Performance Based Contracting Capabilities – A Pre-study of Swedish Defence Acquisition

Presentation at ISMOR 31, Tuesday, 29 July 2014

Thomas Ekström
FOI, The Swedish Defence Research Agency
thomas.ekstrom@foi.se

Kostas Selviaridis
Lund University, Sweden
(Lancaster University, UK)
kostas.selviaridis@tlog.lth.se
Outline of presentation

• Background to the research
• Performance-based contracting (PBC) theory
• The capability view of organisations (theoretical lenses)
• Swedish defence acquisition practise
• PBC capabilities in defence acquisition (proposition)
• Summary
Background to the research

• Peace dividend – transfer of resources from the defence sector to other sectors of society
• Reallocation – transfer of resources from supporting activities (e.g. logistics, acquisition and research) to core activities (i.e. operations) within the defence sector
• New business models – “faster, better, cheaper”
• Shift towards a performance-based business model in Swedish defence acquisition
• Transfer of resources and responsibilities from the Swedish Armed Forces to FMV (the Swedish DPA)
• New model for cooperation between the Swedish Armed Forces and FMV (two separate authorities)
Background to the research

- Research purpose:
  - “to explore the concept of performance based contracting capabilities,
  - examine what types of capabilities the Swedish defence authorities should consider in order to implement a performance based defence acquisition and logistics model,
  - and identify relevant theoretical perspectives and conceptual frameworks for empirically studying capability development in performance based contracting”
Background to the research

• Research questions (RQs):
  • RQ1: What are performance based contracting capabilities?
  • RQ2: What types of capabilities should Swedish defence agencies consider to design and manage performance based contracts as part of the transition towards performance based defence acquisition?
  • RQ3: Which theoretical perspectives and/or conceptual frameworks are useful for empirically studying capability development in performance based contracting in the Swedish defence context, and why?
Performance-based contracting

• PBC can be conceptualised in terms of three key dimensions:
  • **Performance**: focuses on the processes and practices of specifying, measuring, evaluating, and reporting performance.
  • **Incentives**: addresses the structure of incentives as well as their impact on supplier behaviour. The design of the payment mechanism is a key to the success of PBC.
  • **Risk**: focuses on allocation of financial and operational risk depending also on the risk preferences of contracting parties. A key feature of PBC is risk transfer to the supplier.
The capability view of organisations

- For the purposes of the reported research, capability is understood as:
  - “the reliable capacity to do something as a result of intended action. Capabilities fill the gap between intention and outcome, and they fill it in such a way that the outcome bears a definite resemblance to what was intended”
The capability view of organisations

• There are a number of theoretical perspectives that can collectively be labelled as “capability based perspectives”:
  • Organisational routines perspective
  • Resource based view (RBV)
  • Extended resource based view (ERBV)
  • Knowledge based view (KBV)
  • Dynamic capabilities perspective
  • Indirect capabilities perspective
The capability view of organisations

- Organisational routines perspective
  - Refers to the idea that organisations collectively develop repetitive, behavioural patterns of actions (performative) and cognitive regularities, including written rules and standard operating procedures, to do things (ostensive)
  - Performative and ostensive aspects of routines may diverge
  - Effective and efficient routines lead to competitive advantage
  - States that the industry’s structure has a significant bearing on firm performance
The capability view of organisations

• Resource based view
  • Reaction against the industrial organisation (I/O) perspective (that the industry’s structure has a significant bearing on firm performance)
  • Focuses on how the resources within the firm can be used to create sustainable competitive advantages, in order to explain why firms in the same industry may achieve different levels of performance
  • Suggests that organisations that posses resources that are valuable, rare, inimitable and/or non-substitutable (VRIN) are bound to develop and sustain a competitive advantage
  • Assumes that resources and capabilities are heterogeneously distributed across firms
  • Firms’ bundles of resources and capabilities provide a competitive advantage as long as they are VRIN
The capability view of organisations

• Extended resource based view
  • Reaction against the RBV over-emphasis on resources residing within the firm, thus missing opportunities through inter-firm resource integration
  • Extends analysis into resource development and sharing among organisations in economic and industrial systems (networks)
  • Suggests that resource complementarities with firms in the broader network can be leveraged to create competitive advantage
The capability view of organisations

- Knowledge based view
  - RBV-scholars who emphasise the role of knowledge as a strategic resource
  - Emphasises the role of learning, individual and organisational, as well as the knowledge thus created by learning
The capability view of organisations

- Dynamic capabilities perspective
  - Reaction against the RBV for being static, and not considering the highly dynamic environment in which firms operate
  - Stresses the evolutionary nature of firm resources and capabilities
  - Can be seen as capabilities that allow a firm to reconfigure, renew, or recreate internal resources and capabilities in the face of environmental change
  - Can be divided into three components:
    - adaptive,
    - absorptive, and
    - innovative capability
  - Impacts competitive advantages in an indirect fashion
The capability view of organisations

• Indirect capabilities perspective
  • Direct capabilities = “knowing how to do something” (internal capabilities)
  • Indirect (or ancillary) capabilities = “knowing how to get something done by others” (access to external capabilities)
  • Gaining and organising access to external capabilities is consequently a capability in itself
  • Three key indirect capabilities:
    • (Out)sourcing capabilities
    • Contracting capabilities
    • Relational capabilities
Combining PBC and relevant aspects of the capability view on organisations gives a proposed definition on PBC capabilities:

“Performance based contracting capabilities are the indirect know-how and capabilities that enable organisations to specify, evaluate and manage required performance, design appropriate performance oriented incentives systems, and allocate and manage financial and operational risks associated with performance attainment. The development of these indirect capabilities entails articulation and codification of knowledge regarding performance based contract design and management, considering also the broader context of the outsourcing decision”
Swedish defence acquisition

UK Defence Acquisition Transformation Transformation Staircase

- **Increased Involvement**
  - **Contracting for Availability**
    - Supplier responsible for delivering platforms and equipment to an agreed performance and outputs standard.
  - **Spares Inclusive**
  - **Contracting for Capability**
    - Supplier responsible for providing a capability (e.g., Air Refueling) and outputs to agreed performance standards.

Provider → The DLO → Decider
Swedish defence acquisition

**A defence acquisition project - “Order patterns”**

- **Concept**
- **Development**
- **Production**
- **Maintenance**
- **Operations**
- **Disposal**
- **Other defence logistics**

**Change capability**
**Maintain capability**
**Change capability**
Swedish defence acquisition

A defence acquisition project – “contracting stages”

Intention
Contract design

Action
Contract implementation

Outcome
Contract monitoring

Contract assessment

Acquisition phase

Delivery phase

Contract management
## PBC capabilities in defence acquisition

<table>
<thead>
<tr>
<th></th>
<th>PBC design</th>
<th>PBC management</th>
<th>PBC assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Concept</strong></td>
<td>• <strong>Specification of functional requirements of end users</strong></td>
<td></td>
<td>• Definition of required expertise and key functions and managers to be involved in different project phases</td>
</tr>
<tr>
<td></td>
<td>• Definition of the through life equipment plan in terms of costs and servicing needs</td>
<td></td>
<td>• Formation of cross-functional acquisition and contracting teams</td>
</tr>
</tbody>
</table>

*FOI*
## PBC capabilities in defence acquisition

### Development

<table>
<thead>
<tr>
<th>PBC design</th>
<th>PBC management</th>
<th>PBC assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Specification and technical system and associated system support requirements</td>
<td>• Leveraging performance-based contracting know-how from previous acquisition projects, supplier experiences (avoiding doing the same mistakes)</td>
<td></td>
</tr>
<tr>
<td>• <strong>Design of performance metrics, KPIs and service levels (e.g. availability)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Specification of life cycle costs and target costing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Design of payment mechanism and its specific structure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Design of financial penalties/bonuses in terms of structure and intensity in terms of thresholds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Identification of performance-related risks (both financial and operational)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Allocation/transfer of financial and operational risk to supplier</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# PBC capabilities in defence acquisition

<table>
<thead>
<tr>
<th>Production</th>
<th>PBC design</th>
<th>PBC management</th>
<th>PBC assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Configuration capability: linking performance of acquired system/support solution with systemic performance, considering all defense lines of development.</td>
<td>• <strong>Implementation capability:</strong> ensuring smooth transition (especially for support services)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Monitoring supplier delivery performance against set milestones (for equipment)</td>
<td></td>
</tr>
</tbody>
</table>
## PBC capabilities in defence acquisition

<table>
<thead>
<tr>
<th>Operations and Maintenance</th>
<th>PBC design</th>
<th>PBC management</th>
<th>PBC assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Measuring and monitoring supplier performance against set KPIs</td>
<td>(Re)assessing the impact of designed incentives on supplier behavior and adjusting performance metrics, target levels and penalty/bonus thresholds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Monitoring planned repairs/refits/upgrades against set milestones</td>
<td>Learning capability: articulation of lessons learned regarding the ability to design good performance-based contracts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Administering financial penalties/bonus payments</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ongoing management of financial and operational risks</td>
<td></td>
</tr>
</tbody>
</table>
## PBC capabilities in defence acquisition

<table>
<thead>
<tr>
<th>Disposal and termination</th>
<th>PBC design</th>
<th>PBC management</th>
<th>PBC assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>• Ensuring smooth contract termination and that asset disposal/transfer goes as planned</td>
<td>• Codification of lessons learned from specific projects</td>
</tr>
</tbody>
</table>
Suitable theoretical frameworks

• Less suitable for studying PBC capability development:
  • RBV and ERBV assume a highly competitive business and market environment, where the aim of organisations is to develop sustainable competitive advantages

• Potentially suitable frameworks:
  • Indirect capabilities perspectives
  • Knowledge based perspectives
  • Dynamic capabilities perspectives
  • Organisational routines perspectives
Summary

• A definition of PBC capabilities has been proposed (RQ1)

• Three key types of PBC capabilities are identified; design, management, and assessment capabilities; and described for the different stages of a defence acquisition project, i.e. for concept, development, production, operations, maintenance and disposal (RQ2)

• Four theoretical perspectives are identified as potentially relevant and useful for studying capability development in performance based acquisition and contracting: the indirect capabilities, KBV, dynamic capabilities, and organisational routines (RQ3)
Questions?

“ADEQUATE / REDUCED / OPTIMISED / MINIMISED LOGISTICS FOOTPRINT / TAIL / BURDEN”

“FASTER, CHEAPER, BETTER”

Fast: No…
Cheap: Yes!
Good: No…

One out of three! (Good enough?)

Eliminated logistics footprint, but the logistics tail and the logistics burden are still there!