Creating High Performance Extended Enterprises

Alexis Stanke
PhD Candidate, Engineering Systems Division
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Committee: Profs. John Carroll, Earll Murman, John Van Maanen
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Motivation and Background

Observed Phenomenon
• Typically, there is a trade-off between meeting cost, schedule, and technical requirements in aerospace programs - but not always!

Key Question
• What distinguishes exceptionally successful (high performance) programs?

Terms
• Performance is both efficiency and effectiveness
• Programs are enterprises or interorganizational networks with distributed leadership

Foundations
• High performance teams
• Organizational theories
• Program management
Research Approach

• 19 mini-case studies
  – Focus on program management at the system integrator or major subcontractor
  – Represent 9 different companies
  – Span the industry: missiles, aircraft, engines, spacecraft, electronics
  – Defense and commercial practices
  – Various lifecycle phases and levels of technological risk

• 1 in-depth case study and literature review
  – Span customer, system integrator, and major subcontractors
  – Supplement with existing literature
Enterprise Framework: Balancing Structure and Behavior

Distributed Leadership Actions: Driving Individual Behaviors
Advancing the Culture

Strategic Leadership Levers: Driving Systemic Behaviors

Informal Structures
Dealing with Unknowns

Formal Structures
Managing Knowns
Distributed Leadership Actions: 
*Driving Individual Behaviors*

- Boundary spanning activity across organizations in the enterprise
- Developing and utilizing a social network
- Exhibiting commitment to customer satisfaction
- Fostering and maintaining personal accountability of plans and outcomes

**Results:** goal congruency and empowered workforce

*Robust Enterprise*
Examples of Distributed Leadership Actions

- Boundary spanning activity across organizations in the enterprise
  => Manage interdependence between organizations

- Developing and utilizing a social network
  => Leverage resources beyond the enterprise

- Exhibiting commitment to customer satisfaction
  => Goal congruency through fully internalized enterprise objectives

- Fostering and maintaining personal accountability of plans and outcomes
  => Prompt feedback on performance and ability to manage behavior

**High Performer:** system integrator worked hand in hand with R&D sister division to create technology roadmaps and smooth technology transitions

**Mediocre:** material shortage at a supplier resulted in late delivery for the entire system

**High Performer:** Program Manager's personal connections from a previous job were used to secure a development partner

**Mediocre:** outside experts were only used to review poor performance
Informal Structures: Driving Systemic Behaviors

- Boundary spanning activity with the enterprise environment
- Requirements and incentives for open information sharing
- Veteran core group to institutionalize behavior

Results: effectiveness of outcome

Flexible Enterprise
Examples of Informal Structures

- Boundary spanning activity with the enterprise environment
  => Enterprise proactively understands and influences its environment

- Requirements and incentives for open information sharing
  => Honest information sharing with no surprises

- Veteran core group to institutionalize behavior
  => Sustained high levels of interorganizational trust

High Performer: requirement to end all program briefings with a request for any help needed

Mediocre: filtering of information that gets reported to the customer

High Performer: assumed trust between organizations despite turnover of individual leaders

Mediocre: relationships work well only as long as everything on the program is going smoothly
Formal Structures: Driving Systemic Behaviors

• Balanced risk through work share and teaming arrangements
• Common contract structure
• Standardized program management practices (metrics and reporting systems)

Results: efficiency of execution

Agile Enterprise
Examples of Formal Structures

- Balanced risk through work share and teaming arrangements
  => Sustainable enterprise value proposition

- Common contract structure
  => Single, aligned incentive system

- Standardized program management practices (metrics and reporting systems)
  => Less friction in interactions and interorganizational learning

High Performer: contract structure between customer and system integrator (e.g. fixed price) was mirrored between system integrator and suppliers

Mediocre: contracts with both customers and suppliers that are in the best interests of the system integrator

High Performer: common risk management and analysis system used by customer, system integrator, and subcontractors

Mediocre: data from system integrator systems had to be reformulated to meet customer requirements
Framework Significance

“Deep” Alignment

Distributed Leadership Actions:
Driving Individual Behaviors

Advancing the Culture

Empowered Workforce

“Broad” Alignment

Strategic Leadership Levers:
Driving Systemic Behaviors

Informal Structures
Dealing with Unkowns

Formal Structures
Managing Knowns

Effectiveness of Execution

Efficiency of Execution

Empowered Workforce

FLEXIBILITY

AGILITY

Enterprise Performance

ROBUSTNESS

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Implications

• How does your enterprise perform?
  – High performance enterprises observed were proficient with every section of the framework
  – Less successful enterprises focused on observable and explicit elements, taking for granted the underlying implicit structures and behaviors

• Where is the focus of your enterprise?
  – Systemic behaviors are driven through a balance between formal and informal structures
  – Systemic behaviors must be supported with individual behaviors and distributed leadership
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