Spreadsheets are holding you back

There’s a better way to plan, budget and forecast — with less risk, less time and more accuracy.

IBM

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Overview

Companies large and small spend countless hours each year developing the detailed plans, budgets, forecasts and reports they need to drive strategic decision-making. It’s critical that the information be timely and accurate, and that it can be easily updated as market conditions change. However, most organizations rely on spreadsheets to build these plans and reports – in fact – 58% of midsize and large companies still use spreadsheets to manage their planning and budgeting processes.[1] Although they’re a useful and popular personal productivity tool, spreadsheets are poorly suited for business planning and performance management. Errors are common. And the broader the use of spreadsheets, the greater the chance for a small error to be magnified, potentially exposing the organization to significant risk.

Spreadsheet-based planning: A "rough road" plagued with potholes

While spreadsheet technology has improved over the years, serious problems persist, especially for those who rely primarily on spreadsheets for planning and analysis. According to a 2020 study by the Business Application Resource Center (BARC), only 8% of Excel users experience "no significant problems" using spreadsheets for planning.[2]

Many businesses who use spreadsheets have exposed themselves to serious risks of spreadsheet error. And though in some cases large companies can absorb these risks, small and medium businesses usually cannot. Sad to say, the list of newsworthy episodes continues to grow. Three examples from recent years illustrate the ongoing hazards of reliance on spreadsheets.

- In early 2019, a large Canadian firm in the emerging legal cannabis industry cited "spreadsheet error" as a cause of under-reporting earnings. The company's news release said "The correction was made due to a formula error in the spreadsheet supporting the year-to-date adjusted EBITDA loss calculation." [3]

- In the spring of 2018, a major liquor and wine retailer in the UK lost 60 percent of its market value – £500 million – in a matter of weeks, due in part to an "arithmetic error" in a spreadsheet. The Times of London commented, "Not for the first time, human error with spreadsheets has led to disaster." [4]

- In May of 2018, a large number of young doctors in the UK "had job offers rescinded following an error in the administrative process." What happened? "A spreadsheet error was made in transferring data from one system to another." Besides embarrassing the organization, the situation "caused 'extreme anxiety' for those who have made life choices based upon these offers, including arranging moves and putting deposits on new homes." [5]

When used for modern planning processes, spreadsheets and user errors can cast serious doubt on the integrity of strategic plans. They make plans and reports difficult to maintain and often inhibit – rather than facilitate – a collaborative, company-wide planning process. And as business plans and analyses become larger and more complex, the inadequacy of spreadsheet-based systems is only magnified.

Most common types of spreadsheet errors

According to experts and academics who have researched spreadsheet effectiveness, three primary types of error typically occur in spreadsheet models.

- The first is mechanical error, which arises from mistakes in keying in data, cutting and pasting, or other simple manual operations. While a mechanical error may at first appear minor, incorrectly entered data can affect the integrity of an entire model. Furthermore, planning models tend to grow in size and complexity as available computing power increases. As the models grow, the errors created within them increase in both volume and severity.

> **41%** of Excel users say spreadsheets cannot handle their data volumes[6]

- The second type of error is logic error, where an inappropriate algorithm is chosen or inapt formulas are created to implement the algorithm. The resulting flawed calculations affect not only the individual worksheet where the error appears, but the entire model, as well.

- The third, and one of the most common types of error, is the error of omission, where critical components are left out of a model entirely. Errors of omission, of course, are very hard to spot. As a user labors through multiple worksheets in a complex plan, the likelihood is great that a critical item will simply not be inserted and its absence will not be noticed. This type of error occurs because you can't plan at a granular level using spreadsheets, which means you're forced to combine data points.

Whether a given error is one of mechanics, logic or omission, the result will be the same: a flawed model and inaccurate calculations, hence an inaccurate or ineffective plan, forecast or report. While many large corporate finance departments have adopted dedicated planning solutions, at the department or line-of-business level, where many of the most important daily decisions are made, the spreadsheet is still the default planning tool.

Three reasons spreadsheets are holding you back

Aside from specific problems related to errors, spreadsheets present other limitations and drawbacks when organizations try to use them in performance management processes. Here are five of the most serious issues with using the spreadsheet as a planning tool.

Failure of accuracy

- **Data integrity and transparency**: Disconnected spreadsheets offer little in the way of data security or an audit trail to identify when, where or why changes were made, all of which lead to multiple versions of the truth. Consequently, confidence in the numbers is undermined. Poor version control can result in a consolidated plan based upon inaccurate or incomplete data or—owing to a mismatch of model structures—an inability to consolidate at all.
- **Collaboration**: Successful business planning depends to a large extent on high levels of collaboration across teams. The greater the cross-departmental input, the greater the accuracy delivered in the plan. Due to error frequency and deployment difficulties, spreadsheet-based planning engenders a constrained, siloed process that represents only a small part of the organization.

Failure of agility

- **Standardization**: Spreadsheets, by design, are ad-hoc and individual. Email substitutes for systematic workflow. And without a guided, standard process, time is often wasted in "reinventing the wheel" and waiting for others to contribute and review. It is a laborious task for managers to check on the status of individual contributions and ensure they are submitted in a timely manner. The end result is a process that is limited by the pace of the slowest participant.
- **Speed**: The business world is moving faster all the time. And to drive fast decision-making in this competitive environment you need to access and analyze large volumes of data and get answers quickly. A spreadsheet-based planning and analysis process does not allow organizations to alter plans, reforecast, or modify budgets in real time. Making changes in a large, complex spreadsheet requires both an inordinate amount of time and great care. The effort required to consolidate hundreds of spreadsheets can inhibit quick reaction to changes in markets or the actions of competitors.
- **Aggregation and application maintenance**: Even if individual spreadsheets are error-free, the process of aggregating inputs from multiple users is a major undertaking. A single person or task group has to collect the numerous spreadsheets and consolidate them into a single version, trying to maintain files that may be linked together. If submitted models are not identical, the data will not consolidate correctly.

Failure of scale

- **Size**: When a spreadsheet's single data file is too large, it can make the program run very slowly. Spreadsheets are simply poor at dealing with large data volumes and merging multiple files. Users spend more time on data collection and verification than they do on analysis.
- **Granularity**: Spreadsheets have a limited number of cells, which prevents users from including all the granular data they need. If you cannot look at data at a precise enough level (ie you can only see product type, but not SKU), you will not be able accurately analyze the data and plan appropriately.
- **Capacity**: Once you hit a certain threshold, spreadsheets can no longer handle the amount of data and will crash. How many times have you lost your work or had your entire system freeze because of a spreadsheet with too many complex formulas?

The evolution of spreadsheet planning: IBM Planning Analytics

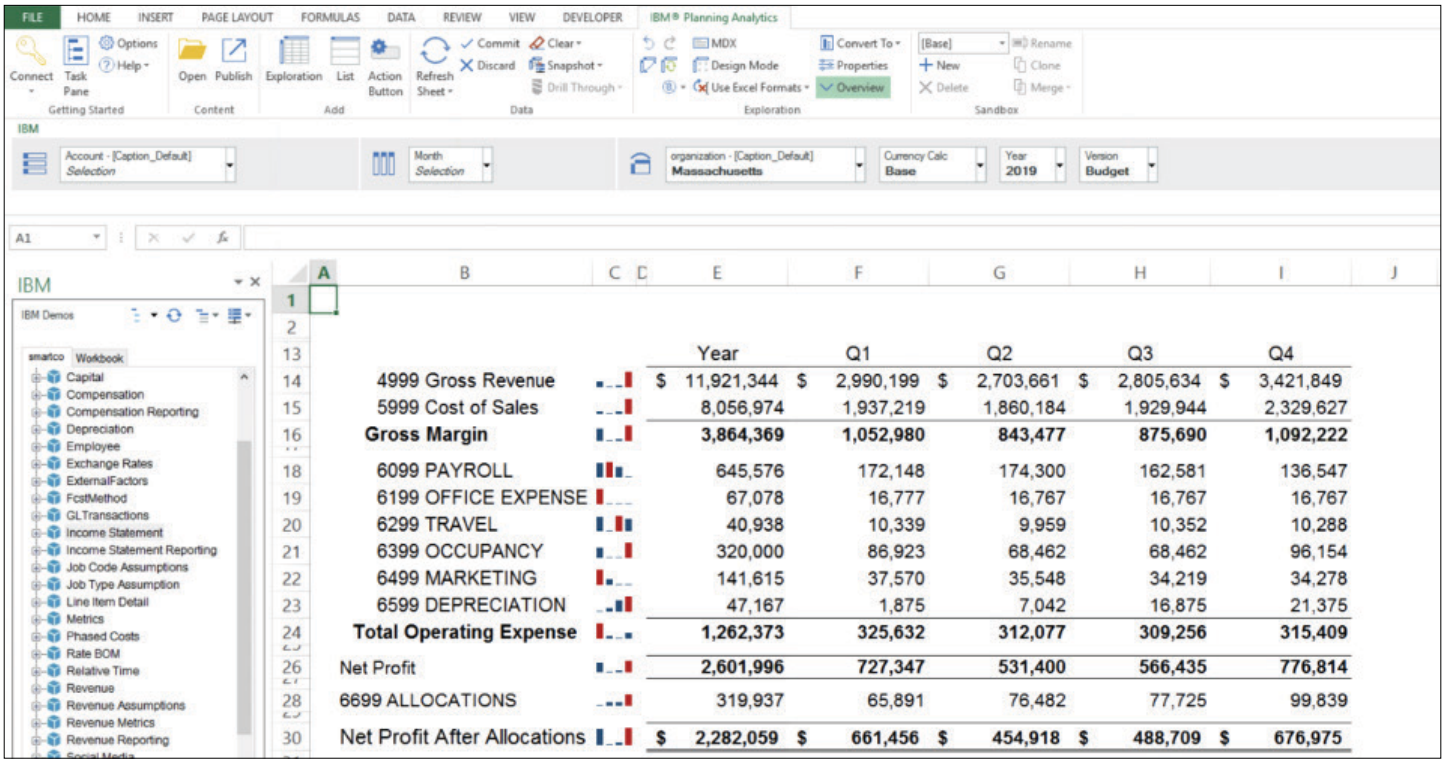
All these problems notwithstanding, the spreadsheet remains a ubiquitous – and widely popular tool. Fortunately, there is a way to overcome its limitations and leverage the capabilities of a modern planning and analytics using your Microsoft Excel spreadsheets — with IBM Planning Analytics.

This solution enables finance professionals, business analysts, line-of-business managers and users on the front lines to create more accurate and reliable budgets and plans. Users can either upload their spreadsheets directly into Planning Analytics to get started, or opt to use the IBM Planning Analytics for Microsoft Excel interface. From there, explore and analyze data sourced from multidimensional planning models including the IBM TM1 database.

Users can define, guide, optimize, automate and document the planning process, ensuring that tasks are done on time, by the right people. Planning users have access to a centrally managed repository where data is shared, changes are tracked, and business logic is protected, ensuring the “single version of the truth” that is so essential for confident decision making.

IBM Planning Analytics enables organizations to harness the power of collaboration with managed workflow. It provides data aggregation and calculations, and allows users to review and analyze results and details from thousands of data points in real time. Plus, users can store key business logic and calculations in a secure application, where changes are made only by designated administrators and are immediately replicated to all participants, eliminating errors and conflicting data.

> In the BARC 2020 study, 2x the respondents reported better quality planning results when using a specialized software vs Excel[7]



The IBM Planning Analytics for Excel interface helps organizations leverage the existing spreadsheet skills of finance and business users.

"Business benefits regularly achieved with Planning Analytics (and achieved more frequently than with Excel) include increased transparency of planning, improved integration of different sub-budgets and improved integration of planning with reporting/analysis."

BARC The Planning Survey 2020, IBM Planning Analytics Highlights Report

Conclusion

The spreadsheet has been a useful personal productivity tool for many years. But it lacks controls and auditability, and depends on individual users to enter data accurately and generate complex formulas and macros. These limitations make the spreadsheet suboptimal for business planning.

That's why the IBM approach is ideal. It enables users to explore data, perform complex analysis and collaborate more easily across the organization. With IBM Planning Analytics, users can plan, budget, forecast and analyze, using familiar Excel tools and techniques, and leveraging the software skills they already have. Spreadsheets are and will likely remain a popular tool. They just need a little help.

Save time and increase reporting accuracy: learn more about IBM Planning Analytics

Endnotes

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3. Patrick Hosking, Spreadsheets plus human error can add up to disaster, The Times, April 9, 2018

4. Matt Lamers, Cannabis giant Canopy cites 'spreadsheet error' for under-reporting adjusted EBITDA, Marijuana Business Daily, February 21, 2019

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Route 100 Somers,
NY 10589

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