Future Ready: Tax Optimization in the SAP Ecosystem

AI, RPA, OCR, ML, advanced analytics and other emerging technologies will equip SAP customers with powerful new tax management capabilities.

VERTEX®

Tax Friendly Terms

AI

Artificial intelligence (AI) is an umbrella term for technologies and tools that mimic human learning and thinking; variations include RPA, machine learning, and OCR.

RPA

Robotic process automation (RPA) replicates human actions by automating repetitive, role-based processes.

Analytics

Advanced data analytics harness raw data, including big data, to produce new insights.

ML

Machine learning (ML) leverages algorithms to "learn" and produce higher-quality, more accurate outputs.

OCR

Optical character recognition (OCR) converts printed characters into digital text.

Introduction

Four takeaways on emerging technologies and tax optimization trends

As generative artificial intelligence (Gen AI) and other emerging technologies stream into organizations, science fiction author Arthur C. Clarke's point about advanced technology being "indistinguishable from magic" bears repeating. In the realm of ERP ecosystems and tax automation solutions, the magic lies in understanding the benefits and limitations of technological breakthroughs – and the tax group's ability to leverage advanced tools and functionality to help build organizational value.

> **"These technologies, which will enable tax departments focus more time on value-add activities, are still evolving. No one-size-fits-all solution addresses all tax challenges, so it's important to learn new ways to implement these advanced tools."**
>
> Justin Barnes
> DMA Vice President, Tax Technology Practice

AI Foundation on SAP BTP already provides a comprehensive AI toolkit.[1] That said, many more advancements are guaranteed to follow – within SAP's vast offerings and in the solutions of ecosystem partners, include Vertex. As tax, finance, and IT groups monitor these advancements, which will accelerate tax optimization in the SAP ecosystem, they should consider the following points:

1. A collection of interrelated emerging technologies – most notably, AI, robotic process automation (RPA), machine learning (ML), optical character recognition (OCR) and data analytics – are empowering the SAP ecosystem, and Vertex tax automation solutions, tax groups and system implementations/integrations *(see Tax Friendly Terms side bar).*

2. These advancements offer valuable benefits to tax groups (e.g., efficiency gains, powerful tax planning analytics) while posing new challenges (e.g., a greater need for clean data, additional human oversight, and new skills).

3. These advancements are unlikely to replace tax managers and professionals; however, they will empower tax groups with additional insights and the bandwidth needed to enhance higher-value contributions.

4. These technologies evolve quickly, so tax groups should monitor developments and leading practices via interactions with their peers, external service providers and technology vendors.

Real-World Tax Optimization

How tax groups are deploying advanced tools

Gen AI has rightfully dominated media headlines and IT investment priority lists since Chat GPT's initial release in late 2022. Gen AI, RPA and machine learning are already working their way into SAP and Vertex offerings. Co-pilots embedded into tax software will provide users with insights, recommendations, research and even approvals, which – importantly – they can choose whether and/or how they want to respond to. Other tax-friendly technological advancements can also deliver a range of improvements to tax operations, including:

- *Big* **data analytics:** The ability to quickly analyze massive data sets gives tax groups new opportunities to generate value. Scrutinizing two years' worth of purchasing data can produce fresh insights on how to improve tax determination accuracy. The same data sets can be subjected to predictive analytics to stimulate new thinking on purchasing trends and their impacts on tax planning.

- **RPA-related efficiency and accuracy gains:** RPA applications can help tax groups replace low-value, manual tasks with automation. Large supplies of tax data can be cleansed (by reformatting dates, eliminating duplicate addresses, correcting addresses, etc.) via RPA. In addition to extracting and consolidating large amounts of data between disparate systems and applications, RPA tools can also improve master data management within SAP as well as in standalone accounts payable (AP) and accounts receivable (AR) applications.

- **OCR-enabled vendor invoice reviews:** OCR (Optical Character Recognition) technology offers significant benefits in tax-related processes by enabling the swift and accurate extraction of data from various documents, including invoices, receipts, and financial statements. This capability streamlines the collection of essential tax information, such as transaction details, line-item descriptions, amounts, and tax codes, from both digital and physical sources. By automating the data extraction process, OCR reduces the risk of manual errors and accelerates the overall tax preparation and filing procedures.

- **Plenty of other stuff:** Advanced technologies also are automating, redesigning, and improving how tax groups conduct tax research; perform transaction reviews (and collaborate with the accounting, procurement, and sales colleagues); manage, validate, and certify exemption certifications; manage audits and reverse audits; and prepare and reconcile returns.

Advanced automation techniques implemented through use of AI/ML, RPA, and OCR technologies can greatly improve tax-related activities that require time-consuming data-processing and data reviews. These tools really shine when it comes to automation of repetitive tasks, efficient extraction of text data, or detecting patterns hidden in collections of big data."

Chaitanya Sharma
DMA Senior Manager, Tax Technology Practice

Intelligent Upgrades: How SAP Offerings (and Implementations) are Evolving

AI is at the foundation of new SAP features

Given the degree to which AI, OCR, advanced analytics, RPA and other emerging technologies can improve tax operations, it's worth considering how these tools are similarly enhancing ERP systems as well as implementation and integration processes.

AI Foundation on SAP BTP is an all-in-one AI toolkit that offers developers AI that is ready-to-use, customizable, grounded in business data, and supported by leading generative AI foundation models. SAP Business Technology Platform (BTP) is a platform as a service (PaaS) offering from SAP that brings together a portfolio of SAP services/solutions in a unified environment. IT, finance and tax teams should recognize that this offering consists of out of the box AI services, including tools (and runtimes) for application development, data analytics, and integrations (which enable connections between SAP and non-SAP systems. AI Foundation on SAP BTP provides a range of AI services, including those that can:

- **Classify incoming service requests (e.g., handling high volumes of vendor inquiries)**
- **Extract structured data from unstructured documents**
- **Categorize invoices according to predefined categories**
- **Leverage RPA to process and approve invoices**
- **Predict and resolve missing fields (e.g. auto-completing the sales order process).**

"As more AI tools and functionality are applied to the procure-to-pay and order-to-cash cycles within SAP, it will have an exceedingly positive impact on tax groups in terms of better tax calculations and a greatly reduced tax-coding burden."

Suzy Soo
Vertex Senior Director of SAP Enablement

Additionally, SAP AI Core is a runtime that can be used to train, deploy, and monitor ML models. And SAP AI Launchpad leverages a visual interface and gen AI to run scenarios and use cases; it also provides generative AI capabilities. Finally, SAP's Joule, a gen AI assistant, transforms, while simplifying, how IT, finance, tax, and other users interact with SAP business systems.[2]

ERP implementation and integration work is also benefitting from emerging technologies. Leading tax technology firms like DMA now deploy gen AI to create solution documents, build test cases, and introduce many other efficiency-drivers to strengthen the implementation process as well as SAP-Vertex-SAP integrations.

How to Empower Tax Professionals

Addressing AI's limitations and challenges will help elevate the role of the tax professional

Concerns about job security and changes to roles and responsibilities arise whenever disruptive, game-changing technologies hit the market – and AI breakthroughs are understandably generating some unease within tax groups. Veteran tax professionals will recall that similar concerns accompanied the introduction of tax provision software: What will tax professionals do now that tax automation handles form-filling, data entry and other manual tasks? The answer then, as now, is that tax groups can leverage new tools to expand and improve the strategic work they perform to help build organizational value.

Tax groups can leverage new tools to expand higher-level cognitive activities that include:

- **A range of tax planning, policy, and management activities**
- **Subjective decision-making that requires human insight and intelligence**
- **Active governance of AI-generated results**
- **Decisions and tasks involving ethical judgments.**

While these types of activities give tax groups an opportunity to elevate their strategic contributions, doing so requires hard work, new skills, and, in some cases, new ways of thinking to perform. Recent McKinsey research finds that employees with high levels of technical expertise report that the importance of social and emotional skills rises as they increase their use of gen AI applications; and both technical and non-technical workers rate higher cognitive skills and more important to their work than technological skills.[3]

Technology-driven roles and responsibility changes within the tax groups also require a firm grasp of the limits and risks of AI and other emerging technologies. Tax leaders should recognize that optimizing their investments in cutting-edge tools requires:

- **Clean, tax-relevant, appropriately formatted data**
- **The recognition and remediation of AI risks**
- **New skills and upskilling programs**
- **Strong AI governance guardrails and human oversight**

Regardless of how superhuman the capabilities of AI and similar technological advancements appear, the trick to deriving the most value from these tools relies less on magic than it does on forethought, planning, and a strategic tax mindset.

Tax's AI Usage has Yet to Take Off

An informal Vertex-DMA online poll of tax professionals suggests that tax groups value artificial intelligence (AI) tools, but have ground to cover regarding adoption. 80% of tax respondents expect AI to improve their team's productivity, while 20% of respondents say AI will not affect tax groups at all (notably, none of the respondents believe that AI tools will replace tax department jobs). However, when it comes to using AI applications, two-thirds of respondents are only using the AI functionality in Office tools, and only one-sixth of respondents have integrated AI into tax reviews and analysis activities.

End Notes

[1] https://www.sap.com/products/artificial-intelligence/business-technology-platform.html.

[2] https://www.sap.com/products/artificial-intelligence/ai-assistant.html

[3] https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/the-human-side-of-generative-ai-creating-a-path-to-productivity.

About Vertex

Vertex is a leading global provider of indirect tax software and solutions. The company's mission is to deliver the most trusted tax technology enabling global businesses to transact, comply and grow with confidence. Vertex provides solutions that can be tailored to specific industries for major lines of indirect tax, including sales and consumer use, value added and payroll. Headquartered in North America, and with offices in South America and Europe, Vertex employs over 1,400 professionals and serves companies across the globe.

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