Improving the performance of the United States Department of Defense workforce by defining and solving organizational problems

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Abstract — *This paper uses structural problem solving as a methodology to define and solve organizational performance within the United States Department of Defense (DoD). First, the article presents the organizational challenges within the DoD and its impact on workforce performance. Afterwards, it discusses its causes and the possible actions needed to solve it. Then, it selects one main problem as the focus for the study, providing actions and arguments for its selection as the proposed solution to solve DoD's organizational challenges.*

Key Terms — *organizational performance, structural problem solving, workforce performance*

INTRODUCTION

The United States Department of Defense (DoD) provides the military forces needed to deter war and ensure the security of the United States of America (U.S.) [1]. Wherein, it coordinates and supervises all government agencies directly related to National Security and U.S. Armed Forces. At a glance, the DoD counts with a $716 billion of the National Defense Budget and 2.87 million employees in more than 160 countries [1]. The amount of DoD employees makes it the largest global employer in the world [2].

However, being the largest employer comes with many challenges, especially when there are different organizations interacting together in the different DoD agencies. Some of the cross-organizational challenges include the use of different strategies, vision, and priorities between critical entities. These challenges discourage collaboration, since most of the time the processes employed do not provide continuous collaboration and interaction to encourage productivity and innovation.

This article aims to provide a deeper understanding of the organizational challenges by using research data to improve innovation and productivity within the DoD workforce. "A structural problem solving approach is used as a process that identifies, analyzes and eliminates the discrepancy between the current situation and an existing standard or expectation, and to prevent recurrence of the root cause" [3]. Wherein, the structured problem solving approach is employed in the form of the Deming Cycle which has been customized toward the objectives and time constraints of this article. Therefore, it consists of the following five steps: (1) Identification of the problems, (2) Selection of Organizational Problem of Focus, (3) Analysis of the Problem Causes, (4) Generation of potential solutions, and (5) Selection and Planning of a Solution.

BACKGROUND

To more effectively explore the issues surrounding the workforce performance problems in the DoD, it is important to address the following questions:

What problem solving approach could be used to define and solve the performance problems in the DoD?

"The structural problem solving is used in the improvement of organizational performance" [3]. When looking into organizational problems, a good approach could be the use of a structure problem solving process. Such approach was proven effective in the Ministry of State for Environmental Affairs in Egypt [3]. Wherein, the Deming Cycle was employed as a problem-solving approach. The Deming Cycle consists of a structured solution for problem solving [3]. The Deming cycle consists of the following 6 step process [3]:

- Step 1: Identifying and selecting problem.

- Step 2: Analyzing the problem cause.
- Step 3: Generating potential solutions.
- Step 4: Selecting and planning the best solution.
- Step 5: Implementing the solution.
- Step 6: Evaluating the solution.

How is the current organizational culture affecting the performance of the DoD workforce?

The U.S. federal law requires that each Inspector General (IG) prepares an annual statement that summarizes the most serious management and performance challenges facing the agency and to assess the agency's progress in addressing those challenges [4][5]. Wherein, "these challenges are identified based on a variety of factors, including DoD Office of Inspector General (OIG) oversight work, research, and judgement; oversight work done by other DoD Components; oversight work conducted by the Government Accountability Office; and input from DoD officials" [4]. Some of these include:

- Implementing DoD Reform Activities
- Financial Management: Implementing timely and effective actions to address Financial Management weaknesses identified during the first DoD-wide Financial Statement Audit
- Improving Cyber Security and Cyber Capabilities
- Ensuring Ethical Conduct
- Improving Readiness Throughout the DoD
- Acquisition and Contract Management: Ensuring that the DoD gets what it pays for (on time, at a fair price, and with the right capabilities)

How can Agile methods solve the performance problems in the DoD?

Agile methods were consolidated in 2001 as a group of development and management practices. Wherein, its methods emphasize principles associated with communication, objectivity, and greater focus on customer interaction in order to provide flexibility and efficiency in development [6]. Different researchers have explored Agile methods in DoD environments over the past several decades. Moreover, they have focused on both if and when they are suitable and how to use them most effectively when they are suitable [6]. Other researches have approached the topic of Agile methods from an Acquisition and a technical perspective. The Software Engineering Institute (SEI) has undertaken an Agile project to review and study Agile approaches, with the goal of developing guidance for their effective application in DoD environments since 2009 [6]. Per the SEI findings, Agile methods help alleviate key challenges facing the DoD (a key challenge is providing competitive capabilities to war fighters in a timely manner that minimizes collateral damage and loss of lives and property) [6]. These findings were based on reviewing relevant literature, interviewing programs that are using or have used Agile methods, as it includes the identification of the necessary requirements to determine if a program is a candidate for Agile methods. Moreover, it provides findings of existent risks and it creates implementation guidelines.

ANALYSIS METHOD

Identification of Organizational Problems that affect the Workforce Performance

"An organizational structure is a system that outlines how certain activities are directed in order to achieve the goals of an organization" [3]. The purpose of an organizational structure is to facilitate communications and efficient work processes. Therefore, when different work problems emerge, there are often signs indicating that a significant problem needs to be addressed [3]. Some of these signs include: low productivity, unequal workload, unclear lines of communication, lack of team work, slow decision making and lack of innovation among others [3].

The Office of the Secretary of Defense creates the National Defense Strategy (NDS) on a four-year basis to drive the future objectives for the overall DoD military posture [1]. In addition, the IG prepares an annual statement that summarizes the

most serious management and performance challenges [4]. Therefore, taking into account both of these sources, the organizational problems that affect workforce performance consist of the following:

- Bureaucratic approach centered on exacting thoroughness and minimizing risk above anything else
- Failure to deliver performance at the speed of relevance
- Lack of organizational structure to support innovation
- Financial Management: Ineffective actions to address Financial Management weaknesses
- Lack of rapid iterative streamline processes from development to fielding
- Implementation of DoD Reform activities
- Ensuring Ethical Conduct
- Acquisition and Contract Management: Ensuring that the DoD gets what it pays for (on time, at a fair price, and with the right capabilities)

Selection of Organizational Problem of Focus

Taking into account the different organizational problems identified above, there is a need to select only one problem that would allow the achievement of the objectives and time-constraints pre-established at the beginning of the study for this article. Therefore, Acquisition and Contract Management: Ensuring that the DoD gets what it pays for, was selected as the problem of focus for this study. Since the DoD has long relied on contracting support to provide a wide range of goods and services, including weapons, vehicles, food, uniforms, and operational support though all of its agencies [5]. Wherein, $320 billion (approximately 45%) of the National Defense Budget ($716 billion) goes to contracting [5]. The Acquisition and contracting management is also the one with the most need for better accountability of results that evaluate if what is being payed for is delivering expected solutions. Evidently, this area is fundamentally critical within the DoD and requires better solutions to increase workforce performance.

Analysis of Problem Causes

During this step, the study focused on finding the overall causes by looking at ways to prevent the problem. These included:

- The current disconnect between the warfighter/demand tempo and the Acquisition/Contracting tempo
- Acquisition and Contracting Management regulations, rules and practices. Since they were developed to ensure that taxpayers dollars for DoD capabilities were spent wisely in a time with different warfighting situations as those faced today [6]

Generation of Potential Solutions

Taking into consideration the main causes of the problem, the following potential solutions are suggested:

- Changes in the practices of the organization (i.e. acknowledgement that requirements are dynamic and not static, consideration of the end user who will be employing the provided capabilities)
- Improvement of Acquisition and Contract Management policies and practices to respond to the challenges faced today (e.g. ending the time lag between identification of a new thread or demand and its satisfaction) [6]
- Adoption of an Agile mindset across all organizations to evaluate failures/setbacks as opportunities to learn, encourage collaboration between peers/teams, distribute the idea that change is a good thing, continuously go over different solutions and concentrate on the delivery of quick results to ultimately achieve significant value for the organization [7]

RESULTS

After analyzing the different potential solutions, the adoption of an Agile mindset across all organizations in the field was selected as the potential solution for this study. As it would allow attention to all of the problem causes previously mentioned. The Agile methods are usually a set of practices and methods

that compensate for each other by **creating a system that can continue to change/adapt over tim**e [6].

When Agile meets the DoD

The DoD, like any other government institution, is full of bureaucratic processes and political barriers between collaborating organizations that ultimately affect the continuous progress of projects, and results. For this reason, new ways to surpass the challenges in innovation and productivity are needed. However, it is important to note that Agile has become a buzzword. Simply saying that a project or effort follows Agile methods or principles doesn't mean that it does. As the DoD has released a guide on how to detect if a software development project is Agile or just pretending to be [9]. But the document is not written in general terms to be applied to any business process. Clearly showing the absence of a centralized and phase approach to implement the Agile mindset across DoD organizations.

Scaling Agile for the DoD

A phase deployment approach is needed to implement this solution at scale in the field of Acquisition and Contract Management. That said, the solution should be implemented by a DoD wide cross-functional team composed of industry professionals. Wherein, training, deployment, facilitation, decision making and project management practices are incorporated. Cross-functional teams should be an official Agile practice that unites experts from multiple areas within the different organizations to work on the success of Acquisition and Contract Management within the organizational structure. Moreover, the concept would eliminate any challenges related to chain of command, policies and practices. A potential product of such effort would be the implementation of a variety of workshops for organizations to perform as a team. The workshops could be foundational (general applicability to all industries) or customized based on the area of the organization (e.g. Acquisition and Contracting Management in areas like Human Resources and Engineering).

Spreading the Agile mindset across the DoD

After Agile committees have been established, a promotional phase would be implemented for advertising these services across the DoD enterprise. At first a use-case based approach would be implemented by selecting three different DoD organizations across multiple agencies. These organizations would then obtain the committee services with the purpose of measuring success and performing iterations over multiple workshops until effective ones for Acquisition and Contract Management are found. These initial organizations would put in practice the objectives and goals of the cross-functional team. The promotional and implementation phase would allow for organizations to obtain proper guidance on Agile with verified results. This would be the initial strategy to change the organization culture and mindset. However, it is important to empathize that the Agile process is not about processes, but rather about the people, experiences, continuous collaboration and results. Therefore, the organization would need to learn from new experiences including failures, instead of static approaches with little to no changes over time (e.g. outdated policies and practices).

DISCUSSION

When moving toward the adoption of an Agile mindset, it is important to pause and analyze what it means for the implementation of changes in the following areas:

Organizational practices

In anticipation to the employment of Agile methods, the organizational will need to implement planning and training changes. "As there are multiple adoption factors such as business strategy, reward system, sponsorship, values, skills, structure, history and work practices" [6]. Wherein, each of these should be addressed by understanding the adopter population, the cycle of change, adoption risks and the making of transition mechanisms that would mitigate adoption risks within each agency in the DoD [6].

Organizational Policies

The successful adoption of Agile methods requires people in charge of bureaucratic processes [6]. Agile methods should be unencumbered by regulation, policy and law. Thus, the following elements are necessary toward the implementation of Agile methods: funding, funding approval, leadership buy in, and documentation (e.g. business case, capability production method, and contract lead times) [6].

Workforce Roles and Responsibilities

The implementation of Agile methods would require the implementation of different roles and responsibilities throughout the workforce. For instance, Program Managers will also need to perform the role of leaders, coaches, expeditors and champions [6]. And, if these roles cannot be performed by the same person, then another person within the organization will be required to perform them.

CONCLUSION

Finally, a deeper understanding of the organizational challenges within the DoD and its impact in innovation and productivity within the workforce was achieved. Wherein, the structured problem solving approach found that the adoption of an Agile mindset across all organizations would develop faster and more innovative solutions for most of the Acquisition and Contracting Management problems that the DoD is facing nowadays. As these are directly related to the workforce productivity and innovation. The findings in this article established that the adoption of an Agile mindset would involve changes in organizational practices, policy, and, workforce roles and responsibilities. However, it is important to take into account that there are some challenges in the adoption of this solution. Nonetheless, by leveraging the Agile mindset, a system that can continue to change/adapt over time can be achieved. As continuous collaboration, interaction and change are the foundational concepts needed to improve workforce performance.

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