Creating an Agile Accounts Payable Data Mart for Internal Auditing at AbbVie

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About the Speakers

Padmakar Khandekar

- Analytics Architect, Abbvie
- SAP ABAP and HANA Development background
- Worked on SAP R/2

Raghavendra Bobburu

- Sr. Consultant, Abbvie
- SAP BW and HANA developer
- Worked on BPC

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Key Outcomes/Objectives

1. How internal audits can be improved by harnessing technology

2. How objective internal audits can contribute to better risk profiling

3. How iterative development leads to higher customer satisfaction

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Agenda

- About AbbVie and its SAP Analytics Journey

- Internal Audit Requirements

- Options, Project Approach and Execution

- Agile Data Mart Architecture, User Interface and Samples

- Benefits, Future Plans & Technical Information

About AbbVie

abbvie

Founded in 2013 with heritage of Abbott's 125 year as a foundation on which to grow. We're a company that takes on the toughest health challenges. But we do more than treat diseases—we aim to make a remarkable impact on people's lives. We are AbbVie, a highly focused research-driven biopharmaceutical company.

30,000+
employees worldwide in 70+ countries

28 million +
patients in 175+ Countries treated by AbbVie's medicines every year.

2018 Revenue
$32.7 Billion

14 Manufacturing Facilities

8 Research and Development Centers

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SAP and SAP Analytics Journey

2013	2014-2015	2016-2017	2017-2018	2019 & Beyond
Spin-off from Abbott	**Single SAP Global Instance**	**Stabilization**	**BW Modernization**	**SAP Analytics & S/4 HANA Initiatives**

• AbbVie formed as an independent company in Jan 2013	• Design & implement global template solution w/ standardized end-to-end back-office business processes	• Enhancements complying to defined global template	• Upgrade SAP BW 7.01 to SAP BW 7.5 Powered by HANA and Subsequent Optimization	• **Internal Audit Dashboard for T&E**
• AbbVie/Abbott SAP system split	• 110+ countries & 14 manufacturing sites	• Strategize data archiving using SAP ILM	• SAP GRC Insights	• SAP Native HANA – Financial Data Hub
• AbbVie started SAP operations on its own SAP system.	• Minimize localization requirements	• SAP GTS Data warehouse reporting & dashboards	• Lumira Dashboard for PPV	• Supply Chain and SAP EWM Dashboards
			• **Internal Audit Dashboard for AP**	• **Internal Audit Dashboard for AR**

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Internal Audit Requirements

- Access to finest grain of data in addition to visualizations for KPIs

- Composite Risk Scoring based on business tests and weights for each test

- Use of statistical method to select samples from stratified data – Neyman allocation

- Self-Service / Ad Hoc Reporting

- Small User base with no row level security requirements

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Options

- Enforce only business tests in SAP BW and transfer data to dashboarding tools using OpenHub or Data Services
  - ✖ Several Technologies -> Higher Cost of Maintenance
  - ✖ Disparate teams -> Iterative dev. difficult, more coordination
  - ✖ Data Copy -> additional reconciliation requirements
- Use SAP AP data available in SAP BW on HANA to create data models consumed using BOBJ WebI
  - ✓ Homogeneity - All SAP products and tools
  - ✓ Aggregated as well as detailed view

Project Approach and Execution

| Wk1 | Wk2 | Wk3 | Wk4 | Wk5 | Wk6 | Wk7 | Wk8 | Wk9 | Wk10 | Wk11 | Wk12 | Wk13 |

Discovery and Design | **Iterative Development and UI Testing** | **UAT and Final Prep**

Plan the work

- Elicit high level req. in discovery workshops to identify dimensions & measures

- Focus on models providing KPIs first & Implement tests later

- Minimize number of views consumed by reporting layer

Work the plan

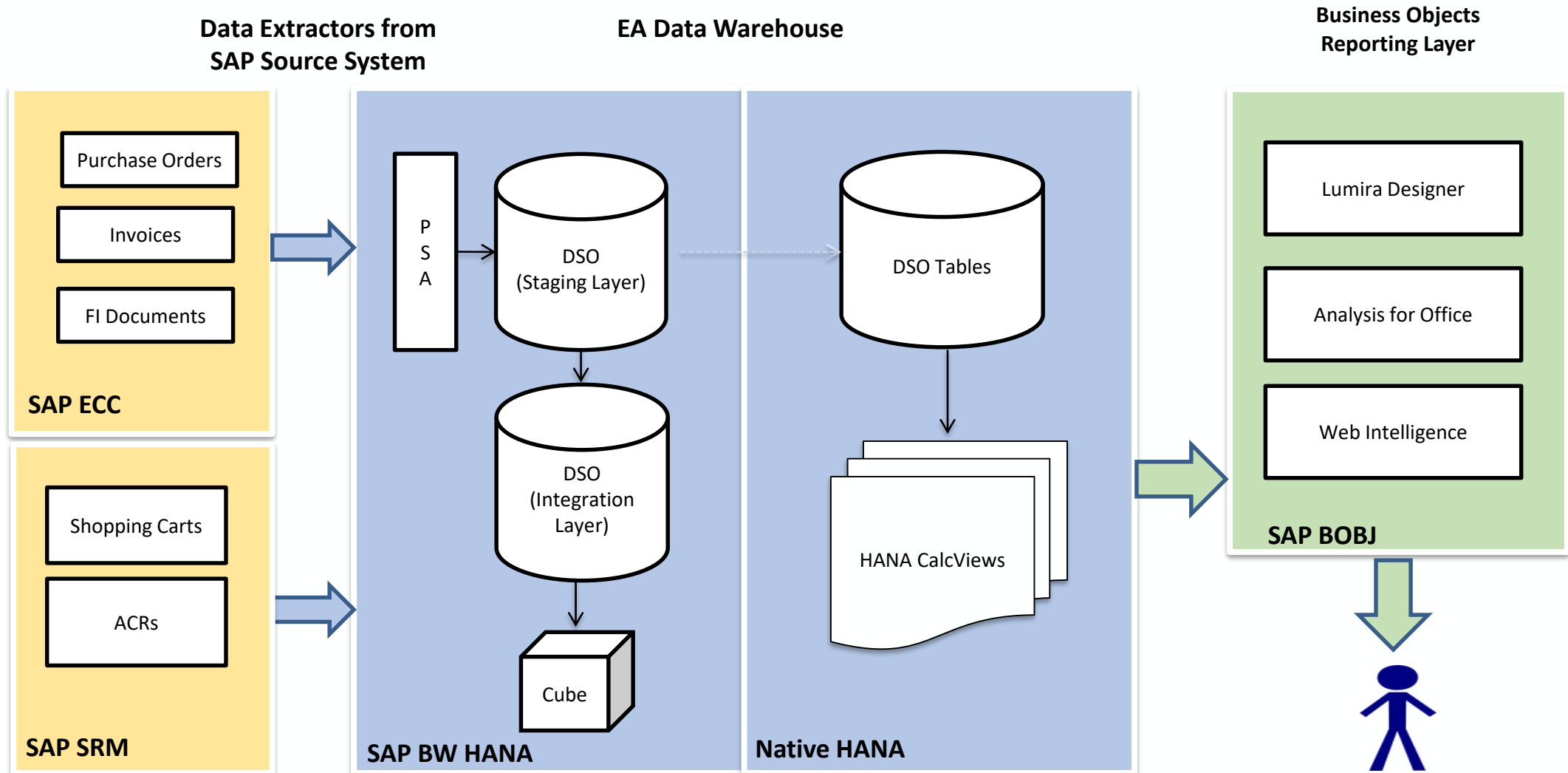- Agile UI Testing every week to incorporate feedback from previous week and share new elements

Results

- Final HANA Views consumed: 14
- Number of KPIs: 36
- Number of business tests: 14
- Typical Volume of transactions: 300,000 for 12 to 18 months period for entity group being audited

Lessons Learned

- Agile, Iterative development > delivering close to user expectations and shortens UAT Phase

- Work in environment refreshed from production > helped address perf. considerations and set user expectations

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Agile Datamart Architecture

Data Extractors from SAP Source System

EA Data Warehouse

Business Objects Reporting Layer

SAP ECC
- Purchase Orders
- Invoices
- FI Documents

SAP SRM
- Shopping Carts
- ACRs

SAP BW HANA
- PSA
- DSO (Staging Layer)
- DSO (Integration Layer)
- Cube

Native HANA
- DSO Tables
- HANA CalcViews

SAP BOBJ
- Lumira Designer
- Analysis for Office
- Web Intelligence

User Interface

- Log in via BI launchpad using LDAP and access to IA folder
- Prompts, Document & Report Input Controls
- Multiple tabs
  - Landing Page
  - Spend Analytics
  - Report Exceptions
  - Other KPIs
  - Composite Scorecard
- Links to guidelines and tool documentation for reference
- Details can be exported as Excel sheet
- Power users can consume HANA views to create additional reports/visualizations.
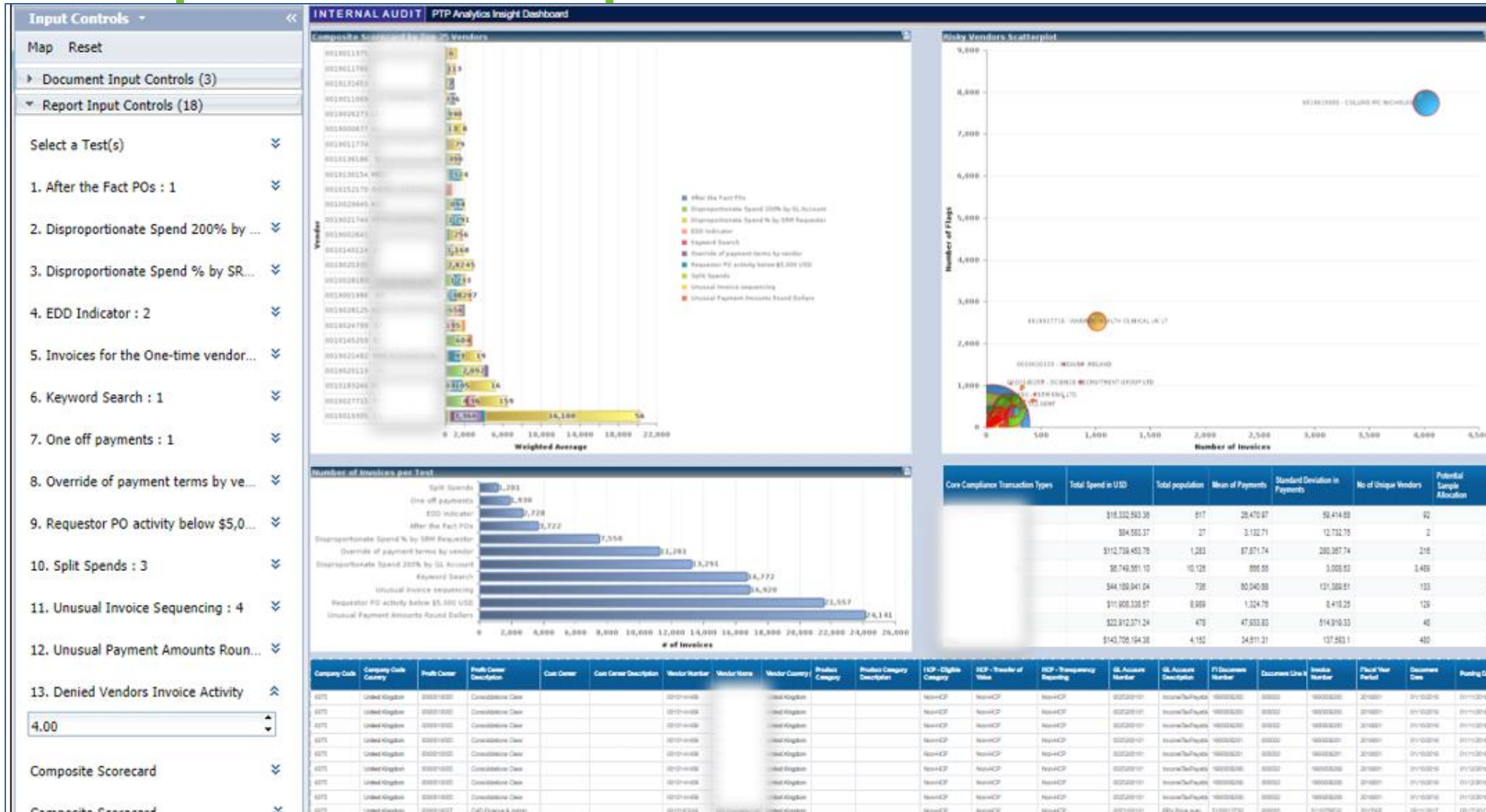
Samples – Landing Page

Samples – Spend Analytics

Samples – Composite Score

Benefits

- Risk Score based objective insights into business transactions

- Extensible, rule/test based solution

- Focused audits on key risks to enterprise

- Improved Audit Efficiency/Productivity Gains

- Frees up more time to address emerging risks

Future Plan

- Similar Dashboard for Employee Business Expenses and Order to Cash transactions

- Use of Predictive Analytics Library (PAL) in HANA for identifying potentially risky business transactions

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Technical Information

- SAP ECC 6.0 SPS12

- SAP SRM 7.0 SPS09

- SAP BW 7.5 on HANA 2.0 SP2

- BusinessObjects 4.2 SP5

- WebI Charts used: Tiles, Line, Bar, Tree, Heat, Scatter Plot, Tag Cloud, Table

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Presentation Materials

Access the slides from 2019 ASUG Annual Conference here:
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Q&A

For questions after this session, contact us at
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