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**The Secret Sauce of Program Management Is the Best
Defense to Mitigate Contract Risk**

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The Secret Sauce of Program Management Is the Best Defense to Mitigate Contract Risk

(Contract Management, Earned Value Management, and Agile Methodologies)

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Abstract

The author has written this paper to defend and strengthen the use of government initiatives, industry, and academia risk mitigation measures that prevent divergence from successful Program Management (PM) with the framework of Contract Management (CM), and the integration of Earned Value Management (EVM), and Agile methodologies and practices. On December 14, 2016, Public Law No: 114-264, the “Program Management Improvement Accountability Act [PMIAA]” was signed into law (H.R. 114-637S.1550, 2016). This law was enacted to improve program and project management practices within the federal government by requiring agencies to conduct [document] annual portfolio reviews of “high risk” programs that the Government Accountability Office (GAO) identified. Additionally, the PMIAA establishing a Program Management Improvement Officer (PMIO), who will “assess the quality and effectiveness of program management” (2016). These measures will highlight the possibilities of future performance growth, increased demand, and technological advancements in the Defense Industrial Base (DIB) (DoD, 2022). Additionally, improvement in workforce acquisition career paths and skill levels (H.R. 114-637S.1550, 2016). At the onset, the “delivery of performance [will be] at the speed of relevance” (Mattis, 2018, p. 10).

Effective and efficient PM requires a solid foundation of knowledge and the framework of CM, with the integration of EVM, and Agile methodologies and practices. These disciplines will provide the capabilities required to maximize innovation, mitigate contract risk, and develop the workforce that supports the proper stewardship of taxpayer dollars.

In February 2022, the National Defense Industrial Association reported that U.S. national security interests are at risk given the declining health of the DoD's supply chain, surge readiness, and production capacity. It is essential to communicate and collaborate with all stakeholders to develop and grow the DIB and engage the workforce with the right people, processes, and tools at the right time.



Research Issue

Why is it imperative for acquisition professionals, policy-makers, and/or end users to have a thorough background and education of program management with the framework of CM, integration of EVM, and Agile methodologies and practices as a contract risk mitigation measure?

Research Results Statement

The results are clear that successful program management starts with the framework of CM, integration of EVM, and Agile methodologies and practices. It is your best defense to mitigate contract risk and to protect and grow the United States and the DIB. It takes a whole-of-government, industry, and acquisition professionals' approach that emphasizes collaboration, and the documentation of lessons learned to achieve and improve economic growth and protect national security.

The implementation and use of program management through the roles of the contracting officer, management, and functional specialist are essential to a fundamental assessment of the contractor's performance. In addition, combining the alignment of the framework of CM with the integration of data-driven performance tracking of EVM and Agile methodologies and practices will provide a more effective and efficient delivery of program goals. These disciplines enhance contract risk mitigation by providing information that can assist in controlling cost, increase schedule visibility, ensure contract requirements are met, and strengthen technical readiness.

The conformity of legal and regulatory procedures and the ability to engage the private sector to identify the best practices is essential to strengthen the use of program management. Investing in our workforce and our industry partners effectively and efficiently increases economic growth in the production of good, services, and materials in the United States that meet federal procurement needs.

Each year, the federal government increases the funding of developmental contracts as a measure to "Protect Sea, Air, and Space" (National Security Strategy, 2022 October 12). These measures aim to protect U.S. interests in developing emerging technologies, creating economic opportunities, and enabling climate surveillance, and to responsibly oversee and protect the sea, air, and space environment.

We must strengthen the acquisition professional's knowledge and effective execution of program management safeguards these measures. Having knowledgeable staff that know how and when to act will aid in protecting the U.S. interests in developing technologies will create economic opportunities to responsibly oversee the sea, air, and space environment. In addition, value is added to the taxpayer, federal government, and national security strategy.

Three Recommendations for Consideration

1. Increase training and educational opportunities for acquisition professionals on the effective and efficient measures of program management. Research shows that subject matter knowledge increases the likelihood of successful problem resolutions: "Experiential learning offers a way to ensure we are imparting not just rote learning and certifications but providing our people the knowledge, skills, and experience to effectively control the efforts we charge them to lead" (Pickar, 2020).
2. Establish collaboration policy and oversight tools that support program data gathering (H.R. 114-637S.1550, 2016).
3. Create a database to collect and disseminate evidence of lessons learned and best practices (GAO, 2019).



Introduction

This paper analyzes the whole-of-government approach to demonstrate that the program management secret sauce to mitigate contract risk is comprised of the framework of Contract Management (CM), with the integration of Earned Value Management (EVM), and Agile methodologies and practices.

The purpose of the investigation is to disclose what acquisition professionals, policy-makers, and/or end users need to know about the processes that are most appropriate to develop, acquire, and deliver these capabilities with emerging technologies within cost, schedule, and technical readiness to the warfighter.

Each year, the federal government increases the funding of developmental contracts as a measure to “Protect Sea, Air, and Space” (Biden-Harris Administration, 2022). These efforts aim to protect U.S. interests, while working with allies, academia, and our industrial base partners in advancing and developing new technologies that create economic opportunities and our shared security and prosperity.

An analysis of the research will reveal the key results related to the current and future measures that the government, military services, industry, and academia have endorsed PM with the framework of CM, and the integration EVM, and Agile methodologies and practices. Program Management measures are the best defense to analytically control cost, schedule, and technical implementation. When applied, effectively and efficiently PM will deliver timely capabilities and emerging technologies to the warfighter.

Methodology

The methodology will include a comparative analysis using literary research current and from the author’s past Naval Postgraduate School’s Acquisition Research Program Symposium research papers. Also, a variety of quantitative and qualitative information gathered from knowledgeable acquisition professionals related to Program Management (PM), framework of Contract Management (CM), Earned Value Management (EVM), and Agile methodologies and practices. This information will determine and reveal the best practices and contract risk mitigation measures related to program management that will build a stronger Defense Industrial Base.

Federal Risk Mitigation Measures - “Protect Sea, Air, and Space”

Buy American Act of 1933 and Buy American Act in 2021–2022

On March 3, 1933, during the Great Depression, Congress passed the Buy American Act (BAA),¹ and President Hoover signed it into law on his last day in office. When the BAA was enacted, it attempted “to protect domestic businesses and labor by establishing a price preference for domestic end products and construction materials in government acquisitions (Manuel, 2016, p. 1). In addition, the congressional oversight, by statute, requires agencies to submit a congressional report on procurement and compliance with the BAA that includes exceptions or trade agreement waivers. When solicitations contain the following clauses, federal government contracting officers who procure supplies are required to insert a FAR 52.225-2, Buy American Certificate and/or a FAR 52.225-6, Trade Agreements Certificate (TAA).

At the request of Senator Murphy, in December 2018, the GAO published their report on their review of four federal agencies’ implementation of the Buy American Act. The GAO

¹ *The Buy American Act of 1933 (BAA)* (41 U.S.C. ss8301-8305) requires federal agencies to purchase “domestic end products” and use “domestic construction materials” on covered above certain monetary thresholds (typically \$10,000) performed in the United States. <https://www.congress.gov/crs-product/R46748>



reviewed 38 contracts from the Departments of Defense (DoD), Health and Human Services (HHS), Homeland Security (DHS), and Veterans Affairs (VA) and found that six contracts “inaccurately recorded waiver or exception information” (Woods, 2018). The GAO found that steps should be taken by the Office of Management and Budget (OMB) to improve Buy American Act data and by the agencies to improve implementation guidance and training on the Act (Woods, 2018, p. 1).

Given the government’s past BAA reporting compliance errors, the Biden-Harris administration was dedicated to improving the BAA through policies and laws that include the Federal Acquisition Regulation(s) (FAR), Executive Order(s) (E.O.), and the establishment of the first Made in America Office (MIAO). The following highlights are a few of the improvements related to the BAA:

On January 25, 2021, Executive Order 14005, Section 4 (a) and Section 7 are noteworthy measures, Section 4 (a): the Director of the Office of Management and Budget shall establish the Made in America Office within the OMB (White House, 2021a). In April 2021, the Made in America Office (MIAO) opened to ensure “the future is made in America,” strengthen domestic sourcing, and reduce the need for waivers.

Federal Contracting 1795

The Library of Congress (2025) provides an excellent source site, Federal Government Contracting: A Resource Guide. Most notable is the establishment of the Office of Purveyor of Public Supplies (1795) as it included Purveyor of Public Supplies in the Treasury Department and superintendent of Military Stores in the War Department (distributed supplies); the Commissary General of Purchase in the War Department (1812); and the Quartermaster’s Department in the War Department. Over hundreds of years of contracting, the U.S. government has continued to enhance the framework of contract management (CM) over the years through statutory and regulatory measures.

Contract Management - Contractor Business Systems

Accounting System Administration as a Foundation for Risk Mitigation

Effective program management within the DoD requires reliable business systems that ensure fiscal integrity, compliance, and performance accountability—elements central to the “secret sauce” of delivering capabilities to the warfighter. Among these, the accounting system plays a foundational role in mitigating contract risk. As outlined in the Defense Federal Acquisition Regulation Supplement (DFARS) 252.242-7006, Accounting System Administration, contractors must meet 18 system criteria to ensure accurate financial data, appropriate cost segregation, and adherence to regulations like the Cost Accounting Standards (CAS) and Generally Accepted Accounting Principles (GAAP) (Defense Acquisition Regulations System [DARS], 2012). These criteria enable the DoD to monitor costs, validate performance, and safeguard government funds.

The accounting system serves as the financial infrastructure for collecting, managing, and reporting cost data, critical for both regulatory compliance and timely, data-driven decisions by program managers and contracting officials. The DoD’s Fiscal Year 2025 budget request, released March 11, 2024, allocates \$849.8 billion to strengthen military capabilities, with increased investments in research, development, test, and evaluation (RDT&E), underscoring the need for robust financial oversight in complex acquisition programs (DoD, 2024). Without such oversight, a deficient accounting system risks disapproval, payment withholds, or inaccurate cost reporting, undermining operational effectiveness and audit reliability (American Institute of Certified Public Accountants [AICPA], 2023; Joseph, 2024).



Joseph's (2024) analysis of 465 Defense Contract Audit Agency (DCAA) audit reports from the Defense Contract Management Agency (DCMA) Eastern Region (2020–2022) identified 47 disapproved accounting systems due to significant deficiencies (p. 38). Common issues included noncompliance with Federal Acquisition Regulation (FAR) Part 31, weak internal controls, and billing reconciliation problems, with frequent deficiencies in cost accounting information (criterion 15), unallowable costs (criterion 12), and segregation of direct and indirect costs (criterion 2) (Joseph, 2024, p. 53). These findings highlight accounting systems' pivotal role in supporting or hindering risk mitigation in program execution.

Alignment with Internal Control Standards and Policy Reform

To enhance clarity and enforceability, the DFARS 252.242-7005 clause was revised as of January 17, 2025, replacing “significant deficiency” with “material weakness,” aligning DoD standards with the AICPA's Generally Accepted Auditing Standards (GAAS) (AICPA, 2023; DARS, 2025). This shift, enacted via Section 806 of the National Defense Authorization Act (NDAA) for FY 2021, adopts a GAAS-consistent definition of “material weakness” as a deficiency posing a reasonable possibility of material misstatement, fostering consistency between government and industry practices (NDAA, 2020).

Separately, the Committee of Sponsoring Organizations of the Treadway Commission's (COSO) Internal Control—Integrated Framework (2013) informs efforts to streamline oversight, such as the Section 809 Panel's Recommendation 72 to reduce the 18 DFARS criteria to seven (Committee of Sponsoring Organizations of the Treadway Commission [COSO], 2013; Section 809 Panel, 2019). These reforms enhance contractor business systems' auditability and transparency. The Section 809 Panel's (2019) proposal aligns with COSO principles, aiming to maintain oversight while easing compliance burdens, particularly for small businesses (Section 809 Panel, 2019). Joseph (2024) supports this, noting that four of five disapprovals involved small businesses struggling with DFARS complexity (p. 81). Such reforms could improve compliance and reduce risk across the Defense Industrial Base (DIB).

Integration with Program Management Disciplines

The accounting system integrates with program management frameworks like Contract Management (CM), Earned Value Management (EVM), and Agile acquisition practices. In CM, it supports compliance verification, invoice validation, and audit preparation. For EVM, reliable cost data drives performance metrics like the Cost Performance Index (CPI) and Schedule Performance Index (SPI), enabling real-time program health assessments (Defense Acquisition University [DAU], 2023). Agile acquisition, emphasizing flexibility and iterative delivery, relies on accurate, timely financial reporting to adjust resource allocation as priorities evolve.

This integration shines in EVM, where DFARS criteria like labor distribution (criterion 10), general ledger control (criterion 5), and interim cost determination (criterion 11) ensure cost data accuracy for CPI and SPI calculations (DARS, 2012; DAU, 2023). Joseph (2024) found contractors with stronger accounting systems were more likely to resolve deficiencies via Corrective Action Plans (CAPs), achieving a 69% DCMA-DCAA agreement rate on corrective action adequacy (p. 80). This positions the accounting systems as active tools for managing cost, schedule, and performance risks, beyond mere compliance.

Agile Methodologies and EVM Integration

On December 13, 2023, the GAO issued *Agile Assessment Guide: Best Practices for Adoption and Implementation*. Agile is a description of iterative, incremental software development methods. Agile concepts and methodologies include frameworks and practices known as Lean, Kanban, Scrum, Feature Driven Development (FDD), Extreme Programming (XP), DevOps, and others. These methodologies are central to the Agile principles of adaptability, flexibility, collaboration to deliver stakeholder value, continuous improvement.



The Agile Assessment Guide provides a clear and concise best practices approach for program monitoring and control when incorporating and applying earned value management on Agile programs (GAO, 2023). The Section 809 Panel, of the National Defense Authorization Act for Fiscal Year 2016 (Pub. L. No. 114-92), recommended eliminating EVM requirements for Agile programs (Section 809 Panel, 2018). Additionally, the Panel recommended that Program Executive Officers (PEOs) be authorized to approve “appropriate project monitoring and control methods” (Wahidi, 2022). The bottom line is that, for EVM to effectively and efficiently integrate with Agile, the program office must tailor EVM into the total program management methodology.

Conclusion

Accounting system administration anchors DoD program management, ensuring cost control, compliance, and audit readiness. As acquisition evolves with emerging technologies, robust accounting systems are vital for mitigating contract risk, enabling the warfighter to receive cutting-edge capabilities on time and within budget. Strengthening these systems through policy reform, training, and the framework of CM, the integration of EVM, and Agile methodologies and practices enhances contractor performance and government oversight. These management practices will highlight the possibilities of future performance growth, increased demand, and technological advancements in the Defense Industrial Base (DIB) and in professional acquisition skill levels. At the onset, the “*delivery of performance [will be] at the speed of relevance*” (Mattis, 2018, p. 10).

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