

Journal of Contract Management

*Linking scholarly research with best practices
in the contract management field*

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EDITOR'S WELCOME

Welcome to the 2025-2026 issue of the *Journal of Contract Management (JCM)*. Since 1966, the *JCM* (originally called the *National Contract Management Journal*) has been supporting the National Contract Management Association (NCMA) mission of advancing the contract management profession through advocacy and the execution of programs to connect NCMA members and enable their professional development. Specifically, the *JCM* does this by publishing research aimed at expanding the contract management body of knowledge, serving both the buying and selling communities of the private and public sectors.

The *JCM* scope spans a wide range of topics in the contract management field, as reflected in the Contract Management Body of Knowledge® (CMBOK®). It strives to comprehensively cover the contract management body of knowledge by publishing conceptual, empirical, and practice-based application research that demonstrates substantial conceptual development, appropriate methodology, proven best practices, and value-added topics.

We hope the *JCM* will promote and foster discussion of both theory and practice across the CMBOK competencies. Each article published in the *JCM* is aligned with specific CMBOK competencies as noted in the abstract of each article. To this end, the *JCM* brings together key theory and practice applications, making the research available not only to the academic community but also to the private and public sector buying and selling communities. The *JCM* seeks research on both cutting-edge theories and practice applications in areas impacting the contract management profession. We invite both academics and practitioners to contribute to and read the *JCM*.

The *JCM* uses a double-blind peer-review process. Neither the authors nor the manuscript reviewers are made aware of each other's identity during the manuscript review process. This approach removes potential biases in the review process, thereby retaining quality and objectivity. The authors submit manuscripts with findings based on their own perspective, and the blind peer reviewers provide comments related to the quality, impact, and technical accuracy of the research.

This year's issue contains four peer-reviewed articles covering a range of contract management topics.

In the first article, "Charting a Course: Navigating Maintenance Construction Contract Management Challenges in Nepal," the author team of Subash Bhattarai, Bigyan Pokhrel, and Dinesh Sukamani use the Delphi interview technique to explore the challenges, conditions, and solutions associated with the management of maintenance construction contracts in Nepal. Their research found key challenges such as poor workmanship, inadequate contract classification, lack of objectivity in the preparation phase, untimely payments, technical issues, and policy gaps. Their research also determined that conditions affecting contract management encompassed strict legal provisions, conditions for force majeure, and work description deficiencies. This resulted in problems such as limited technical and financial capacity, low prioritization of maintenance contracts, and flaws in design.

In the second article, "Effective Practices in the Use of Partnership Intermediary Agreements: A Case Study of the U.S. Air Force," authors Allan Cameron and Rene G. Rendon examine effective practices in the use of partnership intermediary agreements (PIAs) within the U.S. Air Force. Specifically, they focus on the Air Force's Global Strike Command PIA with the Cyber Innovation Center (CIC) to determine the most effective practices in the use of PIAs that will foster innovation, maximize collaborative outcomes, and achieve considerable return on investment. Their research identified effective practices in the areas of information sharing, standardized contracting processes, proximity of location of the partnership intermediary, aligned performance evaluation metrics, and establishing lessons learned and best practices.

The third article, authored by Commander Si Yun Yang of the Taiwan Ministry of National Defense, is entitled, "A Comparison of the United States and Taiwan Navy Shipbuilding Source Selection Strategies." In this article, the author compares source selection strategies between the United States and Taiwan Navy shipbuilding procurement, then provides recommendations based on the findings to develop beneficial contracting strategies for both countries. Using the NCMA Contract Management Standard (CMS) as the basis for the comparison, Commander Yang's research found that most of the shipbuilding solicitations

used tradeoff as a source selection approach in both the United States and Taiwan. However, the source-selection processes, source-selection team structures, contract types, and evaluation factors are different for each country. Based on the results of her research, she provides four recommendations for maximizing the overall benefit of source selections for the U.S. Navy and Taiwan Navy.

The fourth article, authored by Tom Reid, is entitled, “How Jurisprudence Informs Ethical Business Judgment in Acquisition.” In this article, the author asks the foundational jurisprudential question, “Why do laws exist?” and reviews the spectrum of jurisprudential theories and their roots and maps the theories of jurisprudence (Natural Law, Legal Positivism, Legal Realism, Command, Analytical, Historical, Sociological, Law & Economics, and Critical Legal Studies) onto the *Federal Acquisition Regulation (FAR)*. The author clarified how philosophical traditions shape acquisition policy and practice, and how contracting professionals can use this awareness to exercise better business and ethical judgment. The findings indicate that examples of each jurisprudential theory appear in some portion of the *FAR*, and apparent contradictions across provisions often reflect different jurisprudential influence and conscious choices regarding priorities across the business of government.

As you can see from the descriptions of these articles, the *JCM* covers a wide range of topics in the CMBOK.

This *JCM* issue would not have been possible without the support of our editorial board and the volunteer efforts of its members in conducting the manuscript reviews. I would like to thank the editorial board members for taking time out of their busy schedules to perform the reviews of these manuscripts. I sincerely appreciate them sharing their time and expertise to ensure that the *Journal of Contract Management* continues as the top contract management journal for scholars and practitioners across the globe.

This issue marks an important milestone as the final standalone edition of the *Journal of Contract Management*. As we look ahead, its legacy will continue through the *International Journal of Commerce and Contracting* (IJCC), published by the Commerce & Contract Management Institute (CCM Institute), creating a broader platform for research and thought leadership in commerce and contract management.

This next chapter expands the journal’s global reach while continuing to provide relevant insight for U.S. practitioners and stakeholders. We invite readers to learn more through the CCM Institute website at www.ccm.institute.

**Dr. Rene G. Rendon, CPCM, CFCM,
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Editor-in-Chief
Journal of Contract Management

CHARTING A COURSE: NAVIGATING MAINTENANCE CONSTRUCTION CONTRACT MANAGEMENT CHALLENGES IN NEPAL

BY SUBASH KUMAR BHATTARAI, BIGYAN POKHREL, AND DINESH SUKAMANI

Abstract

PURPOSE: This study aims to explore the challenges, conditions, and solutions associated with the management of maintenance construction contracts in Nepal, along with stakeholder perspectives.

DESIGN/METHODOLOGY/APPROACH: The Delphi Technique was employed to gather insights from experts and stakeholders in the construction industry.

FINDINGS: The study identified key challenges, including poor workmanship, inadequate contract classification, lack of objectivity in the preparation phase, untimely payments, technical issues, and policy gaps. Conditions affecting contract management encompassed strict legal provisions, conditions for force majeure, and work description deficiencies. Problems such as limited technical and financial capacity, low prioritization of maintenance contracts, and flaws in design were also observed.

RESEARCH LIMITATIONS/IMPLICATIONS: The study's scope was limited to the perspectives of experts and stakeholders within the construction industry in Nepal. Further research could explore additional dimensions and perspectives.

PRACTICAL IMPLICATIONS: The insights from this study provide guidance for policymakers, project managers, and stakeholders involved in maintenance construction contracts in Nepal. Addressing the identified challenges and implementing the proposed solutions can enhance contract management practices and improve project outcomes.

SOCIAL IMPLICATIONS: Effective management of maintenance construction contracts can contribute to the overall development and infrastructure improvement in Nepal, benefiting society.

ORIGINALITY/VALUE: This study contributes to the understanding of maintenance construction contract management in the context of Nepal, offering insights into challenges, conditions, and potential solutions. The findings have practical implications for improving project delivery and outcomes in the construction sector.

Keywords:

Maintenance construction contracts, challenges, solutions, contract management, Delphi technique

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Introduction

Construction projects are inherently complex, characterized by several sequential phases: inception, design, construction, operation, and demolition (Adnan, Bernd, & Hadeel Al, 2016). A "contract" is defined as a legally enforceable agreement between two or more parties for performing or not performing any work (Government of Nepal, 2018).

In construction, contracts are typically formed between the client (the purchaser of the work) and the contractor (the party responsible for completing the work). Upon agreement, certain terms and references, known as the conditions of contract, bind all parties involved (Shrestha, Shrestha, & Bhattarai, 2019). These conditions outline the rights, responsibilities, and risks of each party (Abdulaziz & Soliman, 1994).

Construction contracts often face disputes arising from contractual issues, leading to claims resolved through litigation or alternative dispute resolution methods (Oliviera, 2012). Contract conditions are generally classified into general and special conditions (Shrestha, Shrestha, & Bhattarai, 2019).

The operation and maintenance (O&M) phases are critical for the performance and longevity of construction projects (Lie & Yik, 2007). Proper monitoring of maintenance activities is essential, and outsourcing O&M services can deliver high-quality services at reduced costs, provided operator performance is adequately monitored through regular reviews (Lie & Yik, 2007).

Maintenance activities post-construction is typically carried out by selected contractors through a tendering process. Aligning the strategic objectives of maintenance contracts between the client and contractor, including risk-sharing and performance monitoring, is key to achieving better quality at lower costs.

In Nepal, maintenance contracts often experience significant delays and fail to be completed on time. The nature of maintenance projects requires frequent change orders, impacting cost and schedule performance, leading to delays and budget overruns (Shrestha & Shrestha, 2019). Clear understanding and agreement on change orders between the client and contractor are crucial for timely contract execution within the budget. Miscommunication and lack of

clarity on these issues frequently lead to disputes and delays (Mishra, Yadav, & Aithal, 2021).

The primary causes of inefficiencies in contract management practice are the contract management team's lack of training, expertise, and knowledge. Stakeholders' inability to cooperate and communicate effectively further exacerbates these inefficiencies. Another significant factor is the lack of timely monitoring and evaluation during the project implementation phase (Sah & Bhattarai, 2021).

Statement of Problem

Maintenance projects in Nepal face significant delays and claims (Mulmi, 2016). For example, inadequate maintenance works have resulted in Nepal losing approximately \$1 billion in road maintenance projects (Mulmi, 2016). From 2009 to 2016, only 28% of the Department of Roads' budget was allocated for maintenance (Mulmi, 2016).

The lack of standardized conditions of contract prepared by the Public Procurement Monitoring Office (PPMO) for maintenance contracts has resulted in the absence of universally accepted documents for contract management in maintenance projects. There is a dearth of research on conditions of contract from a Nepali perspective. This study aims to identify and address the imbalance in conditions of contract for maintenance contracts in Nepal to achieve better contract management and resolve issues of claims and disputes in maintenance projects.

Research Objectives

To identify challenges and viable solutions in managing maintenance construction contracts in Nepal through the Delphi Technique.

Literature Review

Maintenance contracts in Nepal are implemented for works, goods, and services. Federal government construction maintenance contracts are primarily managed by the Department of Roads (DOR), Department of Water Resources and Irrigation (DWRI), Department of Urban Development and Building Construction (DUDBC), Department of Local Infrastructure (DOLI), and Department of Water Supply and Sanitation Management (DWSSM), while provincial governments manage them through line ministry agencies and local government.

Major construction maintenance contracts include the maintenance of transportation, irrigation, and

water supply infrastructure, usually conducted by the respective line ministry and agencies.

The DOR (Department of Roads, 2023) handles strategic road maintenance, employing several methods (Shrestha D., 2020):

- **Routine maintenance:** Activities such as grass cutting, drain cleaning, and debris removal.
- **Recurrent maintenance:** Repairs for minor damage such as cracks and potholes.
- **Specific maintenance:** Localized maintenance to ensure functionality in all seasons.
- **Periodic maintenance:** Cyclic maintenance to preserve road performance.
- **Emergency maintenance:** Activities to reopen roads for vehicular traffic after abrupt blockages.
- **Rehabilitation:** Curative maintenance to renew roads based on design periods.

Irrigation maintenance is carried out by DWRI in coordination with local levels. Maintenance of intake and main canal systems is managed by DWRI, while tertiary systems are maintained by users, coordinated through user groups. The maintenance process involves various steps: asset survey, categorization, prioritization, cost estimation, budget approval, execution, and technical audit (Department of Water Resources and Irrigation, 2019).

Water supply and sanitation project maintenance is generally managed by user committees in coordination with DWSSM, often without formal contracts (Ministry of Water Supply and Sanitation, Sector Efficiency Improvement Unit (SEIU), Government of Nepal, 2017). Local infrastructure such as provincial roads and buildings is maintained by DOLI in coordination with provincial and local governments, funded by federal and provincial budgets (Department of Local Infrastructures, Government of Nepal, 2023).

DUDBC is responsible for construction, maintenance of government buildings (Department of Urban Development and Building Construction, Government of Nepal, 2024).

Nepal Electricity Authority (NEA), Civil Aviation Authority of Nepal (CAAN), other authorities, public and government companies, security agencies, and private sector organizations are conducting maintenance work based on their nature and scope of work.

Conditions of Contract

PPMO oversees public procurement in Nepal, ensuring

Table 1. Problems in Contracts in Nepal

Serial Number (S.N) .	Problems Identified	Source
1	Suitability for the work type	(Singh, 2023)
2	Increase in the price	(Uprety, 2016) (Singh, 2023) (Khadka, 2023) (Koirala, 2023) (Dahal & Dahal, 2020)
3	Time extension due to delays	(Koirala, 2023) (Singh, 2023)
4	Lack of adequate budget allocation	(Dahal & Dahal, 2020)
5	Delays in variation and approval	(Koirala, 2023)
6	Lack of clarity in contracts	(Koirala, 2023) (Khadka, 2023) (Singh, 2023)
7	Change in circumstances during implementation	(Koirala, 2023) (Uprety, 2016)
8	Site possession	(Koirala, 2023) (Khadka, 2023) (Singh, 2023)
9	Timely payment	(Koirala, 2023) (Khadka, 2023) (Singh, 2023) (Uprety, 2016)
10	Design changes	(Koirala, 2023) (Dahal & Dahal, 2020)
11	Material availability	(Koirala, 2023) (Dahal & Dahal, 2020)
12	Timely decision-making	(Koirala, 2023)
13	Timely communication	(Khadka, 2023)
14	Liquidated damages and obtaining bonus	(Khadka, 2023)
15	Personnel appointment	(Khadka, 2023)
16	Safety provisions for workers at the site	(Khadka, 2023)
17	Handover problems	(Khadka, 2023) (Singh, 2023)

a transparent, efficient, and corruption-free system. It prepares standard bidding documents (SBDs), which include conditions of contract. PPMO has developed 15 forms of SBDs for different procurement categories, including EPC works, national and international competitive bidding, and sealed quotations (Public Procurement Monitoring Office, Government of Nepal, 2024).

Donor Agencies

Nepal's budget includes revenue, grants, foreign grants, and loans, with a significant portion allocated to construction works (Upadhayay, 2017) (National Planning Commission, Government of Nepal, 2020). Major donors such as the Asian Development Bank (ADB) and World Bank provide substantial funding for construction projects. ADB uses categorized contracts based on FIDIC conditions, while the World Bank uses harmonized FIDIC conditions for large works and different conditions for smaller works (Asian Development Bank, 2023); (World Bank Group, 2019)

International Practice

Internationally, construction contracts commonly

use International Federation of Consulting Engineers (FIDIC) conditions, adapted to specific regional needs. World Bank and other donor agencies harmonize FIDIC conditions for projects in borrowing countries (Texas A&M university, 2024). Different donor agencies have their own conditions of contract for funded projects, ensuring standardization and compliance.

Problems in Contract Management in Nepal

Several problems have been associated with the construction contracts in Nepal. Upon the study of these contracts, the major common problems identified by previous studies are listed in Table 1.

There are many ongoing construction projects in Nepal. The study focused on the maintenance construction contracts within the country. These contracts were carried out either with or without formal agreements between the parties involved. The study was limited to contracts that included a formal agreement and well-defined conditions.

The primary focus was on maintenance construction contracts. The study area covered signed contracts for maintenance construction works in different sectors. Major contracts for maintenance in Nepal include

Table 2. Details of Delphi Interviews

S.N.	Round	Individual Interviews	Mailed Questionnaires	Total
1	1	5	4	9
2	2	5	4	9
3	3	5	4	9

highways, irrigation canals, water supply and sanitation, buildings, radars, and hydropower projects.

Methodology

To identify challenges in maintenance construction contracts in Nepal, the Delphi interview technique was employed. The Delphi method, which is a questionnaire-based approach involving multiple iterative rounds, aims to achieve consensus among experts on a specific topic (Chuenjitwongsa, 2017).

This method is particularly suited for addressing contentious issues and gathering expert opinions (Chuenjitwongsa, 2017). By using a series of structured questionnaires with controlled feedback, the Delphi method ensures robust consensus building (Fletcher & Marchildon, 2014).

Participants in a Delphi study receive feedback on findings after each round, allowing reflection and potential adjustments to responses, thereby maintaining engagement throughout the research process (Fletcher & Marchildon, 2014). However, participant attrition, especially in later rounds, can pose challenges (Fletcher & Marchildon, 2014).

The Delphi interviews consisted of three rounds, spaced two weeks apart, facilitated by the researcher as a mediator. Initially, open-ended questions validated by an expert with more than 15 years of project management experience in maintenance contracts were used.

In the first round, responses from professionals were collected through in-person meetings, email, telephone, or WhatsApp interviews, constituting primary data for analysis. Subsequent rounds involved ranking responses on a scale of 1 to 9 by the same experts, with the final round refining and converging opinions.

Selection of Experts

Critical to the success of a Delphi study is the careful selection of participants. Typically, five to

26 experts are recommended to ensure diverse and valuable insights (Weerasekara, Disranta, Withanage, & Perera, 2021) (Gordon, The Delphi Method, 1994). For this study, nine experts were chosen based on their extensive experience in the construction industry, (four

clients, four contractors, and one consultant) with experience as engineers or project managers (including those in higher management positions) for at least five years. Due to time and budget constraints, three interview rounds were conducted to achieve convergence in expert opinions, with participant details kept confidential to ensure privacy.

Validation of Questions

Questions were prepared and validated by an expert with more than 15 years of experience in project management of maintenance construction contracts. Validation occurred through interviews, ensuring the relevance and clarity of the questions.

Mediator

The researcher acted as a mediator, facilitating data collection, analysis, and summarization. Due to budget constraints, an independent mediator was not employed.

Ethics

Confidentiality of expert details was maintained throughout the study, and experts' views were not shared during the initial stages to prevent bias. Each expert's responses were analyzed independently.

Data Analysis

Data collection occurred over three rounds of questionnaires. The first round gathered subjective responses through various methods, which were then classified, tabulated, and summarized. Responses meeting convergence criteria were validated and categorized based on mean scores. Data failing to converge were re-evaluated in subsequent rounds. Analysis details are provided in Table 2.

Results and Discussion

Several challenges and viable solutions in managing maintenance construction contracts in Nepal were identified using the Delphi interview technique.

First Round of Delphi Interviews

The responses of experts to the questions in the first

Table 3. Summary of Delphi Interviews First Round Result

Experts	Q1: Maintenance Construction Contracts make up a huge proportion of the capital expenditure and are important for the infrastructure development of the economy and the nation. But we have seen several problems and challenges associated with these projects. In your view, what are the major challenges associated with maintenance construction projects in Nepal?	Q2: Please provide your insights and possible solutions to overcome these challenges	Q3: Different stakeholders are involved in maintenance construction projects. Which stakeholders in your view are mostly affected by these challenges and in what way?
E1	Policy gap, poor contract management practices***	Bidding period should be 15 days	Clients due to pressure of beneficiaries
E2	No proper contract monitoring framework,** not enough budget*****	Easier ways to end maintenance contracts with financial settlements	Clients due to loss of revenue by beneficiaries and inability to terminate the contracts easily
E3	Technical issues, poor workmanship	Climate-oriented modification of Special Condition of Contract (SCC)	Contractors due to excess works
E4	Lengthy procurement procedure,** less objectivity in preparation phase***	Effective implementation of bidding procedures	Clients
E5	No proper classification of maintenance contracts**	Easier procedures for contract management, including termination and dispute settlement	Consultants due to bad reputation
E6	Disputes and claims	provision for completion of evaluation in designated number of days	Beneficiaries
E7	Variations and price adjustments	Establishment of a separate monitoring and regulation office	Clients
E8	Untimely payment*****	Proper definition and risk sharing in case of force majeure	Clients
E9	No importance given to maintenance construction contracts*****	Cyclic maintenance contracts for recurrent maintenance works	Clients

NOTE: The repeated responses are bold and the number of asterisks (*) denote the number of responses by experts. E1, E2, E3, etc. denote the experts.

round of Delphi interviews are shown in Table 3. The details of questions Q1, Q2 and Q3 are presented in Appendix A.

Second Round of Delphi Interviews

The data obtained through the first round of Delphi interviews was subjected to further analysis. These results are presented in Table 4. Interview details are provided in Appendix B.

The second round of Delphi interviews, found that variables (above responses to questions related to Challenges, Solutions and Stakeholders) had an interquartile range, below 3 and more than 50% of the experts agreed on the same point, so consensus was reached (Gordon, The Delphi Method, 1994).

Third Round of Delphi Interviews

However, some variables didn't reach the consensus of experts and the interquartile range was greater than 2, so they were sent again to experts for them to answer. The results are shown in Table 5. The details of interview questions are provided in Appendix C.

The variables in the third round of the Delphi interviews also reached consensus after 50% of the experts agreed on the same point and the interquartile range was less than or equal to 2.

Results

The results obtained after three rounds of Delphi interviews are presented in Table 6.

CHARTING A COURSE: NAVIGATING MAINTENANCE CONSTRUCTION CONTRACT MANAGEMENT CHALLENGES IN NEPAL

Table 4. Summary of Delphi Interviews Second Round Result

S.N.	Items	Mean	First Quartile (Q1)	Second Quartile (Q2)	Third Quartile (Q3)	Inter-quartile Range (IQR)	Remarks
	Challenges						
1	Technical issues	7.667	5	9	9	4	Re
2	Less objectivity in preparation phase	6.778	7	7	7	0	
3	Lengthy procurement procedure	6.667	6	6	7	1	
4	Not enough budget	6.556	7	8	8	1	
5	Variations and price adjustments	6.444	5	8	8	3	Re
6	Disputes and claims	6.111	7	7	7	0	
7	Untimely payment	6.000	5	7	7	2	
8	Policy gap	6.000	5	6	7	2	
9	Poor contract management practices	6.000	5	6	7	2	
10	No proper classification of maintenance contracts	5.667	5	6	7	2	
11	Poor workmanship	5.667	3	6	8	5	Re
12	No proper contract monitoring framework	5.667	5	6	6	1	
13	No importance given to maintenance construction contracts	4.889	4	5	7	3	Re
	Solutions						
1	Cyclic maintenance contracts for recurrent maintenance works	8.667	8	9	9	1	
2	Provision for completion of evaluation in designated number of days	6.889	5	8	8	3	Re
3	Proper definition and risk sharing in case of force majeure	6.222	4	8	8	4	Re
4	Effective implementation of bidding procedures	5.778	6	6	6	0	
5	Easier procedures for contract management, including termination and dispute settlement	5.778	5	5	7	2	
6	Climate-oriented modification of SCC	5.667	3	7	7	4	Re
7	Establishment of separate monitoring and regulation office	5.444	6	6	6	0	
8	Easier ways to end maintenance contracts with financial settlements	5.222	5	5	5	0	
9	Bidding period should be 15 days	4.333	3	3	7	4	Re
	Stakeholders						
1	Clients	8.667	8	9	9	1	
2	Beneficiaries	8.222	8	8	8	0	
3	Consultants	4.333	5	5	5	0	
4	Contractors	3.889	3	4	5	2	

“Re” in remarks indicates that the experts were asked to rank their responses again, where inter quartile range was greater than 2.

Table 5. Summary of Delphi Interviews Third Round Result

Items	Mean	First Quartile (Q1)	Second Quartile (Q2)	Third Quartile (Q3)	Inter quartile Range (IQR)
Challenges					
Poor workmanship	7.333	7	7	8	1
Technical issues	6.556	7	8	8	1
Variations and price adjustments	6.111	7	7	7	0
No importance given to maintenance construction contracts	6.000	5	7	7	2
Solutions					
Provision for completion of evaluation in designated number of days	5.778	5	5	7	2
Proper definition and risk sharing in case of force majeure	5.444	6	6	6	0
Climate-oriented modification of SCC	5.222	5	5	5	0
Bidding period should be 15 days	4.778	5	5	5	0

Implications

Based on the results of the Delphi interviews, several challenges and viable solutions were identified in managing maintenance construction contracts in Nepal, which are discussed below.

Challenges

Poor workmanship, with a mean value of 7.333, indicates a significant concern regarding the quality of work conducted in maintenance construction projects. This poor workmanship can lead to safety hazards, project delays, and additional rectification costs.

Additionally, the lower objectivity in the preparation phase, reflected by a mean value of 6.778, suggests a need for more thorough and objective preparation phases in contract management to ensure clarity, fairness, and efficiency. Similarly, lengthy procurement processes unnecessarily delay the execution of works. The challenges of lack of enough budget and technical issues, each with a mean value of 6.556, indicate concerns regarding delays in payment and technical challenges during project execution, adversely affecting project progress and contractor relationships.

Moreover, variations and price adjustments and disputes and claims, each with a mean value of 6.111, represent the issues among clients and contractors during implementation that affect implementation and progress.

Furthermore, the challenges of a policy gap, poor contract management practices, and no importance given to maintenance construction contracts, each with

a mean value of 6.0, highlights inconsistencies or gaps in policies, lack of standardized contract management practices, and less prioritization of maintenance construction contracts, potentially leading to confusion and disputes. No proper classification of maintenance contracts and no proper contract monitoring framework, each with a mean value of 5.667, show a lack of standardized procedures and practices in implementing maintenance contracts.

Solutions

To address these challenges, it is recommended to follow cyclic maintenance contracts for recurrent maintenance works, with a mean value of 8.667, to enhance efficiency and encourage timely project commencement.

Effective implementation of bidding procedures, easier procedures for contract management including termination, dispute settlement, implementing procedures for easier termination of contracts with clear guidelines for financial settlements, and provision for completion of evaluation in designated number of days, each with a mean value of 5.778, can help address issues of contract non-performance.

Additionally, establishment of a separate monitoring and regulation office as well as proper definition and risk sharing in case of force majeure, each with a mean value of 5.444, can help reduce inconsistencies and make the process easier.

Similarly, easier ways to end maintenance contracts with financial settlements and climate-oriented modi-

Table 6. Final Results of Delphi Interviews

Items	Mean	First Quartile (Q1)	Second Quartile (Q2)	Third Quartile (Q3)	Inter Quartile Range (IQR)
Challenges					
Poor workmanship	7.333	7	7	8	1
Less objectivity in preparation phase	6.778	7	7	7	0
Lengthy procurement procedure	6.667	6	6	7	1
Not enough budget	6.556	7	8	8	1
Technical issues	6.556	7	8	8	1
Variations and price adjustments	6.111	7	7	7	0
Disputes and claims	6.111	7	7	7	0
Untimely payment	6.000	5	7	7	2
Policy gap	6.000	5	6	7	2
Poor contract management practices	6.000	5	6	7	2
No importance given to maintenance construction contracts	6.000	5	7	7	2
No proper classification of maintenance contracts	5.667	5	6	7	2
No proper contract monitoring framework	5.667	5	6	6	1
Solutions					
Cyclic maintenance contracts for recurrent maintenance works	8.667	8	9	9	1
Effective implementation of bidding procedures	5.778	6	6	6	0
Easier procedures for contract management, including termination and dispute settlement	5.778	5	5	7	2
Provision for completion of evaluation in designated number of days	5.778	5	5	7	2
Establishment of separate monitoring and regulation office	5.444	6	6	6	0
Proper definition and risk sharing in case of force majeure	5.444	6	6	6	0
Easier ways to end maintenance contracts with financial settlement	5.222	5	5	5	0
Climate-oriented modification of SCC	5.222	5	5	5	0
Bidding period should be 15 days	4.778	5	5	5	0
Stakeholders					
Clients	8.667	8	9	9	1
Beneficiaries	8.222	8	8	8	0
Consultants	4.333	5	5	5	0
Contractors	3.889	3	4	5	2

fication of SCC, each with a mean value of 5.222 help the simplification of the process and minimization of issues. Reduction of the bidding period also enhances project resilience and effectiveness.

Stakeholders

Clients, with a mean value of 8.667, perceive mainte-

nance construction contracts as crucial and prioritize their effective management to ensure project success and stakeholder satisfaction.

Beneficiaries, with a mean value of 8.222, also place high importance on the proper management of maintenance contracts, as they directly benefit from the outcomes of these projects.

Consultants, however, with a mean value of 4.333, may have a relatively lower level of concern or involvement in the management of maintenance contracts compared to other stakeholders.

Contractors, with a mean value of 3.889, may perceive maintenance contracts as less critical or face challenges that hinder their ability to manage them effectively.

Discussion

Analysis of data pertaining to the objective provided valuable insights into the challenges, issues, solutions, and stakeholders impacted by the implementation of maintenance construction contracts. These findings illuminate the difficulties encountered by experts during project execution and propose effective strategies for addressing them.

The identified challenges primarily encompass technical, financial, policy, and contract management issues, posing significant obstacles to project implementation. Experts encountered various problems, including technical, design-related, contractor capacity-related, management related, and policy-related issues, which disrupted the smooth execution of maintenance construction projects.

To address these challenges, experts highlighted the necessity for policy improvements in maintenance contracts. Proposed measures include amendments to the Public Procurement Act and Regulations, adjustments to bidding periods, enhancements in contract classification, and clearer definition of risks, among others.

Stakeholders most affected by these challenges include clients, who bear financial responsibility and public accountability for the contracts, and beneficiaries, who ultimately benefit from project outcomes. In contrast, consultants exhibited minimal interest and were less affected compared to clients and beneficiaries. Contractors were found to be the least affected by these challenges and issues in maintenance construction contracts.

Conclusions

In conclusion, prioritizing policy enhancements and addressing concerns of clients and beneficiaries are crucial steps toward overcoming challenges and ensuring successful implementation of maintenance construction projects.

The Delphi interview technique yielded invaluable insights into the challenges, issues, solutions, and stakeholder perspectives regarding the management

of maintenance construction contracts in Nepal.

Identified challenges, such as poor workmanship, inadequate contract classification, objectivity issues during the preparation phase, delayed payments, technical difficulties, and policy gaps underscore critical areas requiring attention to enhance the efficiency and effectiveness of contract management practices.

To tackle these challenges, experts proposed several feasible solutions, including reducing bidding periods, simplifying contract termination procedures with clear financial settlements, and adjusting standard contract terms to incorporate climate-related considerations. These solutions aim to streamline processes, enhance transparency, and mitigate risks associated with contract management.

Stakeholder perspectives highlight that clients and beneficiaries prioritize effective contract management, recognizing its significant impact on project success and stakeholder satisfaction. In contrast, consultants displayed less concern or engagement, while contractors perceived maintenance contracts as less pivotal or faced challenges affecting their ability to manage contracts effectively.

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APPENDIX A. DELPHI INTERVIEW ROUND 1

A. Background Information

Name of respondent:

Gender:

Address:

Nature of organization:

Designation:

Types of maintenance projects worked:

Types of government:

Number of projects worked:

B. Delphi Interview (First Round)

1. Maintenance construction contracts make up a huge proportion of the capital expenditure and are really important for the infrastructure development of the economy and the nation. But we have seen several problems and challenges associated with these projects. In your view, what are the major challenges associated with the maintenance construction projects in Nepal?
2. Please provide your insights and possible solutions to overcome these challenges.
3. Different stakeholders are involved in maintenance construction projects. Which stakeholders in your view are mostly affected by these challenges and in what way?
4. Any additional recommendations, suggestions, etc., please include.

Thank you so much for your cooperation

APPENDIX B. DELPHI INTERVIEW ROUND 2

Dear Respondent,

Thank you so much for cooperation and support for effectively carrying out the first round of the Delphi Interview successfully. Here the obtained data have been classified. Now, I want your further support to rate your responses.

For this, please rate the response to the following questions in a scale of 1 to 9, in terms of severity.

Part 1: Challenges

How do you rate the following challenges in maintenance construction contracts in a scale of 1 to 9?

- Policy gap
- Poor contract management practices
- No proper contract monitoring framework
- Not enough budget
- Technical issues
- Poor workmanship
- Lengthy procurement procedure
- Less objectivity in preparation phase
- No proper classification of maintenance contracts
- Disputes and claims
- Variations and price adjustments
- Untimely payment
- No importance given to maintenance construction contract

Part 2: Solutions

How do you rate the following solutions in maintenance construction contracts in a scale of 1 to 9 based on their effectiveness?

- Bidding period should be 15 days
- Easier ways to end maintenance contracts with financial settlement
- Climate-oriented modification of SCC
- Effective implementation of bidding procedures
- Easier procedures for contract management, including termination and dispute settlement
- Provision for completion of evaluation in designated number of days
- Establishment of separate monitoring and regulation office
- Proper definition and risk sharing in case of force majeure
- Cyclic maintenance contracts for recurrent maintenance works

Part 3: Stakeholders

How do you rate the following stakeholders in terms of problems faced by them in maintenance construction contracts in a scale of 1 to 9?

- Clients
- Contractors
- Consultants
- Beneficiaries

APPENDIX C. DELPHI INTERVIEW ROUND 3

Dear Respondent,

Thank you so much for cooperation and support for effectively carrying out the first and second rounds of the Delphi Interview successfully. Here the obtained data have been classified and analyzed. Now, I want your further support to rate your responses.

For this, please rate the response to the following questions in the predefined range of scales again. These scales are identified based on the maximum number of expert ratings in the previous rounds of interviews.

Part 1: Challenges

How do you rate the following challenges in maintenance construction contracts in a scale as defined:

- Poor workmanship (on a scale of 7 to 9)
- Lengthy procurement procedure (on a scale of 5 to 7)
- Untimely payment (on a scale of 5 to 7)

Part 3: Stakeholders

How do you rate the impact upon the following stakeholders in maintenance construction contracts in a scale as defined:

- Clients (on a scale of 7 to 9)
- Contractors (on a scale of 3 to 5)
- Consultants (on a scale of 4 to 6)
- Beneficiaries (on a scale of 7 to 9)

Thank you so much for your time

EFFECTIVE PRACTICES IN THE USE OF PARTNERSHIP INTERMEDIARY AGREEMENTS: A CASE STUDY OF THE U.S. AIR FORCE

BY ALLAN E. CAMERON AND DR. RENE G. RENDON

Abstract

PURPOSE: The purpose of this research is to discuss effective practices in the use of partnership intermediary agreements (PIAs) within the U.S. Air Force. Specifically, our research focuses on the Air Force Global Strike Command PIA with the Cyber Innovation Center (CIC) for support and research within the nuclear deterrence and operations domain. In this research, we answer the question, “What are the most effective practices in the use of PIAs that will foster innovation, maximize collaborative outcomes, and achieve considerable return on investment?”

DESIGN/METHODOLOGY/APPROACH: We draw on practical applications in the CIC and other literature reports. Although this research focus is limited to the Air Force Global Strike Command PIA with the CIC, our findings can still be applied to similar PIAs in the U.S. Department of Defense (DoD) that aim to acquire innovative, agile, and more collaborative solutions in a timelier manner.

FINDINGS: We identify effective practices in the areas of effective information sharing, standardized contracting processes, proximity of location of the partnership intermediary, aligned performance evaluation metrics, and establishing lessons learned and best practices.

RESEARCH LIMITATIONS: The primary limitation of our research is that the Air Force Global Strike Command PIA served as the primary case study for analysis. While we analyzed this PIA alongside existing literature,

our research findings were limited to the primary case study. Our research contribution to the literature is to highlight effective practices from both a practitioner’s perspective, intertwined with the PIA literature.

PRACTICAL IMPLICATIONS: The PIA’s capability as an innovative acquisition approach lies in its effectiveness in employing non-traditional acquisition methods for rapid technology transfer and development. By acting as a medium between the non-traditional defense sector and the government, the main purpose of the PIA is to simplify processes and encourage participation from a wide range of capabilities potentially unbeknownst to the DoD. As global defense challenges become more complex and multifaceted, PIAs provide the defense acquisition community with a pivotal tool to expand the vendor base, motivate technological advances, and rapidly deploy new technologies.

ORIGINALITY/VALUE: One challenge for DoD in using innovative approaches to acquisition includes identifying best practices, lessons learned, and successful use cases and disseminating this information to other agencies for adoption. The literature includes successful use cases for other transaction authorities (OTAs), but the use of PIAs is still comparatively limited. Our research and related findings provide a comprehensive roadmap for the Air Force and the wider defense community, stimulating an agile, collaborative, and innovative outcome for future use as an innovative acquisition approach.

Keywords:

Partnership intermediary agreement (PIA); contracting; innovation; Air Force Global Strike Command (AFGSC)

Contract Management Body
of Knowledge® (CMBOK®)
Competencies:

1.0, 2.0, 3.0, 4.0

About the Authors

ALLAN E. CAMERON is an independent scholar whose research examines civil-military institutional partnerships, with over 11 years of expertise in defense procurement and policy development. He is an Air Force Academy graduate and holds an M.P.A. from Harvard Kennedy School and an M.B.A. from the Naval Postgraduate School. He served in defense acquisitions and contracting, including as the Lead Agreements Officer for an \$85M Partnership Intermediary Agreement within Air Force Global Strike Command for technological development and innovation.

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Introduction

The U.S. Department of Defense (DoD) obligates billions of dollars annually for the procurement of goods and services that are essential for homeland defense. The majority of these procurements are structured using contracts based on the *Federal Acquisition Regulation (FAR)* and its related supplements.

Past legislation has authorized the use of procurement agreements and contracts that are not based on the *FAR* (Schwartz & Peters, 2019). Some of these non-*FAR* instruments include other transaction authority (OTA) contracts and partnership intermediary agreements (PIAs). The DoD is adopting the use of these non-*FAR* instruments as a way of acquiring innovative, agile, and more collaborative solutions in a timelier manner. The use of OTAs, and specifically PIAs, is still in its early adoption phase, yet the DoD has already achieved successful acquisition outcomes using these non-*FAR* instruments (Peña et al., 2020).

Challenges for the DoD in using these innovative approaches to acquisition include identifying best practices, lessons learned, and successful use cases for its non-*FAR* contracts and disseminating this information to other agencies for possible adoption. The literature already includes successful OTA use cases, but the use of PIAs is still comparatively limited within the DoD.

The purpose of this article is to discuss effective practices in the use of PIAs within the U.S. Air Force. Specifically, this article will focus on the Air Force Global Strike Command (AFGSC) PIA with the Cyber Innovation Center (CIC) for support and research within the nuclear deterrence and operations domain.

In this article we will answer the question, “What are the most effective practices in the use of PIAs that will foster innovation, maximize collaborative outcomes, and achieve considerable return-on-investment?” We draw on practical applications in the CIC and on other research reports from the acquisition literature. Our research and identified findings will benefit other Air Force PIA initiatives as well as PIAs planned and implemented throughout the DoD.

Although the focus of this article is limited to the Air Force Global Strike Command PIA with the Cyber Innovation Center, our findings can still be applied to similar PIA agreements in the DoD that aim to acquire innovative, agile and more collaborative solutions in a timelier manner.

Our article is structured in five sections. This first section introduces our research by providing the background, problem statement, purpose statement, and our research question, as well as the benefits and limitations of our research.

The second section provides a literature review by first establishing our theoretical foundation and then reviewing the background, regulatory, and legal policies concerning PIAs. We then discuss the AFGSC PIA with the CIC and then past research on the use of PIAs in the DoD and how this article's research contributes to the current PIA literature.

The third section presents our methodology for accessing the data and how we analyzed the data to identify our research findings. The fourth section presents our research findings and the implications of our findings for the U.S. Air Force and the DoD acquisition community.

Our article concludes with a summary of our research and areas for further study.

Literature Review

Research in contract management is informed by various economic and management theories, such as principal-agent theory, transaction cost economics (TCE) theory, core competency theory, and auditability theory, just to name a few.

Our research draws from TCE theory as the basis for our theoretical framework. TCE theory proposes that the make-or-buy decision should be based on the comparison of production costs (cost for performing the work in-house) and the transaction costs (cost for outsourcing the work). As the procured product or service becomes more specific, the transaction costs increase due to the increased costs to the buyer for specifying the product/service as well as the monitoring and controlling during the post-award phase to protect the interest of the buyer.

In addition to informing the make-or-buy decision, TCE theory suggests that organizations pursue initiatives to lower transaction costs by streamlining the contracting process (Williamson, 1975, 1979). Initiatives to streamline the contracting process within the federal government include using procurement cards, contract options, indefinite delivery contract instruments, and procuring commercial products and services.

The use of non-*FAR* contracts such as OTAs and PIAs are also examples of initiatives to streamline the contracting process, reducing transaction costs in government contracts. Thus, TCE provides the theoretical foundation for informing the use of PIAs. The next section provides background and regulatory and legal policies concerning PIAs.

Partnership Intermediary Agreement (PIA)

PIAs are non-traditional procurement instruments established across the federal government. Specifically, a PIA is an agreement, memorandum, or contract between the partnership intermediary (PI) and a government organization established to foster innovation and maximize collaboration with academia, non-profit organizations, small businesses, and industry.

The intent of a PIA is to drive innovation and foster collaboration between the government and the PI through technology transfer or licensing rights (DAU, 2020). To be designated as a PI, the PI must be a "State or local government, or a nonprofit entity owned in whole or in part by, chartered by, funded in whole or in part by, or operated in whole or in part by or on behalf of a state or local government" (15 USC 3715).

By collaborating with the PI, the defense organization seeks to gain access to non-readily available technologies, develop unconventional solutions to prevalent organizational issues, increase the competition pool with non-traditional vendors, and source non-DoD technological capabilities for DoD use (DAF T3 Annual Report 2022, 2023). In many cases, the complexity and access to *FAR*-based contracts for non-traditional contractors can seem overbearing and deter non-traditional contractor engagement (GAO, 2017). In leveraging the capabilities of a PI, the government can mitigate the complexities of federal acquisition and augment the active participation of non-traditional contractors within the defense industry (GAO, 2017).

There are two types of PIAs within DoD. One type is a PIA established by a DoD entity, such as a warfare center (e.g., Air Force Research Labs, Naval Surface Warfare Center, etc.) designated by the government as a science and technology reinvention laboratory in 10 U.S. Code § 4121. The second type is an interdepartmental DoD-wide PIA established by the Under Secretary of Defense for Research and Engineering (USDR&E) (Peña et al., 2020). Of the established DoD-level PIAs, only two are currently active; TechLink and MilTech, both located at Montana State University (DAF T3, n.d.).

Statutory Authority for PIAs

A PIA is authorized and governed by congressional statute that establishes its legal framework. The congressional statutes serve as the legal framework and basis for the government to authorize use

of a PIA in public procurement. In establishing a PIA, the primary intent for the government is to

drive innovation and foster collaboration with the PI through technology transfer, licensing and data rights (DAU, 2020).

The congressional statutes for a PIA are as follows: 15 U.S. Code § 3715, 15 U.S. Code § 3705, 15 U.S. Code § 3707, and 10 U.S. Code § 4124 (DAU, 2020). 15 U.S. Code § 3715 (Use of Partnership Intermediary Agreements) is the primary statute governing the establishment and use of a PIA. The statute authorizes a contracting officer to “(1) enter into a contract or memorandum of understanding with a partnership intermediary that provides for the partnership intermediary to perform services for the federal laboratory that increase the likelihood of success in the conduct of cooperative or joint activities of such federal laboratory with small business firms, institutions of higher education as defined in section 1141(a) [1] of title 20, or educational institutions within the meaning of section 2194 of title 10; and (2) pay the federal costs of such contract or memorandum of understanding out of funds available for the support of the technology transfer function pursuant to section 3710(b) of this title” (15 U.S. Code § 3715).

The intent of the statutory authorization is to allow the PI to perform services for a designated federal laboratory with non-federal entities such as academic institutions, non-profit organizations, and small businesses with the intent to promote collaborative outcomes related to technology transfer, knowledge sharing, commercialization between federal and non-federal entities, and other research and development (R&D) activities.

One section specific to the U.S. Armed Forces and renumbered from 10 U.S. Code § 2368, 10 U.S. Code § 4124 (Centers for Science, Technology, and Engineering Partnerships) tasks the secretary of each military department to, “reengineer management and business processes and adopt best-business and personnel practices at the centers of the secretary concerned in connection with the capability requirements of the centers, so as to serve as recognized leaders in such capabilities throughout the Department of Defense and in the national technology and industrial base.” (10 U.S. Code § 4124).

The statute authorizes the use of non-*FAIR*-based agreements for defense procurement contracting officers to award within the context of best practices through their respective centers (i.e., a designated federal laboratory). Additionally, 10 USC 4124 subsection (f), “Use of Partnership Intermediaries to Promote Defense

Research and Education,” outlines how the director of a center “may enter into a contract, memorandum of understanding or other transaction with a partnership intermediary to perform services for the Department of Defense that increase the likelihood of success in the conduct of cooperative or joint activities of the Center with industry or academic institutions” (10 U.S. Code § 4124). The principal intent of the federal statutes within defense procurement is to promote partnerships with academia, non-profit organizations, and small businesses to drive enhanced R&D, innovation, technology transfer, and collaboration for a more sustainable and cost-effective defense acquisition ecosystem.

History of PIAs

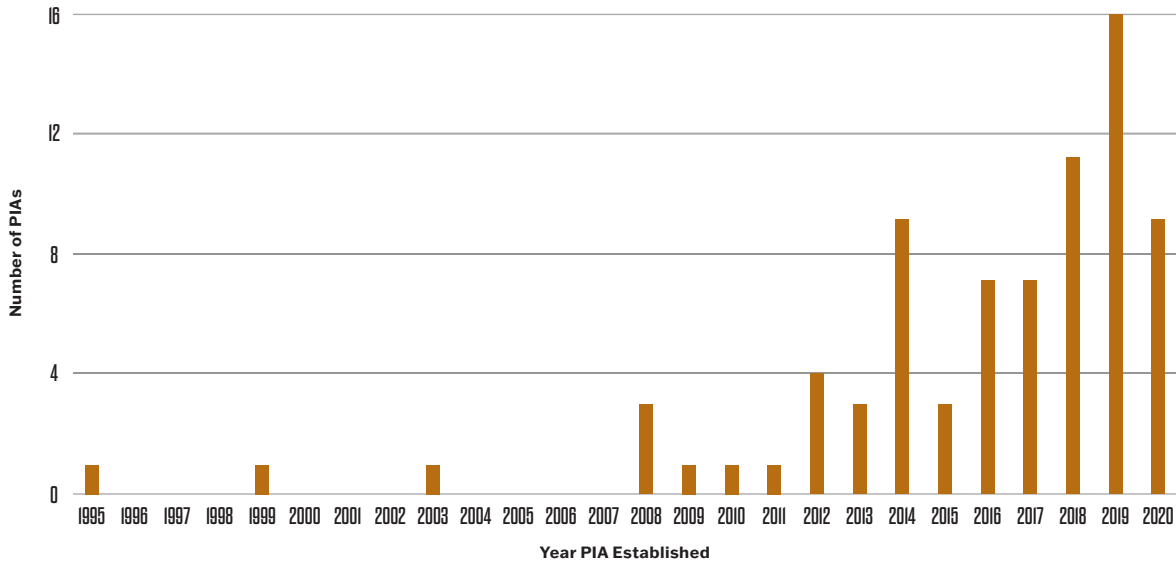
Instituted in 1991, the original PIA procurement instruments were not well-known nor utilized within government acquisitions, especially the defense sector. In fact, it was not until 1995 that the Air Force was the first DoD component to establish a PIA with the Air Force Research Laboratory (AFRL). Following the Air Force’s establishment of a PIA, the DoD created the first DoD-wide PIA with TechLink in 1999 (Swearingen & Dennis, 2009).

Initially, the PIA was intended as a procurement instrument for the DoD to increase its ownership in technology transfer, patents, and licensing rights. By the FY 2004 – FY 2005 period, the DoD-wide PI, TechLink, had facilitated over one-third of all DoD licensing (Swearingen & Dennis, 2009).

Since the initial success in increasing the patents and licensing rights with Tech Link, PIAs have significantly grown in popularity within the program management and defense acquisition community. In addition to the initial successes, awareness of the benefits of PIAs and non-traditional acquisitions has also increased due to their potential for significant return on investment as well as rapid fielding of new technology (Klempner & Stokes, 2022). Figure 1 illustrates the number of PIAs established between the years 1995 and 2020.

In 2018, 10 U.S. Code § 4124 (formerly 10 U.S. Code § 2368), the second governing statutory authority, was enacted by Congress. 10 U.S. Code § 4124 applied specifically to the DoD and further increased the DoD’s PIA establishment (Peña et al., 2020). Currently there are 14 Active PIAs in the Air Force (Department of the Air Force Technology Transfer and Transition, n.d.).

Figure 1. Number of PIAs established 1995-2020 (Adopted from Peña et al, 2020)



In 2023, a Congressional Research Service report, “Federal Research and Development (R&D) Funding: FY2024,” addressed the importance of science and technology (S&T) for DoD acquisitions, specifically PIAs. The report noted the high level of interest of congressional policymakers and their continued support for R&D development programs. Additionally, the report stated that members in the defense community view S&T as “imperative to maintaining superiority into the future” due to its ability to use non-traditional procurement instruments for rapid prototype and technological innovation (Sargent et al, p 15, 2023).

As our research is focused specifically on identifying effective practices within the Air Force Global Strike Command’s PIA with the CIC, we will discuss this in the next section.

Air Force Global Strike Command PIA

Since 2013, Global Strike Command has had an established PIA with its Science and Technology Directorate (ST) office and the CIC for support and research within the nuclear deterrence and operations domain (DAF T3 Annual Report 2022, 2023). The CIC is the PI tasked with establishing, operating, and maintaining a collaborative environment. From 2017, the Global Strike PIA has grown in scope, magnitude, and complexity. In 2020, the CIC launched STRIKEWERX as an “innovative hub” of the PI to source non-traditional defense contractors for tech-

nology transfer, rapid prototyping, and capability evaluation and development (Frost, 2020). As part of the CIC, STRIKEWERX has led a series of efforts related to sourcing non-traditional contractors, partnering with academia and deriving new technology for deployment within the nuclear capabilities domain (Air Force Global Strike Command, 2020).

As an innovation hub, STRIKEWERX facilitates Global Strike Command’s technological objectives through advertisements, solicitations, and execution of “Design Springs,” “Innovative Challenges,” and “Fusion Events” (also known as Innovation Discovery Days) to non-traditional contractors. Innovation Discovery Days have been part of PIAs for quite some time and have consistently led to significant results in rapid technological advancement and return on investment (United States Navy (USN), 2014).

For Innovation Discovery Days, the PI works with senior government leadership to identify an issue or gap in technology that adversely impacts an Air Force Major Command. After identifying the problem, the PI constructs the challenge purpose statement and end-goal objectives and solicits solutions from its non-traditional network of partners. Upon receipt of the problem statement, non-traditionally sourced partners decide whether to tender proposals to the PI on proof-of-concept methodologies and solutions.

Contractors submitting proof-of-concept methodologies present the unconventional solutions to the

government and PI evaluators in a series of competitive rounds (STRIKEWERX What We Do, n.d.). The challenge typically results in a down-select process through multiple rounds, with finalists selected in the final round. In some cases, contractors previously unknown to the DoD and Air Force have been introduced through Innovation Discovery Days (DAF T3 Annual Report 2022, 2023).

Through STRIKEWERX's use of the collaboration environment for the Innovative Challenges, Global Strike Command recognized considerable return on investment and cost savings.

The Fiscal Year (FY22) Annual Report by the Department of the Air Force (DAF) Technology Transfer and Transition reported an indirect savings of approximately \$200 million with direct savings of \$4 million per year from the effective use of the collaborative environment innovation hub, STRIKEWERX (DAF T3 Annual Report 2022, 2023).

Recent Academic Research on PIAs

Although the literature does not include extensive research specifically on PIAs, there has been some research on the use of non-*FAR* contracting approaches. For example, in their research on Air Force acquisition workforce views of non-*FAR* contracting approaches, Barringer and Miles (2021) found “quantifiable data highlighting a large training gap with fewer than half of non-*FAR*-based contracting respondents having training available to them and fewer than half of finance and requirement owners knowing non-*FAR*-based acquisition laws and regulations” (Barringer & Miles, 2021, page v).

Their research findings recommended that “training and education should also be a main priority to educate personnel on what non-*FAR*-based procurement and contracting is how to do it properly” (page v).

Additionally, in their research on Department of Defense additive manufacturing acquisition practices, Hagan, Mickley, and Swank (2021) found that “Interviews and literature reviews showed the Air Force utilizing non-*FAR*-based instruments such as Cooperative Research and Development Agreement (CRADA) and Partnership Intermediary Agreements (PIA). While most people are familiar with *FAR* based contracting instruments, most are unfamiliar with non-*FAR*-based instruments such as CRADAs and PIAs” (page 32).

They also found that the Air Force uses PIAs in the acquisition of additive manufacturing products and

services, “allowing flexibility in acquisition strategies considering the spectrum of knowledge gaps in AM technology, materials, and capabilities” (page 32).

In his case study on U.S. Special Operations Command (USSOCOM)'s establishment of SOFWERX, Ingram (2019) found that “SOCOM and the Doolittle Institute created SOFWERX through a mechanism called a Partnership Intermediary Agreement (PIA), which “increases the likelihood of success in the conduct of cooperative or joint activities ... with small business firms [and] institutions of higher education” (page 374).

The next section focuses on our research methodology for identifying effective practices in the use of PIAs within the Air Force Global Strike Command.

Methodology

As previously stated, the purpose of this article is to discuss effective practices in the use of PIAs within the U.S. Air Force. Our focus is specifically analyzing the Air Force Global Strike Command PIA with the Cyber Innovation Center.

We conducted an explanatory and qualitative analysis of publicly available sources, including but not limited to PIAs, congressional statutes, reports from the Institute of Defense Analyses, the Government Accountability Office, the Rand Corporation, the Congressional Research Service, congressional hearings and the current PIA landscape within the DoD.

The analysis blends existing literature, official documents and reports, and studies to draw inferences and conclusions on the most effective uses of the PIA. Additionally, we synthesize one of the author's 11 years of recent and relevant practitioner experience managing PIAs with direct insights acquired from fieldwork with academic analysis.

Findings and Discussion

The primary findings from our research identified effective practices in the use of PIAs, including ensuring effective information sharing, establishing standardized contracting processes, understanding the proximity of the partnership intermediary's location, creating aligned performance evaluation metrics, and establishing lessons learned and after-action reports. These findings are discussed in more detail below.

Effective Sharing of Information

Effective communication and collaboration are essential to the successful execution of PIAs. Trust is a

cornerstone for PIA success and can be best achieved through a collaborative and open-source environment between the government and other PIs (Cecchi-Dimeglio et al., 2022).

According to an Institute for Defense Analyses report, effective communication and collaboration between not only the government and PI but also other PIs increase the likelihood of usable technologies and more intertwined collaboration between multilateral organizations (Peña et al., 2020).

A study conducted by Rand further indicated the importance of effective communication between stakeholders in identification of key aspects for non-traditional acquisitions (Kotila et al, 2023). One of the key observations from the Rand study was that non-traditional acquisitions within the commercial technology pipeline” (CTP) found no single stakeholder responsible for identifying technology and adopting capability (Kotila et al., 2023).

The RAND study conducted a comprehensive analysis that included a literature review and interviews with 18 different Defense Innovation Organizations (DIOs), seven innovation stakeholders, and seven commercial businesses partnering with the DIOs and stakeholders.

The key recommendation in conjunction with practitioner experience and extrapolated from the study emphasized the essential and critical importance of turnover, also known as a “warm hand-off,” between stakeholders at each phase of the non-traditional acquisition process (Kotila et al., 2023).

Within Global Strike Command, the PI provides a platform through its collaborative environment located within the Cyber National Park in Shreveport, Louisiana, where the government effectively communicates with both the PI and non-traditional vendors. In these instances, the collaborative environment provides a “brick and mortar” location for contractors and government to actively collaborate on ongoing innovative projects under the PIA.

In addition to using a collaborative environment, the government has integrated the PI into the science and technology research operation at Barksdale Air Force Base. By leveraging these capabilities, the PI and the government enhance their overall ability to transfer information as well as effectively communication through direct contact with continual feedback in real-time (DAF T3 Annual Report 2022, 2023).

The key recommendation from our research is that prototyping and fielding of technology derived from

a PIA must provide continuity between stakeholders through turnover at each phase of the contracting process. This ensures the transfer of innovative technological outcomes and the ability of the government to use them in future acquisitions, resulting in effective cost savings and return on investment. Through study, practice, and theory, the importance of effective communication between members of the government and PI acquisition teams is paramount for successful implementation and administration of requirement activities in a PIA.

Standardized Contracting Processes

PIAs have often been traditionally underutilized within the DoD due to the lack of readily available information and knowledge of many non-*FAR* contracting processes (Dunn, 2022). Within the past decade, the DoD’s increased interest in non-traditional procurement instruments to achieve rapid innovation and effective collaboration has driven the need for simplified and standardized procedures (Vergun, 2021).

From a practitioner’s perspective at Global Strike Command, administrative and contracting processes can lead to some of the most time-consuming delays for operational execution under a PIA. For example, collaborative project designs (CPDs) under a collaborative project order (CPO) often have significantly varying specifications relative to their scope and intended outcome.

Unlike similar specifications typical for task and delivery orders under Indefinite Delivery Indefinite Quantity (IDIQ) contracts under *FAR* procedures, the wide breadth of differentiation for CPDs under a CPO can create unfamiliarity when managing contracting processes. Ultimately, the unfamiliarity can lead to “noise interference” in decision-making, miscommunication with acquisition team members, and even delayed awards by seasoned government acquisition professionals (Peña et al., 2020).

Moreover, the DoD encounters a unique set of challenges when executing PIAs due to personnel changes that occur frequently in the defense community. PIAs are administered by agreement officers who exercise broad latitude in decision-making in areas such as implementation, documentation, and determination of allowable scope essential for fulfilling requirements. The administration of a PIA can be adversely impacted by lack of continuity that results from frequent changes in the agreement officers who administer a specific PIA.

While concisely outlined in *FAR*-based contracts, the statutory procedures under a PIA enable a more encompassing and varied set of policies and procedures that can be enacted by the overseeing authority. For example, an incoming agreements officer might opt to adhere to a different set of implementation procedures or documentation prerequisites as opposed to the preceding agreements officer on the same PIA. Consequently, the PI can encounter unfamiliar requisites beyond the statutory mandates or established set of contractual procedures while operating within the bounds of the specific PIA.

While the recommendation for a standardized contracting process is not to apply a “one-size fits all” approach, the rationale for streamlining and simplification is to provide a transparent roadmap through a PIA’s contract lifecycle across phases such as pre-award, award, and post award contracting activities (e.g., reporting requirements, financial management, receipt of deliverables, and technology transfer outcomes).

In understanding the challenges of DoD policy and human resource activity, especially in light of frequent personnel changes and specific administrative policies and procedures, the government could achieve a more efficient and effective approach when administering a PIA by adopting standardized contracting processes and procedures.

By incorporating these recommendations, our research found that the government would be more likely to achieve efficient administrative implementation and execution, as well as significantly increased cost savings, through standardized contracting processes. The recommendations would provide for improved strategic use of resource allocation with an expectation for deployable technological outcomes within the agency (Dunn, 2022).

Proximity of Location of Partnership Intermediary

Our research found that the proximity of the PI’s location can be a principal measure of the effectiveness of a PIA. From a practitioner’s perspective, close proximity has been instrumental in facilitating technology transfers and enhancing collaborative environments between the PI and the government.

This finding is supported by the comprehensive review of a study performed by the Institute for Defense Analyses that included 106 procurement professionals—48 from 33 DoD entities and 58 from 28 different PIs—who responded to semi-structured

interviews and provided input based on the expertise of PIAs (Peña et al., 2020). A primary consideration of the study was the efficient and effective use of PIs co-located with their administering DoD-entity. In multiple situations, the study concluded that proximity led to enhanced technological outcomes within the collaborative environment by co-locating DoD employees and their respective PI contractor counterparts.

As examined from the Global Strike Command PIA in Shreveport, Louisiana, the PI is located 17 miles from Barksdale Air Force Base. The CIC serves as the Global Strike Command PI. The CIC is a hub for research and development, prototyping, and hosting Industry Days. (“What are Partnership Intermediary Agreements,” Academic Partnership Engagement Experience (APEX), 2021).

Since the inception of the Global Strike Command PIA, both the PI and the government have reported a significant return on investment to the Air Force. These figures include an annual return of \$4 million as well as \$200 million in indirect cost savings directly attributable to a plethora of sourced technologies derived from the collaborative environment in Shreveport, Louisiana. (DAF T3 Annual Report 2022, 2023).

Furthermore, in a briefing to the United States House Armed Forces Subcommittee on Strategic Forces in March 2023, General Thomas A. Bussiere, Commander of Air Force Global Strike Command, recognized the impact of the collaborative environment generated by the PIA, stating, “AFGSC established a collaboration with Louisiana Tech University through the Global Strike National Security Fellowship Program, utilizing a small team of interns trained in coding, automation, machine learning, and artificial intelligence to develop tailored analytic tools for bomber operations....” (United States House of Representatives, Subcommittee on Strategic Forces, House Armed Services Committee, 2023, p. 3).

In his brief to Congress, General Bussiere highlighted the impact of the PI’s use of academia to develop automated and artificial intelligence analytical tools for nuclear operations in a rapidly aging arsenal of nuclear capabilities. Specifically, the PI has employed assistance from local academia students from Louisiana Tech University for technological solutions supporting a multi-billion-dollar weapon generation facility military construction project (United States House of Representatives, Subcommittee on Strategic Forces, House Armed Services Committee, 2023).

Finally, leveraging these capabilities within Global

Strike Command PIA reduced cost-overruns, generating a \$10 million return on investment and averting the cancellation of the program through the performance-oriented inputs and outcomes (United States House of Representatives, Subcommittee on Strategic Forces, House Armed Services Committee, 2023).

Our research recommends that DoD agencies consider proximity as one of the driving factors that support facilitation of collaborative and more efficient outcomes regarding problem identification, technological methodology solutions, and overall cost-savings.

Aligned Performance Evaluation Metrics

Our research findings also identified that continuous measurement, tracking, and analysis of a PIA's performance are critical for optimizing efficiency and effectiveness. By tracking collaborative project designs, the government and PI can develop a structured collaborative environment. Key stakeholders for meetings at regular intervals consist of acquisitions team program managers, finance officers, and contracting/agreements officers as well as their PI counterparts, which enhances the timeliness, effectiveness, progress, and overall performance of the Partnership Intermediary Agreement (Peña et al., 2020).

Partnership intermediary agreements include collaborative project orders that facilitate and support a collaborative environment. Within the project order, collaborative project designs are the nuanced and subset projects that support the overarching collaborative environment (Peña et al., 2020).

In the Global Strike Command PIA, the project order functions in practice as an IDIQ-type contract with the project designs constituting the task or delivery orders. While not subject to the rules and regulations outlined within the *FAR*, project designs function as individualized projects or deliverables under the governing memorandum of understanding (MOU) of the PIA.

From an agreements officer perspective, performance evaluation and compliance are key components for measuring the success of a PIA. While many PIA project designs might not lead to a readily deployable end product, the technology derived through the duration of the project design should be monitored for defense uses, modifications, and progress in development (Peña et al., 2020).

Project designs experience a high propensity for variability and degree of change. As many project designs do not directly correspond to a specific solution, they

can lead to alternative, non-traditional solutions for a specific problem statement.

For these reasons, our research recommends that government acquisition teams (especially the agreements/contracting officer) must maintain awareness and knowledge of tracking and reporting metrics of specific project designs in conjunction with the PI.

Furthermore, the government acquisition team should monitor and collaborate on the PI's monthly and quarterly financial compliance statements, performance-oriented outcome meetings, and end-state technology transfer summarization meetings.

By understanding the operational necessity, PIA agreement officers can ensure that performance evaluation is more manageable and less labor-intensive. From our case study at Global Strike Command, the government and PI have fostered continual awareness within the program and acquisition team, which has effectively maintained schedule, milestones, and performance accountability on individual projects with high returns on investment.

Lessons Learned and After- Action Reports

Lastly, our research finds that lessons learned and after-action reports are essential post- award requirements necessary to gauge the effectiveness and outcome of the PIA as well as refining future project design implementation and practices for use.

By detailing thorough after-action reports and lessons learned from outcomes of associated project designs, the government team can make more informed decisions when constructing future project design problem statements.

While the desired problem statement to be solved is often well-known and readily identifiable, the methodology and approach for evaluating solutions are often not as straightforward. For example, the Global Strike Command PIA has received multiple varied solution proposals to problem statements from non-traditional contractors and has significantly benefited from employing after-action reports and lessons learned as advanced market research and concept studies for future acquisitions.

One of the first project design sprints hosted by the Global Strike Command PIA was the emergency aircrew response (EARs) readiness project, which partnered with the Air Force Nuclear Weapons Center (AFNWC) and AFWERX (the innovation arm of the Air Force). The Global Strike Command PI Cyber Innovation Center, led a Challenge Day that selected

three finalists out of 47 total solutions for EARs solutions on legacy mass aircrew alerting systems across Barksdale Air Force Base.

Of the three finalists selected to participate in prototyping the developed technologies, the PI provided detailed analysis on the lessons learned, which led to more efficient practices being implemented on future project designs at Global Strike Command. The outcome of the project design sprint contributed to the indirect cost savings to the government of \$200 million (DAF T3 Annual Report 2022, 2023).

In addition to direct experience, lessons learned, and after-action reports led to tangible benefits for performance evaluation, compliance, and enhanced performance capabilities under a PIA. In 2020, the Government Accounting Office (GAO) published a report addressing the Army's increased use of PIAs and its retention and distribution of lessons learned (GAO, 2020).

While the Army's increased use of alternative agreements (to include PIAs) has led to increased congressional concern for effective management, the GAO found significant benefit for using consistent lessons learned, thereby avoiding a stove-pipe to a singular subset organization, providing better context for decision-makers and improving the overall effectiveness of the PIA (GAO, 2020).

Partnership intermediaries commonly source, assist, and advise non-traditional small business contractors to secure Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) contract awards. These contracts provide the government with a direct avenue to non-traditional defense contractors to better exercise technological development, innovation, and deployment across multilateral levels of defense organizations without the time delays of a lengthy weapons system acquisition program (Small Business Administration (SBA) About SBIR, n.d.).

Based on our research findings, we recommend that the government and PI establish after-action reports, metrics, and deliverables to evaluate the success of follow-on SBIR/STTR awards (Peña et al., 2020). As reflected in the GAO report regarding the Army's use of lessons learned from its pitch days (GAO, 2020), the Air Force and other military departments may benefit from after-action reports that include milestones, outcomes, data/licensing rights, and deliverables. These reports would provide a tangible indication of the estimated return on investment and reduce the cost of the PI-sourced contractor as well as

the award amount to the sourced contractor for the STTR/SBIR programs.

Summary and Conclusion

Our research findings are summarized in Table 1, which reflects the PIA effective practice, literature sources, and how the practice is applied at the Air Force Global Strike Command PIA with the Cyber Innovation Center. PIAs have existed in defense procurement since the mid-1990s; however, their use did not take effect until much later, in the mid-2000s (Swearingen & Dennis, 2009).

As the use of non-*FAR*-based contracts for research and development has increased across the government, especially within DoD, the most effective practices for use of PIAs can equip the defense sector with agile and rapidly deployable new technologies (Sargent et al, 2023). By understanding the key factors and main stakeholders involved, the execution of a PIA can lead to a substantial increase in resource utility and enhance the return on investment for research and development requirements and prototypes.

Ultimately, by effectively employing the successful practices of PIAs, outcomes will optimize collaborative environments between the government and non-traditional contractors while enhancing innovation. For these reasons, our research highlights the importance and increases the awareness of effective practices of the PIA contract approach.

Today's defense acquisition transformative environment calls for the ability to harness innovation to safeguard national security interests while maintaining technological relevance within the Air Force. Within this context, the Air Force recognizes the importance of non-traditional contracting approaches, such as partnership intermediary agreements, within its collaborative acquisition framework. As our research highlights, these non-traditional procurement instruments have proven effective and efficient in creating links between the DoD and advancing technology from the private sector.

In reviewing our research findings, several themes emerged that are integral to optimizing the practice of managing PIAs. By emphasizing effective information sharing at Global Strike Command, the resulting transparency ensures all stakeholders are aligned in their objectives and efforts to meet the requirements of the PIA. Standardized contracting processes drive the need for consistency, efficiency, and predictability in PIA execution. By streamlining

Table 1. Summary of Research Findings

Effective Practice	Literature Analysis	Application at AFGSC
Effective Sharing of Information	Cecchi-Dimeglio et al., 2022; Peña et al., 2020; Kotila et al, 2023;	The Cyber Innovation Center (CIC) provides a platform through its Collaborative Environment within the National Cyber Research Park in Bossier City LA. AFGSC has infused the CIC into the Science & Technology department on Barksdale AFB.
Standardized Contracting Processes	Dunn, 2022; Vergun, 2021; Peña et al., 2020;	The wide breadth of differentiation for Collaborative Project Designs (CPDs) under a Collaborative Project Order (CPO) can create unfamiliarity when managing the PIA contracting process. This unfamiliarity can lead to noise interference decision-making, miscommunication among PIA team members, and delayed award by seasoned FAR-trained contracting officers.
Proximity of Location for Partnership Intermediary	DAF T3 Annual Report 2022, 2023; Peña et al., 2020; APEX, 2021;	The Cyber Innovation Center (CIC) is located 17 miles from Barksdale AFB, the HQ for AFGSC in Shreveport, LA. This close proximity facilitates tech transfer and transition and also enhances the collaborative environment.
Aligned Performance Evaluation Metrics	Peña et al., 2020;	Performance evaluation metrics are key for measuring the success of the PIA. The technology derived through the CPDs are monitored for defense uses, modifications, and development progress. The AFGSC and the CIC maintain continual awareness of the PIA's performance, which leads to effectively maintaining schedule, milestones, and performance accountability on individual projects resulting in high returns on investment.
Lessons Learned and After-Action Reports	DAF T3 Annual Report 2022, 2023; GAO, 2020;	Lessons-learned and after-action reports are essential to gauge the effectiveness and outcome of the PIA. These reports also enable refining future CPD implementation and practices. By detailing thorough lessons-learned and after-action reports on CPD outcomes, AFGSC can make more informed decisions when constructing future CPD problem statements.

the contracting process, these standardized processes build trust and understanding among the government and the PI.

Our research finding also emphasized the key importance of maintaining strategic proximity between partnership intermediaries and its supported government partners. By ensuring a geographically accessible PI, real-time collaboration leads to a more organic and immediate exchange of ideas and solutions for various projects executed under the PIA. Furthermore, the research finding concerning performance evaluation metrics reflects the efficiency, success rate, and outcome of a collaborative, results-oriented approach aligned with the key defense objectives of the overall acquisition project.

Potentially one of the most insightful findings is the emphasis on lessons learned and after-action reports which might seem readily apparent. However, underscoring the importance of these findings within the Air Force, lessons learned and after-action reports provide a tool for continual feedback and identifying opportunities for improvement as well as analyzing past actions to refine future strategies for the PIA or follow-on acquisition programs. By employing these iterative and reflective tools, the government team can

either replicate successes or eliminate non-value-added processes from specific projects within the PIA.

The PIA's capability as an innovative acquisition approach lies within its effectiveness to employ non-traditional acquisition methods for rapid technology transfer and development. By acting as a medium between the non-traditional defense sector and the government, the main purpose of the PIA is to simplify processes and encourage participation from a wide range of capabilities potentially unbeknownst to the DoD.

As global defense challenges become more complex and multifaceted, PIAs provide the defense acquisitions community with a pivotal tool to expand the vendor base, motivate technological advances, and rapidly deploy new technologies.

In conclusion, the intent of our research and related findings is to provide a comprehensive roadmap for the Air Force and the wider defense community, stimulating an agile, collaborative, and innovative outcome for future use as an innovative acquisition approach.

The primary limitation of our research is that the Air Force Global Strike Command PIA was the primary case study utilized for analysis. While we analyzed this PIA alongside existing literature, our research findings were limited to the primary case study. Our

research contribution to the literature is to highlight effective practices from a practitioner's perspective, intertwined with the PIA literature.

Future research could incorporate interviews and perspectives from agreements officers on other PIAs in different Major Commands across the Air Force and the DoD. Further research could also incorporate surveys and interviews of agreements officers, government program managers, and partnership intermediaries.

Future research could also attempt to quantitatively calculate the effective practices of the findings relative to PIAs, specifically in relation to overruns and underruns of projected costs.

Lastly, future research could include a comparative analysis of existing PIAs outside DoD. Through comparative analysis, future research could identify alternative practices not commonly found or used within DoD to benefit the entire federal government. Thus, future research would better define the use of PIAs within DoD and throughout the federal government for a more effective approach in planning, execution and administration of this non-traditional contract instrument.

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A COMPARISON OF THE UNITED STATES AND TAIWAN NAVY SHIPBUILDING SOURCE SELECTION STRATEGIES

BY SI YUN YANG

Abstract

PURPOSE: The purpose of this research is to compare source selection strategies between the United States and Taiwan Navy shipbuilding procurement, then provide recommendations based on the findings in order to develop beneficial contracting strategies for both countries.

DESIGN/METHODOLOGY/APPROACH: The methodology used in this research was to collect shipbuilding solicitations from the government-wide point of entry websites and conduct comparative analysis between the U.S. Navy and Taiwan Navy source selection strategies. The analysis includes factors such as source selection processes, source selection team structures, proposal evaluation factors, and contract types.

FINDINGS: The data analysis indicates that most of the shipbuilding solicitations used tradeoff as a source selection approach in both countries. However, the source selection processes, source selection team structures, contract types, and evaluation factors are different for each country.

ORIGINALITY/VALUE: This article addresses the result of the comparison on source selection strategies which indicates four recommendations for maximizing the overall benefit for the U.S. Navy and Taiwan Navy.

Keywords

Contracting, Source selection, United States, Taiwan, Shipbuilding procurement, contract type, evaluation factor.

Contract Management Body of Knowledge® (CMBOK®)

Competencies:
2.0, 2.4, 3.0, 3.2, 3.4

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Background

In 2016, the U.S. Navy completed its Force Structure Assessment (FSA), increasing its future fleet numbers, and resulting in a “355-ship force-level goal” (O’Rourke, 2023, p. 2). However, the Navy realized that a more diverse fleet structure, including unmanned vehicles, would be needed and released its “FY2023 30-year (FY 2023–2052) shipbuilding plan,” resulting in “321 to 404 manned ships and 45 to 204 large unmanned vehicles” as a potential new “force-level goal” (O’Rourke, 2023, p. 7).

This new plan reflected the current national defense strategy in the President’s 2024 Budget for the Department of Defense (DOD)¹ for optimizing naval shipbuilding and modernization. Therefore, for the Fiscal Year (FY) 2024 budget request, the U.S. Navy proposed \$32.8 billion in shipbuilding funding, which is the largest authorization account in the procurement category of the budget request (O’Rourke, 2023).

Meanwhile, Taiwan’s Ministry of National Defense (MND) announced 12 shipbuilding programs spanning 2017 to 2040, totaling roughly \$14.7 billion, to enhance military power and support a self-reliant military establishment (Minnick, 2016).

The National Defense Report from the Republic of China (ROC) in 2023 reflects that accomplishing a self-reliant defense remains a vital strategic goal (Ministry of National Defense [MND], Taiwan, 2023). Hence, with increasing demands on indigenous shipbuilding in Taiwan, the procurement strategy for shipbuilding becomes pivotal in selecting the most advantageous tenders and optimizing overall advantages for Taiwan’s Navy.

With the increasing funds budgeted, and given the importance on shipbuilding procurement, the purpose of this research is to compare source selection strategies between the United States Navy and the Taiwan Navy shipbuilding procurement, then

provide recommendations based on the findings in order to develop beneficial contracting strategies for both countries.

By analyzing source selection processes, team structures, proposal evaluation factors, and contract types of negotiated shipbuilding solicitations from the government-wide point of entry (GPE), which includes www.SAM.gov and Taiwan’s Government e-Procurement System, the following research questions will be addressed:

1. How do source selection processes, team structures, proposal evaluation factors, and contract types for shipbuilding procurement differ between the U.S. Navy and Taiwan Navy?
2. Based on the comparison and analysis, what insights and recommendations could be presented to the U.S. Navy and Taiwan Navy?

Literature review

In order to provide clear information before analyzing the U.S. Navy and Taiwan Navy source selection strategies, this literature review includes a discussion on agency theory, the regulations applying to both countries’ contract management processes, and the influential variables of source selection strategies.

1. Agency Theory

Agency theory² examines how one party (the principal) delegates work to another (the agent), and how differing goals and information asymmetries create risks that the agent may not act in the principal’s best interest (Eisenhardt, 1989). The theory also explains the mechanisms—such as incentives, monitoring, and contract design—used to better align the agent’s behavior with the principal’s objectives.

In government contracting, this relationship between the buyer (principal) and the contractor (agent) is often affected by conflicting objectives and imbalances in access to information. The government's objectives include obtaining goods or services at a reasonable price, with the right quality, from the right source, and in accordance with public policy, whereas the contractor's objectives focus on increasing profit, market share, and cash flow.

The government also typically knows more about its mission, procurement needs, and budget, while the contractor has more information about its technical capabilities and those of the market, cost drivers, and return on investment requirements (Rendon, 2015). These factors lead to problems such as adverse selection, where the principal may choose an agent who misrepresents their abilities due to imperfect information, and moral hazard, which arises after the contract is signed, when the agent may act against the principal's interests due to limited oversight.

One way to mitigate adverse selection is through careful selection of suitable contractors, underscoring the importance of source selection in this research. Therefore, agency theory serves as a foundational concept for understanding how contracts are planned, structured, awarded, administered, and terminated (Rendon, 2015). It underpins various activities within the contract management process throughout the contract lifecycle, which is discussed in the next section.

2. Contract Management Process

According to the NCMA Contract Management Standard (CMS), there are three phases in the contract life cycle: pre-award, award, and post-award (NCMA, 2022). In the pre-award phase, the primary task for buyers is "developing solicitations," which includes "planning solicitations" and "requesting offers" (NCMA, 2022).

The results of the pre-award phase, such as solicitations and proposals, directly impact the award phase, where the buyer and seller work together to negotiate an awarded contract, based on the requirements stated in the solicitation. Activities in the award phase include "analyzing price or cost, planning negotiations, selecting source, and managing disagreements" (NCMA, 2022).

The CMS defines source selection as the process by which the buyer analyzes proposals submitted by offerors to determine the best fit for the agency's interests, considering reasonable price and risk. The award phase is critical in this research because a proper

source selection mechanism, as part of CMS activities, is one of the solutions to adverse selection issues arising from agency theory. The final post-award phase is comprised of two processes, which begin with the process of performing the contract and conclude with closing out the contract (NCMA, 2022).

Past research has shown that the CMS can be applied in different contexts, such as the United States Federal Acquisition Regulation (*FAR*) and the Taiwan Government Procurement Act (GPA), as reflected in Appendix 1 and 2 (Author, 2023).

Although the *FAR* and GPA are not organized in the process-oriented framework used in the CMS, the various policies in the regulation and Act can be aligned with the CMS. The cross-reference matrices show how the competencies and job tasks in the CMS align with the policies from the *FAR* and GPA for both the United States and Taiwan. Therefore, this research will explore the comparison in greater depth, as the contracting policies of both countries can be effectively aligned with the CMS.

As outlined in the previous section, source selection is a critical task during the award phase, where the buyer evaluates the seller's proposal and makes a contract award decision. This article further examines four variables that influence source selection strategies and contract award outcomes. As discussed further below, these variables include: (1) source selection process, (2) structure of the source selection team, (3) evaluation factors and their relative importance, and (4) contract type.

3. Variable 1: Source Selection Process

The source selection process is a procedure that analyzes proposals based on requirements in solicitations and selects the offeror that has the greatest probability of providing the best value in performing the contract.

According to *FAR* 15.101, best value is defined differently based on the situation as reflected in the "best value continuum" (*FAR* 15.101, 2025). The best value could be considered as "the lowest price technically acceptable" (LPTA), "tradeoff," or "the highest technically rated offeror" (HTRO) (*FAR* 15.101, 2025), which can be categorized by the relative importance of cost and non-cost factors as depicted in Figure 1.

On one side of the continuum, LPTA is more appropriate when purchasing more defined requirements and when the cost factors are the most

important. On the other end of the continuum, HTRO allows the government to award to the seller with the highest technically rated offer with a fair and reasonable price. The tradeoff, as in the middle part of the continuum, allows the government to consider awarding to other than the lowest priced offeror or other than the highest technically rated offeror.

Although the methodology of these source selection approaches varies and leads to different procedures when evaluating the offeror's proposal, they could all share the general "competitive source selection process" (Rumbaugh, 2010), as depicted in Figure 2.

Figure 1: Best Value Continuum. Adapted from FAR 15.101 (2025).

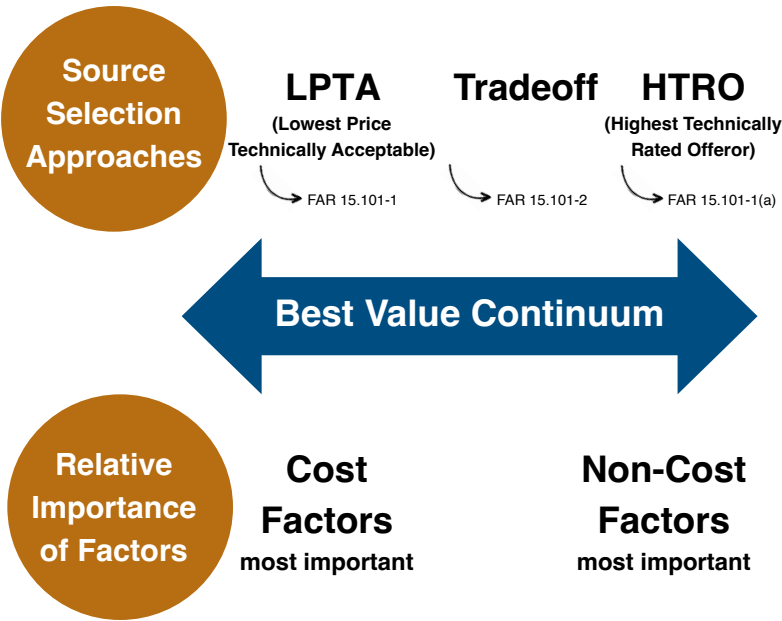


Figure 2: The Competitive Source Selection Process. Adapted from Rumbaugh (2010).

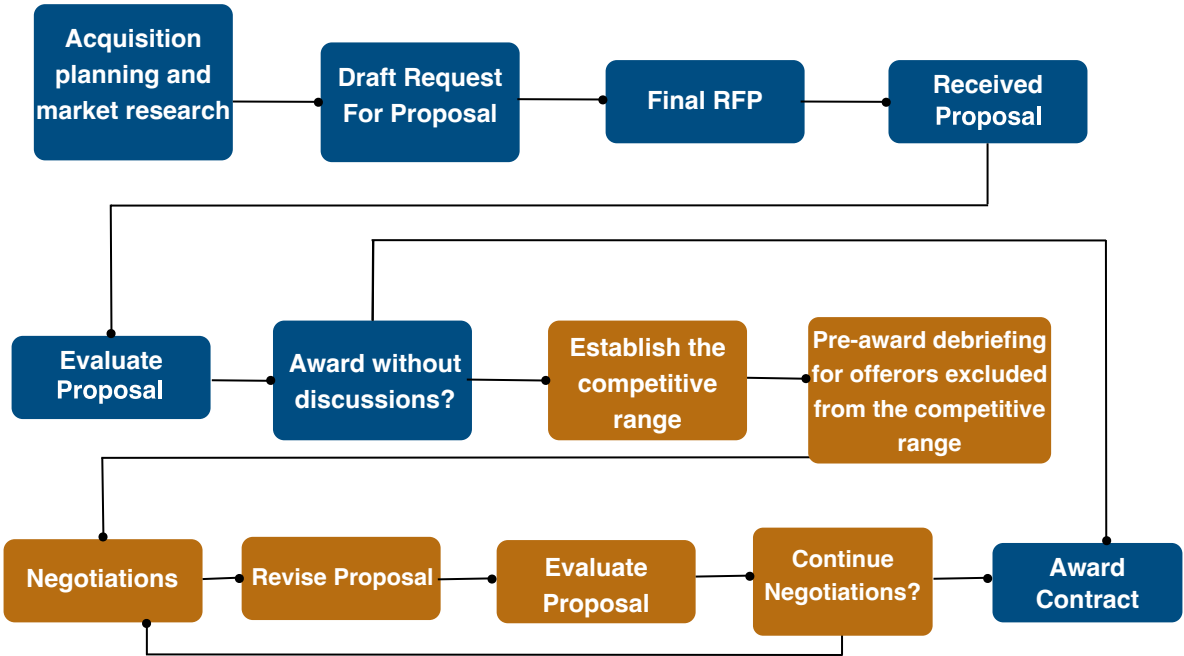


Figure 3: The Most Advantageous Award Process. ADAPTED FROM GPA (2019).

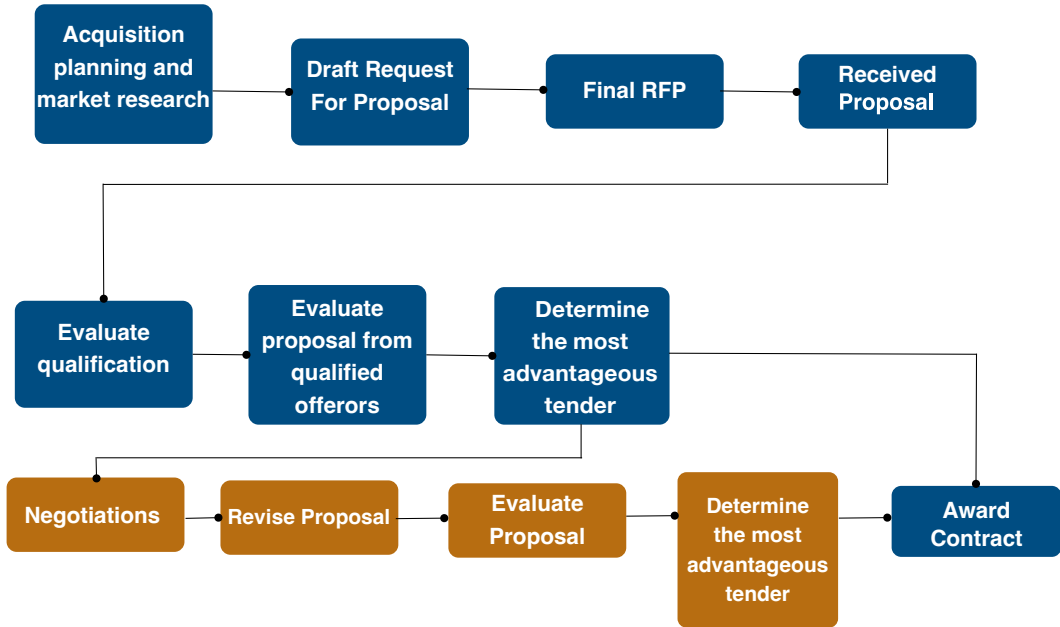
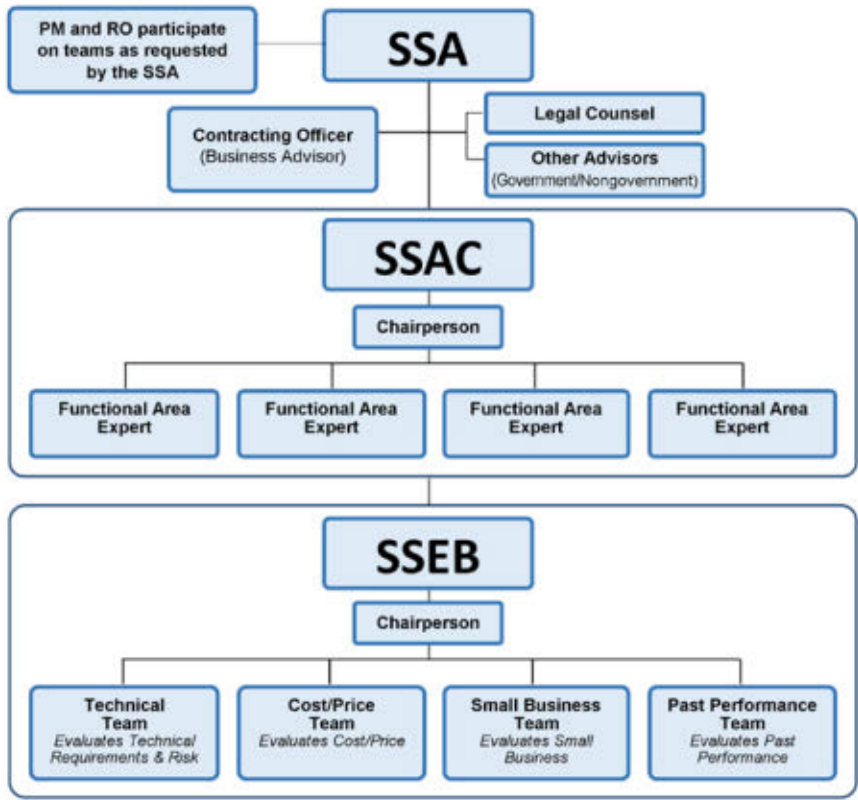


Figure 4: Typical SST Structure for Solicitations Greater Than \$100 Million. SOURCE: DOD (2022).



In Taiwan’s source selection process, the principles of contract award in Article 52 of Taiwan’s GPA include the lowest price tender and the most advantageous tender. Despite no formal best value continuum being established, the principle of awarding to “the most advantageous tender” is similar to U.S. source selection approaches, depending on the importance of evaluation factors (GPA, 2019). Furthermore, according to Article 56 of GPA, the negotiation process will only occur when “the most advantageous tender is unable to be determined.” Figure 3 illustrates the overall process of the GPA’s most advantageous tender approach.

In the negotiation process, only the items identified as “negotiable” in the tender documentation may be the “subject of negotiation” (GPA, 2019). After the abovementioned comprehensive evaluation, the procedure will be nullified and no contract will be awarded if the best-value tender cannot be determined.

4. Variable 2: Source Selection Team Structure

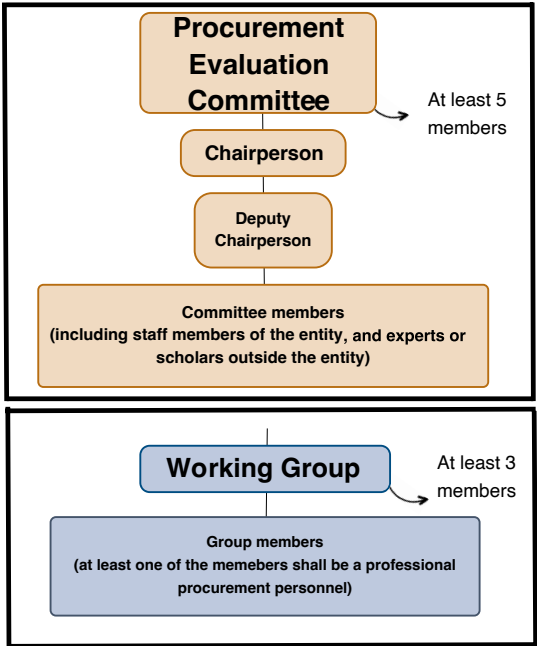
The structure of the source selection team (SST) comprises appropriate experts from specific functional areas as stated in DFARS PGI 215.300 (DOD, 2025). Generally, a procurement with a total estimated value of \$100 million or more consists of three tiers in the SST, which includes the “Source Selection Authority (SSA), Source Selection Advisory Council (SSAC), and Source Selection Evaluation Board (SSEB)” (DOD, 2022) as shown in Figure 4.

The SSA is responsible for making the final decision on selecting offerors whose proposals provide the best value to the government, based on the requirements in the solicitation (DOD, 2022). The goal of the SSAC is to provide support and recommendations to the SSA and oversee the SSEB throughout the entire process. The role of SSEB members is to provide a report on “consolidated evaluation results” (DOD, 2022) based on the evaluation factors.

In Taiwan’s source selection team structure, the “Procurement Evaluation Committee” selects the most advantageous tender with one third of the members who are “experts or scholars” and not “incumbent staff members of any government agencies (Article 4 of Regulations Governing the Organization of Procurement Evaluation Committee, 2025). Also, the working group comprises

Figure 5: Procurement Evaluation Committee and Working Group.

ADAPTED FROM REGULATIONS GOVERNING THE ORGANIZATION OF PROCUREMENT EVALUATION COMMITTEE (2025).



a minimum of three members who support the Procurement Evaluation Committee by providing a preliminary review report analyzing the offerors as depicted in Figure 5.

5. Variable 3: Evaluation Factors and Their Relative Importance

The source selection team evaluates tenders according to the evaluation strategy stated in the solicitation, including evaluation factors and their relative importance, which are customized on a case-by-case basis to reflect the significance of each factor in the award decision (*FAR* 15.304, 2025). However, “price or cost” and “past performance” are factors that must be evaluated in all acquisitions expected to exceed the simplified acquisition threshold.

Additionally, for non-small business solicitations involving consolidation or bundling with significant subcontracting opportunities, the contracting officer must evaluate “small business subcontracting participation” (*FAR* 15.304, 2025). As for ranking methods, based on the *FAR*, color or adjectival ratings, numerical weights, and ordinal rankings could be applied to evaluate each proposal (*FAR* 15.305, 2024).

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Table 1: Data Filter Results for the U.S. Shipbuilding Solicitations. ADAPTED FROM [WWW.SAM.GOV](http://www.SAM.GOV) (N.D.).

Data	Category	Number	Results/ Excluded Reasons
Original Data	SAM.gov search result	61	Search Term: Construction Notice Type: Solicitation NAICS Code: 3366 – Ship and Boat Building PSC: 19 – Ships, Small Craft, Pontoon, Docks
Data Filter Process	Not for DOD Navy	34	Exclude reasons: Dept of Homeland Security, Dept of Agriculture, Dept of Commerce, Dept of Interior, Dept of Transportation, Special Operations Command, Army Corps of Engineers
	Not for shipbuilding	9	Exclude reasons: Procurement of dry dock, industry studies, planning, units of ships, dismantlement, and construction for section
	Out of date	3	Exclude data before 2013, only applying data during FY2014 to FY2024
	No public data	2	Controlled unclassified information, or Needed to be requested by prospective offerors
	Canceled solicitation	1	Renew with another solicitation
Final Data	Final research data	12	

In Taiwan, the score or weighting assigned to evaluation factors by an entity also reflects the importance of each factor, as regulated in Article 7 of Taiwan’s Regulations for Evaluation of the Most Advantageous Tender (2025).

“Technology, quality, function, management, commercial terms, past performance, and price” are recommended evaluation factors but are not mandatory (Article 5 of Regulations Governing the Organization of Procurement Evaluation Committee, 2025).

If price is one of the evaluation factors, its proportion shall be not less than 20% and not more than 50% (Article 16 of Regulations Governing the Organization of Procurement Evaluation Committee, 2025). Rating methods include the score method, price-per-score-point method, and ranking method. Adjectival ratings are not applied, and evaluation factors must be assigned numerical scores regardless of the method used.

6. Variable 4: Contract Type

In the CMS, selecting proper contract type impacts the allocation of risk and responsibility between buyer and seller when formulating the contract strategy. In general, the “fixed-price” category implies the contractor has more responsibility on cost or profit compared to the “cost-reimbursement” category (*FAR* 16.1, 2025). According to *FAR* 16.104, the considerations for deciding the contract type include the need for price analysis, the urgency of the requirement, and the capability of industry, which affect the amount

of risk the government is willing to tolerate based on specific conditions.

Although there is no formal contract type category established in Taiwan’s GPA, there are regulations regarding payment methods and fee calculation based on procurement. Generally, fixed price contracts are used by Taiwan’s MND, sometimes with terms and conditions stating that the price could be adjusted based on a price index adjustment announced by the Directorate-General of Budget, Accounting and Statistics, Executive Yuan.

However, the fee and profit are not included in the adjustment items. The “cost plus fee” method is allowed only when contracting for “professional services, technical services, and information services” as reflected in Subparagraph 9 of Paragraph 1 of Article 22 of the GPA.

Thus, compared to the U.S. contracting environment, the cost-plus fee method is rarely used in Taiwan government procurement as it could only be used for specific services procurement. These four variables discussed above will be analyzed in the research data analysis. The methodology used in this research is discussed in the next section.

Methodology

The methodology used in this research focuses on applying a comparative analysis of solicitations available on the GPE by accessing the website link (www.SAM.gov) as reflected in *FAR* 5.201 (2025) and solicitations

Table 2: Data Filter Results for Taiwan’s Shipbuilding Solicitations.

ADAPTED FROM NATIONAL DEFENSE REPORT (2023).

Data	Category	Number	Results/Excluded Reasons
Original Data	Shipbuilding program plan	12	FY2017–2040 shipbuilding program plans announced by Taiwan's MND in 2016
Data Filter Process	No ongoing plans on National Defense Report	6	Exclude reasons: Plans that do not start yet or were canceled due to policy and budget
	Controlled information	1	Exclude reason: Classified information
Final Data	Final research data	5	

available on Taiwan’s Government e-Procurement System website(<https://web.pcc.gov.tw/pis/>). Appropriate filtering methods Proper filter methods were applied when collecting data from these websites as this research targeted only shipbuilding procurement utilizing source selection approaches.

Discussion of Findings

Research results from www.SAM.gov indicated 61 solicitations related to shipbuilding were identified using NAICS Code 3366 and PSC 19. Filtering out solicitations that were not for shipbuilding, were out of date, contained controlled information, or were canceled, resulted in 12 U.S. shipbuilding solicitations published by NAVSEA. These results are summarized in Table 1.

Among the 12 shipbuilding program plans announced by Taiwan’s MND in 2016, six solicitations have not yet started or were canceled due to policy and budget. Thus, six ongoing shipbuilding plans were listed in the latest National Defense Report, published in 2023.

Not including the classified IDS program, the data obtained from Taiwan’s e-Procurement System website consisted of five solicitations. This included the High-Speed Minelayers, a new Landing Platform Dock (LPD), HPV follow-up ships, a new rescue and salvage ship, and the new generation of light frigates as depicted in Table 2.

The following paragraphs present the results of the comparative analysis between the 12 U.S. and five Taiwanese shipbuilding solicitations, which focus on the previously discussed four variables: source selection approaches, SST structure, proposal evaluation factors, and contract types.

1. Source Selection Approach

Of the 12 selected U.S. Navy shipbuilding solicita-

tions, nine used tradeoff, while three used LPTA as the source selection approach. Even though the technical or similar factor is one of the evaluation factors in all the selected solicitations, none of the solicitations applied HTRO as the source selection approach.

Also, all three solicitations that used the LPTA source selection approach are commercial contracts. The budget dollar amount of the procurement is not published in the solicitation, which limits the analysis considering price as one of the influencing factors when determining the source selection approach in the U.S. Navy shipbuilding procurement. Detailed information is depicted in Table 3.

As for the five selected Taiwan Navy shipbuilding solicitations, all of them applied the most advantageous tender as the source selection approach, similar to the tradeoff mechanism that evaluates both price and non-price factors in contractor selection.

Since there is not a formal commercial item contracting category established in Taiwan’s GPA, there is no difference on the solicitation form. Furthermore, the budget amount for all solicitations is published when proposals are requested on Taiwan’s e-Procurement System website. This informs offerors to limit their bid prices to avoid being disqualified. Detailed information is depicted in Table 4.

The source selection approaches are similar for both countries. However, this research discovered a difference in the Taiwan Navy’s total budget when comparing solicitations, which is discussed in the implications of the findings.

2. Source Selection Team (SST) Structure

Among the 12 selected U.S. Navy shipbuilding solicitations, little information is provided regarding the SST. *FAR 7.5* (2025) stated that “participating as a voting member on any source selection boards” is regarded as “inherently governmental functions.” Thus,

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Table 3: U.S. Navy Shipbuilding Procurement Source Selection Approach.

ADAPTED FROM WWW.SAM.GOV (N.D.).

	Solicitation Name	Notice ID	Year	Commercial Contract	Source Selection Approach
1	Mobile Ship Target (MST)	N00024-23-R-2245	2023	N/A	Tradeoff
2	Auxiliary General Ocean Surveillance Ship (T-AGOS 25 CLASS)	N00024-22-R-2203	2022	N/A	Tradeoff
3	Yard Oiler, Non-Self-Propelled (YON) Fuel Oil Barge	N00024-22-R-2244	2022	Commercial Contract	LPTA
4	Yard Repair Berthing and Messing Barge (YRBM)	N00024-21-R-2253	2021	Commercial Contract	Tradeoff
5	Force Protection Small/Large Boat	N00024-22-R-2270	2022	Commercial Contract	LPTA
6	Guided Missile Frigate (FFG[X])	N00024-19-R-2300	2019	N/A	Tradeoff
7	65' Dive Support Boat	N00024-18-R-2209	2018	Commercial Contract	LPTA
8	Heavy Polar Icebreaker (HPIB)	N00024-18-R-2210	2018	N/A	Tradeoff
9	NOAA AGOR Variant (NAV)	N00024-18-R-2201	2018	N/A	Tradeoff
10	Expeditionary Fast Transport (EPF)	N00024-18-R-2227	2018	N/A	Tradeoff
11	Landing Craft Utility (LCU)	N00024-17-R-2462	2017	N/A	Tradeoff
12	Towing, Salvage, and Rescue Ships	N00024-17-R-2207	2017	N/A	Tradeoff

Table 4: Taiwan Navy Shipbuilding Procurement Source Selection Approach.

ADAPTED FROM THE GOVERNMENT E-PROCUREMENT SYSTEM WEBSITE (N.D.).

	Solicitation Name	Job number	Year	Budget Value (USD- 30TWD)	Source Selection Approach
1	New LPD 新型兩棲船塢運輸艦	PA06004L038	2017	USD \$154.5M TWD \$4,635M	The most advantageous tender
2	High-Speed Minelayer 快速布雷艇	PA07002L125	2018	USD \$24.6M TWD \$738M	The most advantageous tender
3	New Rescue and Salvage Ship 新型救難艦	PA09002L120	2020	USD \$93.17M TWD \$2,975M	The most advantageous tender
4	HPV Follow-up Ship Procurement 高效能艦艇第二批	PA12002L092	2023	USD \$302.34M TWD \$9,070M	The most advantageous tender
5	New Generation of Light Frigates 新一代輕型巡防艦	PA12001L121	2023	USD \$301.67M TWD \$9,050M	The most advantageous tender

proposal evaluations “must be performed by Federal employees” (Office of Federal Procurement Policy [OFPP], 2011, p. 56234). There are no other restrictions on the number or position of SSEB members, nor is there a requirement to publish their names on public websites, according to U.S. regulations.

In contrast, Taiwan’s procurement evaluation committee requires a minimum of five members, including at least one third of the members from outside government agencies. Moreover, “the name list of the

Committee members shall be published immediately on the website designated by the responsible entity” (Regulations Governing the Organization of Procurement Evaluation Committee, 2025) after the procurement evaluation committee is established except when non-disclosure is considered necessary. Consequently, all five selected Taiwan Navy shipbuilding solicitations published the names of their committee members on the Government e-Procurement System website.

The SST selects contractors that meet the best-value

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Table 5: U.S. Navy Shipbuilding Procurement Evaluation Factors and Order of Importance.
ADAPTED FROM SAM.GOV WEBSITE (N.D.).

	Solicitation Name	Source Selection Approach	Evaluation Factors and Order of Importance
1	Mobile Ship Target (MST)	Tradeoff	1. Technical Merit of Design > 2. Facility and Management Feasibility > 3. Past Performance > 4. Price
2	Auxiliary General Ocean Surveillance Ship (T-AGOS 25 CLASS)	Tradeoff	1. Detail Design and Engineering Approach = 2. Production Approach > 3. Management Approach > 4. Past Performance > 5. Price
3	Yard Oiler, Non-Self-Propelled (YON) Fuel Oil Barge	LPTA	Acceptable or Unacceptable for both Technical Approach and Past Performance factors, then award to the lowest priced proposal
4	Yard Repair Berthing and Messing Barge (YRBM)	Tradeoff	1. Technical Merit of Design > 2. Facility and Management Feasibility > 3. Past Performance > 4. Price
5	Force Protection Small/Large Boat	LPTA	Acceptable or Unacceptable for both Technical Approach and Past Performance factors, then award to the lowest priced proposal
6	Guided Missile Frigate (FFG(X))	Tradeoff	1. Design and Design Maturity = 2. Objective Performance > 3. Schedule, Production Approach, and Facilities > 4. Data Rights > 5. Price
7	65' Dive Support Boat	LPTA	Acceptable or Unacceptable for both Technical and Past Performance and Experience factors, then award to the lowest priced proposal
8	Heavy Polar Icebreaker (HPIB)	Tradeoff	1. Design and Design Maturity > 2. Schedule, Management and Production Approach > 3. Sustainment Cost Reduction Approach > 4. Past Performance > 5. Price
9	NOAA AGOR Variant (NAV)	Tradeoff	1. Ship Design Approach > 2. Production Facilities and Management > 3. Past Performance > 4. Price
10	Expeditionary Fast Transport (EPF)	Tradeoff	1. Commonality > 2. Ship Design/Technical Approach > 5. Price Acceptable or Unacceptable: 3. Production/Management Approach and 4. Past Performance
11	Landing Craft Utility (LCU)	Tradeoff	1. Craft Design Approach > 2. Facility and Production = 3. Management > 4. Past Performance > 5. Price
12	Towing, Salvage, and Rescue Ships	Tradeoff	1. Ship Design > 4. Past Performance > 2. Production = 3. Management > 5. Price

requirement based on the evaluation factors and their relative importance, as discussed in the next section.

3. Proposal Evaluation Factors and Relative Importance

According to *FAR* 15.304, “the award decision is based on evaluation factors and significant subfactors that are tailored to the acquisition” (*FAR* 15.304, 2025). Table 5 shows the tailored proposal evaluation factors and their relative importance in Section M of the 12 U.S. Navy shipbuilding solicitations, suggesting areas valued by the U.S. Navy when evaluating proposals.

Despite differences in proposal evaluation factors and their importance among the 12 shipbuilding solicitations, there are general similarities. Overall, the technical approach and design is the most important factor, followed by management, past performance, and price factors.

In solicitations applying the tradeoff approach, non-price factors are significantly more important than price. For solicitations using the LPTA approach, the lowest-priced proposal is awarded if technical and past performance requirements are met. Factors in the LPTA approach are rated as “acceptable” or “unacceptable,” while other factors in the tradeoff approach use adjectival ratings such as “outstanding, good, acceptable, marginal, and unacceptable.”

Taiwan’s Navy uses the “ranking method” to select the most advantageous tender in the five selected shipbuilding solicitations. According to Article 15 of the Regulations for Evaluation of the Most Advantageous Tender (2025), each offeror is scored on evaluation factors, and these scores are converted to rankings by each member of the evaluation committee. The overall ranking is determined by totaling individual rankings, with the lowest overall ranking indicating the most

A COMPARISON OF THE UNITED STATES AND
TAIWAN NAVY SHIPBUILDING SOURCE SELECTION STRATEGIES

Table 6: Taiwan Navy Shipbuilding Procurement Evaluation Factors and Scores.

ADAPTED FROM GOVERNMENT E-PROCUREMENT SYSTEM WEBSITE (N.D.).

	Solicitation Name	Source Selection Approach	Evaluation Factors and Scores
1	New LPD 新型兩棲船塢運輸艦	The most advantageous tender	(Total score for this solicitation is 1,000) 1. Technical Capability: 320 2. Price: 200 3. Offeror's Organizational Structure and Financial Condition: 150 4. Management and Execution of Project Plan: 130 5. Past Performance: 120 6. Other Factors Related to the Functions or Benefits of This Procurement: 60 7. Performance of Presentation and On-Site Questioning and Answering: 20
2	High-Speed Minelayer 快速布雷艇	The most advantageous tender	(Total score for this solicitation is 1,000) 1. Technical Capability: 350 2. Price: 200 3. Offeror's Organizational Structure and Financial Condition: 140 4. Management and Execution of Project Plan: 130 5. Past Performance: 120 6. Other Factors Related to the Functions or Benefits of This Procurement: 40 7. Performance of Presentation and On-Site Questioning and Answering: 20
3	New Rescue and Salvage Ship 新型救難艦	The most advantageous tender	(Total score for this solicitation is 1,000) 1. Technical Capability: 350 2. Price: 200 3. Offeror's Organizational Structure and Financial Condition: 140 4. Management and Execution of Project Plan: 130 5. Past Performance: 120 6. Other Factors Related to the Functions or Benefits of This Procurement: 40 7. Performance of Presentation and On-Site Questioning and Answering: 20
4	HPV Follow-up Ship Procurement 高效能艦艇第二批	The most advantageous tender	(Total score for this solicitation is 100) 1. Technical Capability: 32 2. Price: 20 3. Offeror's Organizational Structure and Financial Condition: 14 4. Management and Execution of Project Plan: 13 5. Past Performance: 10 6. Other Factors Related to the Functions or Benefits of This Procurement: 6 7. Performance of Presentation and On-Site Questioning and Answering: 5
5	New Generation of Light Frigates 新一代輕型巡防艦	The most advantageous tender	(Total score for this solicitation is 100) 1. Technical Capability: 32 2. Price: 20 3. Offeror's Organizational Structure and Financial Condition: 14 4. Management and Execution of Project Plan: 13 5. Past Performance: 10 6. Other Factors Related to the Functions or Benefits of This Procurement: 6 7. Performance of Presentation and On-Site Questioning and Answering: 5

advantageous tender. If price is included in the evaluation, its weight must be between 20% and 50% of the total evaluation score. If there is a significant difference in ranks or scores among the members, the evaluation committee must discuss and suggest a final action.

As depicted in Table 6, the evaluation factors across the five shipbuilding solicitations by Taiwan's Navy are consistent, though the score proportions vary slightly. The importance of these factors generally follows the order of "Technical Capability, Price,

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Table 7: U.S. Navy shipbuilding procurement contract type. ADAPTED FROM WWW.SAM.GOV (N.D.).

KEY: FFP = Firm-Fixed-Price, FPIF = Fixed-Price Incentive Firm, CPFF = Cost-Plus-Fixed-Fee, FP-EPA = Fixed-Price with Economic Price Adjustment

	Solicitation Name	Commercial Contract	Ship Amount	CLIN Number	Contract Type
1	Mobile Ship Target (MST)	N/A	1	5	FFP
2	Auxiliary General Ocean Surveillance Ship (T-AGOS 25 CLASS)	N/A	7	16	FFP FPIF
3	Yard Oiler, Non-Self-Propelled (YON) Fuel Oil Barge	Commercial Contract	6	29	FFP
4	Yard Repair Berthing and Messing Barge (YRBM)	Commercial Contract	8	44	FFP
5	Force Protection Small/Large Boat	Commercial Contract	2	78	FFP
6	Guided Missile Frigate (FFG[X])	N/A	10	99	FFP FPIF CPFF
7	65' Dive Support Boat	Commercial Contract	1	3	FFP
8	Heavy Polar Icebreaker (HPIB)	N/A	3	15	FFP FPIF FP-EPA CPFF
9	NOAA AGOR Variant (NAV)	N/A	2	16	FFP
10	Expeditionary Fast Transport (EPF)	N/A	2	13	FFP FPIF
11	Landing Craft Utility (LCU)	N/A	32	28	FFP FPIF CPFF
12	Towing, Salvage, and Rescue Ships	N/A	8	22	FFP FP-EPA

Offeror's Organizational Structure and Financial Condition, Management and Execution of Project Plan, Past Performance, Other Factors, and Presentation Performance.”

In both Taiwanese and U.S. Navy shipbuilding procurements, design and technical capability are prioritized as key factors. However, the U.S. government applies an adjectival rating method, while the Taiwanese government applies a ranking method; the implications are further discussed later.

4. Contract Type

As depicted in Table 7, there are four contract types, which are firm fixed price (FFP), fixed price incentive firm (FPIF), fixed price with economic price adjustment (FP-EPA), and cost-plus fixed fee (CPFF) used in the 12 selected U.S. Navy shipbuilding solicitations.

All four commercial item solicitations used FFP contracts, as required by FAR 12.207 (2025), which mandates the use of FFP or FP-EPA for acquiring commercial products or services, except in specific cases. On the other hand, most non-commercial item

solicitations used multiple contract types based on the contract line item (CLIN). However, there is no consistent relationship between the contract type, the number of ships procured, and the CLIN structure, suggesting these factors do not directly influence contract type selection.

Taiwan's GPA does not establish any formal contract type category or compensation method, so this analysis focuses on payment methods stated in the solicitations. All five solicitations included installment payments tied to each phase of work. The total payment matches the contract price without adjustments or incentives, which is similar to an FFP contract and indicates that the contractor assumes all cost-related risk. The first payment is an advance payment, given after receiving the repayment guarantee and performance bond from the contractor. These serve to ensure the return of the advance payment in case of contract termination and to guarantee contract performance. Additionally, Taiwan's simplified CLIN structure consolidates all work into a single CLIN, regardless of the number of ships, as depicted in Table 8.

Table 8: Taiwan Navy Shipbuilding Procurement Payment Method.

ADAPTED FROM GOVERNMENT E-PROCUREMENT SYSTEM WEBSITE (N.D.).

	Solicitation Name	Ship amount	CLIN number	Payment Method
1	New LPD 新型兩棲船塢運輸艦	1	1	FFP 1st payment: 11.4% (advance payment) 2nd payment: 17.8% 3rd payment: 30% 4th payment: 15.7% 5th payment: 25.1%
2	High-Speed Minelayer 快速布雷艇	4	1	FFP 1st payment: 12.76% (advance payment) 2nd payment: 12.76% 3rd payment: 37.23% 4th payment: 37.25%
3	New Rescue and Salvage Ship 新型救難艦	1	1	FFP 1st payment: 13.3% (advance payment) 2nd payment: 8% 3rd payment: 17% 4th payment: 26.7% 5th payment: 35%
4	HPV Follow-up Ship Procurement 高效能艦艇第二批	5	1	FFP 1st payment: 3% (advance payment) 2nd payment: 27% 3rd payment: 12% 4th payment: 12% 5th payment: 16% 6th payment: 16% 7th payment: 7% 8th payment: 7%
5	New Generation of Light Frigates 新一代輕型巡防艦	2	1	FFP 1st payment: 3% (advance payment) 2nd payment: 17.2% 3rd payment: 20% 4th payment: 35.2% 5th payment: 24.6%

Implications of Findings

This research analyzes several areas within the U.S. and Taiwan's shipbuilding source selection strategies, offering valuable insights into improving procurement practices in both countries.

1. U.S. Navy shipbuilding solicitations do not disclose total budget amounts in the RFP.

The U.S. Navy shipbuilding solicitations do not disclose total budget amounts in request for proposals (RFPs) or on www.SAM.gov. An advantage of this practice is that it prevents offerors from tailoring their proposals to the maximum available budget, which could pre-determine prices. However, this lack of transparency can complicate the procurement process, as it hinders offerors' ability to provide recommendations in the pre-award phase and increases the risk of over-budget proposals. Consequently, the U.S. Navy may have to spend additional time communicating with industry, as well as amending and republishing RFPs.

2. The members of the U.S. SSEB seem less diverse and transparent than those of the Taiwan's evaluation committee.

Compared with Taiwan's procurement evaluation committee, the U.S. SSEB members must be U.S. federal employees who generally understand agency requirements and are mission-oriented. However, their evaluation may be subjective, especially when conducting the adjectival rating method. Additionally, SSEB members' names are not published on www.SAM.gov, leading to potential transparency and diversity issues, insufficient expertise, or manipulation of source selection results by senior officers. In contrast, Taiwan's procurement evaluation committee includes members from various external agencies, fostering greater diversity of opinion and expertise.

3. The U.S. adjectival rating method lacks qualitative assessment, while Taiwan's ranking method is overly complicated.

The U.S. Navy uses adjectival ratings, which are easy to apply, but offer a limited range of categories. This lack of flexibility forces evaluators to fit their assessments into predefined categories, making decisions more reliant on subjective judgment rather than qualitative evaluation. In contrast, the ranking method commonly applied in Taiwanese military procurement involves scoring each offeror, converting the individual score to rank, and then totaling up the total ranks to determine the most advantageous tender. This approach is comprehensive, but time-consuming and complex, adding to the workload of contracting officials in Taiwan.

4. The payment method in Taiwan's shipbuilding procurement is commonly FFP.

The FFP payment method is commonly employed in Taiwan's shipbuilding procurement. This approach incentivizes contractors to manage costs efficiently and perform effectively, but it places maximum risk on them, especially in long lead-time contracts where costs may be underestimated. In contrast, U.S. shipbuilding solicitations include more contract types—such as FFP, FPIF, FP-EPA, and CPFF—providing greater flexibility in risk-sharing and a more adaptive approach to managing cost and contract performance between the buyer and the seller.

The next section presents recommendations concerning the United States and Taiwan's shipbuilding procurement source selection strategies.

Recommendations

Based on the analysis of the findings, the following recommendations are provided for both the U.S. and Taiwan's Navy:

1. Consider disclosing budget amount in the U.S. solicitations.

Not disclosing the budget amount in the RFP fosters a more competitive environment in the source selection process. This approach might be appropriate for well-defined requirements with flexible schedules, but it might not be appropriate for yet-to-be designed shipbuilding solicitations or procurements with a limited time schedule. When design and construction are combined, cost estimates can vary widely, leading to over-budget proposals if no limited budget value is published. In such cases, the contracting officer needs to amend the RFP to fit the budget or seek additional funds, both of which extend the contracting timeline. As a result, the U.S. Navy could consider disclosing the

total budget amount depending on the circumstances. Publishing the budget value can prevent potential offerors from guessing the amount and reduce the risk of unofficial budget disclosures, leading to fraud and unfair competition.

2. Increase transparency and diversity in the U.S. SSEB.

SSEB members in the United States are all federal government employees. Thus, including qualified experts from outside the agency could provide diverse and innovative perspectives from academia or industry, thereby reducing the risk of fraud and manipulation arising from bureaucratic constraints in the evaluation process. The diversity and transparency resulting from the inclusion of non-government members would enhance the value of the source selection process. Therefore, the U.S. government could use the approach in Taiwan's Regulations Governing the Organization of Procurement Evaluation Committee as a reference. For example, Taiwan's Public Construction Commission Executive Yuan publishes a recommended list of experts in various fields on the Government e-Procurement System website, which government agencies can use to form their evaluation committees based on each RFP's requirements. Agencies could nominate qualified personnel to be included in the recommended list. Additionally, the names of the formal evaluation committee members are published on the Government e-Procurement System website after the committee is established. Last, external experts in the evaluation committee are not paid a salary but are offered a participation fee for each RFP.

3. Enhance qualitative assessment in the U.S. evaluation rating method, while streamlining the rating process in Taiwan.

FAAR 15.305 (2025) allows for various rating methods, including adjectival ratings, numerical weights, and ordinal rankings. Thus, for complex U.S. shipbuilding solicitations, numerical weights or rankings should be used to eliminate the constraints of adjectival ratings that only offer a limited range of rating categories for evaluators. Also, it yields more precise source selection results by allowing evaluators to conduct more qualitative assessments, which may reduce the risk of disputes and protests.

Taiwan's current ranking method in deciding the most advantageous tender involves multiple procedures and conversions between scores and ranks, heavily

relying on the evaluators' experience to identify each type of significant differences published by Public Construction Commission. Thus, this research paper suggests that the Public Construction Commission streamline the process by removing the scoring step or focusing solely on ranking when identifying significant differences in the source selection process.

4. Increase the use of different payment methods in Taiwan's shipbuilding procurement.

One recommendation for Taiwan's Navy is to make effective use of the price adjustment mechanism within standard terms and conditions, allowing the contract price to be adjusted based on the specific price index. The other recommendation is that the policy responsible entities could expand payment methods beyond fixed-price contracts by adopting the different contract types discussed in the CMBOK to develop suitable cost-reimbursement contract types for Taiwan's GPA.

Conclusion

The emerging tension between Taiwan and China underscores the importance of Taiwan's self-defense capabilities and the development of its indigenous shipbuilding program. Thus, the Taiwan Navy shipbuilding procurement process, and specifically its source selection strategy, is of the utmost importance.

This research focused on solicitations in the pre-award and award phases, and on addressing the adverse selection problem in agency theory. The comparative analysis of selected U.S. and Taiwan Navy solicitations provides recommendations for improving each country's source selection strategies, including streamlining the proposal evaluation rating process and implementing cost-reimbursement contract types in Taiwan's shipbuilding procurement.

The analysis also encourages disclosing the budget amount in U.S. solicitations and enhancing transparency and diversity in U.S. source selection teams. Both countries could learn from each other and cultivate the proper source selection strategies for their own shipbuilding procurement programs.

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ENDNOTES

- 1 In 2025, the Department of Defense (DoD) was renamed the Department of War (DOW). Because all referenced documents were issued prior to this change, this article retains the original term DoD."
- 2 Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Academy of Management Review*, 14(1), 57–74. <https://doi.org/10.5465/amr.1989.4279003>

**Appendix 1: Contract Management Standard–Federal Acquisition Regulation
Cross-Reference Matrix.**

CMS Competency	FAR Part
1.0 Guiding Principles	
1.1 Skills and Roles	1
1.2 Contract Principles	1
1.3 Standards of Conduct	3, 9
1.4 Regulatory Compliance	9, 22–24, 27–29
1.5 Situational Assessment	17, 18, 25, 34–39, 41, 50
1.6 Team Dynamics	1, 2, 4
1.7 Communication and Documentation	1–52
2.0 Pre-Award	
2.1 Develop Solicitation	
2.1.1 Plan Solicitation	5–8, 10–16, 19, 26
2.1.2 Request Offers	5, 12–15
2.2 Develop Offer	
2.2.1 Plan Sales	2, 3, 5–7, 9, 12–15
2.2.2 Prepare Offer	4, 5, 9, 12–15, 19, 32, 42, 44–46, 49, 51
3.0 Award	
3.1 Form Contract	
3.1.1 Price or Cost Analysis	12–15, 30, 31
3.1.2 Plan Negotiations	12–15
3.1.3 Select Source	12–15
3.1.4 Manage Disagreements	33
4.0 Post-Award	
4.1 Preform Contract	
4.1.1 Administer Contract	1, 4, 12–15, 30, 31, 42, 45, 47, 48
4.1.2 Ensure Quality	46
4.1.3 Manage Subcontracts	9, 19, 44
4.1.4 Manage Changes	2, 33, 43, 49
4.2 Close Contract	
4.2.1 Close Out Contract	4, 12–15, 31, 32, 42, 44, 45, 47, 48, 52

**Appendix 2: Contract Management Standard–Taiwan Government Procurement Act
Cross-Reference Matrix**

CMS Competency	GPA Article
1.0 Guiding Principles	
1.1 Skills and Roles	8–10, 95
1.2 Contract Principles	2, 7
1.3 Standards of Conduct	6, 15, 38, 112
1.4 Regulatory Compliance	3, 34, 96–99
1.5 Situational Assessment	17, 104–106
1.6 Team Dynamics	94, 95, 108
1.7 Communication and Documentation	11, 107
2.0 Pre-Award	
2.1 Develop Solicitation	
2.1.1 Plan Solicitation	18–23
2.1.2 Request Offers	18–23
2.2 Develop Offer	24–27
2.2.1 Plan Sales	24–27
2.2.2 Prepare Offer	24–27
3.0 Award	
3.1 Form Contract	
3.1.1 Price or Cost Analysis	46, 47, 111
3.1.2 Plan Negotiations	55, 57
3.1.3 Select Source	48, 49, 52, 56
3.1.4 Manage Disagreements	50, 51, 58, 59, 74–86
4.0 Post-Award	
4.1 Preform Contract	
4.1.1 Administer Contract	61–63
4.1.2 Ensure Quality	70
4.1.3 Manage Subcontracts	65–67
4.1.4 Manage Changes	64
4.2 Close Contract	
4.2.1 Close Out Contract	71–73

HOW JURISPRUDENCE INFORMS ETHICAL BUSINESS JUDGMENT IN ACQUISITION

BY THOMAS REID, J.D.

Abstract

PURPOSE: This paper asks the foundational jurisprudential question: “Why do laws exist?” It reviews the spectrum of jurisprudential theories and their roots, and applies the answer to federal procurement by mapping theories of jurisprudence onto the *Federal Acquisition Regulation (FAR)*. The *FAR*, codified at 48 C.F.R. ch. 1, establishes uniform policies and procedures for federal procurement; Part 1 provides the overarching framework for the system. The goal is to clarify how philosophical traditions shape acquisition policy and practice, and how contracting professionals can use this awareness to exercise better business and ethical judgment.

DESIGN/METHODOLOGY/APPROACH: This research employs conceptual analysis (not empirical testing). The paper reviews classical and modern jurisprudential theories, highlights points of intersection, and demonstrates their presence in *FAR* provisions. Examples are drawn from statutory mandates, regulatory text, and selected Government Accountability Office (GAO) protest decisions.

FINDINGS: Examples of each jurisprudential theory—Natural Law, Legal Positivism, Legal Realism, Command, Analytical, Historical, Sociological, Law and Economics, and Critical Legal Studies—appear in some portion of the *FAR*. Apparent contradictions across provisions often reflect different jurisprudential influence and conscious choices regarding priorities across the business of government.

PRACTICAL IMPLICATIONS: Contracting professionals regularly face regulatory tensions and ambiguity. Understanding jurisprudential foundations helps them resolve conflicts within the “zone of reasonableness”

expected by GAO and the courts, and strengthens ethical decision-making in contract management. Jurisprudence permeates the *FAR*; the *FAR* is the regulatory embodiment of the laws dictated by Congress that has made the necessary tradeoffs among the competing jurisprudential theories that are then implemented by the FAR Council.

ORIGINALITY/VALUE: While jurisprudence is widely studied in philosophy and law, it has not been systematically mapped onto the *FAR*. This article offers a novel framework that connects legal theory to federal acquisition practice and ethical decision-making with the goal of equipping professionals to navigate regulation with greater clarity, judgment, and integrity.

Keywords

Acquisition Policy
Business Judgment
Contract Management
Contracting Officer Discretion
Ethical Decision-Making
Federal Acquisition Regulation (FAR)
Jurisprudence
Legal Philosophy and Procurement
Natural Law
Zone of Reasonableness

Contract Management Body
of Knowledge® (CMBOK®)
Competencies:
B.1, B.5, 1.3, 1.5

About the Author

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Introduction

Jurisprudence, at its core, asks: “Why does law exist?” Theories of jurisprudence differ in their answers and collectively seek to explain how law works, what priorities it should reflect, who is authorized to decide, and how it shapes civil society. From Plato and Aristotle onward, legal philosophers have debated whether law derives from universal ideals, empirical realities, or social agreements (Plato, 1997; Aristotle, 2000; Aristotle, 1995). Jurisprudence is not abstract musing; it informs day-to-day procurement decisions.

This study is not just an academic exercise. It is, instead, intended to prompt thoughtful consideration of why decisions are made in the way that they are and, once made, how they are to be implemented. It is a dilemma faced by contracting professionals at every turn throughout their day.

Hopefully this article will assist the contracting professional in acting in a way that reflects not just *what* you believe, but *why* you believe it, and enable you to articulate it in your contract file documentation to convince reviewers of the reasonableness of your decision. It is, in essence, an eminently pragmatic lesson. Every contracting officer who has stared at a *FAR* clause that seems to conflict with another has been grappling with competing jurisprudential theories—even if they didn’t call it that.

This article outlines several major theories of jurisprudence—best viewed as points along a spectrum¹ rather than stove-piped compartments (Cheeseman, 2001, pp. 3-7)—and shows how each is expressed in the *FAR*. Though *FAR* provisions can appear contradictory, their jurisprudential underpinnings reveal consistent, if competing, rationales for regulating federal procurement.

Jurisprudence is variously defined as the philosophy or science of law, the study of a body of law, or a specialized branch such as environmental jurisprudence (Garner, 2019). Derived from *juris prudentia* (knowledge

of the law), the term reflects law’s role as a civilizing framework. Every society—through formal statutes or unwritten customs—creates rules that embody its values. These norms may seem strange to outsiders but express a society’s moral order. This is the foundation of the rule of law: laws reflect a society’s conception of order, even when those conceptions differ across cultures and eras (Fuller, 1964).

This article will share the historical philosophical concepts of jurisprudence from our Greek thought-leaders, including Aristotle, and Socrates (through his student Plato), and then turn to a discussion of the prominent theories as recognized within jurisprudential studies today. Once the priorities of each theory are outlined for understanding, the article will provide a detailed roadmap showing where each theory can be found in the *FAR*.

A brief presentation will demonstrate how theories of ethics share a parallel structure to jurisprudence and relate necessary decision-making from the jurisprudential and ethical constructs to better understand how what you believe and why you believe it translates into persuasive contract file documentation to land you within the requisite “zone of reasonableness” in your decision-making.

Philosophy of Jurisprudence

Understanding the deep roots of jurisprudence begins by exploring its philosophical underpinnings.

Plato and Aristotle

Plato envisioned an ideal polity governed by philosopher-kings capable of grasping eternal forms—justice, beauty, and goodness. He saw laws as an “external authority” and an “ally of the whole city” (Plato, 1997, *Republic* bk. IV; *Statesman*). For him, obedience to just laws was part of the implied social contract between citizens and the state. Skeptical of pure democracy, he believed the masses were driven more by appetite

than reason and therefore favored a hierarchical order in which philosopher-kings governed.

Aristotle, by contrast, adopted an empirical and pragmatic stance. Aristotle viewed laws as a means to an end—the end being to promote human flourishing and create the best conditions for citizens to live virtuously and achieve *eudaimonia* (happiness/well-being). He favored polities—constitutional governments where laws are made with the interests of all citizens in mind.

Unlike Plato, Aristotle saw potential wisdom in the collective “many” as opposed to just an enlightened few. He argued that while not all individuals have practical wisdom, the multitude taken together can make better judgments than even virtuous individuals. While the benevolent dictator is an interesting concept, man is, by his nature, corrupt, so such elites or philosopher-kings cannot exist in the real world for any extended time period. Thus, the masses must muster their collective wisdom to structure and control society. (Aristotle, 2000, *Nicomachean Ethics* bk. I). He valued constitutional government and the judgment of the many over the few (Aristotle, 1995, *Politics* bk. III). Because no ruler is incorruptible; law—not the person—should rule.

What does this, then, tell us about each philosopher’s concept of the rule of law?²

Aristotle is an early advocate of the rule of law: no one, not even a ruler, stands above the law (Aristotle, 1995, *Politics* bk. IV). Pre-established, general laws—adopted after deliberation—promote stability and fairness. He recognized limited roles for equity (*epieikeia*) but favored minimizing discretion (Aristotle, 2000, *Nicomachean Ethics* bk. V). These principles influenced English common law from which American jurisprudence evolved and where American courts now decide “in law and equity” (U.S. Const. art. III, § 2).

Plato acknowledged law as an “external authority” and “ally of the city” (Plato, 1997, *Republic* bk. IV) yet argued in *Statesman* that rigid rule-following is inferior to informed judgment by the truly wise—his “philosopher-kings” (Plato, 1997, *Statesman*). His stance anticipates Madison’s reflection: if humans were angels, governance—and constraints—would be unnecessary (Madison, 2003). Unfortunately for Plato and Madison, humans are not angels. We must have laws.

From Classical Thought to the FAR

These moral philosophers of our past help us understand that laws must exist, but the various policies that should

take priority in their creation and enforcement might take diverse paths. Modern jurisprudence builds on these foundations, recast into theories³ such as Natural Law, Positivism, Realism, Sociological Jurisprudence, Law and Economics, Critical Legal Studies, and others (Lloyd, 1994). No single taxonomy is canonical, and distinctions blur. What matters here is recognizing that the *FAR* manifests all of them—sometimes harmonized, sometimes in tension.

Just as jurisprudence spans multiple areas of concentration, so too the “Contract Management Body of Knowledge” (CMBOK®) requires integration of judgment, compliance, and ethics. The CMBOK breaks down these various functions.

Certainly CMBOK section 1.1 *Skills and Roles* brings business judgment and ethical decision-making into its lens. The use of business judgment seems to axiomatically fit within *B.1 Business Management and B.5 Risk Management. Sections 1.3 Standards of Conduct and 1.5 Regulatory Compliance* require adherence to the underlying principles reflected in those standards and regulatory requirements.

How is the contracting professional to understand, as Stephen Covey would tell us (Covey, 1989), “Begin with the end in mind,” unless and until the full genesis of the rules and requirements are understood? Mapping the various theories of jurisprudence offers a dimension to CMBOK implementation that is consistent with the intent of Congress, the rules and guidance offered by the FAR Council, and the ultimate certainty in the business transaction as is required in every contract.

Contracting professionals, as the system’s practical decision-makers, must exercise judgment through this lens. The *FAR* explicitly charges the acquisition team to exercise personal initiative and sound business judgment (FAR 1.102-2(c)(3)).

From a personal perspective, fulfilling the role of general counsel to an operating unit, I was required to inform one of our senior staff, a retired Marine general, that his proposed action would not be allowed. As you might imagine, that did not sit well with him and immediately after the meeting he came into my office, closed the door and started demanding the specifics of the rules he would allegedly be breaking. I patiently explained them to him, both in substance (letter of the law) and intent (spirit of the law). His response has lived with me ever since: “Thank you, counselor. *I must know why the policy exists to know when to break it.*” A jurisprudential lens clarifies when strict compliance serves the law’s

purpose and when reasoned judgment better advances the government's interest.

Understanding which jurisprudential theory underlies a given *FAR* provision clarifies why apparent contradictions exist and how they should be interpreted. *FAR* Parts 13, 14, and 15, for example, all reflect methods of acquisition and each, in its own way, reflects law-and-economics principles. In each case, however, a balance is struck based on lowering transaction costs, and all three *FAR* Parts are subject to even greater transaction cost reduction when *FAR* Part 12 is invoked for commercial goods and services.

FAR Part 13 requires that small businesses receive a preference for simplified acquisitions (*FAR* 13.003(b) (1)), giving a further push toward sociological jurisprudence not reflected in the other two methods, prioritizing distributive aims over pure efficiency. Neither is “wrong,” each expresses a legitimate legal philosophy applied to procurement. The combination of following the regulatory scheme, tempered with business judgment as applied to the various theories of jurisprudence and their inherent policy trade-offs, is a hallmark of the professional contract manager.

By tracing jurisprudential theory from Plato and Aristotle to the *FAR*, procurement emerges not as mere technical compliance but as applied legal philosophy. Identifying the “philosophical DNA” of acquisition rules equips professionals to resolve conflicts, balance competing goals, and act legally and wisely.

Jurisprudential Theories and the *FAR*

This section discusses the jurisprudential theories and how they inform the trade-offs that underpin the rationale for the existence of the *FAR* legal framework. When judgment is required, or when it might further the objectives of the jurisprudential theory, being able to identify it and articulate it will provide solid documentation and, where necessary, persuade while informing any future reviewers of the action.

Natural Law

Natural Law holds that law derives from a higher moral order—divine command, human reason, or the nature of things. Objective moral principles are inherent in human nature and should guide conduct and legal systems (Aristotle, 2000; Aquinas, 1947; Locke, 1988). It begins from the premise that humans are moral and reasonable agents, and that right and wrong are discovered via conscience and reason rather than merely decreed. Children's instinctive protests—

“That's not fair!”—reflect this intuitive appeal to equity⁴ (Fuller, 1964, pp. 5–10).

Natural Law is deeply embedded in Western thought. Biblical traditions hold that humans are created “in the image of God,” endowed with conscience and free will (Holy Bible, 2011, Gen 1:27). The Greeks imagined an immutable moral order (Sophocles, 1984). Foundational legal texts echo this view: the Magna Carta limited royal power by appealing to fairness and reciprocal duty (Magna Carta, 1215). The Declaration of Independence invokes “the Laws of Nature and of Nature's God” and proclaims unalienable rights (Declaration of Independence, 1776).

John Locke advanced Natural Law by linking it to Natural Rights: individuals surrender only those rights necessary for the common good; they retain liberty to pursue flourishing (“pursuit of happiness”) (Locke, 1988, §123). Aquinas described Natural Law as rational participation in God's eternal law (Aquinas, 1947, I-II, q.91, art.2). More secularly, Franklin warned that trading essential liberty for temporary safety forfeits both (Franklin, 1755). After losing ground in the 19th century, Natural Law revived in the 20th century amid renewed focus on universal human rights (UDHR, 1948).

Whenever the *FAR* defines clear examples of right and wrong, (or proper and improper conduct), it is likely that Natural Law is the underlying principle. The Procurement Integrity Act makes very clear what conduct is permitted and which is not, providing stiff penalties (some might even say unfair) for those who intentionally or unintentionally violate the rules. As GAO so often reminds us, the protection of the integrity of the procurement process demands no less. Right is right; wrong is wrong.

But life is often not so cut-and-dried, nor is human opinion so monolithic about such things, giving rise to other theories to explain why a law exists. The most prominent of these alternative theories, and the one that came to dominate in the 19th century, is Legal Positivism.

Legal Positivism

Legal Positivism rejects moral foundations for validity; law rests on human enactment and social fact. It is what legitimate authority prescribes and institutions enforce, independent of moral evaluation (Austin, 1832; Hart, 1961; Kelsen, 1967). Unlike common law's incrementalism, statutory law exemplifies positivism: legislatures can pre-empt precedent overnight (Hart, 1961).

In procurement, the distinction matters. Federal common law governs whether a government contract exists and how it is interpreted (*United States v. Winstar Corp.*, 1996), while subcontracts are governed by the Uniform Commercial Code—paradigmatic positive law enacted to unify standards. Where Natural Law asks whether a rule is just, positivism asks whether it is *validly enacted and evenly enforced* (Hart, 1961, ch. 5).

Where Legal Positivism insists that law is defined by rules enacted by authority, Legal Realism pushes further by rejecting the idea that law is ever a fixed or neutral system.

Legal Realism

Legal Realism denies that law is fixed, neutral, or wholly objective. Law is shaped by social, economic, and political forces; judicial decisions reflect not only doctrine but also policy judgments (Holmes, 1881; Llewellyn, 1930; Frank, 1930). “The life of the law has not been logic; it has been experience” (Holmes, 1881, p. 1).

Government contracts offer familiar illustrations. GAO often upholds decisions not because an agency was “right,” but because its decision was reasonable on the record (GAO, OBX-MCR Alliance, 2025). It is an expressly pragmatic approach that establishes a standard and facilitates the quick resolution of disputes, saving the government time and money. In that case, price reasonableness rested on multiple metrics. “Specifically, the agency compared the awardee’s labor rates to: (1) labor rates from the incumbent interim or “bridge” contracts; (2) data from the CALC+ prices paid database [CALC+ (“Contract Awarded Labor Category tool;” is a General Services Administration pricing tool for labor rate comparisons)]; and (3) Bureau of Labor Statistics (BLS) labor rates.”

GAO accepted a contextual, judgment-based assessment that reliance on that much external support reflected what a reasonable person would do. Likewise, boards sometimes adopt interpretations that align with policy even when alternative readings are plausible (see, e.g., *Burnside-Ott v. Dalton*, 1997).

In practice, “reasonableness”—not rigid textualism or a determination of the “right” solution or even the “best” solution—anchors much of acquisition law (*Engineering Research and Consulting, Inc.*, B-420361.12 (Mar. 29, 2024), “our review of an agency’s cost realism evaluation is limited to determining whether the cost analysis is reasonably based

and not arbitrary.”). It is not about being right; it is about being reasonable. Reasonable people can, and often do, disagree.

While Legal Realism takes an eminently pragmatic approach to the law, Command Theory takes a much more authoritative and more singularly focused approach.

Command Theory

Command Theory reduces law to the will of authority: whoever commands, rules (Bentham; Austin, 1832). A popular saying known as the “Golden Rule” describes in this way: “Whoever has the gold makes the rules.” Monarchies illustrate this starkly; a change of sovereign can reorder the law. The United States is not unfamiliar with command models: the Uniform Code of Military Justice emphasizes the chain of command and duty to obey lawful orders (10 U.S.C. §§ 801–946), as does the issuance of each executive order from the President. At one time, the Equal Employment Opportunity Commission clause was the only one that stemmed solely from an executive order. Recent administrations have been more aggressive in issuing and revoking executive orders, especially regarding the labor law requirements in FAR Part 22, and even more recently, the initiation of FAR 2.0 (See *infra*).

John Austin systematized the view that law is the sovereign’s command, backed by sanction. Rights are whatever the sovereign grants—and may retract. Command Theory’s virtue is clarity; its risk is arbitrariness (cf. Hobbes, 1996). As a sovereign, the government must even waive its sovereign immunity so that it can be sued for its commercial behavior (See the Tucker Act). Popular definitions of a “contract” are framed with terms such as “an agreement that the law will enforce.” As Mel Brooks noted in his movie, *History of the World Part 1*, “It’s good to be king.” (1981).

Where Command Theory roots law in the will of a singular authority, the Analytical Theory roots it in logical structure.

Analytical Theory

Kelsen’s “Pure Theory” analyzes law as a hierarchy of norms culminating in a foundational *grundnorm*, bracketing politics and morality (Kelsen, 1967). Raz develops a similar focus on authority and system coherence (Raz, 1979; 1970).

In procurement, the FAR’s architecture—definitions, rules, exceptions, cross-references—often drives outcomes. Tribunals apply familiar “elements tests”

(e.g., in determining whether a contract was validly formed or whether an organizational conflict of interest exists), prioritizing internal consistency in the application of the specified elements (See FAR 1.102-2(c)).

The approach can ossify if detached from context (Llewellyn, 1931). If the standard for review is “reasonableness” and a prior sequence of actions had been viewed as “reasonable,” then following those steps would seem perfectly reasonable and a safe harbor for any action. Unfortunately, the phrase, “That’s the way we’ve always done it,” can be extremely dangerous. Best practices are only best for a given time and situation. Rigid reliance on past practice or policy can, in current times, be very unreasonable.

Still, the influence of the Analytical Theory of Jurisprudence is undeniable: the very structure of procurement regulations and the analytic style of many tribunal opinions reflect an underlying faith that if the rules are correctly ordered, the right answer will emerge.

Within the Analytical Theory’s insistence on logic, however, there remains space for gamesmanship. There is space for advocacy: practitioners can stress the reasoning path or the coherence of the outcome, whichever better supports their position (Raz, 1970).

One can always ask whether it is the process of reasoning that must be logically consistent, or whether the legitimacy of the law depends on the outcome itself appearing logical. That subtle distinction gives practitioners room to frame arguments strategically, emphasizing either the path taken or the result achieved, depending on which better supports their position. And when the standard is “reasonableness,” the law does not require you to be right so much as to be logical. Persuasively presented, even opposite conclusions may still be deemed reasonable.

If Mr. Spock were serving as the judge in your case, this would be the theory to which he would be most strongly drawn.

As the Analytical Theory treats law as a self-contained system of logic, Critical Legal Studies challenges that very premise, arguing that law is never neutral or purely rational but instead reflects and reinforces underlying structures of power.

Critical Legal Studies

Critical Legal Studies (CLS), emerging in the 1970s, argues that law is neither neutral nor objective but helps reproduce existing hierarchy (Kennedy, 1982; Unger, 1983; Gabel, 1984). Doctrines are indeter-

minate and malleable, leaving significant room for judicial discretion. CLS scholars contend that such discretion is often influenced by ideology, values, or personal perspectives as much as by consistent logic (Kennedy, 1982; Unger, 1983; Gabel, 1984).

In practice, this means that outcomes may rest less on logical coherence and more on the decision-maker’s subjective commitments. CLS shares Realism’s skepticism toward formalism but is broader (and more radical): Realists sought reform; CLS often calls for wholesale change, drawing on critical theory and postmodernism (Horwitz, 1992).

For contracting professionals, the concern is predictability. A primary objective for any contract is certainty in the business transaction. If that certainty, even with carefully crafted language and clauses, can be undone by a random judge who “feels” a different result should be obtained, there is *no* certainty or precedent to follow. Neither contracting nor society can last long under such unpredictability. If law is merely a mask for power, carefully drafted contracts and precedent could give way to ad hoc appeals to “fairness.”⁵ Stability suffers if outcomes rest primarily on judicial fiat rather than rules.

Critical Legal Studies portrays law as a mask for ideology and power; the Historical Theory takes the opposite view—treating law as the organic expression of a people’s customs, traditions, and collective experience over time.

Historical Theory

Savigny and Maine located law in a people’s customs, traditions, and shared consciousness (*Volksgeist*), not in universal principles (Savigny, 1814; Maine, 1861). Law is discovered within social practice and evolves incrementally. These increments can seem to evolve at a glacial pace, however. The theory privileges precedent and continuity, encouraging stability essential for commerce (Blackstone, 1765–1769).

Its weakness is adaptability. Tradition can lag behind technological or social change. Today’s rapid adoption of AI—raising issues of accuracy, hallucinations, and copyright—illustrates how science can outpace law when change relies solely on gradual precedent. As has been experienced in the arena of patent law, for many government contracts involving technology, by the time case law catches up, much of the technology may already be obsolete. The Department of War (recently Department of Defense) does not even follow FAR Part 27, opting instead (with FAR Council

acquiescence) its own version in the Defense Federal Acquisition Regulation Supplement (DFARS).

The Historical Theory sees law as the gradual trending of a people's customs and traditions; the Sociological Theory shifts the focus to law's function—how rules operate in practice to shape and respond to social needs.

Sociological Theory

Sociological Jurisprudence, which flows from Sociological Theory, embeds law within social, economic, and political forces, judging rules by effects rather than formal logic (Pound, 1910; Ehrlich, 1936; Llewellyn, 1930). It relies on economic efficiency, with less emphasis on an objective right and wrong as Natural Law might suggest, but “tilts” the playing field to favor specific social objectives. Legitimacy turns on whether law advances justice and welfare—“law in action,” not merely “law in books.” There is virtually no limit to the “social good” policymakers may try to bake into procurement. This might occur through a policy statement that appears in the regulations, or through the allocation of contract funding toward particular agendas.

FAR Part 19 Small Business Programs and FAR Part 26 Other Socioeconomic Programs exemplify this theory of jurisprudence. Mandated set-asides and preference programs prioritize sociological objectives over pure efficiency—seeking to correct inequities and shape outcomes. FAR Part 23 Environment, Sustainable Acquisition, and Material Safety similarly requires that deference be given to conservation and sustainability social objectives.

Each such initiative involves trade-offs, and in a heterogeneous society, those trade-offs invite debate. The theory's strength is responsiveness; its risk is eroding predictability if law becomes a vehicle for competing agendas.

Comparing the Sociological Theory, which views law as a tool for reshaping society to achieve social justice or equity, with the Law and Economics movement creates a clear shift in emphasis—treating law instead as a mechanism for promoting efficiency, reducing transaction costs, and aligning legal outcomes with market principles.

Law and Economics

Law and Economics evaluates rules by efficiency and welfare maximization (Posner, 1973; Calabresi, 1970; Coase, 1960; cf. Blackstone, 1765–1769).⁶ It models

legal rules using incentives, costs, and benefits, urging cost-benefit analysis to align private behavior with social welfare.

In acquisition, these ideas support competition, best-value tradeoffs, and planning based on cost-benefit analysis. The Coasean intuition—that, absent transaction costs, parties bargain toward efficiency—has analogues in equitable adjustments and modifications (Coase, 1960). The FAR is often defended as serving both fairness and efficiency (FAR 1.102). Recent administrative-law developments also sharpen the judicial posture toward agency interpretations, with *Chevron* (1984) deference overruled by *Loper Bright* (2024), requiring courts to independently interpret statutes even where ambiguity exists (See Cases and Authorities Cited).

Compared with the Sociological Theory: sociology emphasizes social forces and qualitative methods; Law and Economics emphasizes incentives, quantitative analysis, and prescriptive reform. Its clarity and predictive power are strengths; its weakness is that efficiency is not the whole of justice, particularly where ethical or distributional concerns predominate. What is good for General Motors may or may not be good for the country.⁷

Jurisprudential considerations with Law and Economics narrows its focus to efficiency and incentives and, as previously noted, it exists on a spectrum with other theories of jurisprudence, its consideration results in a widening of the lens in a very different direction to several other contemporary theories that evolve from social and other power structures. Let us turn our attention to more recent influences on American jurisprudence. Only time will tell how well they find a home in our jurisprudential spectrum.

The Spectrum and American Jurisprudence

The jurisprudential theories described in the previous section form a spectrum. At one end, Natural Law ties legitimacy to morality; at the other, Positivism ties it to enactment. Between them lie hybrids such as Inclusive Positivism, Realism, Analytical, and Critical Legal Studies, which serve as interim groupings along the spectrum, not stove-piped absolutes. American jurisprudence blends them pragmatically, shaped by the Constitution, common-law method, and a judiciary that weaves precedent, policy, and principle (Hamilton, Madison and Jay, 2003; U.S. Const. art. III). As James Wilson put it, the noblest end of

Table 1. Jurisprudential Theories as Applied in the FAR

Theory	Philosophy	Representative FAR Section ¹
Natural Law	Laws valid when aligned with higher principles of justice and the “nature” of human existence	FAR Part 3 (Improper Business Practices)
Historical	Society’s traditions and customs shape law	FAR Part 33 (Protests, Disputes, Appeals—“Day in Court”)
Analytical	Correctness lies in logical consistency of outcome	FAR Part 49 (Terminations)
Sociological	Law as a tool for sociological goals	FAR Part 19 (Small Business Programs)
Command	Law is what sovereign authority declares and enforces	Executive Orders; e.g., FAR Part 22 (Labor Laws)
Critical Legal Studies	Fairness and power analysis deconstruct fixed rules and precedent	FAR Part 50 (Extraordinary Contractual Actions)
Law and Economics	Rules should promote efficiency, reduce costs, maximize outcomes	FAR Part 6 (Competition Requirements); FAR Part 1 (“business judgment”)

criminal jurisprudence is prevention; punishment is but a means to that end (Wilson, 1790).

In addition to classical theories of jurisprudence, more recent intellectual movements reflect the evolving concerns of society and academia. These do not necessarily displace traditional theories, but extend or reframe them.

Evolving Contemporary Theories

Among the many emergent theories arguing for inclusion on the spectrum is Feminist Jurisprudence, which asks how law reflects and reinforces gendered power dynamics, and how alternative perspectives might reshape doctrine. It argues that legal rules often embody patriarchal assumptions, marginalizing women’s experiences; it exposes hidden biases and advocates reform (MacKinnon, 1989; Fineman, 2004; West, 1988; Crenshaw, 1989). Traditional “reasonable man” standards have yielded to “reasonable person” formulations, sometimes incorporating insights from women’s lived experience (e.g., battered woman syndrome cases). Parallel critiques extend to race, age, and sexual orientation.

The contribution is its challenge to bias and insistence on perspective; the risk, for practitioners, is subjectivity that complicates predictability. As with Critical Legal Studies, its most valuable role in procurement may be diagnostic—surfacing blind spots—rather than serving as a complete jurisprudential system.

Other modern framings—*restorative*, *retributive*, and *utilitarian* justice—describe complementary aims across civil and criminal contexts: repairing relationships, imposing deserved punishment, and optimizing deterrence and welfare. Appropriation statutes

and regulatory initiatives often reflect these logics in conditioning or targeting public funds.

Taken together, contemporary approaches show jurisprudence as an ongoing dialogue. Law is continually reinterpreted in light of social change, scholarly critique, and evolving values. Often, the “newness” lies more in framing than substance: commerce law is ancient, but only recently has its efficiency-oriented analysis been labeled a distinct theory.

From Theory to Application

The schools of jurisprudence, as described by their respective intermediate points along the spectrum, can be further identified in various parts of the *FAR* and are important to understand the CMBOK. (Supra). Consider full and open competition in FAR Part 6 (a Law-and-Economics emphasis on market efficiency) versus FAR Part 19 (a Sociological focus on distributive goals). What appears to be contradiction is better understood as the coexistence of different jurisprudential aims chosen by Congress and implemented by the FAR Council and agency supplements. Practitioners need not re-litigate the philosophy; they must recognize how competing theories shape the rules they implement.

Table 1 takes our discussion of various jurisprudential theories across its full spectrum and aligns specific examples of FAR Parts and Subparts that epitomize those theories, revealing the philosophical DNA embedded in acquisition law. Each part of the *FAR* could be identified as primarily a reflection of one or more jurisprudence theories. This table provides only one or two for each instance. Compared directly, different parts of the *FAR* may seem to work at cross-purposes to each other, and in a very pragmatic way, they do.

Table 2. Common Drivers of Unethical Decisions¹

Explanation	Behavioral Construct	Supporting Evidence
We do what is most convenient (thoughtless)	Cognitive shortcuts / ethical fading	Kahneman (2011); Bazerman & Tenbrunsel (2011)
We do what we must to win (need)	Situational pressure / opportunity	Treviño & Nelson (2017); Kaptein (2011)
We rationalize our choices with relativism	Rationalization / moral disengagement	Bandura (1999); Schweitzer & Hsee (2002)
We don't know any better	Low awareness / ignorance of convenience	Treviño & Nelson (2017)
We are fearful (retaliation or loss)	Fear of consequences / silence	Near & Miceli (1995)

As a matter of public policy, however, in a democratic republic, the differing emphasis reflects the competing interests of various stakeholders in the comprehensive success of the American experiment.

The tensions seen in the *FAR* seem contradictory to those new to the system and process. Understanding that these differences are by design and not an accident in drafting is fundamental to understanding the unique equity and promotion of appropriate social agenda issues. As you practice in this discipline, pay attention to the language and effect of the *FAR*, its Parts, and its clauses. You will begin to see the importance of jurisprudence in understanding these rules and how to best follow them and apply that “business judgment” that often feels like it must be learned through osmosis rather than training.

Experience is always the best teacher, it seems, but we do not have the time to make every mistake individually. Learn the jurisprudence behind the rules, and when it comes time to find that “zone of reasonableness,” you will have many more tools at your disposal for fair and equitable decision making.

Power, Ethics, and Professional Judgment

Selecting a jurisprudential theory is, in part, a decision about where power resides and whether it resides with a person, an institution, or the individual. Human nature being what it is, as Plato and Aristotle debated, this struggle endures. Ignoring the power dynamic that plays out in plain view invites error. As ethics research shows, when courage falters, people can usually find a rationale to justify it (Bandura, 1999; Bazerman & Tenbrunsel, 2011).

In procurement, post-hoc rationalizations sometimes replace contemporaneous reasoning. In other words, agency reports sometimes look more like justifications for past actions than a reasoned approach toward reach-

ing the decision. GAO frequently sustains protests when the record shows justification rather than documented reasonableness in actions and decision-making. Contemporaneous documentation is paramount.

The acquisition regulations are not designed to be power plays, but when you consider the amount of funds being distributed and for which entities compete vigorously, it would be naive to ignore that selecting a specific theory of jurisprudence will have a manifest impact on the power dynamic among the individuals involved in the process. As a question of ethics, then, should we question jurisprudential theories solely on the basis of their power shifting tendencies? Or should a stronger adherence to the moral edict of Natural Law be put to work to ascertain right from wrong and decide on that basis? This brings us to an understanding of how ethics and jurisprudence intersect.

Understanding the theories that form the legal foundation of the *FAR* equips professionals to know when rigid compliance is required and when judgment legitimately departs from “the way we’ve always done it.” And it provides a lexicon to express the decision-making process. It prompts the question, “Why do people make unethical choices?”

Studies of human nature, not discussed here, illustrate that there are patterns to human behavior. Not everyone acts altruistically, and not everyone shares an identical value system. Some people give millions to a particular cause while others give to a cause diametrically opposed to the first. It is our right in a free society. Nonetheless, are there natural limits to unfettered discretion?

People still make unethical choices—often anchored in self-interest and facilitated by predictable cognitive and organizational dynamics. Table 2 presents five key behaviors people do that capture ethical lapses. The details are left for study by others. They are presented

Table 3. Jurisprudence - Ethical Frameworks

Jurisprudential Theory	Ethical Framework	Core Alignment
Natural Law	Deontological (duty-based)	Actions are right because they conform to higher principles
Positivism	Authority-based	Right = what authority declares (clarity, but risks blind or malicious compliance)
Historical	Virtue / customary morality	Morality rooted in tradition and community practice
Sociological	Utilitarian ethics	Right = what improves the collective good, even if precedent bends
Analytical	Pragmatic ethics	Coherent reasoning ≈ correctness
Law and Economics	Consequentialism	Right = maximizes net benefits or minimizes costs
Critical Legal Studies	Relativist / contextual	Right/wrong filtered through power structures and standpoint

here, somewhat a priori, to set the stage for illustrating how ethical standards and jurisprudential theories have amazing correlation.

Legal theory is not only about interpretation; it also shapes ethical choices. Each jurisprudential theory has a parallel in moral philosophy. Being honest with ourselves, we can all cite examples of actions we have taken or witnessed across the five rationalizations people offer for their ethical lapse in the “Explanation” column of Table 2.

When we then chart the various theories against their counterpart ethical frameworks, we begin to see that the philosophy of law spans well beyond the law and deeply into human nature—including power and ethics. Table 3 offers that comparison and provides a brief statement of the alignment that can be seen. This suggests that once you select your “favorite” jurisprudential theory, you have in large measure described your own ethics. And that becomes the final point of this article.

Jurisprudential theories and ethical frameworks exist in a variety of frames because we need them to. Even within ethics, people will have differing views. Through positive law, such as the entire criminal code, and for a procurement reference, the Procurement Integrity Act, Congress will dictate acceptable and unacceptable behavior. You may agree or disagree with it, but you will not be allowed to substitute your ethical standard for the one pronounced by Congress. There are many areas where flexible business judgment is necessary. When limits must be set, it is often through one of several theories of jurisprudence. It is important for contracting professionals to know the difference.

Two points follow. First, jurisprudence and ethics are mirror images: both ask what is right, what is just, and

who decides. Second, the weaknesses of each theory echo common ethical failures: positivism can slide into obedience or malicious compliance, utilitarianism can justify harm to minorities, or relativism can dissolve standards. Recognizing these vulnerabilities should encourage greater clarity in critical thinking and a heavy dose of professional humility. Just because someone is acting differently than you might behave, that alone does not make them “wrong.” They are merely different in their own way. Or as popular parlance might say, “Each individual is unique, just like everyone else.”

Implications of Findings

Business judgment is an important tool for the contracting professional, yet very little beyond the mistakes of experience informs how that judgment should be used. An understanding of the jurisprudential theories that create the foundational basis of our legislative and regulatory structure offers insight that is directly relevant and useful. It further offers insight into how we each might exercise our ethics. Understanding what we believe and why we believe it is extremely powerful when demonstrating leadership.

On a practical level, GAO’s touchstone is reasonableness based on “the record.” Business judgment must land within the zone of reasonableness and the file documentation (preferably contemporaneously constructed) must show that. Reviewers may disagree with choices, but should not conclude that actions were illegal or unethical. A reasoned appeal to the jurisprudential theory being honored can often make the difference between sustainment or denial of a protest.

Looking Forward: FAR 2.0

The *FAR* has always lived in tension—simplicity vs.

complexity, commercial practice vs. public accountability, efficiency vs. equity. The original 1984 publication (on April Fools Day!) was itself a compromise among jurisprudential and ethical commitments. The current push toward a streamlined “FAR 2.0” (retaining statutory essentials, relegating some material to guidance) reignites these tensions.⁸ Simplification appeals to Analytical and Law-and-Economics instincts (clarity, efficiency, lower transaction costs). But deciding what remains binding and what becomes advisory is, in the end, an ethical and jurisprudential choice—about whose interests matter, which risks are tolerable, how far to trust discretion, and who gets to decide.

This is why jurisprudential understanding matters. The better we grasp the theories anchoring the *FAR* to its legal underpinnings, the better we can navigate trade-offs among fairness, efficiency, consistency, compliance, and social purpose. It is an important element whenever the “philosopher-kings” of acquisition, who we know as warranted contracting officers, exercise the expected use of business judgment as reflected in several sections of the *FAR*. Those tensions will not vanish with FAR 2.0; they will become sharper and more visible.

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GAO Bid Protest Decisions

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Scripture

The Holy Bible (2011) *New International Version*. Grand Rapids, MI: Zondervan. (Genesis 1:27, Exodus 20:15, 17)

Endnotes

- The words "spectrum" and "continuum" are often used interchangeably in the literature when describing the range of jurisprudence concepts. Since the FAR uses "continuum" to refer to the range of variations found in FAR Part 15 Contracting by negotiation, specifically in Section 15.101 titled "Best value continuum," the word "spectrum" will be used in this article to limit possible confusion.
- Deeper discussion of the "rule of law" goes beyond the confines of this paper. Various writers have defined it somewhat differently, but each has attempted to identify the elements that make a law legitimate to a society and worthy of equal enforcement toward all. Our purposes here are only to anchor "the law of acquisition" to jurisprudential theories and not discuss the genesis of the laws, the politics surrounding them, or their respective enforcement.
- Jurisprudential discussions might alternatively use the terms "school" or "theories." As a general, but not absolute rule, business and management texts use "school" while legal and academic texts tend to use "theories." For consistency, "theory" or "theories" are used consistently in this article.
- In modern use it can be difficult when someone complains about fairness to discern whether they are speaking of objective equity or of a selfish perspective that defines "fair." Sadly, too often today, when someone speaks of fairness, the implication is that they did not get something they desired, so as the perpetual victim, the situation must not be "fair." When negotiators face such a complaint, it is important to seek clarification from the other party. One answer leads to win-win solutions; the other answer does not and is manipulative. See also Critical Legal Studies, *infra*.
- See endnote 4.
- While often couched in terms of being a "modern" theory of jurisprudence, part of that assessment must address the framing. As to commercial law generally, William Blackstone, in *Commentaries on the Laws of England*, Book II, ch. 30 speaks to contracts of sale. See also, Book II ("Of the Rights of Things") and Book III ("Of Private Wrongs"). which include discussions of contracts, property, and commerce. Blackstone emphasizes that the law of contracts and exchange arises from natural obligations and mutual consent—showing commerce law as a deeply entrenched category, not a modern invention.
- The Phoenicians formalized the law of contracts and commerce, including maritime codes and trading customs. The Roman *ius gentium* (law of nations) applied similar concepts to commercial dealings among foreigners. (Watson, 1991).
- In the Medieval *Lex Mercatoria*, or the "Law Merchant," customary rules among merchants used across Europe to resolve disputes outside local courts were set forth for reasons similar to the creation of the Uniform Commercial Code in the United States—seeking uniformity and ease of transactions, to reduce transaction costs and costly disputes. (Berman and Kaufman, 1978; Llewellyn, 1957). Then, in early American law, the laws of commerce came to the forefront since British taxes on commerce were a fundamental cause of the American "uprising," as in the Boston Tea Party! Thus the Constitution and early laws under it were heavily commercial from the start (contracts, bills of exchange, bankruptcy, etc.). A more distant reference appears in the bible in Exodus 20:15 and 17, where the rights to property are preserved in the Ten Commandments! Thus, the jurisprudence of commerce is ancient. Its prominence was elevated in more recent times to reflect economic efficiency as jurisprudential justification for law.
- This is the authors paraphrase of an often quoted and paraphrased statement popularly associated with Charles E. Wilson's remark during his 1953 confirmation hearings that the interests of General Motors and the United States were aligned; the phrasing has evolved in public discourse.
- In addition to jurisprudential theories influencing regulatory drafting, there are many other factors, including sociological concerns. For a classic treatment of those concerns. See Schooner (2002).

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