

PMBok Knowledge Areas: Case Study of Project and Stakeholder Management Fail Lessons Learned

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Abstract: *Project management within the United States Department of Defense (DOD) is a complex process, requiring meticulous planning and execution. This paper addresses a gap in existing research by employing stakeholder theory and strategic management principles to analyze the DOD Lighter Amphibian Heavy-Lift (LAMP-H) project. The study reveals challenges in stakeholder management, emphasizing the need for a Project Stakeholder Management (PSM) strategy. The paper systematically examines issues in project management, including project manager challenges, integration management, quality management, communication management, and stakeholder management. The case study of the LAMP-H project highlights the consequences of inadequate stakeholder management, strategic inflexibility, and poor project integration. Lessons learned from the project underscore the importance of comprehensive planning and a focus on quality over quantity in project specifications. The role of project sponsors in stakeholder alignment is emphasized, along with the need for strategic flexibility to adapt to changing project conditions. The paper concludes with recommendations for effective stakeholder management, improved project planning, strategic flexibility, integration management, quality-focused methodologies, and conflict resolution mechanisms to enhance the success of DOD projects.*

Keywords: *United States Department of Defence , DOD Lighter Amphibian Heavy-Lift (LAMP-H) project, Project Stakeholder Management*

1. Introduction

Project management within the United States Department of Defense (DOD) is widely acknowledged as one of the world's most intricate processes, demanding meticulous planning, execution, and evaluation spanning several years. Successfully navigating this complexity requires the development, implementation, and evaluation of a robust project management strategy. However, DOD projects face inherent challenges stemming from structural, behavioral, and environmental complexities. A key aspect contributing to this complexity is the intricate web of project stakeholders from both above and below the project manager.

While extant research has explored various facets of project stakeholders, a notable gap exists in studies examining the project management process through the theoretical lenses of stakeholder theory and the strategic management process [1]. This paper addresses this gap by using stakeholder theory and strategic management principles to analyze a critical case study—the DOD Lighter Amphibian Heavy-Lift (LAMP-H) project. The primary objective is to showcase the conceivable pitfalls in stakeholder management that project managers might encounter without the effective development, implementation, and evaluation of a Project Stakeholder Management (PSM) strategy within the project management process. The structure of this paper unfolds systematically to comprehensively address these issues. Beginning with a concise background on stakeholder theory and an introduction to the DOD LAMP-H project, the paper progresses to an in-depth analysis of the project's various phases. Each phase is scrutinized for the activities undertaken and the influence of stakeholders from different functional areas [2]. The examination includes a focus on the tensions between senior financial executives seeking fund reallocation from justified project budgets and functional managers safeguarding their vested interests.

Drawing upon the experiences of the DOD LAMP-H project, the paper distills valuable lessons learned, providing practical insights into the consequences of inadequate stakeholder management [3]. The crux of the paper lies in presenting a comprehensive PSM strategy. This strategy aims to fill the identified void in the literature and offers a strategic framework for project managers, enabling them to proactively manage various project stakeholders from the project's inception. The proposed PSM strategic framework not only enhances project managers' decision-making capabilities but also increases the likelihood of successful project outcomes within the challenging landscape of DOD projects. Overall, this paper contributes to the advancement of knowledge in project management within complex organizational contexts by combining theoretical depth with practical insights. Through the lens of stakeholder theory and strategic management, the case study of the DOD LAMP-H project serves as an illustrative example, shedding light on the intricate dynamics of project stakeholder management and providing a structured approach for project managers to navigate similar challenges in their endeavors.

2. The Issues

2.1 Project Scope Management

The first lesson highlights the value of thorough project planning by pointing out that, a careful planning done upfront may reduce the need for adjustments down the road [4]. Another theory that goes along with this one state that efficient project management requires as little as possible in the way of adjustments down the road, which means careful planning right from the start. The effective project planning depends on the project vision, mission, and all needs from the beginning of the project [4][5]. But in this specific instance, changes to the project requirements happened after significant preliminary project planning had been completed, and a clear project purpose was not explicitly stated at the project's

inception. According to Kimmons' insights, these variations in project scope led to an inability to precisely forecast and control project outputs and expenditures [6]. Because of the T-School's fervent support for the project, requirements grew after project planning was completed, invalidating earlier efforts at planning.

The Department of Army eventually lost faith in the LAMP-H project manager due to repeated requests for more funding to meet exaggerated needs, which finally resulted in the program's demise. If we take a mathematical approach to the problem of inflated requirements, we can consider a symmetric hyperbola, which is given by the equation $x*y = c$, and we can consider only positive values. This equation's plot, which is in the first quadrant, has the property that when x decreases, y increases, forcing the curve to asymptotically approach the y -axis. On the other hand, when y decreases, x increases, causing the curve to asymptotically approach the x -axis. Using this as an example, consider a similar function that shows the connections between programme risk, cost, schedule, and system performance. The formula for this function is $r = f(c, s, p)$, where c stands for cost, s for schedule, p for performance, and r for risk. Since this equation is four-dimensional, it generates what mathematicians refer to as a hyper-surface, on which risk can be thought of as surfaces with a constant value, which is the same as the constant in the original equation. Points that meet the criteria $f(c, s, p) = r = \text{constant}$ make up these surfaces. The resultant point would move to a different risk surface if one of the variables performance, for example was changed without also changing the other variables. For example, if performance could be improved without causing cost and schedule increases, the point would move to a new surface that would indicate a higher degree of risk. This is the same as what happened with LAMP-H, when the T-School added performance features at random to LAMP-H while trying to keep schedule and cost constant. The result was a significant increase in risk and a broadening of the project's scope. When the project's scope unexpectedly changed, the recently hired project manager attempted to carry out his duty of reducing the increased project risk by using all possible methods, including increasing the allocated funds and delaying the completion date. Unfortunately, this calculated move caused the project to lose credibility, which ultimately resulted in its demise.

This situation is an excellent example of strategic flexibility, which is the ability of an organization to recognize meaningful shifts in the external environment and quickly direct resources towards new plans of action in response to these shifts. Seeking to strategically adjust to changed conditions, the new project manager looked for more funding to meet the T-School's newly inflated criteria. The direct confrontation between external stakeholders, nevertheless, escaped his comprehension. The T-School, seeking to raise LAMP-H requirements above what was necessary for the stated objective, disagreed with another external stakeholder organization that had the power to reallocate monies. The new programme manager was unable to react with the strategic adaptability required by the circumstances because of this dispute. Project managers need to be adept at both project planning and concurrently managing several project variables during the planning and implementation phases of any project, regardless of the type of organization. This will increase the probability that the project will remain within its intended scope. The case study explores several key areas of project management knowledge, illuminating the complex interactions between components critical to a project's successful completion. The project scope management is one crucial area, as evidenced by the realization that efficient planning up front is essential to reducing adjustments down the road. The lack of a well-defined project mission from the outset of the project and the ensuing change to project needs after initial planning posed difficulties in project scope management terms such as estimating and controlling expenses and deliverables.

2.2 Project Integration Management

Project Integration Management is a crucial aspect of project management that focuses on ensuring all elements of a project work together seamlessly. It involves coordinating various processes, activities,

and components to achieve project objectives successfully. This includes combining different project phases, tasks, and stakeholders into a unified and cohesive whole [7].

The aims of the project integration management are to ensure the efficient execution of a project, aligning outcomes with overarching goals [7]. The process involves critical activities such as project plan development, project plan execution, and changing control. Throughout these activities, Project Integration Management necessitates making trade-offs among competing objectives, involving a balancing act with factors like scope, time, cost, and quality to meet or exceed stakeholder needs and expectations. Effective communication and collaboration among project team members and stakeholders are vital for successfully integrating the project.

The failure of the LAMP-H project is evident in the case study, highlighting a lack of adherence to proper project integration management practices. The reluctance of the project personnel to embrace change emerges as a critical factor contributing to this failure [8]. The case study emphasizes the significance of this resistance to innovation and the unwillingness to adopt approved alternative methods, recognized by the Department of the Army as crucial for project success. Despite official endorsement, the project's functional personnel clung to established practices, leading to profound and varied consequences. Moreover, the persistent use of outdated methods, which were no longer optimal, significantly compromised the overall project quality, ultimately contributing to the downfall of the LAMP-H project.

2.3 Project Quality Management

Project quality management entails methods and activities that ensure a project achieves the requirements it was designed to satisfy. Project managers are in charge of implementing a project quality management plan [9]. The basic goal is to produce a product or service according to the standards of the client or stakeholder. To achieve the success of project quality management the three main majors process must be included, firstly is, planning for quality which entails establishing the quality criteria that apply to the project and determining how to meet them. Setting quality targets, defining measurements, and outlining the methods required to accomplish those objectives are all part of the process [9].

Other than that, secondly is, planning for quality assurance that is concerned with ensuring that the processes are followed to achieve the quality standards established during the planning phase and entails doing regular audits, checks, and reviews to ensure that the project is on track. The third is planning quality control, which in this step entails monitoring individual project results to see if they meet the quality criteria established during planning [9]. If the results do not satisfy the desired standards, corrective actions must be taken.

Based on the case study findings, the LAMP-H project also faced challenges due to excessive specifications that resulted in bloated documentation [8]. The focus on quantity rather than quality seemed to have caused issues. It's crucial for project managers to balance the need for comprehensive information with the necessity for practical, relevant data to produce a project quality management. Emphasizing quality over quantity in project specifications can significantly impact the project's success. Tailoring specifications to fit the project's approach, like the ASAP method, is wise [8]. It allows for a more efficient acquisition of the LAMP-H system, preventing unnecessary information overload and aligning the project more closely with its goals. It is crucial for the LAMP-H project to implement the project quality in order to have better outcomes, and to ensure that the deliverables not only fulfil the specifications but also meet the needs and expectations of the stakeholders.

2.4 Project Communication Management

Project Communication Management has become a vital role which highlighted to be the crucial part under consideration in the project management sector where, encouraged to convert the initiatives

and efforts focused on communication aspect that would add effective result towards the project outcomes [10]. The project members or parties' communication that function as an intermediary between the users was the lifeline of the project which has the capability to affect the understanding of the stakeholders regarding the project progress and might overcome issues during decision making based on the communication level because of the communication helps to exchange information and details between the parties [10].

Continuously, project communication management was an aspect that needed to take responsibility by the project crew [10]. For example, the development of the project communication management plan was the responsibility of the project manager who needed to ensure the effectiveness of the project come. One of the processes that could be implemented for the process of identifying the requirements the stakeholders of was planning communications which helps to gather requirements and determine the approach of communication to be used.

Based on the case study, a few important issues or conflicts have been discussed which related to the organization and one of it was managerial conflict [11]. Each and every organization that offers various work routines under different managerial units was the key reason for the beginning of managerial conflict. This type of managerial issue has been reported that held on the LAMP-H project as well [11]. As an example, there were both positive and negative supports exist for the LAMP-H acquisition strategy, where this matter has been encouraged by the regulatory guidance but highly discouraged and purposefully shows their effort to undermine the LAMP-H by the Troop Support Command's functional managers [11]. The solution that makes the conflict lightened up with the help of a senior leadership staff who used the authority to insist that the LAMP-H acquisition plan should be implemented.

2.5 Project Stakeholder Management

The success of any organizational endeavor is intricately tied to the presence of a dedicated project advocate or sponsor [11]. While these sponsors play vital roles in both civic and industrial projects, their indispensability is even more pronounced in military initiatives. Achieving consensus support is paramount for project success, be it in the military or civilian sector, necessitating substantial effort, particularly in the complex landscape of military projects with multiple commands and diverse stakeholders. The project sponsor becomes the linchpin in harmonizing disparate voices, requiring not only organizational authority and management scope but also a deep understanding of the project's intricacies. This critical role of the project sponsor can ultimately determine the project's success or failure, differentiating between organizational triumph and defeat.

In the highlighted case, the creation of the Department of Army's PEO organization aimed to address this pivotal need. A senior government executive, the PEO was expected to leverage their authority to facilitate stakeholder agreement and ensure the effective completion of projects or programs. However, the failure of Troop Support's PEO, lacking acquisition experience and coming from a different background, hindered the sponsorship of the LAMP-H project. This reluctance led to internal strife among stakeholders, highlighting the tangible consequences of a project sponsor's inadequacy.

Based on the case study, the most prominently featured project management knowledge area is Project Stakeholder Management. The text accentuates the challenges in building a coalition of interested parties, internal strife among stakeholders, and the pivotal role of the project sponsor in uniting various stakeholders. This aligns closely with the knowledge area of Project Stakeholder Management, which involves identifying, engaging, and managing stakeholders throughout the project life cycle to ensure their support and minimize conflicts. It underscores the significance of stakeholder considerations in project success, particularly in military initiatives where diverse interests must be navigated and reconciled.

In summary, the success of organizational initiatives relies on a robust project sponsor who not only recognizes the necessity and feasibility of the project but is also willing to employ their authority to unite diverse stakeholders. The case serves as a poignant illustration of the interconnectedness between project sponsorship, stakeholder management, and overall project success. Adequate project funding [12], remains a crucial component, especially in intricate projects like defense procurement initiatives, where the stakes are higher and the challenges more complex.

2.6 Project Cost Management

In the context of Project Cost Planning management, the case study underscores the pivotal role of project sponsorship for the success of projects, particularly in the complex landscape of military endeavors. The significance of a project champion is accentuated, as they are deemed not only vital in civil and industrial projects but absolutely essential in military projects, given the multitude of stakeholders and the necessity for consensus in decision-making. The involvement of various commands and special interest groups in military projects intensifies the need for a sponsor with the management span, knowledge, and organizational authority to harmonize divergent voices. This underlines the foundational role of project sponsorship in navigating the intricacies of project dynamics, especially in sectors where numerous stakeholders exert influence.

The narrative also introduces a mathematical perspective to project dynamics, illustrating a four-dimensional function that encapsulates the relationships among program risk, program cost, program schedule, and system performance. The notion of a hyper-surface, where risk remains constant, highlights the delicate equilibrium required in managing these project elements. The example of the LAMP-H project further elucidates the consequences of unmanaged changes, emphasizing the interdependence between change management and risk management. Specifically, the arbitrary increase in project scope without aligning cost and schedule adjustments resulted in heightened risk levels, underscoring the importance of a comprehensive approach to project planning that considers the interconnectedness of these critical factors.

Moreover, the case study delves into the challenges faced in defense projects, where decisions are made within the constraints of overarching factors, particularly time and cost. The imperatives of completing projects on schedule and within budget are emphasized, showcasing the stringent nature of these constraints. The case of the LAMP-H project serves as a cautionary tale, illustrating how inflated requirements, if implemented, would have substantially increased costs and disrupted project schedules. This underscores the necessity for project managers to be adept at managing and resolving conflicts while adhering to overarching constraints, reinforcing the fundamental principles of effective Project Cost Planning management. In summary, the provided information weaves together the importance of project sponsorship, the mathematical underpinnings of project dynamics, and the challenges specific to defense projects, offering a comprehensive perspective on the intricacies of managing project costs.

3. Conclusion and Recommendation

In conclusion, the challenges faced by the Department of Defense (DOD) in project management, exemplified by the case study of the LAMP-H project, underscore the need for a comprehensive and proactive approach. Successfully navigating the intricacies of DOD projects requires a robust Project Stakeholder Management (PSM) strategy that addresses the complex dynamics arising from structural, behavioral, and environmental factors.

One key recommendation is to prioritize effective stakeholder management. This involves anticipating and mitigating challenges stemming from the intricate web of project stakeholders. Clear communication, conflict resolution mechanisms, and proactive engagement with both internal and external stakeholders are essential components of a successful PSM strategy. Additionally, improving project planning. Thorough planning from the project's inception, with a well-defined mission and consideration of potential changes to project requirements, can reduce the need for adjustments down

the road. This includes aligning project scope with initial objectives, carefully estimating and controlling expenses, and maintaining a clear project purpose. Strategic flexibility is another vital recommendation [13]. Project managers should be adept at adapting to changing conditions, recognizing meaningful shifts in the external environment, and directing resources towards new plans of action. This adaptability is essential for responding to alterations in project scope, cost, schedule, and performance requirements. Effective Project Integration Management is paramount. Coordinating processes, embracing change when necessary, and making trade-offs among competing objectives ensure the seamless alignment of project elements. This involves a balancing act with factors like scope, time, cost, and quality to meet or exceed stakeholder needs.

Furthermore, prioritizing quality over quantity in project specifications is recommended. Project Quality Management should focus on producing a product or service according to client or stakeholder standards. This entails planning for quality, quality assurance, and quality control, with an emphasis on tailoring specifications to the project's approach to prevent unnecessary information overload. Lastly, addressing managerial conflicts efficiently is crucial. Mechanisms should be in place to resolve conflicts, and senior leadership should intervene if necessary. A collaborative approach to decision-making, aligned with regulatory guidance, can help navigate conflicting interests and ensure the successful implementation of project plans. In summary, a holistic approach, integrating effective stakeholder management, strategic flexibility, meticulous project planning, quality-focused methodologies, and conflict resolution mechanisms, is essential for achieving success in DOD projects.

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