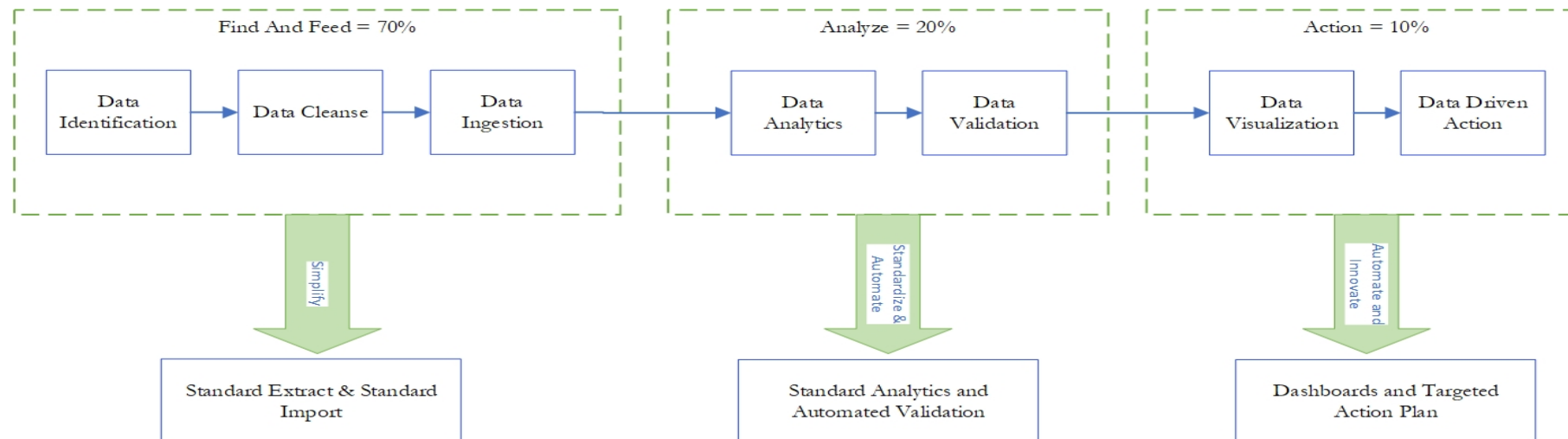# Agenda

Discussion Points

- **What:** A complete and ongoing health check for your ERP operations

- **Why:** Benefit and Types of Analytics

- **In-Practice:** Analytics and Ai examples

- **Connections**: Integration with Power BI

- **Taking Action**: Linking Results to Action

- **Implementation:** Next Steps for Analytics

River Analytics & Automation

River AA: Transparency and Results

Charles Segal
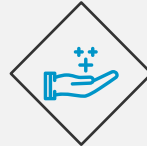
Founder

Core Values

Integrity: Do what's right.

Business First: Meet the needs of the business.

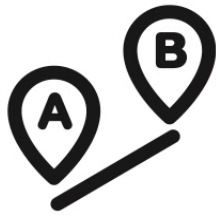**Provide Real Value:** More than a one time win.

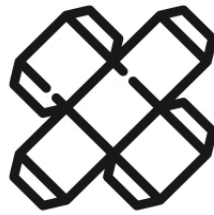**Geek Mentality:** Stay ahead.

Cost Conscious: ROI obsessed.

SSAI: Stop Automated Disfunction

Simplify
Document granular processes and sub-processes in their most basic form and redesign for automation.

Standardize
Create standard approach by identifying actions across all sub-processes and create standard digital templates for inputs and outputs.
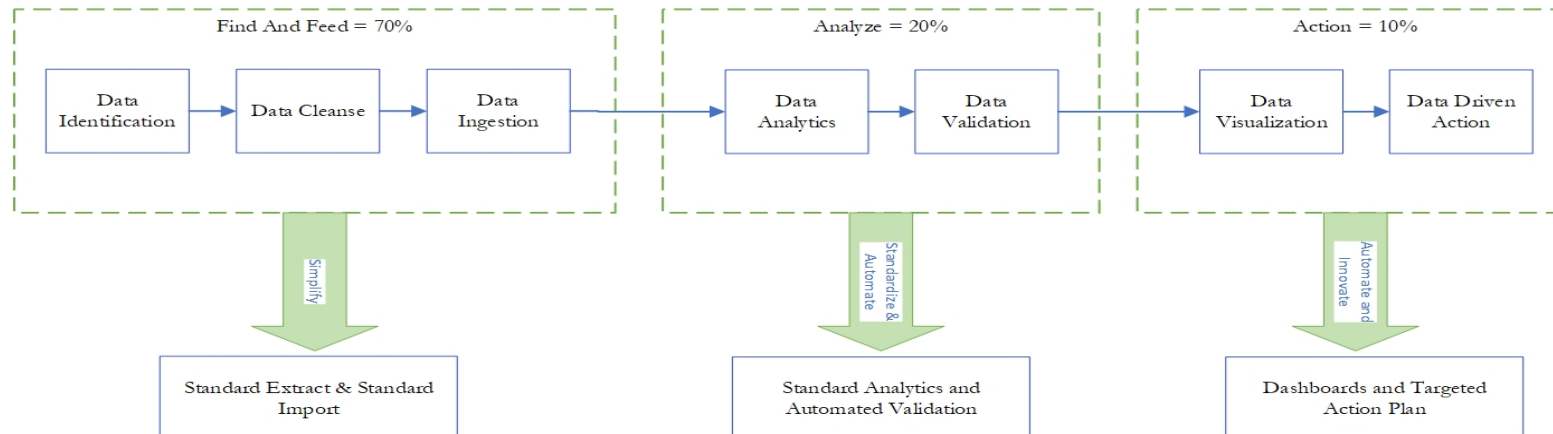
Automate
Select and apply appropriate solutions to automate actions and create work process design and process bots.

Innovate
Integrate up and downstream processes through complimentary technologies. Scale approach in new areas. Implement change management to ensure the changes stick.

Digital Transformation

Find And Feed = 70%

Data Identification → Data Cleanse → Data Ingestion

Analyze = 20%

Data Analytics → Data Validation

Action = 10%

Data Visualization → Data Driven Action

Simplify ↓
Standard Extract & Standard Import

Standardize & Automate ↓
Standard Analytics and Automated Validation

Automate and Innovate ↓
Dashboards and Targeted Action Plan

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5 Keys to Successful Analytic Implementation in Government

> **Targeted:** Specific for government operations and benchmarked against government measures.

> **Detailed:** Right down to transactional level.

> **Standard input Reactive Output:** Utilizes standard data and analytics, with variable output that is result driven.

> **Action Oriented:** Results have direct link to action.

> **Background/Passive:** Only results that matter are shown with minimal system impact.
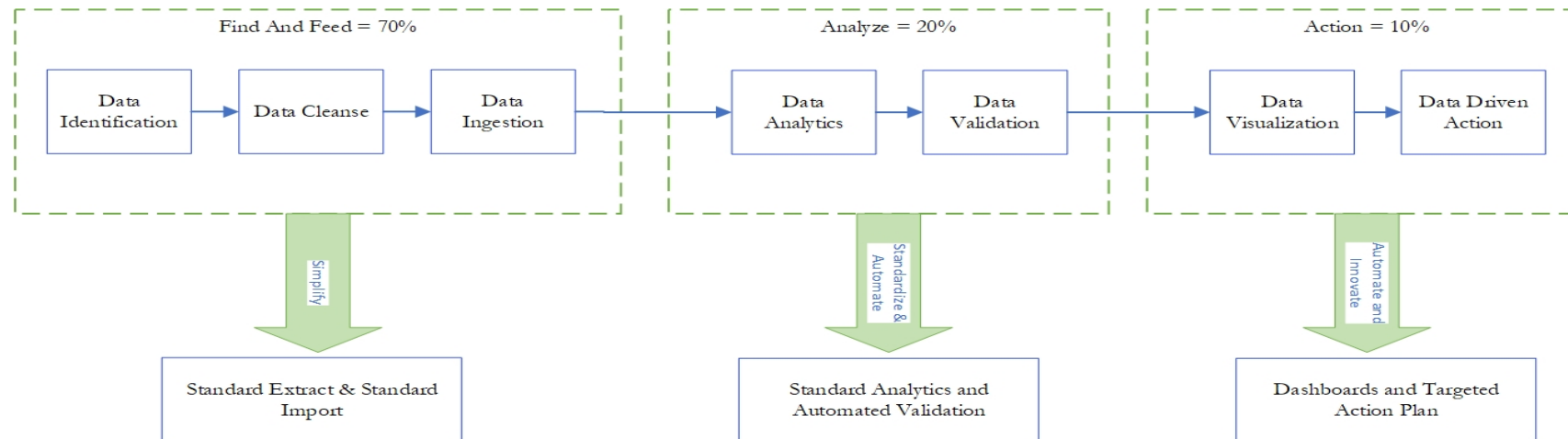
Standard Process over Flashy Tools: Leveraging existing capabilities and focusing on action is the key to long term viability. You don't need a tool, you need a process.

Why Analytics in Finance?

Finance Perspective of Analytics:

- Simplify Dept'al Results Framework (DRF) reporting
- Address Auditor General recommendations on fraud risk
- Ensure IT Controls are effective
- Identify and assess risk
- Identify non-compliance
- Reduce loss and inefficiencies
- Improve financial operations and monitoring
- Provide quantitative assurance on above items

The goal: Ongoing Health Check for your ERP

An analytic check-up for your SAP system:

- **Proven:** A series of analytics (over 100+ tests) to assess your SAP system controls

- **Focused:** Identify <u>issues</u> and anomalies before they become <u>problems</u>.

- **Action over Identification:** Focus your attention and action on the important items.

- **Internal Controls**: test internal controls to ensure they are working as designed

- **Fraud Risk:** identify non-compliance, anomalies and outliers

- **Financial Monitoring:** track performance, operational efficiency and effectiveness

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Standardized Data Analytics Benefits (1000+ to chose from)

- **Proactive Approach**: Ongoing assessment of existing and emerging issues, including fraud risk, non-compliance, IT controls; and assessment of mitigation activities.

- **Independent Assurance:** Provides objective, data-driven assurance on the effectiveness and adequacy of internal controls, and compliance with rules and regulation.

- **Automated and Unobtrusive:** Analytics replace traditional techniques that disrupt dept's ongoing work and are labour intensive.

- **Standardized & Quantitative Results:** Analyses are linked to root cause - controls or processes - to enable management to take specific / immediate action.

- **Avoid the Analytic Decay Cycle:** A standardized approach avoids an over reliance on key resources and solutions.

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Current Analytics and Ai

Support for:

Function / Area	Controls	Non-Compliance	Fraud Risk	Financial Operations	Efficiency / Loss
Accounts Payable	X	X	X	X	X
Payroll	X	X	X	X	X
Financial Monitoring	X	X	X	X	X
Travel (HRG data)	X	X	X		X
Acquisition Card (BMO data)	X	X	X	X	X
Contracting	X	X	X		X
Multi-Year Analysis	X	X		X	
Ad Hoc Queries	X	X	X	X	X

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Financial Monitoring – Analytics

Overviews:

- Track expenses by DRF area

- Produce Trial Balance by Econ Object

- Monitor expenses by Fund Ctr by Period

- Monitor activity by EAA User

- Identify transactions in Wrong Fiscal Year

JVs / Losses / Suspense Accounts

- Monitor JV transactions

- Identify JV expense **to/from** revenue

- Report on Losses by Period

- Track Suspense Accounts by Period

- Report on Write-offs by Period

Standardized analytics allow for **immediate** / consistent measures to be computed and **action taken**

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Accounts Payable – Analytics

Loss / Efficiency / Accuracy:

- Analyze Immediate/Early payments

- Identify Late Payment

- Recover Duplicate payments

- Verify Commitment Usage

- Monitor Vendor Master table

Identify Fraud Risk:

- Non-Compliance

- Separation of duties issues

- Fictitious vendors

- Outliers and anomalies

- Split Transactions

AP produces a **massive volume of data** and only through **standard analytics**, run across **all transactions**, can effective measures be applied and **risks identified**.
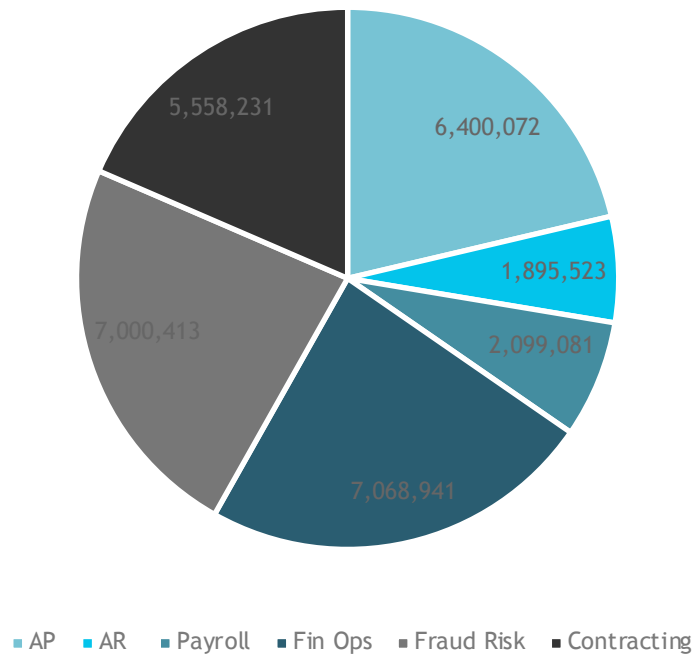
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Dashboard

- Power BI

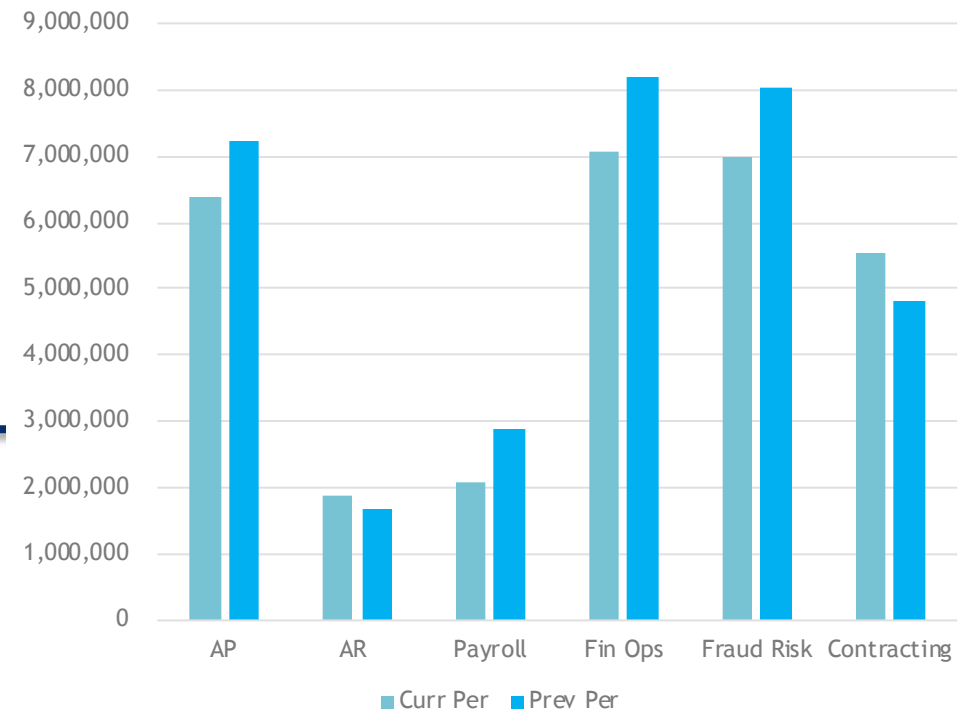- Integration with Analytics

- Drill-Down Capabilities
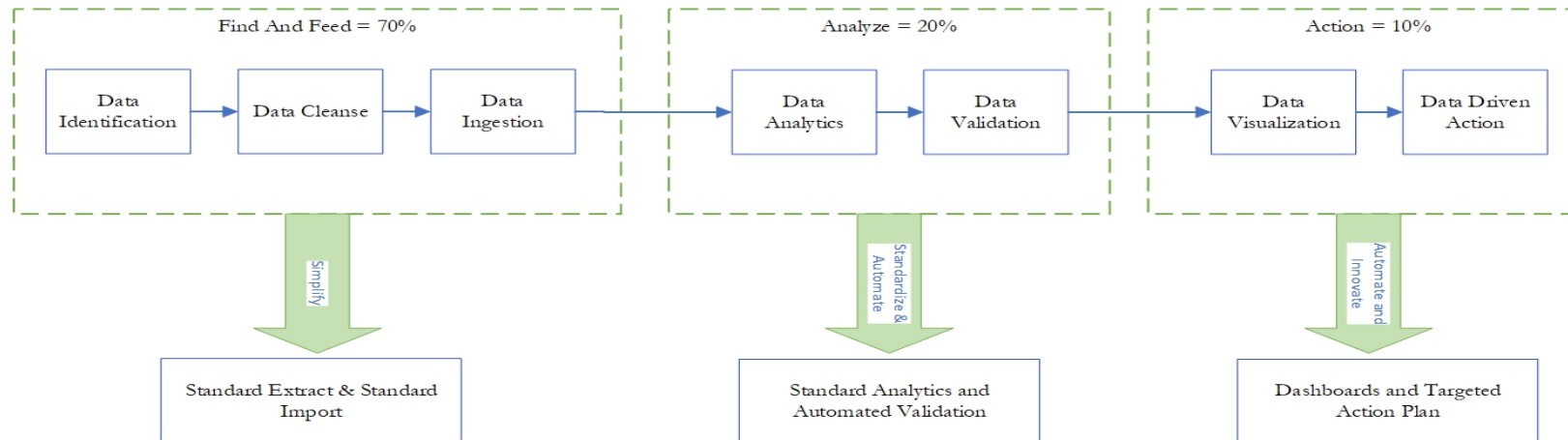
Standardized data → Standardized Analytics → Simplified Dashboard Deployment and Near Real-Time Analysis
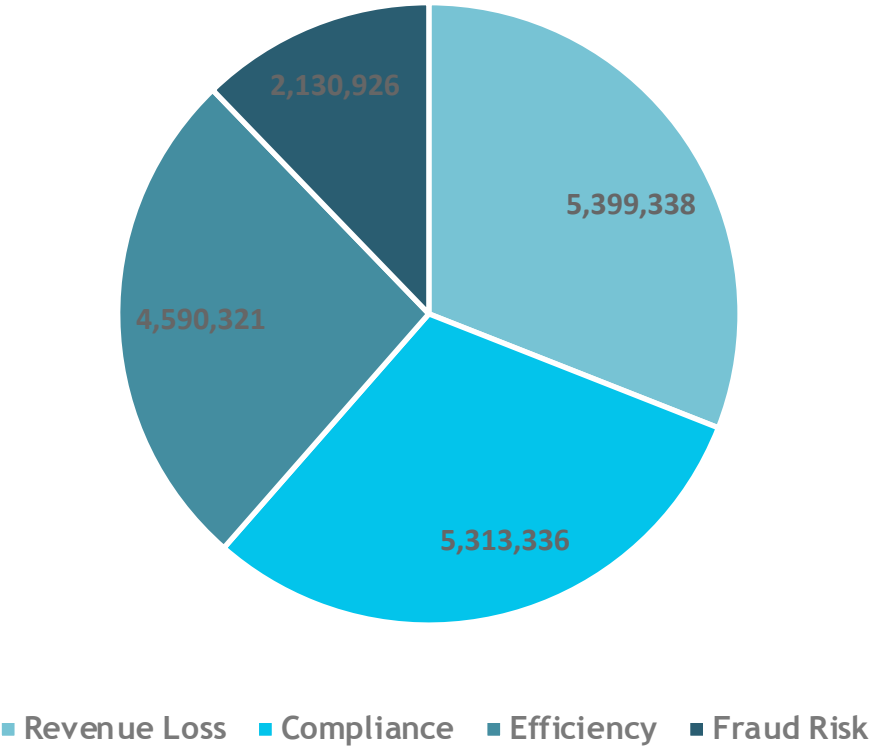
Overview Dashboard

Overview Results - Issues

6,400,072
1,895,523
2,099,081
7,068,941
7,000,413
5,558,231

AP ■ AR ■ Payroll ■ Fin Ops ■ Fraud Risk ■ Contracting

Period Comparison

9,000,000
8,000,000
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
0

AP   AR   Payroll   Fin Ops   Fraud Risk   Contracting

■ Curr Per   ■ Prev Per

AP Dashboard

AP Analytics Overview

- Revenue Loss: 5,399,338
- Compliance: 5,313,336
- Efficiency: 4,590,321
- Fraud Risk: 2,130,926

Legend: Revenue Loss ■ Compliance ■ Efficiency ■ Fraud Risk

AP Analytics Overview

Y-axis: 7,000,000 / 6,000,000 / 5,000,000 / 4,000,000 / 3,000,000 / 2,000,000 / 1,000,000 / -

X-axis: Revenue Loss, Compliance, Efficiency, Fraud Risk

Legend: ■ Curr Period ■ Prev Period
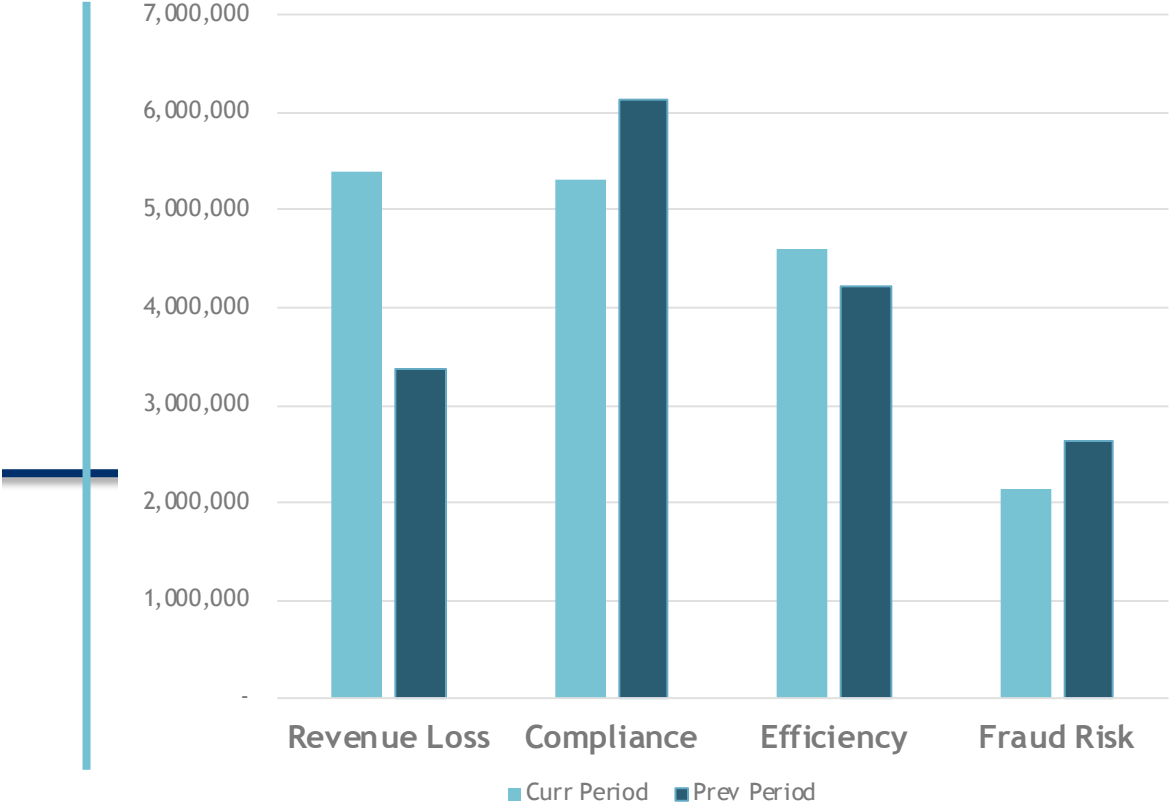
Take Action: Results – Impacts – Recommendations

Examples:

Analytics Results	Possible Impacts	Recommendations
Large Invoices without a PO or FR Reference	Expenses not committed; Non-compliance with contracting rules	Review SAP entry control to ensure PO is required
Split Purchase Orders (Vendor, Date, Cost Ctr)	Non-compliance with contracting rules	Identify transactions for Management review
Payment terms manipulation	Early payments Late Payments	Identify transactions for Management review; and User training
Duplicate Vendor records	Duplicate payments; Fraud risk	Review access authority and Vendor master table maintenance
Duplicate Invoices	Overpayment	Review entry control; and User Training
Duplicate User IDs	Separation of Duties; Incompatible Duties	Review access authority and User master table creation

Implementing Analytics

Requirements	Approach	Currently Available?
1. **Standardized Data**	• Implement OCG IA SAP Extract to produce required data extracts	• **Available** in all SAP-supported departments
2. **Consistent Analytics**	• Implement OCG standard analytics • Build additional analytics as required	• **Available** from OCG • Custom-built analytics are easy to develop given standard data files
3. **Configuration of Analytics**	• Modify criteria/ parameters for analytics – specific to dept	• **Easily modified** criteria for all analytics (e.g. definition of Invoice)
4. **Visualization and Review Capabilities**	• Integrate with Power BI for dynamic visualization and drill down to actual transactions	• **Existing** analytics are fully integrated with Power BI
5. **Ability to take Action**	• Link analytic results to required action	• Analytics **identify** root cause and support correct action

Info	Risks	Controls	Analytics	Data	Results
Vendor	• Duplicates • Fictitious • Inappropriate address Changes • Bank Account Changes	• Vendor creation / modification • Update Log • Authorizations	• Duplicates • Blanks in key fields • Classify on "Created by" • Vendor Usage by clerk • Changes	• Vendor # • Created by • Entered by • Changes	• Duplicate vendors • Vendors with missing info • SOD and authorization issues
Invoice Number	• Duplicates • Invalid Invoices	• System controls over duplicate invoices • Invoice entry • Invoice entry • Management review	• Duplicates • Invoice Sequence	• Vendor # • Invoice # • Invoice Date • Amount • Invoice #	• Duplicate invoices • Inappropriate payments or to wrong vendor
Amount	• Overpayments	• IR = GR = Contract • Vendor creation / modification	• IR <> GR or Contract • Unusual Payments to Vendor	• GR and IR amount and quantity • Contract amount and quantity	• Pay more than contract

Your Next Steps

Implementing Analytics:

- Ensure you have SAP Extract functionality (developed by IFMS and OCG)
- Obtain OCG scripts
- Ensure you have software to run analytics (ACL and Power BI)
- Pilot Analytics
- Assess results
- Identify additional analysis requirements
- Modified / Enhance / Expand upon Analytics

Questions

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