The world of indirect taxes is rapidly changing. Today’s indirect tax functions face increasing pressure from external stakeholders on taxation and tax risks, while at the same time balancing the emergence of new technologies with the need to depend increasingly on accounting systems for indirect tax management. Clearly, today’s complex era of technology change requires a new skillset from indirect tax professionals.

Technology also brings significant opportunity to the indirect tax function. Indeed, with the help of data and analytics (“D&A”), complex enterprise resource planning (“ERP”) landscapes and indirect tax processes—until now the bane of most indirect tax professionals’ existence—can start to be unraveled.

However, tax D&A is not just about identifying and investigating data anomalies in good time or increasing control of the end-to-end indirect tax process. Indirect tax analytics can also be the key to unlocking additional value within transactional data that can serve as a basis for improvements, not only in indirect tax performance, but also across the wider business.

I. Introduction

The use of D&A is not new. In fact, methodologies have been evolving since the mid-1950s when early D&A activities, now considered “Analytics 1.0”, first appeared.¹

During the past two decades—and particularly over the past five years—D&A has come of age.² An entire ecosystem has developed, supported by increasingly sophisticated technologies, while at the same time the application of D&A has expanded considerably. In the finance, logistics, and scientific fields in particular, the application of D&A has already started to deliver significant benefits.³

As Niall Campbell noted in his article in this series, the value of new D&A capabilities has not been lost on indirect tax authorities.⁴ In fact, as D&A matured, it was often the tax authorities themselves that led the development of tax-driven analytics.⁵ Today, software-driven validation of transactional data is a tool used widely by tax authorities around the world.

Unfortunately, in-house indirect tax functions have (generally speaking) not kept pace with the sophistication of the tax authorities. As recently as five years ago, many in-house tax analytics relied primarily on
Microsoft Excel (the program still remains the most commonly used technology within the “modern” tax function today).

If in-house indirect tax functions are to keep up with their tax authority counterparts, they will need to improve their use of D&A.

As this article argues, in-house indirect tax functions should be applying tax D&A across their tax process—not just in their tax reporting—to drive improved compliance and control, as well as to create new value for other parts of the business.

II. The Transaction Tax Challenge

Anyone involved in tax management knows that there is a significant difference between managing direct taxes such as corporate income tax, and indirect taxes such as value added taxes (“VAT”) or goods and services taxes (“GST”).

In the indirect tax world, every single transaction (for both sales and purchases), and many activities related to those transactions, must be assessed in real-time to determine the specific tax treatment. Direct taxes, on the other hand, are assessed on a periodic basis, often just once per year.

Corporate income tax professionals may be less concerned with some of the finer details of the transaction, such as where the customer is resident; what product or service is being sold; where the order is to be fulfilled from; and the terms upon which the transaction takes place. However, for indirect taxes, these (and potentially many other data elements) are often crucial when determining where and how a transaction is to be taxed.

Another major difference between direct and indirect taxes is that in many countries indirect tax returns may never be audited by the tax authorities. In other words, it is only once the statutory time limits have been exceeded that the tax payer can have any real certainty over the tax values that have been submitted.

III. Tax Processing in ERP Systems: Understanding the End-to-End Process

A major challenge facing in-house indirect tax professionals is the potential for human error. Possibly an even greater challenge, however, is the fact that—bullied by the automation of ERP systems—many in-house tax professionals do not recognize the various areas that require frequent monitoring and control: those that do, may often focus rather narrowly on the reporting side of the process. However, VAT/GST processing within an ERP system is generally dependent on four key business areas: reporting, accounts receivable, accounts payable, and master data.

A. Reporting

For most businesses, the key finance activity (relative to indirect tax) is generally the extraction of VAT/GST reports from the ERP system at the end of a reporting period. These reports are however often intentionally simplified to facilitate local tax compliance, and typically only extract key values, together with an associated tax code which acts as a key identifier. For the most part, very little other detail is provided, such as the underlying transactions and additional information needed to validate the tax treatment applied to the transaction. Simply put, the VAT/GST reporting process often does not provide the detail indirect tax professionals actually need to properly assess their controls or deliver new insights to the business.

B. Accounts Receivable

The accounts receivable process is where invoices are typically created via sales orders and outbound deliveries and, as such, is where ERP systems have the most automated functionality to calculate tax codes for each outgoing transaction. In indirect tax technology circles, this is often called the “VAT logic,” an automated set of rules that determines and controls the tax decision based on the transactional and master data available.

VAT logic works beautifully as long as the correct data is being used, the controls cannot be manually overridden and the VAT logic governance process ensures that the actual logic is consistent with both internal (business) and external (tax law) changes.

The problem here is that—to the authors’ knowledge—there is no single ERP system in the market that, “out-of-the-box,” can automatically support VAT/GST determination across all kind of industries. Many major ERP platforms have rather well-known indirect tax limitations. As such, errors are often made and data is (occasionally) unreliable.

C. Accounts Payable

Manual intervention is common in the accounts payable (“AP”) process. Indeed, hobbled by significantly less automation of tax codes than with receivables, many accounts payable departments still rely heavily on accounting clerks manually selecting tax codes to reflect whatever tax was charged on the invoice by the vendor. For companies with overseas customers or vendors, this requires a basic knowledge of the country-specific VAT rules to identify the correct tax code.

This is not an easy task, particularly given that VAT/GST rules and tax rates change from time to time. As such, AP clerks need to be trained on the latest VAT/GST rules on a regular basis and/or VAT determination manuals (essentially a decision tree to assist with the manual tax code determination) need to be designed.

The challenge here is that, whether housed in a shared services center or in-house, most AP departments have defined key performance indicators based on the total number of invoices that employees need to process on a daily basis. Combined with the reality that the work has a strongly repetitive nature and the list of potential codes could easily exceed 100, it is perhaps easy to see how the wrong code could occasionally be selected.

There are few systems-based controls in place to prevent mistakes within the AP function and, as such,
the AP function would benefit greatly from detective VAT/GST controls such as those available through D&A.

D. Master Data

As noted earlier, the automation and reporting of tax within an ERP system relies heavily on the availability and accuracy of master data. Given that most ERP-enabled organizations are exposed to more than 100,000 different elements of master data (based on the authors’ experience), almost all enterprises face the challenge of maintaining a reliable and robust master data process while at the same time ensuring that the master data is accurate, up-to-date, and fit-for-purpose based on the requirements of the business functions using the data. Generally speaking, the key master data components relevant from a VAT/GST perspective are often related to the vendor, the customer or the product: it is vital that accurate and complete VAT/GST-relevant information is captured for each of these master data components.

Sometimes the error can be obvious. One of the most basic examples of a “critical” VAT/GST-relevant customer master data field is the country where the customer resides: while it may be evident on the invoice, if the customer country in the master data is not a reliable field, the accuracy of the tax code decision cannot be guaranteed.

IV. VAT Monitoring Through Data and Analytics

Tax authorities, supervisors, financial investors, and other stakeholders are increasingly focused on taxation and tax risks; they expect companies to be in control of their main tax risks.8 In response, many companies have now put significant effort into identifying their main tax risks and implementing Tax Control Frameworks, essentially a set of governance frameworks which identify the key tax risks within a business, provide a clear overview of tax responsibilities and accountabilities related to those risk areas, articulate the controls in place to mitigate the risks and describe the monitoring program to ensure such controls are tested on an ongoing basis.9

Until recently, tax control monitoring had always been an episodic undertaking, via a manual review. Opinions and findings often relied solely on the subjective opinions of fiscal experts, based purely on a handful of process walkthroughs and selected samples of invoices and other tax-relevant documentation.

Today’s Big Data and D&A environment, however, has enabled the monitoring process to transform into a highly-automated and objective approach. Substantial amounts of transactional data can be tested, monitoring can be conducted in near real-time, and the effectiveness of entire groups of VAT/GST application controls can be developed.

That being said, the effectiveness of VAT/GST application controls (such as ensuring that every sales invoice contains a tax code or that tax codes on sales invoices cannot be manually overridden) provides only partial assurance on the validity and completeness of the input and output VAT/GST activity. To bridge that assurance gap, indirect tax functions are increasingly looking to D&A.

The simple fact is that D&A (for indirect tax purposes) must be aligned to the VAT/GST and business activities. It is often most effective when focused on either specific risk areas (such as the underpayment of output VAT or claiming too much input VAT) or specific opportunity areas (such as targeting VAT working capital benefits or the overpayment of output VAT).

It must be noted, however, that all D&A processes are iterative by nature. Indeed, most analytics assessments initially produce a number of false positives (transactions that are identified as anomalies, but on investigation, do not add up to the VAT/GST risk/ opportunity) and therefore D&A tests must be constantly updated and optimized to ensure future analytics are efficient and effective.

V. Driving Business Value from Tax Analytics

Requesting new funding for D&A within the indirect tax function can often be a challenge. Few executives or IT departments want to put more money into what they often perceive to be a reporting function.

Businesses would be well-advised to assess the wider enterprise benefits of tax D&A to support the development of a business case for advanced D&A software. For IT departments, who often control IT budgets, the ability to leverage investment from a D&A tool across multiple functions is often seen as a big value-add when it comes to investment in new software.

Perhaps the most obvious areas where VAT/GST data sets and tax D&A can be used to add value to other business functions relate to providing input into tax transparency initiatives such as base erosion and profit shifting (“BEPS”) and country-by-country (“CbyC”) reporting processes.

VAT/GST data sets can also be analyzed to help provide insights to help other tax functions that possess a strong transactional nature, such as transfer pricing, environmental taxes, customs duties, and excise. However, to maximize the analytic value for these tax areas, VAT/GST data may need to be enriched with additional information and data which, in turn, can unlock additional analytic tests that can provide valuable insights across a wide variety of different tax types, thereby avoiding the need for multiple data extracts.

For example, the VAT data sets could be used to analyze intercompany margins, deviations per product, goods flows and periods to support transfer pricing decision-making. This would allow organizations to transform their current intercompany pricing analysis (which is typically an Excel-based exercise) into a real data-driven approach where dozens of transactional data flows form the basis of the analysis.

While layering in other non-VAT data may seem like a significant complication, the good news is that there are now a number of D&A tools available in the market and the integration of such additional data is
relatively straightforward (assuming the data is held somewhere within the ERP system or other business database).

Of course, forward-thinking and business-minded indirect tax professionals will also quickly see that there are wider benefits available when looking at the same data set from a non-tax angle. Data could, for example, deliver insights into duplicate invoices, the segregation of duties, early payments to vendors, the prevalence of invoices without purchase orders or a high volume of low-value invoices from the same vendor.

Clearly, the benefits of applying D&A within the indirect tax function and across the tax process can be significant.

VI. Conclusion

In this article we have outlined how D&A can be applied to better understand and manage transactional taxes. As organizations are becoming more globalized and transaction flows are becoming more complicated, the requirement to monitor the accuracy of tax calculations through use of D&A has significantly increased. Tax authorities are not slowing down their adoption of increasingly sophisticated tools and data specialists to perform VAT/GST audits in a highly efficient way; consequently, the need for change has become critical.

For large, multinational or complex businesses to manage VAT/GST proactively, indirect tax functions need a combination of well-implemented and controlled ERP systems (that include robust authorizations, VAT application controls and correct tax rates) and a VAT monitoring mechanism (preferably utilizing D&A to assure the quality of VAT data and controls).

They will also need to engage in multidisciplinary teams, bringing together tax and technology, to drive collaboration which, in turn, will require them to demonstrate a willingness and capability to step into each other’s worlds and to (a certain degree) speak each other’s language.

The bottom line is that D&A should never be a goal in itself, but rather a means to help measure VAT control objectives and contribute to the realization of effective VAT calculation processing and business enablement.

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NOTES
1 https://hbr.org/2013/12/analytics-30
5 See e.g., Tim Gillis & Philippe Stephanny, Going Beyond the Data: Tax Data is Big Data, Tax Planning International Indirect Taxes, Vol. 12, No. 9 (September 2014) The Bureau of National Affairs, Inc.
6 See e.g., Stephen van den Biggelaar; Stephan Janssen, and Alexander Zegers, VAT and ERP – What a CIO Should Know to Avoid High Fines, Inhoud Compact 08/2.
7 See e.g., Stephen van den Biggelaar; Stephan Janssen, and Alexander Zegers, VAT and ERP – What a CIO Should Know to Avoid High Fines, Inhoud Compact 08/2.
9 See e.g., Organisation for Economic Cooperation and Development, Cooperative Compliance: A Framework – Chapter 4: The Importance of Tax Control Framework (2013).