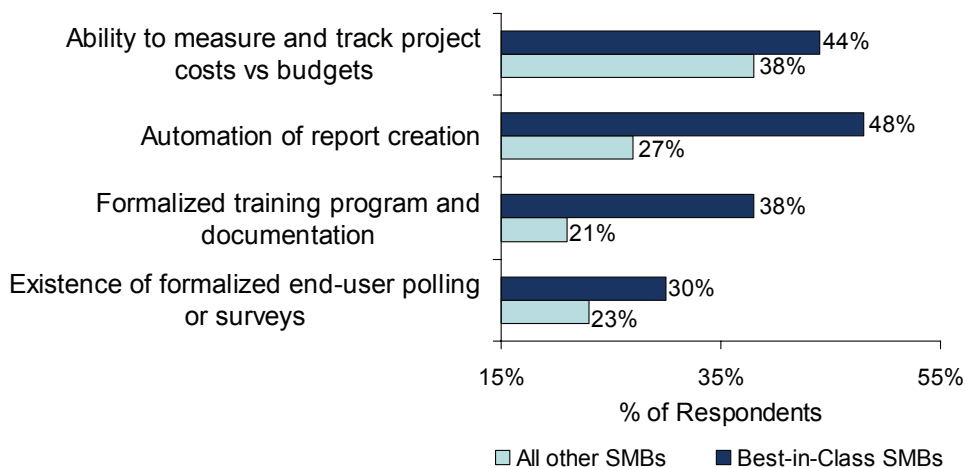
"BI is the next area of focus for our organization. We are able to pull data from our data warehouse into spreadsheets, but we need something more visually compelling. We want to tie the budgeting process to the ability to track KPIs and link / cascade them down through the organization. This will increase visibility and improve budget awareness and accuracy in the long run."

~ CIO, Mid-Tier Food and Beverage Distribution Company

What is the Value of BI versus Spreadsheets?

As information flows more freely in the business world, decisions need to be made more quickly and based on sturdier data. The analytical capability that was once reserved for large enterprises has now permeated the world of SMBs and provided a solid foundation of visibility into what really matters to these companies. Aberdeen's research shows a marked uptake in the use of BI solutions in the SMB market over the past year. In order to position an organization to drive value from a BI solution and move beyond spreadsheets, a strong foundation of organizational capability is required. For example, despite the mid-tier nature of these companies, SMBs using a BI approach are also 44% more likely than their spreadsheet-using counterparts to have well defined skill sets related to the delivery of actionable information. Perhaps even more telling is the notion of automation. According to the research, SMBs leveraging BI are 38% more likely than those using spreadsheets to have the ability to automate the generation and delivery of reports to end users.

Figure 2: Best-in-Class Internal Capabilities



Source: Aberdeen Group, October 2008

Fast Facts

Top factors preventing SMBs from deploying BI:

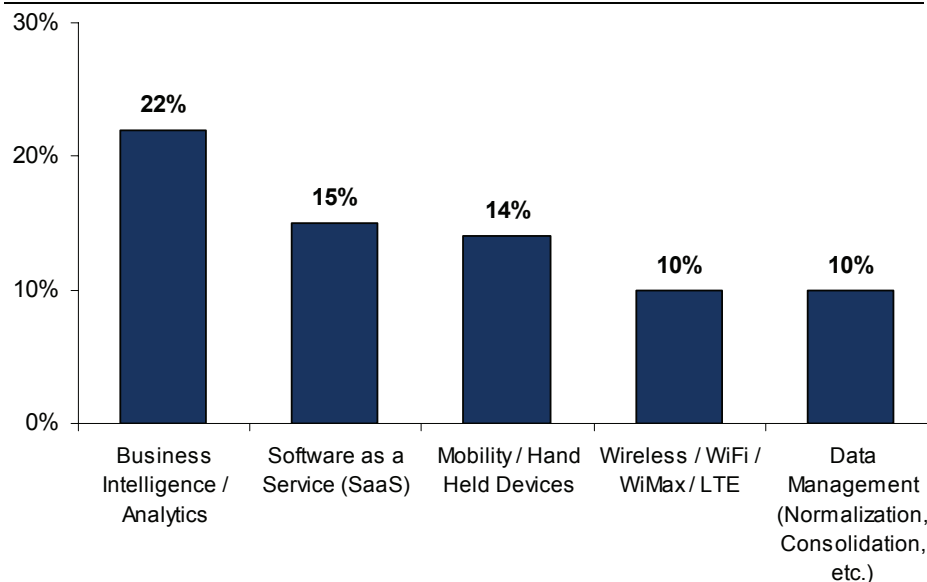
- ✓ Lack of IT resources: 56%
- ✓ End-users have not provided well-defined information needs: 49%
- ✓ Lack of top management commitment to projects: 47%
- ✓ Business need is not high enough: 27%
- ✓ Software and services are too expensive: 25%

Particularly in small and mid-market companies, a full-scale or deployment of BI can provide value across a wide range of functions within the company (see sidebar). In order to get to the point where BI can drive the type of improvements in time-to-information, employee productivity, and self service analytical capability achieved by the Best-in-Class, the organization needs to be prepared. This preparation involves advancing their capabilities in the areas of process, organization, knowledge management, and performance measurement.

Justification of BI and Analytics

BI initiatives continue to be a top strategic activity among companies across all industries and geographies. Aberdeen's research has found that BI is identified as the most important technology impacting businesses in the next two to five years (Figure 3).

Figure 3: Technologies That Will Have the Greatest Impact on Business over the Next Two to Five Years



Source: Aberdeen Group February 2008

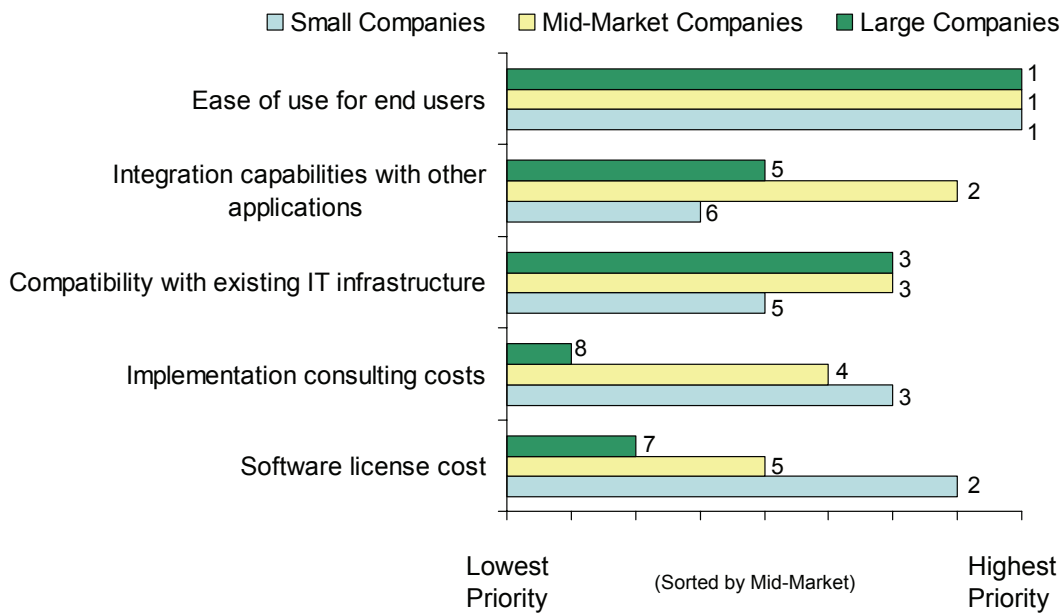
Companies are falling back on spreadsheets as a means of providing the output from BI systems to users who either do not have the analytical skills required, or for who access to BI capabilities is simply too expensive. This thought process may be erroneous when the costs associated with uncontrolled use of spreadsheets are factored-in. However due to the perception of ease-of-use of spreadsheets versus BI and analytics tools, companies are more apt to rationalize spreadsheets as a primary BI tool (Figure 4).

Fast Facts

Top departments driving the need for BI in SMBs:

1. Customer Service
2. Finance / accounting
3. Sales
4. Marketing
5. Transportation / shipping

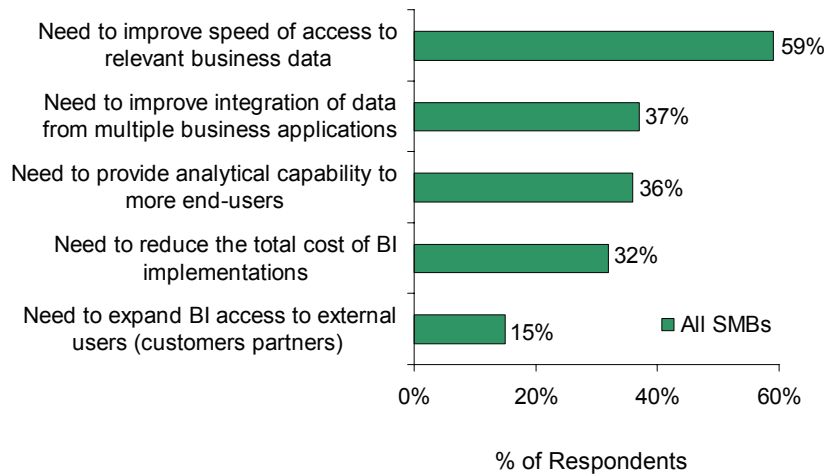
Figure 4: Top Criteria for Making a BI Purchase Decision



Source: Aberdeen Group, October 2008

Top pressures forcing investment in BI among SMB companies include the need to improve speed of access to relevant business data and integration of data from multiple business applications (Figure 5).

Figure 5: Why Do SMBs Deploy Business Intelligence?



Source: Aberdeen Group, October 2008

Spreadsheets, in and of themselves, serve to exacerbate these business pressures as it is impossible to accurately integrate data from multiple applications using spreadsheets, and the delivery of BI to more end users is difficult if spreadsheets are condoned as a standard reporting tool.

Key Takeaways

Companies should look at their organization to determine how to prepare for the future use of BI capabilities, tools and technologies and seriously consider where spreadsheets are appropriate. This includes:

- Assess the internal use of spreadsheets and consider where they meet certain data input versus reporting needs.
- Assess and test the proliferation of spreadsheets and their role in decision-making. Do stakeholders gather at meetings and argue over different versions of numbers? Has the organization established a system of record that can be relied on, or does the senior-most executive's spreadsheet represent the final word?
- Challenge solution providers to demonstrate how tasks that are currently performed within spreadsheets can be improved and consolidated within BI tools. Work with your solution provider to clearly understand the specifics of how BI tools can reduce or eliminate the risks associated with uncontrolled use of spreadsheets. Consider a pilot project or proof-of-concept utilizing existing data.

For more information on this or other research topics, please visit www.aberdeen.com.

Related Research	
Business Intelligence for SMBs, Part 1: Deployment Strategies ; November 2008	Business Intelligence for SMBs, Part 2: Managing Your Data ; November 2008
Business Intelligence for SMBs, Part 3: Controlling Total Cost of Ownership (TCO) ; November 2008	Business Intelligence for the Small to Medium Sized Business (SMB) ; October 2008
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