

Contract Source Selection: An Analysis of Lowest Price Technically Acceptable and Tradeoff Strategies

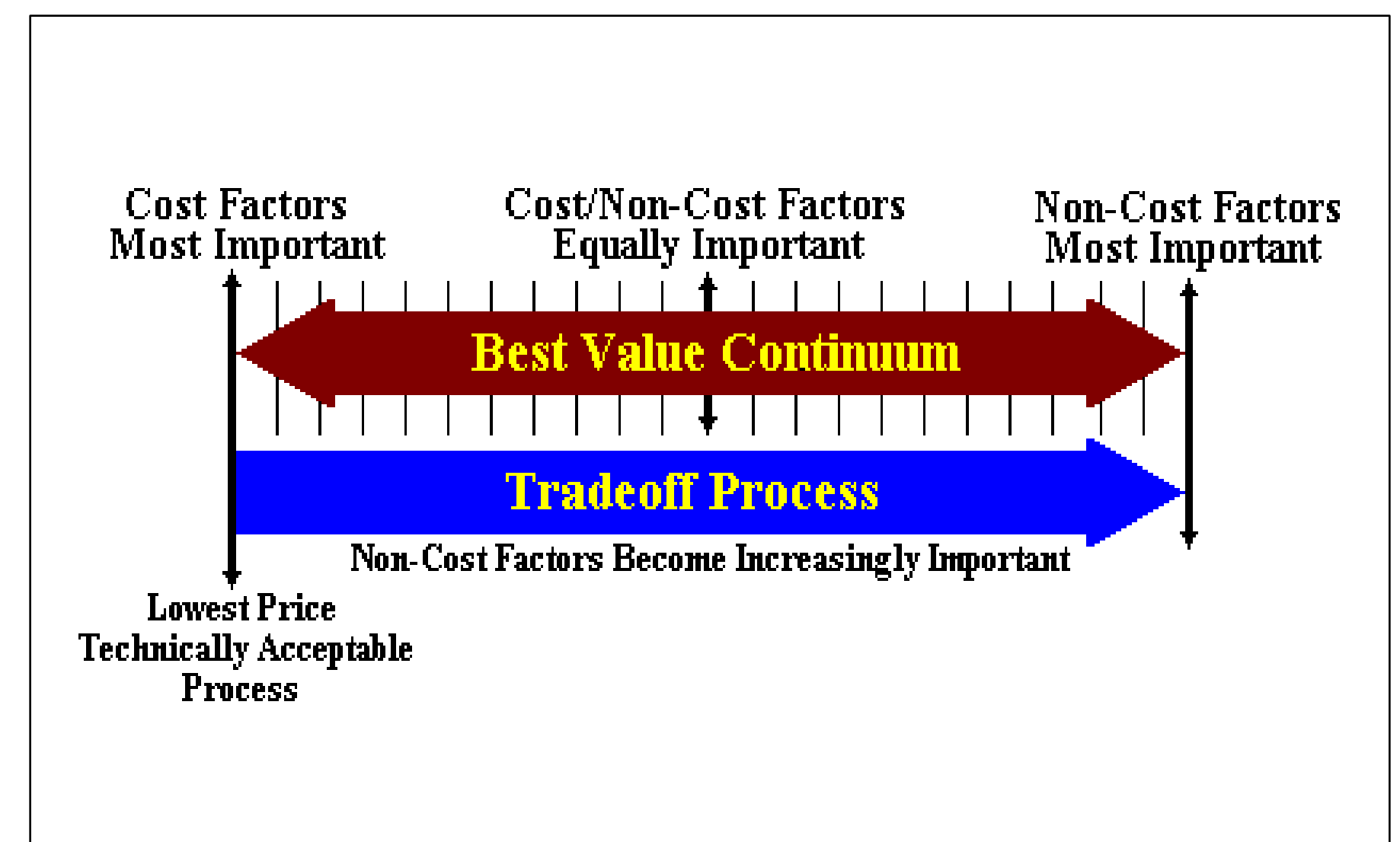


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Abstract

Source selection planning is an integral part of the acquisition process. Use of an appropriate source selection strategy is key to minimizing risk and ensuring best value to the customer, the service, and the taxpayer. Based on thorough market research, acquisition professionals must decide at an early stage whether to use a lowest price technically acceptable (LPTA) or tradeoff source selection strategy to evaluate proposals and determine which offer presents the best value to the government.

The purpose of this research is to determine if a relationship exists between source selection strategy (LPTA or Tradeoff) and successful contract outcomes. Contract outcomes include procurement administrative lead-time, Contractor Performance Assessment Reporting System (CPARS) ratings, and, where available, earned value management (EVM) assessments. This research is part of an ongoing acquisition research stream. Our research incorporates new data extracted from a sample of 50 contract files and related documentation within two major systems commands: Space and Naval Warfare Systems Command and Naval Supply Systems Command.



Is there a relationship between source selection strategy and contract outcomes?

| Data Collection Categories | | | | | | |
|--------------------------------------|--|---|------------------------------|------------------------|------------------------------------|------------------------------|
| Environmental Factor | | Outcome Variables | | | | Other |
| # Reviews | # Team Locations | PALT - Requirement Receipt Date | Protest | EVM CV | RFP Amendment Reason 2 | # Evaluation Notices |
| Review 1 Date | ACE Support | PALT - RFP Issue Date | Protest Level | EVM SV | RFP Amendment Reason 3 | # ENs Pre-Competitive Range |
| Review 2 Date | MIRT Support | PALT - Proposals Received Date | Protest Results | EVM CPI | RFP Amendment Reason 4 | # ENs Post-Competitive Range |
| Review 3 Date | Use of Collaboration Tools | PALT - Contract Award Date | Corrective Action (Describe) | EVM SPI | RFP Amendment Reason 5 | # Rounds of ENs |
| Review 4 Date | Abundance/ Lack of File Documentation Rating | PALT - Days | CPAR Cost | Nunn-McCurdy Breach | RFP Amendment Reason 6 | # Clarification Requests |
| # Personnel on Source Selection Team | State of the Economy | Early Strategy and Issues Session (ESIS) Date (>\$100M) | CPAR Quality | # of RFP Amendments | Earned Award Fee % | # Deficiency Reports |
| | | ASP Date | CPAR Business Relationship | RFP Amendment Reason 1 | Earned Incentive Amount/ Available | Basis for Award |

Methodology

- The research team performed a literature review on the contract management process, specifically focusing on the best value continuum and its role in the source selection process.
- The research team reviewed 50 contracts and related documentation from two major systems commands (SPAWAR and NAVSUP) to gather the data required for analysis.
- After reviewing the contract files, the research incorporated a statistical data analysis that examined the relationship between source selection strategy and specified contract outcomes.

Results

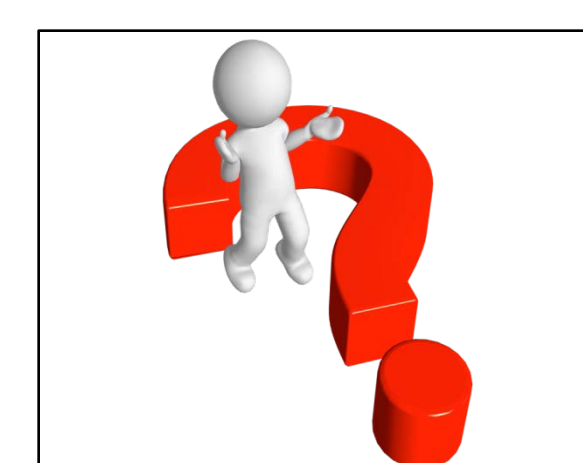
- Using PALT as the dependent variable, the results indicate that, on average, tradeoff source selections take 105% longer than LPTA. For tradeoff source selection strategies, there is a strong relationship between the number of reviews and PALT.
- Using CPARS as the dependent variable, source selection strategy does not produce significantly different CPARS ratings (more CPARS data required to confirm results).
- The Kruskal-Wallis H Test confirms the findings regarding the relationship between source selection strategy and CPARS ratings.

| Variable | Descriptive Statistics | | | | |
|------------------------------|------------------------|-----------------|--------------------|-------------|------------------|
| | Obs | Mean | Standard Deviation | Min | Max |
| PALT (days) | 30 | 1,576.4670 | 7,291.57100 | 14 | 40,163 |
| | 18 | 126.1111 | 81.24682 | 14 | 370 |
| | 12 | 3,752.0000 | 11,469.61000 | 84 | 40,163 |
| Average CPARS Rating | 20 | 3.571667 | 0.6885467 | 2.2 | 5 |
| | 5 | 3.600000 | 0.5477226 | 3.0 | 4 |
| | 7 | 3.478571 | 0.9406811 | 2.2 | 5 |
| Value | 44 | \$24,000,000.00 | \$41,300,000.00 | \$27,819.07 | \$250,000,000.00 |
| | 18 | \$1,368,585.00 | \$1,380,352.00 | \$27,819.07 | \$4,499,432.00 |
| | 14 | \$45,900,000.00 | \$64,500,000.00 | \$99,999.43 | \$25,000,000.00 |
| Number of Evaluation Factors | 31 | 2.709677 | 1.1311810 | 1 | 5 |
| | 17 | 2.058824 | 0.6586528 | 1 | 3 |
| | 14 | 3.500000 | 1.0919280 | 2 | 5 |
| Number of Reviews | 31 | 7.258065 | 6.956856 | 2 | 25 |
| | 18 | 4.444444 | 5.260533 | 2 | 25 |
| | 13 | 11.153850 | 7.312616 | 2 | 24 |
| Number of Offers | 43 | 3.348837 | 3.279690 | 1 | 12 |
| | 18 | 3.833333 | 4.514682 | 1 | 12 |
| | 14 | 3.500000 | 2.103111 | 1 | 8 |
| Number of CLINs | 31 | 17.35484 | 51.52834 | 1 | 290 |
| | 18 | 22.00000 | 67.09782 | 2 | 290 |
| | 13 | 10.92308 | 13.51827 | 1 | 47 |

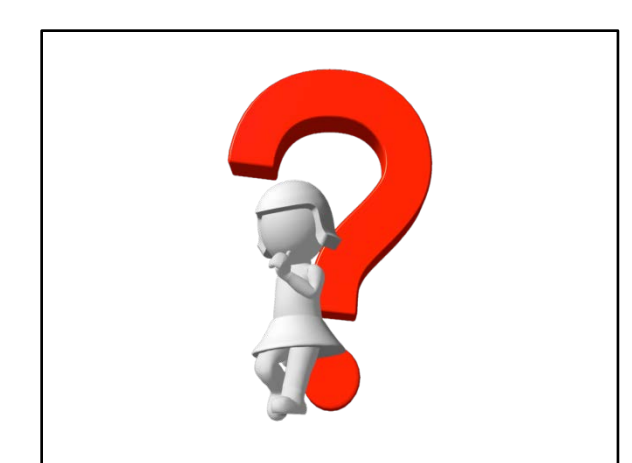
*Blue = Total for all data, White = Total for LPTA Contracts, Orange = Total for Tradeoff Contracts

Areas for Further Research

- How would the inclusion of additional EVM data alter research findings and the implications thereof?
- With the release of the latest DOD Source Selection Procedures (DFARS PGI Subpart 215.3 dated 31 March 2016), how would the identified procedures and best practices affect source selection strategy determination?



LPTA



Trade-off