Can data analytics add value to the tax function?

EY Africa Tax Conference

September 2014
Agenda

► Introduction
► What is happening?
► The analytics for VAT solutions suite and live examples
► Why consider risks and opportunities assessment methodology (ROAM) solutions for VAT?
The importance of data analytics

Vote

► Is the topic of data analytics on your agenda?
  ► Yes – high priority
  ► Yes – low priority
  ► No – it doesn’t fall within my remit
  ► Not to date – but it might after this session
Trends and the market

Can data analytics add value to the tax function?
Introduction

Can data analytics add value to the tax function?

Enhancing the tax function

Local and outside tax function
- Responsible for tax
- Centrally led

Stand-alone (tax) function
- Supporting the business
- Embedded and centrally led

Reactive
- Tax and legal framework
- Proactive and business led

Compliance focused
- Monitoring performance
- Controls focused

Retroactive
- Be in control
- Real time analytics
What is happening?

Cloud or Big Data initiatives and utilization

ERP setup issues

VAT risk monitoring

Inefficient or poorly controlled reporting

Poor cash flow management

Unknown risks and exposures

Finance transformation

Lack of clarity over supply chain

Poor data quality
Countries with budget deficits increasingly turn to VAT to close the gap in their budget.

Existing tax audit density can no longer supply the country’s budget demands.

More and more countries turn to data diagnostics to improve the quality of their tax audits.

EY’s Indirect Tax team have explored technology offerings to improve speed and quality of our indirect tax audits.

The ROAM proposition, based on data analytics, identifies cost, cash and risk opportunities within your supply chain.

Both our clients and the tax authorities have embraced our proposition and consider our approach the future of VAT assurance.

ROAM enables you to be ahead of the game and to influence the outcome of tax audits and better manage cash tax and cash flow.
ROAM
How does data get from the business into your tax returns?
Can data analytics add value to the tax function?
The ROAM for VAT solutions suite

- Invoice and master data record combinations
- Basic analytical scripts
- Accounts receivable
- Accounts payable

- Completeness and accuracy checks
- Create ultimate VAT position
- Sophisticated scripting
- Root cause analysis
- Prorata calculation
- VAT audits

Reconciling VAT returns to:
- Financial statements
- Manual entries
- Goods, services and cash movements, classification of expenses, investments and turnover

- Active controls
- Audit trail options
- Interactive management
- Cash impact forecasting
- Online and real time analytics
EY’s ROAM for VAT solution suite

Can data analytics add value to the tax function?
ROAM basics

► ROAM basics is an indirect tax analytics methodology performing a variety of tests on your AP and AR data.

► ROAM basics identifies inconsistencies and weaknesses in AP and AR invoice handling processes.

► ROAM basics is applicable across geographies, IT environments and software solutions (MS Access, ACL, IDEA, etc.).
A ROAM basics analysis is a three-phase consultative and repetitive process based on basic data analyses techniques with pre-defined outputs. ROAM basics offers a low-cost, simple and easy-to-implement AP and AR analyses solution.

ROAM basics offers AP and AR functions a way to analyze large volumes of data and is especially recommended in less mature VAT function environments.
ROAM reconcile

- ROAM reconciliation is a tool designed to meet global auditing requirements, demonstrating that financial statements, corporate income tax returns and VAT returns are all filed and based on the very same underlying transactional data records.
- ROAM reconciliation offers tax function control over the VAT compilation process by offering compliance officers a systematic and user-friendly methodology that identifies, stores and archives all VAT-relevant business transactions during the VAT return compilation process.
- ROAM reconciliation provides “one mouse click away” transaction type and transaction number references.
Reconcile the VAT returns with both financial and transactional data records

Account configuration

Account group decomposition

ROAM reconcile

Financial statements

Goods

Cash

AP, AR and other VAT transactions

Reconciliations at line item level

<table>
<thead>
<tr>
<th>Account Code</th>
<th>Description</th>
<th>VAT Returns</th>
<th>Financial Statements</th>
<th>Difference</th>
<th>Line</th>
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</table>

Can data analytics add value to the tax function?
Case study: European retailer

Due to ERP setup input VAT on purchases was not completely captured during VAT return filing processes.

EY’s ROAM reconciliation enabled the German company to demonstrate the level of underclaimed input VAT and the tax authorities agreed to:

- Process €33m refund for previous years
- Accept inclusion of otherwise missed input VAT in running VAT returns process
- Tax authorities agreed to provide annual VAT return reconciliation(s) based on EY’s ROAM reconciliation methodology.
Can data analytics add value to the tax function?
ROAM advanced

► ROAM advanced is an audit techniques-based method that adds a goods flow and cash flow movements dimension to standard reconciliation methods.
► ROAM advanced captures all VAT-relevant transactions and postings at line item level, enabling completeness and VAT audit readiness.
► ROAM advanced combines visualization techniques with VAT cost accounting techniques, presenting financial results on maps.
► ROAM advanced can be used for multiple purposes, including:
  ► Tax control framework setup and enhancement
  ► Scenario modeling
  ► Tax audit readiness assessment
  ► Supply chain transformations
  ► Performance measurement
Can data analytics add value to the tax function?

**Phase 1**
- VAT analytics
  - Use ROAM solution suite to determine potential risks and opportunities

**Phase 2**
- **Design improvement plan**
  - Identify improvement needs
  - Evaluate and prioritize solutions
  - Research remediation steps
  - Define benefits road map
  - Qualification and quantification

**Phase 3**
- **Remediation plan execution**
  - Implement remediation actions
  - Test remediation solutions
  - Monitor solution effectiveness
- **Harvest benefits**
  - Execute business steps
  - Develop scenario demonstrations
  - Develop tangible business specifications
## Phase 1 ROAM advanced

<table>
<thead>
<tr>
<th>Kick off workshop and scoping</th>
<th>Data analytics</th>
<th>VAT analytics</th>
<th>Sharing results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding the business and determination of the analytics focus areas</td>
<td>Extract data, process and validate data and prepare ROAM main data base</td>
<td>Execute VAT analytical scripts aimed at identification of potential risk and opportunity areas</td>
<td>Illustration of selected or all usage scenarios of the business concepts may be demonstrated using custom-developed demo videos</td>
</tr>
</tbody>
</table>

Can data analytics add value to the tax function?
Extensive data analytics are applied to understand business operations and to identify and quantify risks and opportunities.

**Process overview**

**ROAM advanced - phase 1**

- **Understanding the business**
- **Determine data needs**
- **Data extraction**
- **Data quality testing and data readiness assessment**
- **Create ROAM database**
- **Validate**
- **Conduct VAT-focused analysis and investigate findings**
- **Document and explain**
- **Conclusion report**

**Scoping and planning**

**Data processing and validation**

**VAT analytics**

**Conclusion and reporting**

Can data analytics add value to the tax function?
Process overview
ROAM advanced - Phase 1

What indirect tax functions need to know:

► What business operations have changed from the previous filing period that I have not been informed about?
► What are the risks?
► Should we start with the numbers?
► Do we need to test controls?
► What resources do we need?
ROAM advanced
Case study: global pharmaceutical company

► The expansion of the company’s business across many geographies put increased controls pressure on the global indirect tax.

► With ROAM advanced, the company learned where it was facing VAT compliance risks, but were also shown opportunities to improve the company’s VAT compliance and cash flow positions.

► With ROAM advanced the company managed to fix major risks areas and collected €4,5m in cash savings and improved the company’s working capital position by €150m.
ROAM monitor

► ROAM monitor is a methodology to monitor the performance of participating roles within the (indirect) tax function by (web-enabled and in-house) workstream-based dashboards;
► ROAM monitor provides real-time value by providing financial information about transactions that are VAT-exceptional or unexpected;
► ROAM monitor combines tax law, tax auditing, tax accounting, cost accounting, and financial accounting techniques to support the tax function with robust and user-friendly modern supported solutions;
► ROAM monitor can be customized to your needs and can be installed:
  ► Web based
  ► Stand alone
  ► Integrated in your system(s)

Can data analytics add value to the tax function?
ROAM monitor

Process overview

► Perform a VAT function performance review aimed to assess current (indirect) tax function development level
► Consult your global risk and compliance policy, including VAT accounting and reporting strategies
► Setting thresholds when determining VAT opportunity and exposure
► (Re-)design monitoring methods, frequency of measurement and type of indicators
► Choose data extraction method and frequency
► Test, implement and re-design

Can data analytics add value to the tax function?
Due to changes in the European supply chain combined with VAT regulatory changes, the company experienced problems with managing VAT on their transaction base.

EY’s ROAM advanced identified major inefficiencies in the VAT processes and quantified a significant VAT exposure.

The implementation of ROAM monitor inside the company’s SAP system satisfied the needs for an enhanced indirect tax control framework. After demonstrating the effectiveness and audit trail embedded in the monitoring functions, the tax authorities allowed the company sufficient time to implement and test ROAM monitor.
Why consider using analytics?

Can data analytics add value to the tax function?
Why consider ROAM solutions for VAT?

- Working capital improvement and cash flow release
- VAT audit readiness
- Improved compliance
- Able to anticipate global tax trends

Enhanced competitiveness
How did we do?

Can data analytics add value to the tax function?
How did we do?

Vote

► Have we demonstrated how to unlock the value in your own data?
  ► Yes – very much so
  ► Yes – a little
  ► Not sure
  ► No
  ► Not at all
Can data analytics add value to the tax function?
Example
Account configuration

GL accounts are listed under the “unmapped accounts” category.

Source: Previous analytics projects
Example

Account configuration

Map accounts to account groups: all GL accounts listed in the “unmapped accounts” box are mapped to their respective account groups in the “mapped accounts” box.

Source: Previous analytics projects
Example
Account group decomposition

The account group decomposition page has two parts. The first part is a filter option and the second part is GL transaction entries. Account group-level decomposition process take place in this page.

Source: Previous analytics projects
In the “accounts decomposition” page, account-level bookings are listed.

All the selections; comments provided, investigate items and checked done in “account group decomposition” tab will be automatically populated in the “accounts decomposition” page.

Any corrections and changes made to in the accounts decomposition page will not be reflected in the account group decomposition page.

Can data analytics add value to the tax function?

Source: Previous analytics projects
Can data analytics add value to the tax function?
Example
Foreign currency exchange analysis

In weeks 13 and 14, there was a significant difference between currency exchange rate used by client compared to average weekly exchange rate described by local authorities.

Source: Previous analytics projects
Example
Goods received analysis

Source: Previous analytics projects
Can data analytics add value to the tax function?
Example
Sales type analysis

Can data analytics add value to the tax function?

Source: Previous analytics projects
Example
Customer analysis

Can data analytics add value to the tax function?

Source: Previous analytics projects
## Example
### VAT code analysis

### Sales Taxcodes - Amounts

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<tr>
<th>Taxcodes</th>
<th>Base Amount</th>
<th>Tax Amount</th>
<th>Number of invoices</th>
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<td>EXT</td>
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</table>

Source: Previous analytics projects
Example
Missed input VAT analysis

Can data analytics add value to the tax function?

Source: Previous analytics projects
Can data analytics add value to the tax function?

Source: Previous analytics projects
Can data analytics add value to the tax function?
Example dashboard
Operational VAT costs

Can data analytics add value to the tax function?

Source: Previous analytics projects
Can data analytics add value to the tax function?

Source: Previous analytics projects
Example

The “refund factor”

Source: Previous analytics projects
Example

ROAM monitor prepares the VAT return

Source: Previous analytics projects
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