



**FEDERAL
AVIATION
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**Blending Contract and Project Management
to
Achieve Cost Savings**

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Abstract

This study examines the risk that occurs between segregating contract and project management, and how the interdependencies drive project cost savings. We will discuss the pitfalls around segregating these interrelated activities, and how the process can impact your organizations bottom line. It will analyze how cost avoidance can be achieved, provide recommendations to assist in the minimization of costs, schedule, and risk, and the overall framework of change management.

The discussion will conclude the successes and challenges of changes in organizations that have combined the two processes and the elements considered when the two processes are applied.

INTRODUCTION

Forward-looking organizations are discovering tremendous opportunity in the bringing together cost estimators, contracting officers, risk managers, and project managers to improve project performance, drive down risk exposure, and control for unanticipated cost escalation.

Historically, functionally aligned organizational processes did not promote collaboration among these critical skill sets. In addition, acquisition reforms implemented by the Office of Federal Procurement Policy (OFPP) over the past several years have fallen short of expectations and have not fully achieved the benefits contemplated by new acquisition authorities.

We find ourselves in the predicament of balancing projects and contracts against costs, schedule and risk. In doing so, professionals whether they are a Contract Managers or Project Managers; are at times left with addressing constraints that may result in deficiencies within their agency or organization. Considering the increased importance of cost avoidance, understanding of merging contract and project management components and balancing constraints, could open doors of developing a more comprehensive Life-Cycle-Blending-Management (LCBM) on a micro and macro level.

Far too long, organizations have taken the approach that Contract, and Project management are two separate processes and one can exist, function and operate successfully without the other, each potentially having differing objectives. Clear communication and partnering can be complex; despite the fact that aggregate risk, inaccurate scheduling, and incurred costs may alter their agency or company objectives. These uncertainties, if it occurs, will influence at least one or more of your contracts or projects. By integrating the disciplines of contract and project management and their key components; have proven to strengthen project performance, eliminate communication difficulties among contract partners, and enhance management effectiveness. It requires a level of flexibility for both parties involved and a willingness to adapt to change management, and engage as early as possible to successfully meet their strategic goals. This would also include across the aisle collaboration, implementing Earned Value Management (EVM) tools and defined organizational standards and policies.

This study identifies natural interdependencies, examines risks that occur when organizations segregate contract and project management planning, decision making, and performance monitoring and discusses the successes and challenges associated with combining these critical components to promote organizational success and control costs. It also allows the reader to understand contract and project management and their interdependencies. It is broken-down in process phases and task to address the co-relationship between Contract and Project management. It will also demonstrate how each moving part, whether it is a Contract or Project will eventually coexist in each environment.

TERMINOLOGY

Before we get in to the meat of integration of Contract and Project management, let's first look at some key terms and understand what each process and task mean, their interdependencies, and how each one works in relationship to the other.

What is Contract management?

Wikipedia defines Contract management as the process of systematically and efficiently managing contract creation, execution, and analysis for the purpose of maximizing financial and operational performance and minimizing risk. The National Contract Management Association (NCMA) *Contract Management Body of Knowledge* identifies it as the process of managing contracts, deliverables, deadlines, and contract terms and conditions while ensuring customer satisfaction. The Contract Management Body of Knowledge (CMBOK) is NCMA's primary reference on contract management knowledge and practices and is utilized in the development of certification programs (NCMA, 2011).

The CMBOK is broken down into five broad knowledge areas, known as foundational competencies. These five foundational competencies are Pre-Award, Acquisition Planning/Strategy, Post-Award, Specialized Knowledge Areas, and Business.

Contract Management Key phases/processes -

- Negotiation/Renewal
- Validation
- Execution
- Performance Monitoring
- Closure

In a study published in Wikipedia and credited to "[*Contract Management: Optimizing Revenues and Capturing Savings.*](#)" Aberdeen Group. May 2007. Retrieved 2008-07-10 has found that for "42% of enterprises...the top driver for improvements in the management of contracts is the pressure to better assess and mitigate risks" and additionally, "nearly 65% of enterprises report that contract lifecycle management (CLM) has improved exposure to financial and legal risk." There is no further information found for any update of this data, but it should be evident to any subject matter expert in the industry that there is a mounting pressure for organizations to produce profits, minimize costs, and evade risks.

What is Project management?

A project is **temporary** in that it has a defined beginning and end in time, and therefore defined scope and resources. And a project is **unique** in that it is not a routine operation, but a specific set of operations designed to accomplish a singular goal. **Project management**, then, is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements (Project Management Institute *Project Management Body of Knowledge* (PMI PMBOK) 6th edition).

The Blending Contract and Project process (BCPp) should be fit-for-performance. This means that the level of engagement and involvement and length of involvement should be proportionate to the scope, value, risk, complexity and duration of the task. Typically, a Contract Management Process (CMP) will cover some, if not all of the following:

Project Management Key phases -

- **Time/Schedule** – This refers to the actual time required to produce a deliverable. Which in this case, would be the end result of the project. Naturally, the amount of time required to produce the deliverable will be directly related to the number of requirements that are part of the end result (scope) along with the amount of resources allocated to the project (cost). It should be noted that the word 'Time' in the PMBOK, as one of the knowledge area has been replaced with the word "Schedule." PMBOK has identified it as emerging in practices in Project Management.
- **Cost** – This is the estimation of the amount of money that will be required to complete the project. Cost itself encompasses various things, such as: resources, labor rates for contractors, risk estimates, bills of materials, et cetera. All aspects of the project that have a monetary component are made part of the overall cost structure.
- **Scope** – These are the functional elements that, when completed, make up the end deliverable for the project. The scope itself is generally identified up front so as to give the project the best chance of success (Although scope can potentially change during the project life-cycle, a concept known as 'scope creep'). Note that the common success measure for the scope aspect of a project is its inherent quality upon delivery.

The major take-away from the Triple Constraint, being that it is a triangle, is that one cannot adjust or alter one side of it without in effect, altering the other sides. For example, if there is a request for a scope change mid-way through

the execution of the project, the other two attributes (cost and time) will be affected in some manner. How much or how little is dictated by the nature and complexity of the scope change. As an added example, if the schedule appears to be tight and the project manager determines that the scoped requirements cannot be accomplished within the allotted time, both cost AND time are affected.

KEY ELEMENTS FOR BLENDING

Based on the aforementioned definitions and examples, how does the project manager stay on top of the triple constraint? The following are the key elements that would ensure successful contract and project implementation:

Communication - Communication and collaboration are important within contract delivery teams responsible for complex contracts and sophisticated suppliers. Where communication and collaboration is ineffective, it becomes a risk to Federal Aviation Administration (FAA) that services are not being delivered to the full needs of FAA, and that risks and issues are not identified and effectively managed by contract and operations managers and other functions within FAA. Department of Transportation and FAA, over the past 5 years, have put emphasis on the terminology “SHARED SERVICES” throughout its organization. In an effort to shrink the gap between known or the unknown and strengthen its knowledge base.

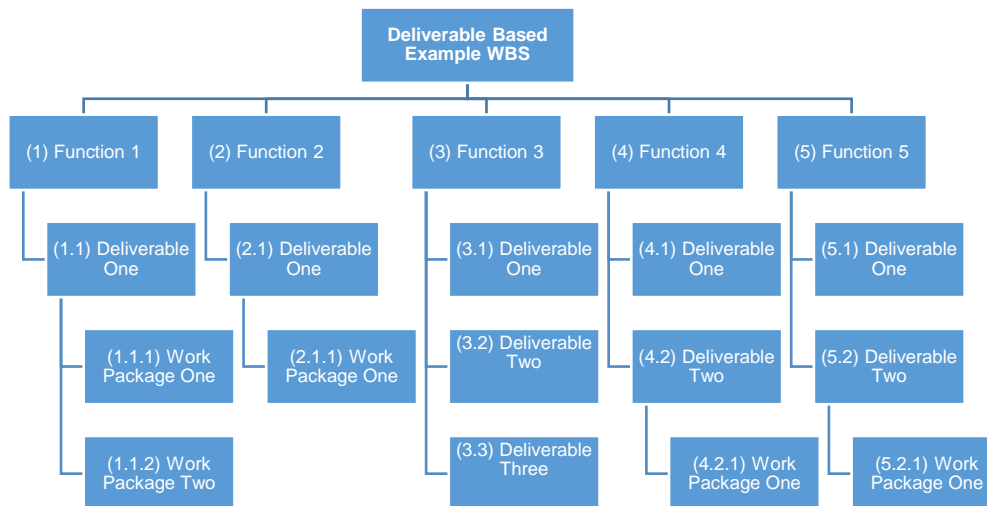
Collaboration fuels development in modern business environment. One of the biggest factors that contribute to the success any organization is whether or not its employees are able to perform together as a team. Collaboration between team members over a well-designed “blended” platform makes for the perfect means of cost saving, risk reduction, and identifiable milestone.

Plan and act early...relationship-building takes time. One should not wait until there is a problem to start engaging. For example, engagement with the contractor/consultant starts at the beginning of the procurement process, through contractor selection, negotiation and contract award. The way that bidders/proposers are treated or their understanding of the Implementing Organization’s level of professionalism during these stages can have an impact on the quality of the relationship by the time it gets to project implementation. The initial period of project implementation could set the tone for the contractor’s performance for the rest of the contract, and therefore the relationship is expected to be proactively firm and fair. Basically, don’t wait until drowning before you realize you can’t swim. Engagement strategies for relationship management with relevant stakeholders would need to be developed early. These can be included in the Contract Management Plan (CMP). The type of strategy and the amount of resources applied to relationship management need to be in line with the needs of the Contract Management Standard.

Earned Value Management – Cost estimate is obviously of paramount importance to the success of a project. EVM is defined as a method of managing projects that integrates the technical performance, schedule, and cost parameters of a contract.

Work Breakdown Structure (WBS) – The WBS is designed to show how project deliverables are broken down into work packages and provide a way of showing high-level areas of responsibility (PMBOK 6th edition). The Defense Acquisition summary as a deliverable-oriented hierarchical decomposition of the work to be executed by the team in order to accomplish the project objectives and create the required deliverables. Its purpose is to organize and define the total scope of a project.

Below is a diagram example of the WBS at a high level:



Risk Management -

Risk management is defined as the ‘systematic application of management policies, procedures and practices to the tasks of identifying, analyzing, assessing, treating and monitoring risk’. Risk is a feature of both contractor and Project performance matrix. It is essential that both contract and project perform to the highest standard and reduce risk where possible. Best practice suggests that a structured approach to risk can be applied at every stage in the life cycle of an activity, function, project or asset generated by enterprise or group as an essential element of good management practice.

THE PITFALL

What are the pitfalls that this method can help navigate? In a global marketplace where emphasis is on the minimization of costs and the maximization of performance; poorly managed contracts and projects are certain to bring the largest, as well as, the smallest organization to its knees.

In today’s complex business world, contracts and projects may not succeed for the following reasons:

- Lack of definition—there are no management standards of practice, behavior, and accountability
- Failure to define performance standards and the metrics needed to measure project success
- Weak control structure, including failure to provide definitive documentation that traces, verifies, and controls project activities
- Under-qualified individuals assigned to management positions; Ineffective surveillance and quality control of activities
- Lack of executive sponsorship necessary to make activities successful

EVADING THE PITFALLS

Reasons for failure may be eliminated, if organizations focus on their overall mission and strategic objectives when selecting the projects to undertake. Blending Contracts and Project management requires attention during the procurement process and not simply after the contract has been awarded. Project and contract managers should consider these steps when implementing a blended environment:

- Take responsibility for planning to include collaboration among each other
- Assignment of responsibility to the parties involved
- Establishing schedules and budgets, integrating components
- Determining the acquisition strategy and the methodology to measure performance.

Effective blending starts at the beginning of each step in the process. Communication is a key element to avoid any pitfall and ensure the optimum efficiency and increased levels of understanding of the overall objectives.

Here are some of other key elements to avoid the evitable:

- For Project Manager (PM) managed programs, the Acquisition Team should involve both the program office and contracting office
- Monitor contract cost and schedule with tools such as EVM and keep PM informed should variances occur
- A joint performance management process designed to track the overall performance of the partnership
- Establish an oversight integration management plan as a controlling mechanism to encourage organizations to make ethical, proactive changes for the mutual benefit of all the parties

THE INTEGRATION LINK...interdependencies

Like it or not, most projects depend on other projects or initiatives to deliver some enabling capabilities that are essential to their successful implementation. This idea of creating a hybrid relationship has allowed several of the organization interviews to address upfront short fall and cost savings through collaboration.

Some organization in the industry have applied this type of new methodology by forming an oversight committee of leaders across the organization, as well as sub-committee to support their effects. The oversight committee and sub-committee begin the collaboration process at its earliest stage with the Implementing Organization to develop decision-related investment packages for Mission Support, Solution Implementation, and Operations-funded initiatives. This is accomplished by establishing a team comprised of subject matter experts to aid more complex, higher risk initiatives through the blending process.

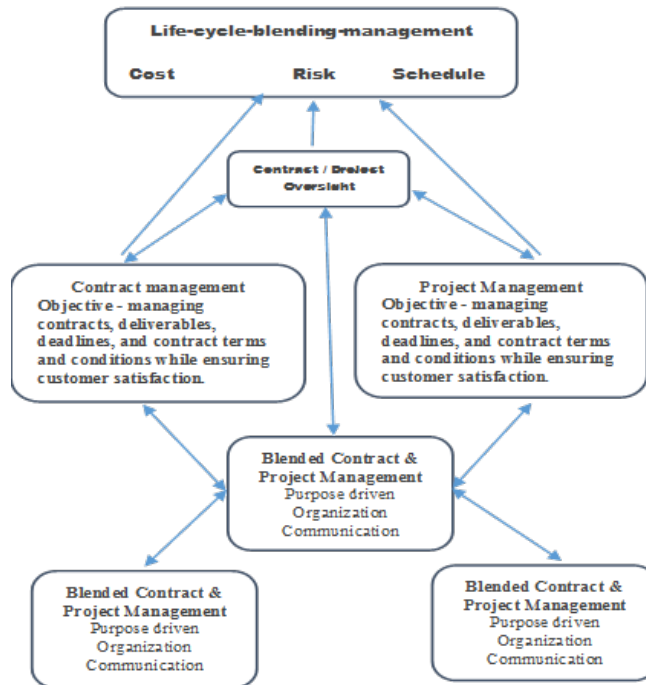
In our study will have found that mass volume of the team is made up of:

- **Acquisition Strategist:** Provides contracting expertise and supports acquisition strategy.
- **Business Case Analyst:** Supports the analysis and articulation of a high-level business case.
- **Cost Estimator:** Supports the development of an independent cost estimate and analysis.
- **Enterprise Architect:** Supports alternatives analysis within the context of the organization's IT strategy.
- **Requirements Analyst:** Supports development and articulation of business and technical requirements.
- **Other Technical Experts, as necessary.**

Blending mapping

FAA's blending of Contract and Project management required a level of flexibility for both parties involved and a willingness to adapt contract terms to reflect any changing circumstances. Problems are inevitable, which means organizations must be prepared for the unexpected and be able to adjust contract terms when needed. Below is an example of standard Contract and Project mapping diagram:

Figure I – Key relationships mapping in Contracts and Project Management



By aligning each of the two process management concept from each disciplinary area across the departments, we found that several of the agencies that were interviewed, including FAA subject matter expert was able to identify upfront minimization of costs, schedule, and risk. For example, FAA’s governance board were able to identify and fill the gap between contract management and project management by developing and implementing a number of best practices. The FAA’s combined Integrated Project Team was able to create an environment where the PMs are provided the processes and tools to better address the project challenges as well as providing senior management with more timely and accurate decision support at the overall portfolio level. The figure below is an example of FAA’s contract and project life cycles alignment:

Figure II – Alignment of Contract and Project Life Cycles

Contract Management	Project Management
Negotiation/Renewal	Opportunity
Validation	Initiation
Execution	Planning
	Implementation
Performance Monitoring	Monitoring and Control
Closure	Closing

COST SAVINGS

Based on our interviews with the subject matter experts, we determined the following cost saving upon blending contract and project management:

- Enhances capability to employ cost savings strategies
- Eliminates costly project pitfalls and reduce the need for frequent contract modifications
- Promotes a medium for achieving project cost avoidance and/or cost savings
- Effective collaboration, timely decision, and successful project execution

To sum it up, the above practices would yield to cost-efficient initiatives. The challenge is to find an effective and efficient collaborative contract and project management team. In addition, standard contract and project management guidelines, policies, and procedures would need to be in place at the beginning of the project.

MOVING FORWARD

Let us reflect on the lessons learned presented in this paper and the lessons learned from other sources, and ask ourselves a few questions that will help us form a framework for achieving the benefits of blending contract management and project management disciplines. In order to build that framework we will need to invite a paradigm shift from traditional “acquisition think” into one of collaborative performance-oriented teamwork that can focus on program performance and improvement, not simply contract compliance.

First, how does your organization coordinate communication among internal stakeholders to ensure performance outcomes are aligned with organizational goals?

Second, how does your organization incorporate lessons learned from previous contract performance and project outcomes into new acquisitions?

Third, how does your organization determine, analyze, and translate risk into the independent cost estimate?

Fourth, how does your organization determine performance criteria that can be used to inform cost estimation, included in the contract documentation, and leveraged to continually monitor performance and inform decision making as the project progresses?

CONCLUSION

Not every organization supports the integration of contract and project management work processes and information flows into its business strategy. However, given the benefits of the integration process and its relationship to the business strategy, all agencies, and companies should consider its implementation into the business culture. The blending of contract and project management processes allows organization the benefits of more effective project performance, more predictable project outcomes, and more accurate resource allocation. The blending of the two disciplines also allows an organization the capability to employ an acquisition/contract strategy that ensures proper planning; allocates risk between the organizations and enhances the ability to manage project cost, schedule, and requirements baselines. This hybrid relationship increases performance effectiveness by linking the organization’s business strategy directly to the strategic objectives of an organization and manage the project’s life cycle through various contractual relationships.

The development and implementation of the Project Interdependency Management (PIM) practice within FAA has proven to be a resounding success in improving project delivery. It has brought to the table a number of benefits for the project manager as well as senior management. From the time the first interdependency map was developed it was immediately utilized by senior management and the PM to underline the complexity found within FAA’s portfolio of projects. The project interdependency map was able to tell a story in a way that reports could not in the

past, supporting the concept that a picture is worth a thousand words. The blending methodology within the FAA has quickly gained credibility and is currently widely accepted as a best practice.

Collaboration is key and this process should begin at its “earliest” stage with the stakeholders to successfully eliminate risks, reduce costs and achieving your organization strategic goals.

Other Benefits of choosing blending methodology:

- It provides the framework to build the best possible contract and project solutions for clients to meet every expectation, even the ones that are not clear at the beginning of the project.
- Blending methodologies addresses fit-for-performance to ensure that the project’s real needs are tracked timely.
- The methodology makes the clients part of the project’s team, so by working together it is easy to identify the best and most cost-effective ways to accommodate the client’s needs.

These practical standards and processes that are being developed in the various fields, specifically if you review the Seven Steps to Performance-Based Services Acquisition Guide, A Guide to the Project Management Body of Knowledge (PMBOK®Guide), and Organizational Project Management Maturity Model (OPM3), and Contract Management Body of Knowledge (CMBOK) are all good start. The incorporation of these knowledge areas will allow organizations to better plan, control, perform, and administer projects and contracts while increasing the responsiveness, performance effectiveness, and optimization of the organizations needs and strategic business objectives. Blending Contract and Project Management will assist in the success of achieving your organization strategic goals and add value to your bottom line.

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