# Technology Selection Decision: With the Shoe on the Other Foot

# Jerry Lieberman and Rick Mauro April 21, 2011 DAAG 2011 Presentation



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# **Technology Enables Better Business Ops**



- Flexible fixturing for auto body shops
- Benefits: Cost savings and flexibility

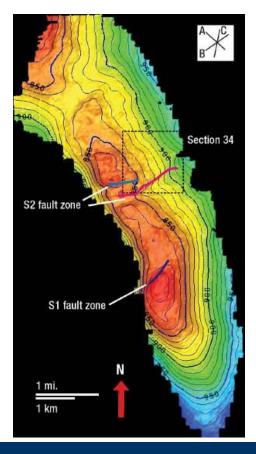


- Technology benefits
  - Find it faster
  - Better "batting average"



Enterprise Resource Planning (ERP)

Benefit: Better operations



# **Characteristics of Technology Selection**

 Technology enables users to do core business processes better



 Decision frequently driven by technology support group (e.g. IT, R&D), not operational business users

• Switch and support costs are formidable

**R&D Project Budgeting** 

# How do technology selection and implementation decisions get made?

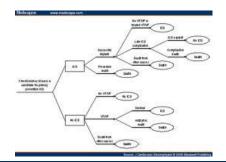
- Technology selection decision:
  - Vendor friend
  - Familiarity
  - User preferences
  - Support cost minimization
  - Technology capability
- Implementation often suffers from
  - Cost and schedule minimization
  - Inadequate planning



- Business investment decision
- Value trade-offs for best implementation





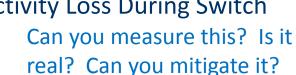


#### How is this non-traditional DA?

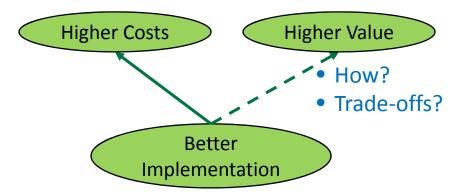
- Technology selection decisions
  - Not often treated as a business investment
    - Indirect enabler of business value
    - Responsibility of technologists, not operational business
  - Often treated as cost minimization
    - Ignoring hard to quantify value and costs
  - Fail to see
    - This is a big decision
    - DA role in implementation planning
- Our client was technology provider, not user

# Switch costs are large and may not be adequately resourced for success

- What are the costs of switching technologies?
  - Training
  - Change Management
  - **Bubble Support**
  - **Data Conversion**
  - **Acceptance Testing**
  - **Double Maintenance Costs**
  - Productivity Loss During Switch

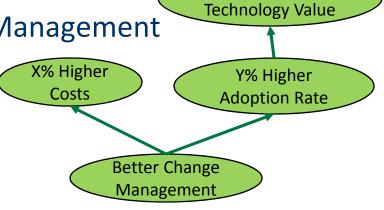






## **Cost Examples**

• Trade-off around better Change Management

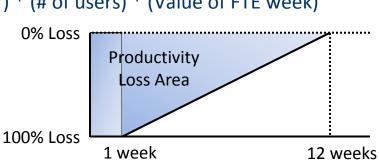


Y% Higher

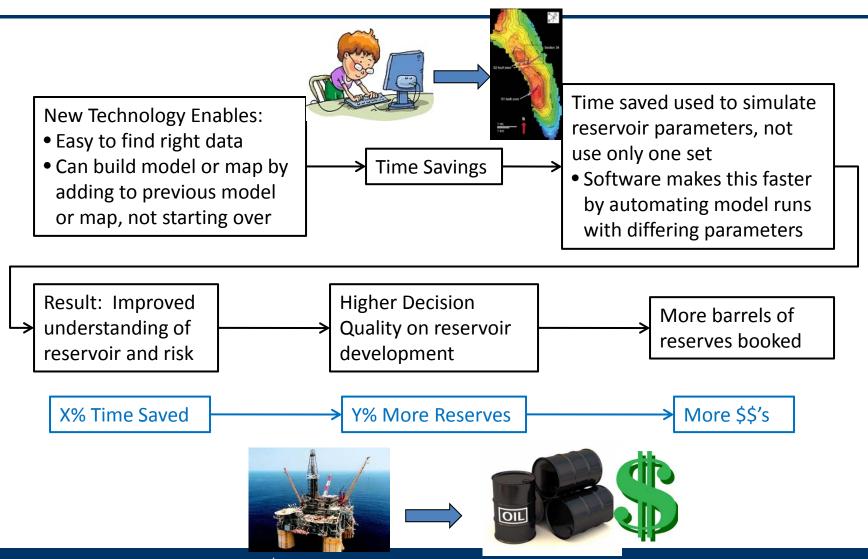
Disruption: Productivity Loss

	Low	Base	<u> High</u>
Time to proficiency	20	12	4
Value of FTE week	\$40K	\$60K	\$80K

- Productivity Loss = (#FTE weeks disrupted / user) \* (# of users) \* (Value of FTE week)
  - = (6.5 weeks) \* (100 users) \* (\$60K/week)
  - = \$39 MM

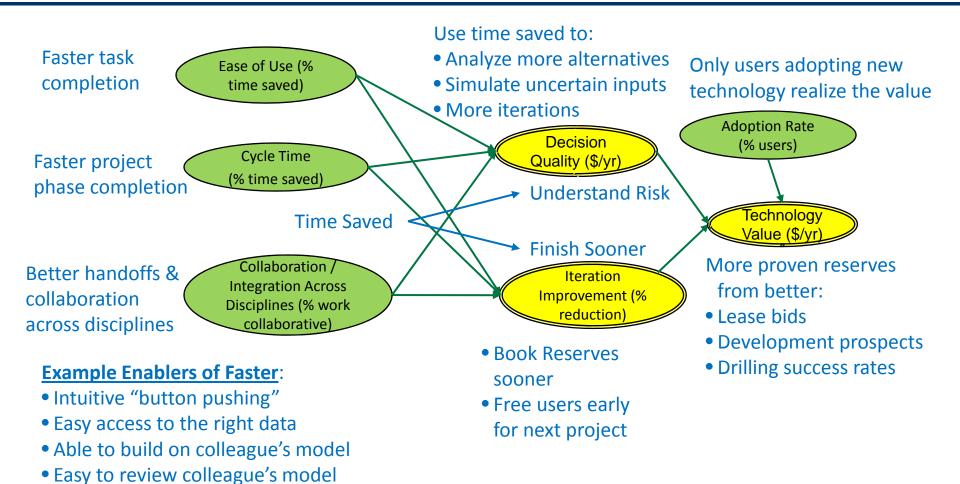


# Value Story / Calculation Example



### **Value Story**

Automate simulation of uncertain inputs



## **Our Client: Technology Supplier**

- Why did client ask us to create an investment decision model from their customer's perspective?
  - Better understand how their customers evaluated (or should evaluate) technology switch decisions
  - Encourage more "rational" customer decisions
  - Help customers better understand the switch decision
    - Did you think about ... ?
    - How much will that cost?
    - How to best allocate resources to implementation tasks?

#### What did we learn?

- Treat switch decision as a business investment
  - Technology enabling the core business can add huge value
  - Switch costs will overwhelm marginal opportunities
  - Don't switch unless added value is clear and large, but then focus on implementing well, fast, and with high adoption
- Don't omit hard to quantify value and cost drivers
- Plan implementation to optimize value
  - Disruption / Productivity Loss
  - Data
  - Change Management
  - Training
  - Adoption