**Research Question**

How does the Air Force Installation Contracting Agency (AFICA) determine if current contracting strategies are in line with commercial best practices?

**Research Purpose**

1. Facilitate Federally-directed strategic sourcing efforts
2. Ensure the USAF is leveraging its buying power
3. Generate substantial savings to the USAF budget
4. Maximize value to the American taxpayer

**AFICA**

- Headquartered at WPAFB, OH
- Responsible for managing and executing above-Wing-level operational acquisition solutions, across the Air Force enterprise
- Contracting support enables effective mission and installation operations
- Leverages AF-wide reach to capitalize on strategic sourcing opportunities

**Capt Robert Montgomery**

Advisor: Jeffrey A. Ogden, PhD

Reader: Lt Col Matthew J. Robbins, PhD

Department of Operational Sciences (ENS)

Air Force Institute of Technology

**Methodology**

- MODA is used as a framework to position items in the KPM such that two fundamental objectives and their respective value functions are used to plot every alternative (PSC) on the coordinate plane (the KPM).
- KPM position indicates appropriate commercial best practice contracting strategy to pursue & allows comparisons with current employed strategies.
- The two axes of Kraljic matrix represent fundamental objectives.
- Alternatives are PSCs that AFICA desires to position in the KPM.
- Attributes are the evaluation measures for each fundamental objective; two attributes were identified.
- IBISWorld Buyer Power Score measures supply market complexity – scores range from 1.00 to 5.00 and a higher score indicates a less complex market.
- FY13-14 Spend Slope Deviation between an individual PSC and overall Installation spend measures installation mission impact. Sequestration invoked budget cuts of 13% in FY13. The budget increased by 6% in FY14. Assumption – FY14 increases are applied to an installation’s most critical PSCs.
- Both attributes are inputs to their respective increasing exponential function obtained by anchoring end points, eliciting value preferences, and fitting a line to the elicited values which allow calculation of \( v(x,y) \) pairs (see plots at left).

**Results**

- Sensitivity analysis showed value preferences of decision makers are adequately captured with corresponding value functions.
- MODA framework reduces subjectivity and invokes analytical rigor to KPM positioning process and answers the often criticized “how to position” question.
- KPM plot reinforces AFICA-internal analytic procedures given prioritized PSCs represent PSCs suitable for cost reduction (a key component of leverage quadrant strategies).
- Non-prioritized PSCs represent PSCs suitable for cost reduction (a key component of leverage quadrant strategies).
- Upper left quadrant (leverage) PSCs – nearly all acquired through fixed price contracts. This is in direct opposition to commercial best practices & connotes potential for cost reduction.

**Significance of Research**

This study fills both an operational and a research gap. The operational gap is filled by positioning items procured by AFICA in the KPM facilitate strategic sourcing. The research gap is filled by using MODA; a proven effective quantitative method not yet applied for this purpose in literature.