



NUCLEUS
RESEARCH

BEYOND EXCEL IN SUPPLY CHAIN PLANNING

ANALYST

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THE BOTTOM LINE

As supply chain planners are being asked to build more agility into increasingly global and complex value chains, organizations are prioritizing speed rather than optimization. While seeking to achieve more integrated, cross-sectional planning, supply chain professionals are struggling to keep pace and surface relevant data when consolidating a multitude of disparate spreadsheets. Balancing continued use of spreadsheets in a value-add capacity for quick, ad hoc analysis while avoiding the creation of digital siloes remains a tricky proposition for supply chain planning departments. With end-to-end visibility and greater agility as goals for many organizations, it is imperative to transition away from spreadsheets to a tool that provides analysis—as well as improved collaboration—in real time.

OVERVIEW

For many organizations, key supply chain planning (SCP) processes have historically been performed using Microsoft Excel. The flexibility of spreadsheets and the familiarity that many supply chain planners have with them has resulted in their widespread adoption. However, as companies are moving toward more integrated planning models, spreadsheets become a bottleneck due to the information siloes they create. In considering moving to a modern supply chain management (SCM) solution, Nucleus found that customers are looking to achieve better agility within their planning processes, which requires a new, modern toolset. Enabling collaboration and operating on more real-time data are requirements for organizations that are integrating planning across business units, geographies and stock keeping units (SKUs).

“We have a clear view of our service levels from end to end [with a modern supply chain planning tool]. It is easier to make decisions on where to take action.”

-Manufacturing Company

PAIN POINTS ACROSS ROLES

The considerations for switching from an Excel-driven process to a modern supply chain tool are different depending on the role of an employee within an organization, with the most frequently impacted people being supply chain planners; information technology personnel; and executive leadership, such as Chief Information Officer or Chief Supply Chain Officer.

SUPPLY CHAIN PLANNERS

Nucleus found that supply chain planners face a host of problems when they rely heavily on Excel, such as disparate information siloes, planning delays and bottlenecks, and outdated data. This finding is more pronounced as the complexity of the organization and planning parameters increase, which then decreases the ability of spreadsheets to service the organization’s needs adequately. Key problem areas include:

- **Timeliness.** When using Excel during a planning cycle, Nucleus found that organizations experience delays due to the interdependencies between one area of planning and others. For example, supply planners often need to wait for demand planners to complete their analysis before a supply plan can be created. The delays can quickly compound for planners responsible for areas further down the value chain that rely on upstream planners to complete their analysis. The siloed nature of the planning process when working with Excel means concurrent planning and analysis is impossible, making each cycle longer.
- **Manual consolidations and process bottlenecks.** To alleviate many of the issues that can occur with data integrity, organizations often resort to centralizing the collection and consolidation of relevant data, leaving the responsibility to a few individuals. This creates processes that are labor-intensive, time-consuming, and leave many opportunities for errors. In an environment where timeliness and agility are key differentiators, these spreadsheet-driven processes can no longer keep pace with the speed of many businesses.

As organizations look to break down siloes between internal departments as well as external organizations, the need to be able to collaborate better beyond e-mailing spreadsheets back and forth becomes evident. In a paradigm where agility is a requirement, forging a close relationship with suppliers and trading partners is necessary. Nucleus found that bringing trading partners into planning cycles to ensure better coordination cannot effectively be achieved through spreadsheets.

INFORMATION TECHNOLOGY

For IT professionals, a myriad of circulating spreadsheets that contain critical business information is difficult to maintain in addition to posing a significant risk to organizational integrity. Primary areas of concern include:

- **Security.** Nucleus found that companies using modern supply chain planning tools can enable role-based views and rigorous security controls that are impossible with spreadsheets. When a large percentage of the relevant data needed to perform a planning cycle is contained within spreadsheets, IT has limited means of protecting the information. Organizations that need to perform analyses quickly are often sharing data and spreadsheets through insecure modes, such as via e-mail attachments and file transfer protocols.
- **Data integrity.** The quality of the information used within planning processes is integral to getting useful results. By using spreadsheets as a partial substitute for a database, organizations can suffer from static and outdated data. IT personnel can

spend significant amounts of time maintaining the data within spreadsheets rather than performing other value-add tasks.

EXECUTIVE LEADERSHIP

Senior executives within an organization experience the effects of the inefficiencies and delays that operating in spreadsheets creates. With decision makers relying on the analysis from supply chain planners, the accuracy and timeliness of the results are paramount. Since spreadsheets suffer from issues with the relevance of the data and subsequent analysis, executives risk making less informed decisions.

Nucleus found that the inefficiencies of spreadsheet-based planning limit the value that executive leadership can realize from the planning processes. Tasked with equipping supply chain planners with the tools and working to configure the processes, organizational leaders that rely on spreadsheets experience lower productivity and operational performance.

“We want to make quick decisions. The focus on speed means we can focus on things other than planning problems.”
-Technology Company

KEY BENEFITS OF MODERN SUPPLY CHAIN PLANNING TOOLS

The benefits of a unified tool and the ability to integrate planning more broadly quickly becomes a differentiator for organizations that have deployed them. Key benefits include:

- Increased end-to-end visibility. Supply chain planning tools can operate on a centralized platform that draws on relevant data from multiple transactional systems. As a result, planners can achieve a comprehensive view of their value chain instead of working through many siloed spreadsheets.
- Improved collaboration. With planners operating from the same, real-time view of a planning scenario, developing consensus and stakeholder buy-in is easier. Instead of static analyses by e-mailing spreadsheets, supply chain planning tools give users the ability to perform ad hoc analysis and share scenarios with colleagues.

- Shortened planning cycles. Through concurrent planning, the delays that plagued spreadsheet-driven processes are eliminated, allowing planners to perform analysis of multiple scenarios. Additionally, organizations are able to complete their planning faster with the compute and processing speed of supply chain planning software.

PRIORITIZING SPEED OVER PRECISION

At many organizations that have shifted to replace spreadsheets with a modern planning tool, speed of analysis has become the most important factor for planners. Considering the size and complexity of global supply chains for large organizations, planners want tools that provide greater flexibility to adjust to changing conditions, which is a constant struggle. Nucleus found that enabling agility in fast-moving industries can be a differentiator for companies that leverage the compute and performance of supply chain planning tools. Rather than waiting hours for a spreadsheet model to update when evaluating multiple scenarios, planning applications can return the result in minutes, allowing further and deeper analysis of possible resolutions to an exception.

Nucleus found that organizations with modern supply chain planning tools are often seeking to make their new tools as widely used as Excel was historically. With ease of adoption being a key differentiator for SCP solutions, our analysis shows that if the barriers to adoption are low, organizations can expand the use case for the planning tool to encompass many of the tasks that were typically reserved for Excel. However, rather than offering a static analysis, the SCP tool readily ingests new and updated data, providing a real-time view of each planning scenario.

CONCLUSION

No organization is looking to get rid of Excel and spreadsheets entirely—as an analytic tool, Excel is too useful and powerful. However, attempting to plan and keep pace with a global supply chain with spreadsheets has become untenable for many organizations. Without rigorous process controls, coordination across siloed departments and areas of planning can be close to impossible using spreadsheets. Additionally, the use of spreadsheets results in a lack of speed and security. This means that something as simple as ensuring that every region and business unit is operating off the same set of key performance indicators can be a challenge.

Given that customers are going to continue to increase the rate at which they demand their orders be fulfilled, speed and agility are becoming more vital to success. For each role

within an organization's supply chain planning department—executive, IT, and planner—moving to a modern supply chain planning tool delivers value by providing the collaboration and visibility that helps shorten planning cycles while also reducing cost to service and improving service levels. Companies that continue to rely on spreadsheets, despite how they may have served planners in the past, risk falling behind competitors who deploy modern supply chain planning tools.