Performance Based Logistics

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Some background: F-35 (JSF) project
Alignment of Incentives under the PBL contract

Traditional Relationship
*Conflicting Incentives*

- **Supplier**
  - **Material Products**
  - Wants to increase

- **Buyer**
  - Wants to decrease

Performance Relationship
*Aligned Incentives*

- **Service Provider**
  - **Value of Services through Products**
  - Wants to increase

- **Buyer**
  - Wants to increase
Issue #1: How to calculate PBL Performance Metrics?

- Operational availability: % of aircrafts available to fly.
- Contracting on availability transfers risk to the supplier.

- How to measure availability:
  - The nominal (or expected) availability (minimal risk transfer)
  - The confidence interval
  - The entire probability distribution? (maximum risk transfer to the supplier)
Issue #2: The folly of rewarding A while hoping for B

• Under the PBL contract the supplier is incentivized to achieve high availability.
• There are many ways to achieve this goal:
  • Increase inventory of spare assets
  • Increase product reliability
  • Increase speed of product repairs
  • Decrease lead-time from repair depot to the field
  • Increase/decrease availability of some subsystems
  • Invent creative ways of measuring availability
• Does PBL contract induce “the right” incentives?
Issue #3: Explicit vs. Implicit Incentives

• PBL is an example of explicit incentives
• Ongoing relationships can serve in place of formal contracts in creating incentives
  • Concern for the future may prevent a firm from squeezing the trading partner
  • Firms may cooperate for fear of being cut off from profits in the future
• A common business practice is to assign numerical ratings which increase likelihood of being awarded future contracts
• Should implicit incentives be a part of PBL?