



# An Auditor's Overview of Business Process Optimization, Strategies and Techniques

Presented by:  
Jim Hejka

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## Jim M. Hejka, National Practice Lead, Process and System Optimization

Jim is the National Practice Lead for the Process and System Optimization Practice within the Business System Services Center of Expertise. He has a very broad background in many areas of Finance and Accounting including a deep understanding of manufacturing, logistics, inventory control, and shared financial services.

Much of Jim's career has been spent in design and implementation of ERP systems (JD Edwards, QAD, SAP). As a part of these projects, he has also had many opportunities to analyze business processes, develop recommendations and implement proven solutions to drive measureable efficiencies. Jim's extensive background with both systems and processes provides clients with the experience necessary to assist them in making immediate improvements and provide structure for continuous process improvement that best meet their organization's long term needs. Jim is a Certified Managerial Accountant.

# Overview

Experis Finance (formerly Jefferson Wells) is a global provider of professional services in internal audit and controls, risk management, technology, tax, and finance & accounting.

Our professionals partner with companies to manage risk, improve internal controls, and improve financial & compliance processes. We serve over 3700 clients, including Fortune 500 and Global 1000 companies, from offices across North America, Europe and Asia.

## About Us

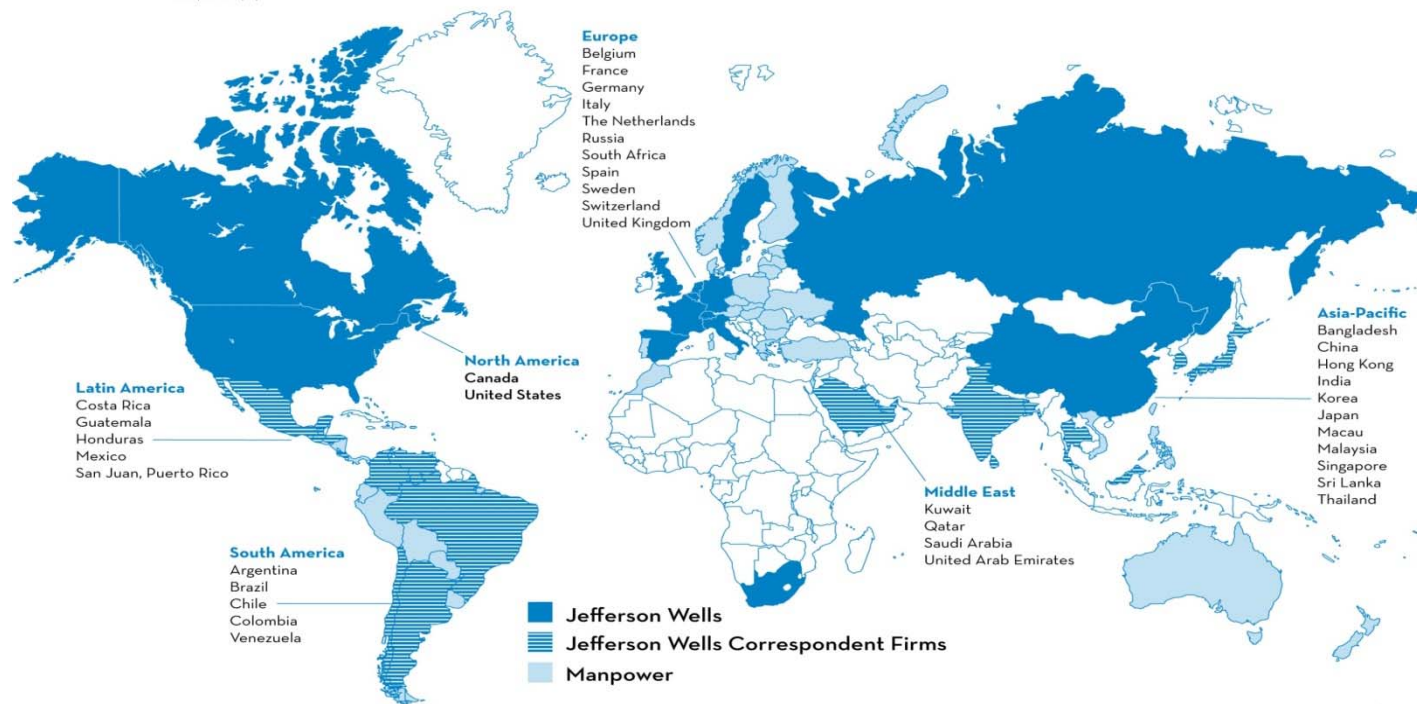
- Over 2,200 professionals in 50+ offices worldwide
- Average experience level is 15+ years; minimum experience level is 5 years
- National directors over each practice area
- Provide non-attestation services with core service offerings in internal controls, finance operations, risk advisory, technology and tax
- Dedicated national IT consulting practices for Information Security, ERP Implementations and Governance

# About Us

Headquartered in Milwaukee, Experis Finance is owned by Manpower, Inc., a \$20 billion worldwide human resources services organization



## Global Delivery Capabilities



# Process and System Optimization – Center of Expertise

- **Current State Documentation with Controls**
  - Application Inventory
  - Analyze Business Processes with System Touchpoints
- **Assessment Recommendations**
  - Technology Enablement
  - Business Process Improvement
  - Usage of Data Interfaces
  - Governance of System Changes
  - Potential Improvements in Reporting
- **Software Selection**
  - Requirement Definition
  - RFP assistance
  - Vendor evaluation (including facilitation of demos)
  - Function Leadership of Implementation
- **Business Case Development**
  - Objective Analysis (ROI, Payback, Organizational Impact)
  - Technology Portfolio Analysis



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# Objectives

After attending this session, you will be able to:

- Describe the guiding principles of a holistic business process improvement approach.
- List the three core steps to assess and leverage current major business system investments.
- Apply tools and techniques to optimize end-to-end processes that involve multiple applications or complex system environments.
- Define the successful relationship between business, IT and audit teams in process improvement initiatives.
- Describe the value in business process improvement initiatives.

# Agenda

- What is Business Process Optimization
  - Background and Methods
  - Identification
  - Benefits
- Applicable to Auditors and Customers
- Core Steps to Leverage Business System Investments
- Governance – the Capstone
- Case Study I through III
- Summary

## Perspective

“No matter how hard individuals work, they cannot overcome a flawed process design, much less the burden of no design at all.”

Michael Hammer,  
Co-author of **Reengineering the Corporation**

# Background & Methods

## Evolution From Inspection to Quality

- 1920's quality control via applied statistical theory
  - 1<sup>st</sup> Modern Control Chart – Shewhart
- 1940's Application of Statistical Process Controls (SPC)
  - Japanese reputation for poor quality products stimulates improvement
- 1950's Adoption of Quality Management Practices widely accepted as a part of Japanese management philosophy
- Late 1960's & early 1970's Japanese products widely accepted in United States and Europe due to increased quality and lower prices.
- Mid 1980's Motorola establishes Six Sigma to reduce production variation
- 1990's Allied Signal, General Electric, and Honeywell adopt Six Sigma
  - Lean Thinking published by Womack & Jones (1996), Sequel to The Machine that Changed the World (1990)
- 2000's Process Improvement industry based on Six Sigma and other methods widely recognized

# Background & Methods (con't)

## Methods

- Many different Methods
  - Benchmarking
  - Business Process Improvement, e.g. Process Redesign, Business Process Reengineering
  - Six Sigma
  - Theory of Constraints
  - ISO 9000, et al.
  - Total Quality Management,
  - Lean
- Experis' Process and System Optimization Method
  - Alignment and Preparation
  - Current State Process Discovery (As-Is)
  - Future State Process Definition (To-Be)
  - Gap Analysis and Recommendation Development
  - Train and Implement

# Process Optimization – It starts with Process

1. Map and workshop **end-to-end process**
  - Across application silos
  - Workshop with business process owners, across data flow
  - Identify system touch points, manual and automated interface
2. Highlight areas with improvement potential
  - Review IT Ticket logs; types of problems, redundant issues
  - Provide for PIE Analysis (Problems, Issues, Expectations)
  - Understand system capabilities
    - Business Functional AND technology
3. Measure process pain and benefit for prioritization and support
  - Automate
  - Eliminate
  - Consolidate

## Measure for Effectiveness and Cultural Impact

# Identification

## Finding Opportunities – Macro perspective

Drivers of big picture opportunity changes come from the top down, macro, and bottom up, micro.

- Event Based
  - Company consolidation or spin-off
  - Increase (or decrease) in staffing levels
  - Software upgrade
  - ‘Completed’ ERP implementation, yet something’s missing
- Time Based
  - Quarters or years since any ERP process update(s)
  - Business evolution
  - Change in staffing levels

# Identification

## Finding Opportunities – Micro perspective

- “Functional” Versus “Cross-Functional” Business Thinking
- Critical Business Issue(s)
  - Business goals and objectives
  - New organizational structure
  - Changing (or changed) business environment
  - Business integration or separation
  - SOX deficiency
  - Unexpected accounting adjustment
- Common Observations
  - Inefficiencies
  - Pain points
  - High rework levels
  - Unacceptable scrap rates

# Identification

## Finding Opportunities – Micro perspective (con't)

- Considerations
  - Functional versus process (cross-functional) business perspective
  - Employee engagement in identification
- Customer Dissatisfaction
  - Product mistakes, Delays, Etc.

# Process Optimization Benefits

Audit Proposition: Partnering with Businesses to Bring “Value Add” from Process and Control Improvements

- Variation Reduction
- Defect Reduction
- Inventory Level Reductions
- Overall Quality Improvements
  - Improved understanding
  - Improvement from those who know
- Waste Reduction
  - Excess activity
  - Waiting
  - Scrap and rework

## Process Optimization Benefits (con't)

- Process Stability
- Process Control, Awareness, and Understanding
  - Quantified performance
  - Customer focus
  - Process thinking
  - Enhanced control environment
  - Improved governance
- Quality Improvement
  - Reduced variation (“parts” and/or processes)
  - Ongoing continuous improvements
- Customer Service
- Quality Improvement

## Process Optimization Benefits (con't)

- Cost Savings
  - Productivity improvements
    - Error reduction
    - Rework
    - Variance
    - Scrap
  - Cost reductions
  - Time savings, alternate activities
    - Increased analysis versus data entry and manipulation
    - Continuous improvement initiatives
    - Increased business volume
    - Staff realignment (reduction, minimized)
- Employee Engagement
  - “People support what they help create”
  - Improved satisfaction

## Determining the Benefit

- Additionally, determine the return on investment (ROI). Calculate how much will be saved by the elimination of the problem or by the purchase of better equipment. Then determine how long it will take your organization to realize this savings.
- ROI can be related to both objective and subjective measurements, including risk / compliance, cost savings, speed to market, or data integrity.

# Application to Internal Auditors

## Process Improvement and Internal Audit as Complements

- Internal Audit strives to...
  - Add value and improve an organization's operations.
  - Help(s) an organization accomplish its objectives
  - Evaluate and improve the effectiveness of risk management, control, and governance processes
- Process Improvement strives to...
  - Enhance organizational, process, and individual performance
  - Minimize waste rework and redundancy, resulting in increased capacity and/or reduced cost
  - Develop better company quality, productivity, and competitiveness

# Application to Internal Auditors

## Process Improvement and Internal Audit, Common Methods and Goals

- Both strives to manage to desired levels...
  - Controls
  - Risk
  - Governance
  - Profitability
- Observation
  - Sometimes less is more
  - When processes can serve as controls, operational efficiency can be improved (in some cases)

# Stories from the Streets

Does this Resemble Any of Your Clients?

Incident	Result
Scrapping JDE for GP because “the system didn’t work”	Cost
Business case development for upgrade found 80 percent of priority needs could be handled in current version	Lost opportunity
Downloads to excel to modify product pricing	Controls
258 applications manage end-to-end business process, with 67 versions of the truth in inventory availability	Business risk
Financials operating on ERP while multiple manufacturing plants on spreadsheets	Data integrity
238 applications managing a retail business process from sales through distribution	Timeliness and accuracy

# Core Steps to Leverage Major Business System Investments

- “Holistic” Process Approach
  - Process, Technology, Organizational Governance, Controls and Change Management
- Technology Enablement
  - Leverage existing technology
  - Simplify application landscape
  - Application consolidation
  - Information Technology Governance
- People
  - Tools, templates and governance for continuous improvement

# A Holistic Approach's Guiding Principles

## Business Process Improvement, Common Ground

- Customer focus
  - Internal and external
- Understand existing environment
  - Culture, processes and tools
- Must be measurable and incremental
- Must have a clear *process* owner
- Design best process
  - Rework organizational structure to meet
- Team owns project
  - Company project vs. Process improvement team project
  - Business process focus, NOT technical
- Leverage existing foundation blocks – Build on what's there
- Undertake impactful improvements
  - Cost/benefit and ROI

# Technology Enablement

## Poor IT Oversight - Red Flags

- Board members or senior managers are reluctant to engage organization and IT
- Business executives and IT executives communicate amongst themselves poorly or infrequently
- IT leaders and experts do not 'get' the business requirements
- Business leaders do not understand the potential for IT-enabled innovation
- Potential senior-level sponsors fail to take ownership
- IT is bureaucratic and slow to respond to add value
- IT-enabled changes frequently fail to meet business needs and are delivered late and over budget
- Corporate and IT risks are not understood or managed effectively or cohesively
- Enterprise fails to comply with regulatory or contractual requirements
- Metrics to measure IT's success are not relevant to the business users

Within many enterprises, IT has traditionally been treated as an entity separate from the business function, and anything to do with IT is perceived as a technology issue

# Technology Enablement

## Application Consolidation

- Apply tools and techniques to optimize end-to-end processes that involve multiple applications or complex system environments
- Describe the process of consolidating your application landscape
- What is an Application?
  - ERP
  - Spreadsheet
  - Access database
  - Homegrown application
  - “Bolt on” module

# Technology Enablement

## Cost of Complexity

- IT operating costs – ongoing licensing and maintenance
- IT support costs – resource knowledge, documentation, cost control
- Business responsiveness to change
- Common language and data dictionary
- Control structure complexity

## Time, Cost, Quality!

# Technology Enablement

## Consolidation Process

- Goals
  - Simplify structure
  - Improve data flow
  - Reduce costs
- How – through the process of process optimization
  - Consolidate duplicative systems
  - Eliminate spreadsheets
- Analysis Phase
  - Duplicative systems
  - Labor intensive processes
  - Data bottlenecks
  - “Broken systems”

# Technology Enablement

## Consolidation Considerations

- Eliminate “redundant” functions and island systems
- Minimize customizations
- Consolidate multiple instances
- Adopt standards in:
  - Architecture
  - Development environments / languages
  - Reporting environments
  - Data governance

# Technology Enablement

## Consolidation Hurdles

- Obstacles
  - Resistance to change
  - Pride in current home grown process
  - “Surface” issues
    - “Only system that can do this”
    - “Customer requires this system”
- Path to success
  - Elicit root cause of objections
  - Identification of benefits
  - Project team ownership (share the wealth)

# People

## A Dynamic, Continuous Process

- **Executives and directors** should regularly assess whether their organization is **delivering the value** that the strategy promised and **addressing the risks** that require mitigation.
- Structure should include:
  - Senior management oversight of investment strategy
  - Mid-management process design and ROI measurement
    - Functional process vision
    - Technology enablement of that vision
  - End-to-end process management alignment

# Governance

## The Capstone

- Strategy
- Architecture
- Delivery
- Value

# Four Fundamental Questions

## Certification in the Governance of Enterprise IT (CGEIT)

### **The strategic question: Are we doing the right things?**

- ✓ Are our investments in line with our vision?
- ✓ Are our investments consistent with our business principles?
- ✓ Are our investments contributing to our strategic objectives, both individually and collectively, such that we are getting optimal benefits, at an affordable cost, at an acceptable level of risk?
- ✓ Are our IT services, assets and other resources resulting from our investments focused on real business needs and priorities?
- ✓ Do we know/understand our total investment in/spent on IT?

### **The architecture question: Are we doing these things the right way?**

- ✓ Are our investments in line with our enterprise's architecture?
- ✓ Are our investments consistent with our architectural principles and our standards?
- ✓ Are we leveraging synergies between our investments?

*Source - Certification in the Governance of Enterprise IT (CGEIT) - ISACA*

# Four Fundamental Questions

## Certification in the Governance of Enterprise IT (CGEIT)

### **The delivery question: Are we getting these things done well?**

- ✓ Do we have effective and disciplined management, delivery and change management processes?
- ✓ Do we have competent and available technical and business resources to deliver the required capabilities and the organizational changes required to leverage them?

### **The value question: Are we getting the benefits?**

- ✓ Do we have a clear and shared understanding of what constitutes value for our enterprise?
- ✓ Do we have clear and accepted accountability and relevant metrics for realizing the benefits?

*Source - Certification in the Governance of Enterprise IT (CGEIT) - ISACA*

# Instituting Sound Governance for Continued Process Optimization

- Define need for IT governance
- Integrate IT governance with corporate governance
- Define scope, risk and structure
- Assess the current situation
- *Agree on improvement strategy*
- Implement
- Measure and monitor...

# Measure and Monitor

## Trends

- Extending your management team, reaching for insight into market trends and Advisory Boards
- Functional leadership participation at ERP user group functions
- Benchmarking your process against prior quarter and outside 'norms'
- IT Scorecard is measured in Business Value

## Case Study I

Large Tier 1 Auto Supplier recently spun off from parent with operations in 7 different countries. Disparate instances of SAP and QAD in place globally with plan to migrate all locations to newest version of QAD.

### Challenge

- Audit concerns raised during first post spin audit
- One plant launched in new version of QAD
  - Many Go Live issues still open
- Business process documentation in varied state of completeness based on current system
  - No controls imbedded
- Corporate concern of accuracy of books for new QAD instance
  - Were robust controls in place?

# Case Study I

## Solution

- Full business process review/documentation effort undertaken for new QAD facility
- Cross functional groups engaged
  - Business owners, IT and internal audit team
- Identify current controls in place to address key risk areas

## Results

- Design and implementation assessment completed on effectiveness of key controls
- Gap analysis performed to identify missing controls
- Process improvement opportunities identified (Business and Controls)

## Case Study II

Large Tier 1 Auto Supplier with SAP deployed in 14 countries  
(four different instances)

### Challenge

- IT Change Requests submitted via ticket approach
- Prioritized in order of receipt
- All requests are treated independently
- Customer service perceived as poor
  - Slow reacting and inflexible
  - Viewed as “ticket takers”
- Underlying processes rarely considered in solution
- Business lacked ownership of solution
- Application landscape included multiple system(s) to manage the business process

## Case Study II

### Solution

- Cross functional Governance Team created
  - Business users and IT
- Short business case required with IT ticket
- Business cases reviewed before Governance Team
  - Dispositioned and prioritized in a release management strategy

### Results

- Improved customer service
- Decisions became strategic
  - Long term business, system and resource items discussed.
- Reduction of submitted tickets by 40 percent
- Process considered first before system changes approved
- Business owned solutions with recognized business value
- Process implemented for other major business systems within the organization
- Created visibility to best practices between system instances

## Case Study III

Domestic, wholly owned Coal Mining subsidiary of a \$9B Mining and Steel Production Company with numerous systems, e.g. MAS 500, SAP, et al. deployed, with customers in 75 countries.

### Challenge

- Limited process documentation
- Negligible IT Governance
- Little Corporate Governance
- Few to no controls outside Accounting – high level of management ‘trust’
- Ad Hoc Risk Management Practices
- Recent upgrade to local system, not same as parent company
- Current State business process assessment performed,
  - 650+ opportunities identified
  - Over 30 business processes reviewed

## Case Study III

### Solution

- Full business process review/documentation effort undertaken in advance of MAS upgrade
- Cross functional groups engaged
  - Business owners and IT
- Current State business process assessment performed
  - 650+ opportunities identified
  - Over 30 business processes reviewed

### Results

- Perform Future State Definition, Gap Analysis and Action Plan Recommendation
- Recommend and Assist with Implementation of Corporate Governance Program
- Recommend and Assist with Implementation of IT Governance Program
- Support and facilitate development of corporate procedures in key functional areas, e.g. accounting, purchasing, fixed asset management, etc.

# Objectives Summary

- Describe the guiding principles of a holistic business process improvement approach
  - Customer Focus
  - Clear Owner
  - Understanding
  - Measurable
  - Best Process
  - Team Participation
- List the three core steps to assess and leverage current major business system investments
  - “Holistic” Process Approach
  - Technology Enablement
  - People
- Apply tools and techniques to optimize end-to-end processes that involve multiple applications or complex system environments
  - Process maps & workshops
  - Measure Pain Points for Prioritization
  - Highlight Improvement Opportunity Areas

## Objectives Summary (con't)

- Define the successful relationship between business, IT and audit teams in process improvement initiatives
  - Cross-functional Teams
  - Requirement and Objective Alignment
  - Open, Honest, and Frequent Communication
- Describe the benefit(s) in business process improvement initiative(s)
  - Variance reduction
  - Quality Improvements
  - Process Control, Awareness & Understanding
  - Cost Savings
  - Waste Reduction
  - Etc.

## Conclusions

- Internal Audit has visibility to numerous business processes, procedures, policies, and systems; there is a significant business opportunity in Process Optimization utilizing this first hand knowledge and understanding.
- Spending more time focusing on efficiency and effectiveness through process improvement and optimization is a great method to bring real benefit back to your organization!

# Questions?

## For More Information

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