DATA, ANALYTICS AND TECHNOLOGY IN THE TAX FUNCTION
Technology continues to transform the business world and the accounting industry is no exception. In a previous issue of this publication, I talked about artificial intelligence as the next frontier of auditing, as accounting firms are relying increasingly on technology in the audit process. The integration of data and analytics into accounting is one of the main reasons we created the Master of Accounting with Data Analytics (MAC) at Villanova School of Business (VSB). We knew our students needed a different approach to meet the new demands of the accounting industry.

The tax function is also seeing an increase in the integration of data, analytics and technology in all of its various practice areas. The volume and complexities of taxation in the compliance, planning, and consultative functions have been the primary cause of this increase. In addition, the COVID-19 pandemic has hastened the pace of changes that were already underway in the profession. Building on the success of our MAC program, we created a new Master of Business Taxation with Data Analytics Program (MBT) to prepare students for the expanding and higher-level expectations of today’s tax professionals. In the MBT, students gain the multi-dimensional skills needed to navigate the changes transforming the field, acquire a mindset of lifelong learning, and prepare themselves to be successful tax professionals.

Quantitative approach

The fundamental process of collecting, evaluating, and using data is obviously not new to tax accountants. What has changed, however, is the volume of available data, and the technology that is utilized to gather and interpret the data. As a result, businesses are adapting their tax functions to meet today’s demands, and they are expecting their employees to begin with higher level skillsets.

According to EY’s 2020 Global Tax Technology and Transformation Survey, “New tax operating models will need to be in place within the next few years. This intelligent tax function will also be more tightly integrated with the rest of the business from an operational perspective, and will leverage data and technology to deliver value to the business.”1 The EY survey found that 73 percent of companies surveyed planned to increase tax headcount with people with data and tech management skills. Given these changes taking place in the tax function, it is essential that tax professionals have additional data, analytic, and technology skills.

Responding to changes in the tax profession and feedback from employers, our MBT program integrates quantitative applications of data, analytics, and technology with core and advanced levels of taxation. Students gain exposure to the new and emerging technologies that are reshaping the profession, and use data and analytics technologies to enhance their understanding of strategic decision-making in tax settings.

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Tax modeling

One key element of our program is learning how to use technology, and Excel in particular, to evaluate the tax effects of multiple scenarios when a company is considering mergers and acquisition transactions, changes to a global legal entity structure, or the impact of potential tax legislation.

According to KPMG, “The inability to effectively manage large and complex spreadsheets and maintain data integrity (formula errors, stability, etc.) is a common challenge for most companies. Moreover, there is often difficulty in supporting complex tax processes such as operational transfer pricing, provision, compliance, and planning.”

To meet these challenges, KPMG offers “improved spreadsheet and database models that offer increased performance and flexibility, immediate business benefits, and functionality which can optimize the quality and accuracy of model outputs.”

A global business environment and the rapid pace of changes to tax laws and regulations present many challenges to employers. As PwC explains, “Internal and environmental challenges require Tax to be nimble and accurate in providing information the enterprise needs for business decisions as well as complying with increasingly complex rules and calculations for tax jurisdiction reporting.”

In learning how to use modeling tools to enhance and streamline operations and decision-making for an organization, our MBT students bring a unique expertise and add immediate value for their clients and their employers.

Use of machine learning, robotics and AI

In addition to modeling skills, the application of new technologies such as machine learning, robotic process automation (RPA) and artificial intelligence (AI) continue to revolutionize the tax function. Processes that once took hours now take minutes.

For example, according to Deloitte, tax functions are using RPA “to perform data-gathering, adjustments, reconciliations, processing, and e-filing.” They are also using machine learning to automate and enhance decision-making. Tax leaders “are recognizing that when properly adopted, integrated, and managed—and when viewed in the context of pairing people with machines rather than replacing people with machines—their technologies are able to unlock efficiencies and enhance agility.”

KPMG explains how “many companies are looking to reduce labor costs and are often challenged by the need to deploy tax professionals on more strategic initiatives.” KPMG’s data and analytics solutions offer the ability to “automate and augment highly standardized activities traditionally performed by humans in high volume.” In one example, KPMG “implemented robotic process automation (RPA)…and reduced a 30-minute process, which had been completed hundreds of times daily, to a process requiring one click of a button.”

Through our MBT program, students learn how to use data, analytics, and technology to increase the efficiency of the tax compliance and reporting process, and to provide opportunities for value-added tax savings strategies.

Digital solutions

With the increase in the amount of available data, companies need professionals who are proficient in collecting, cleansing, and analyzing the relevant data.


for use in tax reporting and planning.

As these technology solutions become integrated into the tax function, there is increased demand for employees who are not only familiar with the fundamentals of ERP (enterprise resource planning) systems but who can work with various internal stakeholders. “There is a growing need for tax professionals who have such soft skills – who can manage the tax departments’ automation and serve as interpreters for other team members. Their job will be to help the other parties articulate their needs and concerns and help translate ideas into actionable steps that can lead to the desired outcomes.”

Our students learn how to apply multiple software tools to manage data, perform test analyses on the tax consequences of various tax planning options, and report the findings in a coherent and understandable manner using graphs, dashboards, and other advanced data visualization applications. Our curriculum also provides opportunities to learn qualitative skills that are foundational to becoming successful tax professionals.

Putting it all together

An undergraduate accounting program provides exposure to many elements of taxation but given the breadth of information that needs to be learned, it is difficult to cover more advanced areas in any detail. A graduate program offers this opportunity. Our MBT curriculum integrates data, analytics, technology, and modeling with in-depth graduate level tax topics such as strategic taxation; business operations and tax planning; corporate and partnership taxation; international, state, and local taxation; and tax research, policy, and ethics. Through experiential learning opportunities and tax season internships, our students are also able to apply their knowledge in real-world scenarios.

The multi-dimensional skills gained through the MBT degree make students more versatile and attractive to prospective employers, which allows them to stand out in professional tax settings and to take on higher level responsibilities. In addition, students are equipped with a mindset of lifelong learning, laying the foundation for future success in a fast-changing, technology-driven world. The technology of today will continue to evolve. Those who are versatile and multi-skilled are best positioned for success in a constantly changing world.

The Villanova School of Business (VSB) undergraduate program is top-ranked among business schools in the nation. Its online graduate business programs are ranked #5, and its online MBA program is ranked #17 by U.S. News and World Report. VSB has been at the forefront of business education since it was founded in 1922. Serving over 2,700 undergraduate and graduate students, VSB is home to five Centers of Excellence – the Daniel M. DiLella Center for Real Estate, the Elenore and Robert F. Moran Sr. Center for Global Leadership, the Center for Business Analytics, the Center for Marketing & Consumer Insights and the Center for Church Management – with each designed to foster innovative, cross-disciplinary research and applied opportunities for students. VSB is known for academic rigor; creativity and innovation; hands-on and service learning opportunities; a firm grounding in ethics; and an applied education that prepares students to become outstanding leaders and global citizens within the ever-changing, complex, and fast-paced world of business.

For more, visit business.villanova.edu.
PREPARING FUTURE ACCOUNTANTS

Data and its interpretations are having a profound impact on accounting and the way we educate future accountants. Businesses and accounting firms expect accountants to be multi-skilled across several disciplines. They want data-driven perspectives—and those who can work with data, examine its output, and share meaningful financial insights are well-positioned for success. This feedback from top global accounting firms helped shape our innovative and highly specialized accounting graduate programs.

MASTER OF ACCOUNTING WITH DATA ANALYTICS (MAC)

For those seeking careers in audit and advisory services. The MAC curriculum integrates data analytics with other essential skills to prepare students to become multi-dimensional accountants. The full-time program is offered with or without an internship and can start in the fall or spring.

MASTER OF BUSINESS TAXATION WITH DATA ANALYTICS (MBT)

For those seeking a career as a tax professional. It provides advanced coursework in tax and accounting with quantitative applications in modeling, data, analytics and technology. The full-time, 12-month program includes a tax-season internship.