Technology in tax

Making the best of artificial and human intelligence—an addendum to the 2018 Chief Tax Officers study
A message from KPMG LLP’s Americas Vice Chairman of Tax,

Jeffrey C. LeSage

For tax practitioners, the title CTO traditionally designates a company’s chief tax officer. But as they told us in our survey, conducted in partnership with Forbes Insights, today it clearly stands for so much more.

Survey responses that focused on the impact of technology on the tax function clearly show that CTO also stands for chief technology officer, as CTOs navigate to stay ahead of the technologies that can help their departments make meaningful contributions to their companies’ success.

We found CTOs are well aware of the strategic importance of technology for the tax function, and the need to focus on technology-driven transformation to keep pace with the rest of the organization. This report addresses how CTOs can realize technology’s full potential, create more efficient tax departments and also become business partners for the organization.

Jeffrey C. LeSage
Americas Vice Chairman, Tax
KPMG LLP
Key findings

Forbes Insights conducted a study supported by KPMG LLP (KPMG), which gathered opinions from chief tax officers (CTOs) in several areas. One area of focus was the level of investment in and the impact of technology on the tax function. In general, CTOs revealed that the tax function is lagging in terms of using advanced technologies and they need to focus on technology-driven transformation to keep pace with the rest of the organization. On the positive side, many of the CTOs we interviewed for this report agreed that increased spending for technology is in order as many of them believe that they will have to rely on technology such as robotics, data and analytics, and artificial intelligence to keep up pace with ever-changing tax and regulatory requirements.

- 51% of CTOs say compliance with legislative and regulatory change and implementing new/emerging technology are the top strategic priorities for their tax function over the next 12 months.
- 45% of CTOs believe that their department is keeping pace with technological innovation.
- 31% of CTOs say identifying and implementing new technologies is seen as one of the top challenges faced by CTOs.
- 76% of CTOs say investment in data and analytics and in emerging technologies will see the biggest increase in the tax function over the next 12 months.
- 73% of CTOs expect the headcount of their department to grow.

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Technology in tax: State of play

CTOs recognize the strategic importance of advanced technologies for the tax department. In this regard, they are on the same page with U.S. CEOs, 78 percent of whom view technology as a strategic, and not simply tactical, investment.1 Emerging technologies will be among the top leading investments in the tax function, preceded only by data and analytics, a capability which is also enabled by emerging technologies.

Of the following, what are the top three strategic priorities for the tax function over the next 12 months?

<table>
<thead>
<tr>
<th>Priority</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Compliance with legislative and regulatory change</td>
<td>56%</td>
</tr>
<tr>
<td>Implementing new/emerging technology</td>
<td>51%</td>
</tr>
<tr>
<td>Talent development/management</td>
<td>44%</td>
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</tbody>
</table>

But while CTOs recognize the strategic importance of emerging technologies, the current implementation and usage of technology points to untapped potential. Less than half (45 percent) of CTOs strongly agree that their tax function is keeping pace with technological innovation. Just 38 percent receive timely insights on the strategic impact of new technologies. And only 33 percent use data and analytics to make strategic decisions.

The survey reveals that the level of technology maturity of the tax departments varies depending on the size of the organization, with a third of smaller companies’ CTOs ($500 million to $999 million) believing that the tax function is keeping pace with technological innovation, compared with 48 percent of large companies’ CTO ($1 billion and up).

P. Scott Ozanus, KPMG’s Deputy Chairman and COO, points out that “to stay competitive, companies need to at least match their competitors in the use of advanced technologies, applying them in all relevant functions to optimize often untapped areas for technology investments.” For the tax function, the top benefits of keeping up with emerging technologies are accuracy, the ability to redirect employees to handle more value-added tasks, and streamlining the reporting and compliance process.

1 “Growing Pains: 2018 U.S. CEO Outlook,” KPMG.
2 Ibid.
What do you see as the top benefits for implementing emerging technologies in the tax function?*

- Increase accuracy: 42%
- Save time: 33%
- Free up staff time to handle more value-added tasks: 39%
- Increase data security: 31%
- Streamline reporting and compliance process: 37%
- Reduce operational risk: 30%
- Use analytics to make decisions: 35%
- Free up CTOs time to handle more strategic tasks: 27%

*multiple responses allowed
A technology overhaul of any department is daunting. But it does not need to be the case for the tax function. In fact, Brad Brown, KPMG’s Chief Innovation Officer for Tax, points out the benefits of a more measured approach. “It can be difficult to commit to investing strategically in technology, and it may be tempting to wait for the next upgrade, but tech is simply too important to ignore. Many successful CTOs say they see their investment as part of a cycle of continuous improvement based on a multiyear road map that yields value as the initiative progresses,” he says.

Brown provides one example of this road map approach: Tax accounting software has evolved dramatically over the past five years. Had tax departments not made investments when the improvements were first available, their tax accounting process and related controls would have been at significant disadvantage.

Through each upgrade and change, CTOs have had to continue to selectively invest to gain important improvements; they couldn’t have waited and continued to use the manual Excel spreadsheets of the past and kept up with increasing demands on their departments.

CTOs seem to be adopting such a gradual approach to digitalizing the tax function. Looking at the next three years, a majority (68 percent) expect their tax function to be mostly as it is today, while 32 percent think it will be transformed into a significantly different department. But they are not equivocal about the drivers of transformation, with the biggest group (57 percent) pointing to new technologies, ahead of regulatory challenges.
Overcoming technology challenges

Identifying and implementing new technologies is seen as one of the top challenges faced by CTOs (31 percent). That this is the view of CTOs in a year when the tax code is changing only underscores the crucial role technology plays in the tax function.

CTOs are not alone in dealing with the challenges of technology. Four out of 10 CEOs are concerned about whether their organization is keeping up with new technology, and six out of 10 are concerned that their organization does not have the sensory capabilities and innovative processes to respond to rapid disruption.³

What are the top challenges you’re faced with as the CTO? (top five responses)

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Meeting reporting and compliance requirements with existing resources</td>
<td>32%</td>
</tr>
<tr>
<td>Identifying and implementing new technologies</td>
<td>31%</td>
</tr>
<tr>
<td>Changing regulatory environment</td>
<td>29%</td>
</tr>
<tr>
<td>Communication of tax risk and opportunities to the C-suite and board</td>
<td>27%</td>
</tr>
<tr>
<td>Increasing reporting requirements</td>
<td>27%</td>
</tr>
</tbody>
</table>

³ “Disrupt and Grow: US CEO Outlook 2017,” KPMG.
Within technology challenges, complexity of implementation and integration are seen as the top challenges, along with implementing new technologies over the next 12 months. Return on investment, which can be difficult to measure, also presents a challenge. "The combination of the level of comfort in identifying definite solutions to compliance bottlenecks as compared to potential cost is a big concern. At Kinder Morgan, we are focused on identifying value-added technology solutions while maintaining cost control and achieving promised performance," says Jordan Mintz, Vice President and Chief Tax Officer at Kinder Morgan.

<table>
<thead>
<tr>
<th>What are the largest barriers to implementing new technologies in your tax function over the next 12 months?*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complexity of implementation</td>
</tr>
<tr>
<td>40%</td>
</tr>
<tr>
<td>Lack of budget available for new technologies</td>
</tr>
<tr>
<td>31%</td>
</tr>
<tr>
<td>C-suite resistance</td>
</tr>
<tr>
<td>21%</td>
</tr>
</tbody>
</table>

*multiple responses allowed
The most impactful technology investments are aligned with an organization’s tax processes and industry specific requirements. An all-inclusive vision of how technology can be used to add value to the organization as a whole, identifying opportunities and implementing them across the entire tax lifecycle as well as a clear vision of the desired future state with measurable results, according to KPMG.

To stay competitive, CTOs must view technology as an integral part of their role. “The misstep would be for CTOs to view tech as something somehow outside their core business, as just another skill,” says Will Williams, KPMG’s National Managing Principal for Tax.

“The key is creating an environment where tech expertise is aligned with and engrained into the DNA of the folks that run the business. If tech isn’t approached holistically, from top to bottom across the tax department, the organization isn’t going to be operating at top capability—and a competitor’s tax department will be.”

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*Improving Processes with Longview Tax Provision third-party software, KPMG, 2018*
Focus on data and analytics

Investment in data and analytics and data analytics tools will see the biggest increase in the tax function over the next 12 months (79 percent and 74 percent, respectively). The same is true for the enterprise as a whole, with CEOs reporting that areas of greatest investment in technology over the next three years are data and analytics (61 percent), cognitive technologies (58 percent), and Internet of Things (55 percent).5

**Leading investments in the tax function over the next 12 months**: 

<table>
<thead>
<tr>
<th>Investment Area</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data and analytics</td>
<td>79%</td>
</tr>
<tr>
<td>Emerging technologies</td>
<td>75%</td>
</tr>
<tr>
<td>Workforce training</td>
<td>70%</td>
</tr>
<tr>
<td>Regulatory compliance</td>
<td>64%</td>
</tr>
<tr>
<td>Government and risk</td>
<td>64%</td>
</tr>
<tr>
<td>Attracting talent</td>
<td>62%</td>
</tr>
</tbody>
</table>

*multiple responses allowed

5 “Disrupt and Grow: US CEO Outlook 2017,” KPMG.
Which of the following best describes your tax function’s level of investment in the following technologies over the next 12 months? (Percentage of CTOs who are increasing investment)

<table>
<thead>
<tr>
<th>Technology</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data analytics tools</td>
<td>74%</td>
</tr>
<tr>
<td>Tax systems/applications</td>
<td>73%</td>
</tr>
<tr>
<td>ERP enhancements/implementations</td>
<td>68%</td>
</tr>
<tr>
<td>Internet of Things</td>
<td>61%</td>
</tr>
<tr>
<td>Robotic process automation (RPA)</td>
<td>59%</td>
</tr>
<tr>
<td>Blockchain</td>
<td>55%</td>
</tr>
<tr>
<td>Cognitive technologies (including AI, machine learning)</td>
<td>54%</td>
</tr>
</tbody>
</table>

In the tax function, the reporting obligations and the opportunities presented by the new U.S. tax law are driving the need for very detailed data and offering opportunities to derive value from the corresponding analytics. The data can be used not only to comply with the requirements of the law, but also to manage risk and drive value for the organization.

A specific example is offered by KPMG’s AI-powered platform with Watson, which helps clients secure the R&D credits they deserve. The AI-solution can upload thousands of documents and analyze both structured and unstructured data at rapid speeds to help identify projects that are eligible for R&D credits, using natural language processing to understand context. The effort is essential—the total “cost” of R&D tax credits for fiscal years 2018–2027 is estimated to be $163 billion, $148 billion of which is attributable to corporations.6

U.S. and global tax reform now can really be an accelerant to a company’s understanding of the global supply chain and the relative profitability occurring within different product lines and geographies, leading to value optimization.

Currently, most time in the tax function is spent on internally oriented transactional and functional processes. However, automating transactional and functional processes will allow the tax function more time to also analyze data through the lens of business needs—and become more of a business partner in the organization.

“Beyond core technology and data analytics skills, the opportunity now exists for CTOs to take a holistic look at their organizations’ talent, processes, and perhaps most importantly, data flow across the function,” says David Leiter, National Leader of Tax Reimagined at KPMG. “We’re seeing that the cost reductions expected from finance transformations are only truly possible if multiple teams can extract, transform and load clean data for multiple processes from the same pull. Once that data-sharing hurdle is cleared and the information and outputs become more streamlined, CTOs may focus on how they can unlock the most value for their organizations.”

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6 Driving faster, more accurate and more beneficial tax decisions, Brad Brown and Steve Rainey, KPMG, 2018
Technology in tax: Impact on headcount

Despite apprehension about the impact of technology on jobs, most CTOs expect the headcount of the tax function to grow, with almost a third anticipating growth of 10 percent or more. Thirty-nine percent of CTOs see the ability to free up staff to handle more value-added tasks as the top benefit of technologies.

How do you expect the tax function’s headcount in your organization to change over the next 12 months?

- Increase 25% or more: 13%
- Increase 10% to less than 25%: 18%
- Increase 5% to less than 10%: 20%
- Increase less than 5%: 22%
- Stay the same: 20%
- Decrease less than 5%: 2%
- Decrease 5% to less than 10%: 1%
- Decrease 10% to less than 25%: 2%
- Decrease 25% or more: 2%
According to Chuck Lenns, Vice President of Tax at Con Edison, investing in new technologies is a delicate balance from a human capital perspective. “The first time I introduced robotics, the reaction was: ‘Am I going to lose my job?’ After the second and third time of introducing new technologies, I think people were convinced that their jobs were safe. They know that bots do the mundane tasks, but we still need people to think about the data and what it means to our organization. The size of our tax department will stay the same for the foreseeable future, but we are taking on more responsibility. Robotics helps us manage our workload and helps us to complete tasks that we used to do manually.”

Lenns’ view reflects the thinking of top executives about the impact that advanced technologies will have on headcount across the whole organization—that the net number of jobs will not change, but the jobs themselves will. Interestingly, CTOs we surveyed are optimistic, with the biggest group (around 40 percent) anticipating that emerging cognitive technology (RPA, cognitive computing, cognitive automation) will lead to an increase in the tax function headcount over the next 12 months. The next largest group, a third of respondents, do not anticipate any changes, while around a fifth believe that the headcount will decrease. These are averages estimated based on all levels within the tax function, from senior to administrative staff.

The issue of the impact of technology on employment is also on the minds of CEOs. Overall, they are almost evenly divided about whether technology will lead to a net loss or increase in jobs. They are focused on prioritizing the importance of urgently needed technical skills, but they also must think about the long-term development of the workforce.

With the need for technology to become a core capability in the tax function, the question arises about the best ratio of IT and tax employees. Currently, only one in 10 tax departments have more than 15 percent of its staff dedicated to technology.

Ensuring that the tax department stays competitive depends on much more than the number of people dedicated to technology. What’s even more important is collaboration and knowledge sharing between tax and IT employees. Critical to the success of the technology-enabled tax function is that IT people develop some tax skills and tax people develop some IT skills.

**What percentage of your tax staff is considered dedicated to tax technology resources, or are in a dedicated tax technology role?**

- None: 35
- 1% to 5%: 23
- 6% to 10%: 24
- 11% to 15%: 6
- More than 15%: 10

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Conclusion

While CTOs recognize the strategic importance of advanced technologies for the tax department, they are also aware that much of the technology potential remains untapped. There are several steps CTOs can take to realize this potential:

- **Adopt a gradual approach to technology implementation:** View it as part of a cycle of continuous improvement based on a multiyear roadmap.

- **Make technology an integral part of the CTO role**—don’t think about it as being outside the core business. The key is creating an environment where tech expertise is aligned with the DNA of the tax department.

- **Apply data analytics not only** to increase the accuracy and efficiency of transactional and functional processes but also to unlock value for the whole enterprise and become a business partner.

- **Secure human capital** to make the best use of technology by having dedicated technology employees in the tax department, but at the same time foster collaboration and knowledge sharing between tax and IT specialists.

Methodology

This report is based on a survey of 300 chief tax officers and senior-most persons in the tax function, conducted by Forbes Insights, which was completed in the second quarter of 2018. All CTOs came from companies with revenue of $500 million or more, including 50 percent who came from companies with revenue of $1 billion to $9.9 billion and 33 percent from companies with revenue of $10 billion or more. They represented all major industries, with the biggest groups being from banking and finance (18 percent); retail (12 percent); and electronics, software and business services (12 percent). Fifty-four percent of their companies were public, and 46 percent private. A majority (70 percent) have been chief tax officers at their organization for five years or more.
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The views and opinions expressed herein are those of the interviewees/survey respondents and do not necessarily represent the views and opinions of KPMG LLP.

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