

A Model for Determining Optimal Governance Structure in DOD Acquisition Projects in a Performance-Based Environment



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Introduction



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MIMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (ACQUISITION, LOGISTICS AND TECHNOLOGY)
ASSISTANT SECRETARY OF THE NAVY (RESEARCH, DEVELOPMENT, & ACQUISITION)
ASSISTANT SECRETARY OF THE AIR FORCE (ACQUISITION)

SUBJECT: Performance Based Logistics

- Historically, the government structured its acquisition respectively. The government structured its acquisition of the control o
- With the formal adoption of Performance-Based Constructions and adoption of Performance-Based Construction of Performance-Based Construction
- We develop a conceptual model that provides a framework for assessing how knowledge of variables such as environmental uncertainty, task stability, technology application certainty, risk, and transaction-specific investments impact the selection of the optimal mode of governance.

Legacy Contracting

Formal Contracts

- A legally-binding agreement that defines the roles, rules, and outcomes that are to be achieved and how they are to be achieved.
- Several scholars have differing views as to the degree of impact formal contracts have on the relationship as well as the overall level of success one could achieve as a result of having formal contracts. (Child, 1972; Aldrich, 1979; Ghoshal and Moran, 1996; Fehr and Gachter, 2000; Cannon et al., 2000; Poppo and Zenger, 2002; etc.)

Theoretical Framework

- Transaction Cost Economics (TCE): Original
 - Two basic principles: (1) human beings are *bounded rationally*, and (2), as a result of being rationally bound, will always choose to further their own self-interest (i.e., *opportunism*).
 - Williamson (1985) argues that formal contracts are the primary solution for combating opportunistic behavior.
 - Potential culprits for TCE in the defense industry could be the following: budget cycle, rapidly
 evolving technology, a bimodal distribution in the age and knowledge of government
 employees, and the gap that exists between first and third-tier suppliers (Chao, 2005).

Performance-Based Contracting

- Preferred performance-based contracting approach is long-term contracts; therefore, DoD is not only investing in the acquisition of a product but also in a relationship.
 - This represents a significant paradigm shift with regards to product acquisition and sustainment.

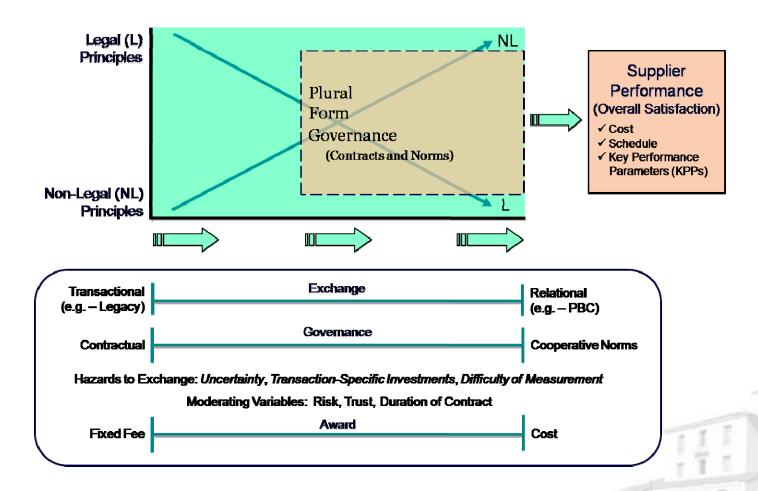
Theoretical Framework

- TCE: Revised
 - "Modern Institutional Economics focuses on the institution of property, and on the systems of norms governing the acquisition or transfer of property rights" (Furubotn & Richter, 1991).
- Relational Exchange Theory
 - Cooperative norms as being the relational norms that exist outside of the formal contract and we consider cooperative norms to be complementary to formal contracts.
 - Relational norms are the means by which the legal conditions described in a formal contract are satisfied.
- Network Theory
 - Emphasizes the normative and social structure in which exchanges are embedded as the primary determinant of behavior (Baron & Hannan, 1994). Concepts such as trust play a prominent role in network explanations (Achrol & Kotler, 1999).

Latest Thinking — "Plural Form" Governance

- Difficulty of infusing economic with relational perspectives have led to the joining of these frameworks.
- According to Bradach and Eccles (1989), exchange is best understood as embedded in a complex matrix of economic, social, and political structures and that governance relies on combinations of market, social, and/or authority-based mechanisms more than any one of these exclusively.
- In a generic sense, <u>plural form governance</u> is the combination of legal and non-legal (i.e., social) conventions against the backdrop of the market.

Conceptual Model



Proposition

Theory and practice suggest that incorporating both <u>legal</u> (i.e., contractual) and <u>non-legal</u> (e.g., social norms) conventions into the acquisition and sustainment process, will <u>enhance</u> the Major Defense Acquisition Programs (MDAPs) contractors' ability to <u>satisfy</u> Key Performance Parameters (KPPs).



Data

- Sources
 - Federal Procurement Data System (FPDS)
 - Contract Data
 - Defense Acquisition Management Information Retrieval (DAMIR) System
 - Performance Data
 - Defense.gov
 - Contract Description



cont.

Composition

- ACAT 1C & 1D Programs
 - <u>Functional Capability Areas</u>: Battlespace Awareness (1), Command & Control (1), Focused Logistics (3), Force Application (9), Force Protection (1), Net Centric (1)
- Timeline: Based upon a combination of FPDS and DAMIR data (roughly 1992-Present)
- Services: Army (3), Air Force (3), Navy/Marine (5), Joint Service
 Products (5)



cont.

Programs

Weapon System	Service Branch	ACAT	Functional Capability Area	Years of Observation
CH-47F Chinook	Army	1C	Focused Logistics	1998-Present
Patriot PAC-3	Army	1C	Force Protection	1994-Present
FBCB2	Army	1C	Command & Control	1995-Present
F-22A Raptor	Air Force	1D	Force Application	1996-Present
C-5M Super Galaxy	Air Force	1C	Focused Logistics	1999-Present
C-17A Globemaster III	Air Force	1C	Focused Logistics	1995-Present
V-22 Osprey	Navy	1D	Force Application	1992-Present
F/A-18E/F Super Hornet	Navy	1C	Force Application	1997-Present
EA-18G Growler	Navy	1D	Force Application	2002-Present
EFV	Navy	1D	Force Application	1997-Present
AH-1Z & UH-1Y	Navy	1D	Force Application	1997-Present
F-35 Joint Strike Fighter	Joint Service	1D	Force Application	2001-Present
JSOW	Joint Service	1C	Force Application	1997-Present
RQ-4A/B Global Hawk	Joint Service	1D	Battlespace Awareness	2001-Present
AMRAAM	Joint Service	1C	Force Application	1997-Present
Navstar GPS	Joint Service	1D	Net Centric	1997-Present

C-5 Galaxy

- Prime Contractor: Lockheed Martin, since 1965.
- C-5 History
 - The C-5 is a heavy-cargo transport designed to provide strategic airlift for deployment and supply of combat and support forces.
- Issues
 - Technical Issues
 - Production Slippage
 - Cost Overruns
 - Reliability Rates
- Contracts
 - Performance-Based requirements
 - Joint effort with Lockheed, GE and Honeywell
- Relevance to Research
 - CREP
 - Commercial based approach



C-17A Globemaster III

- Prime Contractor: McDonnell Douglas (Boeing), since 1981.
- C-17A History
 - The C-17 is a four engine turbofan aircraft capable of airlifting large payloads over intercontinental ranges without refueling.
 - Biggest contribution to the present airlift system is long range direct delivery.
- Issues
 - Technology was not well-defined
 - Technologies were not new but used in new ways
- Contracts
 - Performance-Based requirements
- Relevance to Research
 - TSSR



Conclusions

- Traditional modes of governance and contracting have changed.
- Current modes such as PBC create unsustainable contracts in an environment that funds year to year.
- Thus, new thinking implies that plural forms of governance are required to better manage programs for mutually agreed to performance metrics.