*Global Fintech Series*

By Sal Visca, Chief Technology Officer, Vertex

**How Agentic AI Will Shape Tax Processes in 2025 and Beyond**

As businesses navigate increasingly complex tax regulations across many jurisdictions, Agentic AI is surfacing as a disruptive and enabling technology. Generative AI was a massive evolutionary step forward over traditional Machine Learning and now a new AI wave is forming around *Agentic AI* - an advanced form of artificial intelligence that incorporates intent processing and actions that can operate autonomously as distributed “agents”. It is emerging as a transformative force, which will impact businesses broadly, including tax departments. Across industries, these advanced and emerging AI systems show potential to revolutionize how organizations handle their most complex challenges. The shift toward Agentic AI represents more than just technological advancement; it marks a fundamental change in how work can be done, with implications reaching far beyond simple automation.

**The Evolution of Tax Technology**

Organizations today have vast amounts of data from source “systems of record” like ERPs, financial platforms and tax solutions. Leveraging technology is no longer a nice-to-have but a true business imperative critical for competitive survival, with pressure to modernize operations intensifying as regulatory frameworks, e-invoicing and reporting requirements deepen. In 2024 alone, new real-time reporting requirements on a global scale demonstrated the need for tax authorities worldwide to turn to a digital-first approach.

Agentic AI systems are unique in their ability to provide intelligent automation around the processes of aggregating vast amounts of data, analyzing patterns, and making informed decisions to support tax and compliance. This capability is particularly crucial as international tax regulations, such as the OECD's Common Reporting Standard (CRS) and the U.S. Foreign Account Tax Compliance Act (FATCA), continue to expand. Advanced AI can offer not only insights but develop a plan of action and execute them. Somewhat like Edge Computing, the Agentic AI enables Edge AI, which allows AI processing to be deployed and distributed closer to the data sources providing alternative scaling and near real-time currency options. Fueling Advanced AI is continuously learning from new tax regulations, court decisions, and regulatory guidance, ensuring that its decision-making capabilities remain current and relevant in an ever-evolving landscape.

**Streamlining Compliance and Risk Management**

Agentic AI's advanced capabilities extend beyond basic automation to incorporate robust adaptive planning and execution of tasks, whether that is with a human-in-the-loop or independently. These systems can identify patterns, flag potential risks, and take actions. As governments invest in their own AI technology to combat issues like VAT fraud and tax gap reduction, businesses can stay ahead by deploying Agentic AI systems that actively adapt to evolving governmental expectations and enforcement strategies.

This technology is particularly valuable for navigating complexity, such as international mandates and cross-border transactions. As jurisdictions adopt e-invoicing and other digital tax requirements, Agentic AI systems can manage tasks in the compliance process, make real-time tax treatment decisions, and reconcile discrepancies across multiple tax jurisdictions. These systems can adapt to new tax regulations, ensuring continuous compliance without constant manual intervention. The ability to process and analyze vast amounts of tax data enables organizations to maintain compliance while identifying opportunities for tax optimization and strategic planning.

**Trust & Transparency**

While Agentic AI offers transformative potential, organizations must prioritize ethical and responsible considerations and human oversight in their adoption of emerging technology. Agentic AI goes beyond traditional machine learning and automation, making complex decisions that require additional accountability and oversight. Its implementation in tax processes also requires careful consideration of data security and privacy requirements across different jurisdictions. Organizations must ensure their AI systems comply with data protection regulations while maintaining the ability to adapt to changing regulatory requirements.

Compliance standards, including System and Organization Controls (SOC), have emerged as a critical mechanism for building organizational trust, helping businesses manage how they report financial and security data, providing transparency and establishing credibility with stakeholders. Striking a balance between innovation and compliance is essential for responsible AI adoption in tax operations – AI is not about replacing human expertise but augmenting it. The most effective AI-driven tax strategies maintain a critical human-in-the-loop approach.

**A Smarter Tax Future**

As technology matures, we'll continue to see these systems take on more sophisticated roles in tax processes and compliance. Advanced AI systems will move beyond simple data analysis, potentially becoming active participants in processes across the tax department, capable of making complex decisions to support calculation through compliance and take action. The evolution of these systems will fundamentally change how businesses approach tax management, enabling true partnership between technology and human expertise to proactively manage tax processes and decision-making. The key to success lies largely in developing Agentic AI systems that balance autonomous decision-making with appropriate oversight and control mechanisms.

In 2025 and beyond, these systems won't just be tools for managing compliance; they will be strategic partners in executing corporate tax strategy, helping businesses navigate complex regulatory environments while optimizing positions for growth and efficiency. Organizations that embrace Agentic AI's potential while maintaining appropriate oversight will find themselves well-positioned to thrive in an increasingly complex tax landscape. The future of corporate tax management depends on the seamless integration of human expertise and Agentic AI capabilities, fostering a synergy that strengthens compliance, supports strategic decision-making, and ensures sustainable growth in a rapidly evolving global tax landscape.

**About the Author**

As Chief Technology Officer, Sal leads the company’s technology strategy, software engineering and innovation roadmap to accelerate growth.

He joined Vertex in 2021 after 30 years of technology and executive management expertise transforming and operating large-scale cloud software businesses.

Sal spent his early career at IBM as a software engineer, architect and then in executive roles developing the company’s e-commerce and middleware products. He has also held Chief Technology Officer roles at Elastic Path Software, Business Objects and SAP.

**Headshot**

