How to make smart insourcing and outsourcing decisions for hospital laboratory services

Brian Jackson, MD, MS
Assoc Prof of Pathology (Clinical), University of Utah
Medical Director, Support Svcs & IT, ARUP Laboratories
Goal of Presentation

• Equip lab professionals to work with health system administration to make smarter business decisions
Vertically Integrate vs. Outsource

• Very common business question
  – Even more so outside of healthcare space
  – Manufacturing and service industries

Vertically Integrate vs. Outsource

Corporate Executive

Electricity Generation

Typically integrated

Typically outsourced
Common Clinical Lab Scenarios

- Service outsourcing: call center, website, LIMS, etc.
- Test outsourcing: POC versus centralized lab versus reference lab
- Test services for outreach community: Sell to reference lab
- Lab management service agreements
- Selling hospital lab to reference lab
Common Pitfalls in Outsourcing Decisionmaking
Reason #1: Treating it as a revenue problem

- “Revenue is under threat so we should outsource”

- Why would we think this way?
  - Fee-for-service healthcare business culture
  - Culture of “Revenue cycle management”
  - Side effect = less focus on costs and clinical operations
Reason #2: Treating it as a capital problem

- "We need capital for X, so let’s sell the lab business"
- Hospitals in a capital crunch lose negotiating leverage
- Puts restraints on future operations
  - How many hospitals really only expect to be around for the next 5 years or so?
Reason #3: Misunderstanding “Core Competence”
Core Competence Theory

• What it says:
  – Build strategy around those things your organization is uniquely good at.

• What it does not say:
  – Only do the stuff you’re good at, and outsource the rest.
• Decades-long core competence in clinical care processes
• Tightly linked to clinical informatics
  • In-house developed EHR system (HELP)
• **Software dev not seen as core competence**
• Outsourced EHR to GE in the mid-2000s
  • Failed project with huge opportunity costs
Reason #4:
Treating direct costs as if they were total costs

- Direct costs for lab tests are easy to measure
  - Labor, reagents, instruments
- Indirect costs are hard to measure
  - Pharmacy
  - Length of stay
Are lab tests a commodity?
Healthcare Value Equation

Value = \frac{\text{Net Clinical Benefit}}{$$

- Suppose a lab test can be run by two different laboratories.
- Will clinical benefit be identical?
What should be considered when deciding to vertically integrate vs. outsource?
Vertically Integrate vs. Outsource: Key Considerations

• Direct costs
• Coordination
• Customization
• Organizational learning and improvement
• Cost of (poor) quality
Coordination

- Most clothing manufacturing is outsourced to lowest cost source
- Zara manufactures close to home
  - “Fast Fashion”
  - Rapid design cycles
  - Stay on cutting edge of fashion
Coordination Questions for Clinical Labs

• How well do you fine-tune lab operations in sync with clinical operations?

• How realistically could an outside lab company replicate that level of coordination?
Customization

Ford

GM

VS

Chrysler

Toyota
Automotive Supply Chains ca. 1980

• American auto manufacturers
  – Competitive bidding for components (brakes, steering, etc.)
  – Limited information sharing
  – Lower per-unit costs
  – Higher engineering costs

• Toyota
  – Two preferred suppliers for every category of part
  – Co-located engineers
  – Higher per-unit costs
  – Lower design and engineering costs
Customization Questions for Clinical Labs

• Where different clinical departments have different dx testing needs, can you appropriately customize your services to meet those needs?

• How realistically could an outside lab company replicate that level of customization?
Learning and Improvement
Dell Computer Sourcing circa 1990s

- Focused on assembly and distribution, not part manufacturing
- Sourced circuit boards from Taiwan
- Suppliers provided more and more pre-assembled parts
- Dell lost expertise in assembly; became replaceable
Customization Questions for Clinical Labs

• How does the lab contribute to the overall health system’s clinical learning and improvement?

• How realistically could an outside lab company play this function?
Cost of (Poor) Quality

British Railways
British Railways: Outsourced Maintenance

- Successful maintenance outsourcing
- Growing safety issues
- Maintenance insourced

Timeline:
- 1990
- 2002
- 2003
British Rail: What Happened?

- Prior to early 1990s, British Rail was mostly vertically integrated
  - Maintenance could be safely outsourced because verification was in-house
- Early 1990s, infrastructure was broken off into separate company
  - Railtrack didn’t have its own measurement equipment
  - No independent verification of repairs
  - Couldn’t negotiate good contracts (and costs actually increased)
- 2003 insourcing of maintenance = higher safety, lower costs
British Rail: Summary

- Outsourcing is not inherently:
  - Cost-saving
  - Quality-reducing

- It comes down to capabilities and relationships
  - If outsource provider is more capable
  - If parent company can manage relationship and ensure quality
Quality Questions for Clinical Labs

- Are you measuring quality from a health system perspective, not just a lab perspective?
- How realistically could an outside lab company provide that same level of system-level quality?
Take-Home Messages for Clinical Labs

• Outsourcing versus vertical integration is a core strategic decision

• Because clinical care is a core competence of healthcare orgs,
  – Clinical lab services **have to be** tightly integrated into the health system
Take-Home Messages for Clinical Labs

• Correct financial lens: (Total) costs and operational performance
  – Long-term strategy, not short-term financial engineering
  – Not a revenue problem
  – Not a capital problem
Take-Home Messages for Clinical Labs

• Clinical impact is usually a bigger cost driver than testing costs
  – Every clinical unit has different workflow needs for lab testing
  – Coordination, customization are all key.
Take-Home Messages for Clinical Labs

- Don’t neglect cost of poor quality
  - Clinical perspective, not just lab perspective
  - Major quality failures may be infrequent, but incredibly costly
  - “Minor” quality failures are also costly, but often invisible
Any Questions?

• Feel free to contact me after the presentation:
  – brian.jackson@aruplab.com
  – @BrianJClinPath