

Leveraging Technology to Harness Big Data and Combat Big Issues

By Ryan Lynch



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In this article, Lynch explains why effective data management is critical for tax departments and discusses how best to implement it.

The already voluminous amount of information available on business activities and interactions — “big data” — is ballooning even more with the addition of new digital sources. It can seem overwhelming, but advanced technology now offers new opportunities for corporations to translate tactical data into valuable insights. Tax teams can leverage these insights into operations to make smarter decisions that markedly enhance the business.

Certainly, all of this data should be an asset to a tax department: The information allows for better analysis, scenario building, and tax planning. However, most tax teams do not fully benefit from it because they are too overburdened with their daily responsibilities or don't know how to efficiently manage and harness the massive amounts of structured and unstructured data. Some tax departments don't even know what information is available to them from internal sources, such as the company's enterprise resource planning (ERP) and general ledger systems, and from cross-functional areas within their own systems. In fact, there are hidden gems tucked inside these cavernous systems that can help tax teams improve efficiency, increase productivity, and enhance performance. However, tax teams rarely have enough visibility into the information to determine what is useful to support operations, nor do they have a handle on how to define and retrieve important data sets.

The traditional software programs and manual methodologies that tax teams have historically employed are simply not sophisticated enough to capture and process useful tax information. In fact, many tax departments still grapple with spreadsheets, paper statements, and other unstructured data. However, regulatory demands and executives' hunger for information that can help them run their businesses more effectively are driving change. The good news is that breakthroughs in technology — including function-specific software — are here and can document, process, and manage content uniquely to the advantage of tax departments. In fact, according to Financial Executives International's “Tax Technology Outlook 2016”:

For many forward-thinking companies, 2015 was the year they began to recognize the value that mining data and insight from their tax functions can provide beyond a traditional focus on compliance activities. . . . 2016 may be the year more companies begin breaking down corporate silos and unlocking the full power of their tax operations — in part by investing strategically in technology solutions that help put their tax departments on par with their finance operations, and by integrating tax into their enterprise information management systems.¹

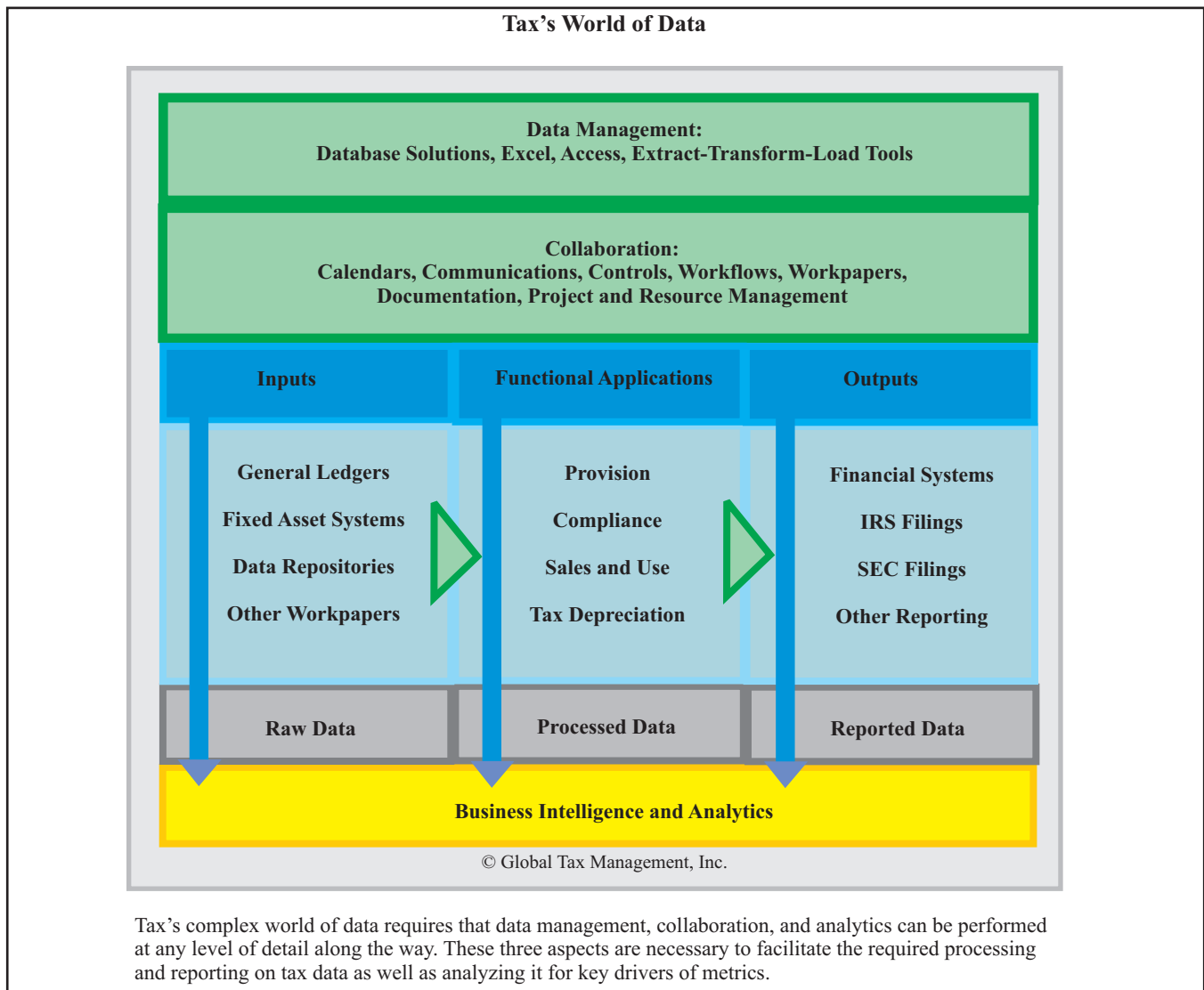
While there is no one-size-fits-all solution for every company, some common best practices can help tax operations make the most of available information.

Understanding Common Data Issues

Even though more information is available than ever before, no one needs it all. Defining the right data sets to support tax operations is the first step in taking greater advantage of big data. There are many data issues specific to tax departments; the following are some examples of when data management tools can be harnessed to mine for insights that can increase the tax team's efficiency and effectiveness.

First, *sales data* is essential to accurately determine corporate tax at the federal, state, and even local level. This is true for income tax as

¹Brad Brown and Scott Weisbecker, “Tax Technology Outlook 2016,” *Financial Executives International* (Dec. 3, 2015).



well as sales and use tax. For income tax, as one begins to analyze sales at the state or local level, layering in specific jurisdictional rules like apportionment methodologies and throw-back, the volume of data and rules-based approach for manipulating that data can become cumbersome. Considering that there are monthly requirements for sales and use tax filings, this frequency and short turnaround time add yet another layer of complexity.

Another sales data example is intercompany sales analysis. Corporations doing business with their affiliates and generating intercompany sales rely on their tax departments' transfer pricing analysis to determine if sales charges within the company make sense. For the transfer pricing analysis to bring significant value to the organization in terms of compliance reporting, the tax department must have the right financial information,

which requires gathering data from multiple sources, often calculated at the transactional level.

Sales data can also be merged with other data to analyze scenarios for tax impact. For example, if the number of people employed in a specific state rose or fell, how would that affect the tax return? Calculating the tax effect of business changes like this or identifying opportunities for tax savings requires effective data management.

A second example is *fixed assets data*, which represent all of the plants, property, equipment, and other physical assets owned by a company. Knowing the location, type, age, and other details of assets is essential to determining tax liability and depreciation. More specifically, with the ever-changing landscape of bonus depreciation regulations in the United States, it is critical that these calculations are transparent and easily adjusted. With an accurate representation of fixed assets data, tax

teams can function more strategically and understand the impact of these changes more efficiently, thereby providing a swifter response and allowing for more strategic actions.

Even from the onset of considering whether to adopt bonus depreciation, understanding the impact of calculations and how they interplay with forecast tax numbers can help the tax department determine the best long-term strategies as fixed assets and sales change.

Finally, *trial balance and financial data* tie into the general ledger that represents all corporate accounts on company assets, liabilities, revenue, equity, and expenses. In addition to being used for financial reporting, these data obviously have a strong effect on tax provision and compliance, as well as planning. From a provision perspective, multiple versions of trial balance data will need to be incorporated into provision calculations throughout the close process to produce accurate results. Corporations that have disparate underlying general ledger systems often use a consolidation or ERP system for accounting, but that frequently loses the detail necessary for the tax calculation, leaving tax dependent on the underlying, disparate general ledger systems. Bringing all of that data together, for multiple versions, requires significant data management solutions.

A similar issue may exist from an income tax compliance perspective regarding the use of underlying general ledger systems rather than reports from consolidation systems. Further, some compliance software solutions have their own chart of accounts that leaves the tax department needing to map data yet again.

Generally, as tax jurisdictions require enhanced transparency, compliance with domestic and global regulations involves processing large amounts of financial data and merging that data with other information from various sources. This can potentially stretch the limits of traditional spreadsheet-based systems. The upcoming country-by-country reporting requirements under the action item 13 guidelines of the OECD's base erosion and profit-shifting project are just one example of the type of enhanced reporting that could become the norm over the next few years.

Managing and Organizing the Data

After gaining a better sense of how specific data elements can yield significant benefits, it's important to understand how to manage and organize it all so that it can be truly actionable for tax teams.

Raw data come into the tax department from many places, get processed, and are reported as outputs such as SEC and IRS filings. The data sets are large and often very complex. Frequently, tax departments require data at an even more granular level of detail than do their accounting cousins. To make it usable from an operational perspective, companies must be able to retrieve and manipulate data quickly. This requires a data management process that is consistent and repeatable.

Data management is the operation of retrieving, formatting, and cleaning data so that it is relevant to the needs of tax. For example, to address local, federal, and international tax policies with more demanding disclosure requirements, tax departments need to provide greater transparency of data. Therefore, the tax team must clean and scrub the information to align with current tax laws. And it must be available in formats that can be fed into tax systems (which tend to be disconnected from financial systems).

Once cleaned and uniformly formatted, information should be stored in a collaborative master database so that it can be retrieved efficiently. Static and non-editable, a master database links all critical and dynamic data points into one point of reference so that it can be cross-referenced and queried to create subsets of data.

While data management enables these processes, data collaboration involves collecting and storing information for the right departments, in the right format, to support their specific operations. Collaboration requires gathering data from different sources, whether electronically or manually. The process of collecting and storing information is typically supported by a collaborative software tool.

Unfortunately, not all tax information is available on a master database. Most tax departments do not use content management systems, but rather collect information as emails, track it in spreadsheets, or store it on network drives. Some processes are still manual, with paper filings and hard-copy storage of backup data locked in storage cabinets. These methods lead to information that is not organized in an easily searchable, central location.

To make information usable from an operational perspective, tax departments must be able to quickly retrieve and manipulate all types of data. Companies should plan to provide tax departments with the current technology for better collaboration for automating requests and calendars, digitally storing documents, efficiently sharing information, and providing version control. This is essentially

the first step to going paperless. Content management systems like Microsoft SharePoint can facilitate these processes but are dependent on proper implementation, because they're not designed specifically for tax purposes.

Automating the Data Management Process

Data management software is specifically designed to manage data, share information, and improve collaboration among departments. Some companies try to use their corporate ERP systems for tax data management, but this isn't ideal. Although there are some exceptions, ERP systems are generally limited in tax functionality. For example, they often cannot retrieve data to the level of detail needed by tax teams. Even while managing dozens of different general ledger systems, the ERP doesn't capture a lot of facets that empower the tax team to function optimally.

Also, because the focus of an ERP application is not tax, it is not designed with the needs of tax departments at the forefront. Retrofitting an ERP system to support specific tax functions would require significant reconfiguration, but because these are typically mammoth systems, they are not very flexible. In other words, making even simple changes for tax use puts a heavy burden on an IT department and often demands expensive outside resources. The process can take months. And over time, it would require administrators to make tax a priority to accommodate for changes in requirements, such as regulatory changes. With every new law, the ERP would need to be reconfigured to accommodate that regulation, but these systems are not built for the kind of agility a tax-specific software solution requires.

Indeed, ERP systems are not an ideal substitute for purpose-built tax applications like tax depreciation or provision software. The good news is that general data management software is now available that can reduce the amount of costly, time-consuming manual intervention, while eliminating human error, to improve the accuracy of data and calculations. Using rules and logic to automate tasks, software provides the added value of regulatory compliance and analysis. The tax team benefits from modern tools that allow it to operate more strategically, automating time-consuming processes to enable teams to conduct "what if" analyses much faster and across all types of tax disciplines. With this information, the tax department has the potential to make a greater impact on the business's bottom line.

Choosing the Right Technology

Today's tax departments have several different options available to them — and these may vary for different tax purposes (that is, fixed asset manage-

ment versus trial balance management). The right technology with intuitive front-end user interfaces will reduce a tax department's reliance on other departments and manual manipulations, as well as loosely marry crucial book and tax data systems for better analysis.

Because every company's tax situation is different from a data perspective, one highly structured, out-of-the-box software solution is unlikely to serve all tax data management needs. The size of a company, number of entities, growth, locations, and myriad other factors affect the company's tax situation. The only way to use just one software tool is to build a tax data warehouse — a solution custom-configured for customers' use. Often, it takes multiple technologies: a data management tool and an application specifically for process management. As a result, the best solution is likely a hybrid, or an off-the-shelf solution that allows for customization through built-in configuration tools.

Frequently, tools that are already licensed by companies or the tax department can be leveraged further to solve specific data management issues. Global Tax Management has worked with clients to redesign their provision systems and processes to take greater advantage of the technology. In fact, in just one week, Global Tax Management enabled one major retailer to fully implement new provision journal entry functionality and dramatically increase data transparency. The manpower necessary to execute this task dropped from two full-time employees to one. The implementation also allowed the retailer to employ the proper levels of review, which has significantly improved the financial statement and control review for external auditors.

Data Management, Tax Tech Strategy

Whether custom-built, developed in-house, or purchased, tax data management solutions should be flexible, scalable, and able to meet various needs regarding internal calculations, such as provision, compliance, and sales and use tax, as well as general communication, document management, and data gathering. Data management solutions can be implemented in various ways, ranging from better leveraging existing tools to implementing new custom-developed technologies. Evaluate the cost of technology, pros and cons, configuration requirements, and risk as part of the selection process. Reevaluate current software that may be underutilized or simply not considered of value for tax purposes.

The general issue of tax data management is retrieving and quickly manipulating data with a consistent, repeatable, and automated process. The same concepts, therefore, apply to many tax functions: building trial balances at the detail necessary

for tax calculations, tracking fixed asset information for tax, analyzing tax scenarios, etc.

Whether it is by decreasing time spent manually manipulating calculations or by increasing the accessibility of data, technology can improve a tax department's ability to meet the mounting demands of increased reporting requirements, data transparency, and scenario analytics. Periodic reassessment of the overall tax technology plan ensures that it remains aligned with business needs and the scope of the corporate tax department's functions.