DEEP DIVE INTO UNDERSTANDING THE THEORY OF MILITARY ORGANIZATION, MILITARY LEADERSHIP, SKILL TRANSFER, ASPECTS OF PROGRAM MANAGEMENT, AND DECISION SUPPORT SYSTEMS

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ABSTRACT
The focus of this paper is to understand the theory of military organizations and leadership, skill transfer, aspects of program management, and decision support systems. This will further aid in revealing how the decision-making theories are applied to organizations within the Department of Defense (DoD) to include the changing environment within the leadership style. Through the research, major points found in articles highlight decision making, learning leadership execution through educational means, and leadership in the military to include large corporate organizations.

Keywords: Military Organization, Leadership, Decision Support Systems, Program Management

INTRODUCTION
The focus of this paper is to understand the theory of military organizations and leadership, skill transfer, aspects of program management, and decision support systems. This will further aid in revealing how the decision-making theories are applied to organizations within the Department of Defense (DoD) to include the changing environment within the leadership style. Through the research, major points found in articles highlight decision making, learning leadership execution through educational means, and leadership in the military to include large corporate organizations. The primary articles of interest are “Organizational and Leadership Principles for Senior Leaders” (Creech, 2004), “Executive Strategy Issues for Very Large Organizations” (Turcotte, 2004), “Defense Leadership and Management Program” (DLAMP) (Department of Defense, 1997), and “The Responsibility of Leadership in Command” (Loh, 2004) for the application of theory in large organizations with specific interest to the Department of Defense.

MAIN POINTS
Transitioning from Soldier to the Civilian Sector
Companies such as Boeing, Raytheon, and other defense-related companies seek well-educated soldiers to lead in their organizations in an effort to reduce risk. Hiring an educated soldier is an advantage due to experience and knowledge about the United States (US) government’s structure, laws, regulations, and terminology. Already having an employee with this background leading the project allows for good customer relations and smoother navigation through the extremely difficult acquisition process, which already has many sub-processes in place. A defense company would
generally hire a civilian and from there expend resources teaching that civilian about these aspects concerning their customer, the US government.

**Project Management**

Project management is the application of knowledge, skills, tools, and techniques to a broad range of activities in order to meet specific project requirements (PMI, 2004). A project is a temporary endeavor undertaken to achieve a particular aim. Project management knowledge and practices are best described in terms of their component processes (PMI, 2004), which can be placed into five Process Groups: Initiating, Planning, Executing, Controlling and Closing; and nine Knowledge Areas: Project Integration Management, Project Scope Management, Project Time Management, Project Cost Management, Project Quality Management, Project Human Resource Management, Project Communications Management, Project Risk Management, and Project Procurement Management (PMI, 2004). A Project manager’s overall responsibilities center around time, scope, and cost.

**Figure 1: Essentials of project management.**

Time management is an inseparable part of good project management (Srinivasan, 2005). One of a project’s important values of success is its ability to fulfill the job within the given time constraint (Srinivasan, 2005). The entire timeframe of a project is broken down into sections of time required to complete each project component, which is then broken down further into time required to complete each task within each project component. Due to its unique (incidental) nature, project management has considerably different cost management models compared to those of enterprise management. Cost determination is faced by larger challenges of financial fraud due to the project’s incidental nature. This constraint hinders reaching the end result of a project, the level of quality required, and such. Determination of the scope of a project generally accounts for a trade-off between cost and quality, time, and quality (Srinivasan, 2005).

Indispensable are both a working knowledge of general management and familiarity with the special knowledge domain related to the project. Supporting disciplines such as information technology/sciences play an important role; in fact, modern management practices and various special knowledge domains have absorbed particular techniques or tools that were once identified only with the supporting disciplines. For example, computer-based information systems and decision support
systems are now common-place tools for general management. The Project Management Institute (PMI) focuses on nine distinct areas requiring project manager knowledge and attention:

1. Project integration management to ensure that the various project elements are effectively coordinated.
2. Project scope management to ensure that all the work required (and only the required work) is included.
3. Project time management to provide an effective project schedule.
4. Project cost management to identify needed resources and maintain budget control.
5. Project quality management to ensure functional requirements are met.
6. Project human resource management to develop and effectively employ project personnel.
7. Project communications management to ensure effective internal and external communications.
8. Project risk management to analyze and mitigate potential risks.
9. Project procurement management to obtain necessary resources from external sources. (PMI, 2004)

These items are pivotal to this study as they help create the foundation for the theoretical framework.

General W. L. Creech’s 2004 Organizational and Leadership Principles for Senior Leaders discusses views on organizational principles from the commanding officer’s perspective. Creech was a four-star Air Force General and command pilot, experienced in forty different military fighter, cargo, and reconnaissance aircraft. As a highly decorated officer with over thirty years of service, he believed that leadership occurs at all levels and upheld that it can flourish only if not strangled by misguided organizational concepts and approaches that leave little or no room for true leadership, creativity, and innovation at the lower levels—where the organization either thrives or flounders. This article is taken from the transcript of a speech that addressed a large leadership and management symposium sponsored by the Air University (Creech, 2004). Creech (2004) considers the themes as timely and relevant now as they were then, and the spontaneity of those remarks are preferred to the dry dissertation of a written treatise. This view promotes awareness of the role and importance of leadership as viewed from the commanding general’s military perspective.

W. E. Turcott’s (2004) “Executive Strategy Issues for Very Large Organizations” discusses how smaller, better-defined organizations center on high levels of personal interaction and control, whereas these two pillars may have limitations in larger, less well-defined organizations. In this article, he covers what constitutes a large and complex national security organization. The significance of this was to explore what issues are experienced in very large organizations such as the military and that could be experience at a large corporate entity. This allowed an understanding of how a manager may decide to create and deploy a team depending upon size and how this is done in a complex organization. Also covered for these organizations is how commanding, directing, and influencing practices differ, if at all, from smaller, well-structured organizations such as a squadron, frigate, or a battalion (Turcotte, 2004). A project manager will have to lead in complex organizations with direct or indirect responsibilities of subordinates, in addition to responsibilities such as performance reports, training, mentoring, and handling employee disputes.

Within “Leadership in Organization,” research theories are based upon a continuum covering the following distinctions: leader versus follower centered, descriptive versus prescriptive, and universal versus contingency (situational) (Yukl, 2001). “The Responsibility of Leadership in Command” (Loh,
2004) addresses how responsibility has a significant role within military leadership. “Organizational Theory for Leaders” (Hunsicker, 2004) addresses the role of top leadership, organizational traits, and organizational environment within the Department of Defense to include industry. The DoD Directive 1430.16, "Defense Leadership and Management Program (DLAMP)" is a guide for developing and preparing assigned, designated civilian leadership positions in grades GS-14 and above in the Department of Defense (1997). A GS-14 is the equivalent of a principle engineer or manager at a civilian company. This level of employee is an individual contributor with many years in a particular expertise.

Leadership (Relation between Loh, 2004 & Creech, 2004)

From the military and Department of Defense angle, civilian leadership plays a vital part in leading the future of US military capabilities, resources, and technologies. General J. M. Loh (2004) imparted that there are time-honored principles of solid leadership:

1. Commanders must be role models, leading by example as well as by authority and influence.
2. Commanders must be open and accessible, but not “one” of the gang.
3. Commanders must promote a positive vision and culture within the unit, and not look the other way to avoid having to face a difficult problem.
4. Commanders must distinguish between mistakes and crimes, and deal with them differently.
5. Commanders must apply discipline fairly and consistently without discrimination.
6. Commanders must avoid favoritism, nepotism, and cronyism.
7. Commanders must understand trust and loyalty to the entire unit, and not misplace them.
8. Finally the commanders must understand when to administer discipline. (Creech, 2004)

This list helped form questions and key attributes in the framework that applies directly to leadership and management. These items act as a foundation to key principles of leadership.

Creech (2004) follows a model based on the Five P’s: people, purpose, pride, professionalism, and product. The first P is “people,” as the people are first—the base or the building block of a successful organization (Creech, 2004). Building upon the individual first allows the base to be solid rather than shaky. These enlisted soldiers do the majority of the labor; therefore, they need to be built up and valued. Creech’s second P is “purpose,” of the organization or mission: One must have purpose because without purpose, there is no need or reason to carry on. The question to ask would be “Why would I need to run fast if there is no real reason behind it?” If the reason was is wartime enemy fire, then practicing for that type of environment must be done at all times to ensure a safe return from a war zone; then the tone is set for purpose. The third P is “pride,” which simply means that there is a sense of being proud of what is being done. The fourth P is “professionalism,” which means having standards to measure oneself against. A sense and code of professionalism promotes respect and ease of command, in receiving and giving. In the military the standard is set by the Non Commissioned Officers, Warrant Officers, Officers, and even peers. Professionalism allows for a sense of pride to be felt. Proper wearing of the uniform gives soldiers a sense of pride, but when recognized by civilians on the street, they observe military professionalism. Creech’s fifth P is “product”— the result of the first four P’s being successfully implemented within the overall military organization (Creech, 2004). The Venn diagram below, Figure 2: Integrated Diagram, displays Loh’s (2004) and Creech’s (2004) ideas/theories and how they interrelate.
Leadership (Contrast between Loh, 2004 & Creech, 2004)

Despite the overlapping areas in Figure 2, it should be noted that Creech’s Five P’s do not match with all of Loh’s (2004) principles for solid leadership. Loh’s (2004) principles have direct relation to only three of the five P’s, which are people, pride, and professionalism. Indirectly, he may relate to the other two, but in his article he does not directly speak to those. On the other hand, Creech’s Five P’s cover everything from an organizational point of view, keeping the entire organization in mind in creating his theory and relating it to the military organization. Loh (2004) was primarily focused on basic concepts for leadership with specific reference to military officers. Nevertheless, Creech also address organizational principles such as communications, as well as items that relate to what Loh (2004) has presented. But the difference is that Creech set up the foundation for organizational theory of leadership in the military and then built upon that with external influences: His article, to include theory, was more thought out and in depth in reference to the theory of military organizations, so as to include the principles military leadership (Creech, 2004).

Executive Strategy & Training

Generally in the Department of Defense, there was no real executive strategy or even training available for the Senior Executive Service level. Turcotte (2004) discusses elements of a framework for integrating large organizations, grouping the elements in three sections:
1. Scanning the environment
2. Aligning internal core competencies and priorities with external requirements
3. Devising strategies that allow for growth and development within the organization (Turcotte, 2004)

Familiarity with the environment allows the organization to know its internal and external surroundings. Aligning internal core competencies and priorities with external requirements allow an organization to gear main product lines with customer needs. If a customer is good in making communications equipment for fixed-wing aircraft platforms, then they should not detour that core competency to go off and make high-end processor chips for a customer who is not present. Another reason that would not be appropriate would be when that particular skill set is not currently in the company; that organization has not displayed a core competency for that line of work. A plan for strategies that provide for growth and development allow the organization to continue both expanding and exceeding customer expectations.

This assists in developing the base—the people, as discussed in Creech’s Five P’s. The contractor in an equal position generally has at least a Master of Business Administration, professional certifications, superior experience, and other sought-after qualifications. The civilian employee for the military generally has a bachelor’s degree and years of experience. This has brought up the questions How can the unqualified truly manage the qualified? and how does someone know what is occurring and how the military’s money is being spent?

Change Management in Relation to Building & Developing Troops

A good model to describe the change management within the military would be Steven Smith’s Satir Change Model, which has a specific purpose in how it represents the way individuals experience changes. The model asserts that as individuals cope with unexpected or significant change, they predictably move through five stages: 1) Late Status Quo, 2) Resistance, 3) Chaos, 4) Integration, and 5) New Status Quo (in Yukl 2001). From the Satir Change Model, it becomes apparent that actions which inhibit coping can disable an organization’s ability to make core changes. These organizations are resisting the fundamental, foreign element of change. But organizations such as Department of Defense and large corporations attempt to create a safe environment where people are encouraged to cope, increase their capacity for change, and become much more able to respond effectively to whatever challenges are thrown their way. The key idea in this model is that throughout the stages there are key ways to assist and help an individual cope with change.
Another change management model is Checkland and Scholes’ Change Model (2001), which allows for potential resistance of corporate change that may be experienced by the individual going to a new organization. This model clearly takes the linear approach to systemic change. Checkland seems to believe that there is an established path that should be taken during the design phase and that no changes can occur once the process has begun (Lane, 2005). However, given the constraints of personnel in relation to type of work within the current study, the change should be minimal due to previous government experience. In respect to systemic change, this approach holds little promise; instead, it implies that a systematic approach shall create change only within the existing system (Lane, 2005).

When civilians join the military, they undergo big change and development due to the external environment they face. By the Satir Change Model, soldier beginning training would be found in the area of inserting the foreign element. In addition, at that same time, resistance has begun because that individual is not familiar with that foreign element, which could entail strenuous training: strict routine, long hours, combat preparation, and other stressful events not common to normal civilian life (Yukl, 2001). Nevertheless, once those soldiers have gone through the chaos of Basic Combat Training or Officer Candidate School, then the transforming ideas come into place. From there, that once-civilian-now-soldier is integrated into the military lifestyle: Now a New Status Quo has begun. Throughout the model, the way the military assists new soldiers with change is by explaining the importance of the training and building them back up by teaching them the corps principles of soldiering. Change is a constant factor within the military experience, merely due to the nature of the environment. The military allows for change to the main two missions, a reason why peacetime is used for training and preparation. The other environment is wartime, which is the span for execution of all items learned. This change model is relevant as in seeking to understand and identify the deltas (of Figure 3) to include reason for resistance of change.

Another item to address is the resistance to change that will come from implementing Management Information Systems (MIS), and this requires a form of change management such as the Satir Change Model. Accordingly, this resistance to change can be rationalized as follows: 1) people resist MIS
because of their own internal factors; 2) people resist MIS because of poor system design; and 3) people resist MIS because of the interaction of specific system design features with aspects of the organizational context of system use. The data collected in the trade study or research simply confirmed these three theories in relation to MIS.

Also of pertinence are the motivational methods driving a project manager. Motivational methods refer to items that should motivate individuals to reach their peak, feel wanted by the company, and obtain some reward for a job well done. But one thing not mentioned in any presentation was that a project manager has little reward. A project manager is the person responsible for the planning, coordination, and control of a project from inception to completion—as well as for meeting the project's requirements and ensuring completion on time, within cost, and to required quality standards. This individual is initially given an average salary of $90,000 USD ZDNET, an initial bonus, and an office. This is great for the start of any position, but the thing that many fail to realize is that a project manager's job is to always complete a project with a 100% rate. Therefore, if a job is well done, then there is no extra recognition or reward because that is what a project manager is hired to do. Also this position requires long hours and is an indirect management role. Project managers in many companies are not managers of individuals but of projects and programs. The result is a manager who does not have control over the human resources but needs them in order to complete a given task.

Researchers would like to consider participation and involvement synonymous, yet they are not (Hartwick & Barki, 2001). The reasoning behind group-based rewards is if the individual is rewarded as a single unit, then he or she may strive as a single unit only; on the other hand, when the group is treated as a group, they may behave as such, to a benefit: This will allow for deeper bonding amongst the group and spur participation. The end result is system development group performance, which is the end goal in the research model developed from Adel Aladwani, Arun Rai, and Arkalgud Ramaprasad. Their discussion focuses on formal participation and performance of the system development group. The idea is that the group as a whole participates to attain the goals; this entails proper assessment of the requirements, commitment with the project champion, commitment with subcontractors, and user commitment (Hartwick & Barki, 2001). Through the group working as a whole, more can be accomplished rather than by an individual. The problem is that there are behavioral characteristics that come into play when having a team function together, especially if there is no set common goal; this is a difficult task as they must be efficient and maximize the positive abilities and contributions of all the team members. As a project manager, the tasks will be to bring together the team to complete the task by motivating and using rewards to motivate.

What Is Decision Support Systems (DSS)

R. H. Sprague (1980) briefly examined these alternative views of DSS and presented a framework that proves valuable in reconciling them. The framework articulates and integrates major concerns of several "stakeholders" in the development of DSS: executives and professionals who use them, the MIS managers who manage the process of developing and installing them, the information specialists who build and develop them, the system designers who create and assemble the technology on which they are based, and the researchers who study the DSS subject and process (Sprague, 1980).

The methodology used was the Connotational View as displayed below in Figure 4: A framework for the Development of Decision Support Systems, showing the breakdown utilized throughout the hierarchy. At the top of the hierarchy is the DSS with the decision focus. The second layer is the information focus with MIS at the core. The third is the data focus with ECP. The DSS is a group
A computerized information system that supports business and organizational decision-making activities. DSS is an interactive, software-based system intended to help decision makers compile useful information from raw data, documents, personal knowledge, and/or business models to identify and solve problems and make decisions (Pfleeger & Pfleeger, 2003).

Figure 4: A framework for the Development of Decision Support Systems (DSS).

The key results are that DSS is more than just a buzz word; one must use caution with this concept in the context of a new stage within information systems (Sprague, 1980). The article has shown that DSS is yet a growing and evolving area that will lead to more complex systems. Overall, it is important to grasp how to put DSS to work in moving forward to enhance business intelligence.

Concerning implementing Enterprise Resource Planning systems (ERPs), findings have been published in examining DSS in reference to ERPs. This was a multi-site case study of various organizations that have implemented ERPs, and it looked closely at the eight dimensions of culture and how it has had an impact on the various ERP implementation teams in regard to information sharing (Jones, Cline, & Ryan, 2006). As a project manager, an individual will have to consider the items detailed in this framework as guidance, as the researcher shall incorporate this into the research.

The eight dimensions of the research framework are the following:

1. Orientation to change (stability vs. change)
2. Control, coordination, and responsibility (concentrated vs. autonomous decision making)
3. Orientation to collaboration (isolation vs. collaboration)
4. Basis of truth and rationality (hard data vs. personal experience)
5. Motivation (external vs. internal)
6. Orientation to work (process vs. results)
7. Orientation and focus (internal vs. external)
8. Nature of time horizon (short term vs. long term) (Jones, Cline, & Ryan, 2006)

Figure 5: Knowledge sharing during ERP implementation is a model created by Jones, Cline, and Ryan (2006) that demonstrates the links between the dimensions of culture and knowledge sharing during ERP implementation.
The work of Jones, Cline, and Ryan (2006) discusses quality of the interaction between the Information System (IS) project team and the users in a development project, stating that it is not clearly linked to the success of projects in terms of meeting budgets and product goals. Also noted is that quality interaction may be crucial in understanding why past research supports the development maxim that user involvement is necessary to success of an information system project. Within this particular study, internal conflict among the IS project team members is treated separately from the conflict of project team members with external users. Both internal and external team conflicts were found to impact interaction quality negatively. That negative impact reflects negatively on the project, as in the quality of work and cooperation between members. These relationships indicate that attention to both internal and external conflict is needed in order to successfully accomplish the project goals. Their research holds a component that asks questions relating to the interaction of the project team and users in a development project.

The notable argument is that information sharing is a large problem when implementing ERP. Information sharing relates to the sharing of individual personal information between multiple agencies or divisions. In many merger organizations, information sharing poses one of the hardest obstacles to overcome due to its nature. Individuals in general guard information as a way of guarding their position and job. That information may be the only reason why that individual is invaluable to the company, thus making him or her an asset. If that information was to be shared now, someone else could take that
individual’s place if his or her service is no longer needed. “There are two ways to look at information sharing in business. One is that increasing information sharing is a good thing, arming more people with more information to make better decisions. Another way to look at it is that information can get in the way of someone doing his or her job. Information sharing needs to be directed from top-level management and flow down. Together, corporate culture and the attitudes of people who work in organizations play a great role in exactly how much information is made available. Another thing to note is that in today’s work environment, with the potential for gossip and nonproductive discussions, it is impossible to over communicate and share too much information.

Uses of Military Decision Support Systems (DSS) for Missions

The work of Davis, Egner, & Kulick (2005) contributed to the understanding of human decision making and the development of methods and tools of analysis to further support that decision making. Addressed within the article are both components, albeit electively, and suggested are a number of principles and themes to be taken into account in work on decision-support systems. The authors addressed the decision-making component first, and then the analysis component. While the discussions were applied broadly, they focus on military decision making and its support (Davis, P., Egner, M., & Kulick, J., 2005). The strengths were in discussing the modern-day technology items such as C², deals with networking components and the involvement of virtual collaboration. This virtual collaboration feeds into both the goal of the Global Information Grid (GIG) and the subsystems where military decision support systems play a role. The article strongly supported human decision making in the military. The only weakness is that the researchers could have described a few more items in depth and could have displayed a graphical representation of all network components, thus helping the reader connect all components visually. To better understand at a high level the military’s global information enterprise system, the reader also may need an explanation of the GIG, its mission, and purpose. With all the items in mind, how could one utilize a similar concept in the commercial sector or private industry to select appropriate personnel?

Military Decision Support Systems (DSS) for Assigning Human Resources

At the present time, the Greek Navy uses detailers to assign naval officers to billets such as supply officers or individuals who have just completed a command. There are only two transfer periods within a year, one which is in December and the other in June (Konstantinos, 2006). When an officer is transferred to a new billet, a 2-year tour should be expected (Konstantinos, 2006). There are four separate offices, each one dealing with a related specialty (Deck officers, Engineers, Supply, and Medical). These different offices can be thought of as silos, and of the DSS as being used to create a bridge between all various silos. The decision process described in this thesis details a process that was not optimized, as preferences are not usually taken into consideration. This situation could ultimately result in assigning the wrong people to the wrong places with dreadful consequences to morale and performance (Konstantinos, 2006). This thesis focuses on the design of a DSS to facilitate Human Resource Management (HRM) decisions for the Hellenic Navy. Described in this particular thesis was a mathematical, multi-criteria optimization model that was designed and implemented in a software environment to improve officer job assignment decisions (Konstantinos, 2006). This system essentially improved job assignments for all officers, placing them in billets by way of mathematical functions. The value is that this same system could be used for individuals employed in the civilian sector as well, and it could potentially be tailored to select exceptional leaders. The overall goal was to develop a software solution that could adapt automatically to different issues concerning HRM.
SUMMARY

In conclusion, both organizational theory and leadership are dependent on another in certain ways for proper development of a military organization. As revealed through the articles such as “Organizational and Leadership Principles for Senior Leaders,” this is a complex matter for proper execution. To be done correctly, an effort must be made to include a strong definition of the basic needs and to understand an organization’s motivators. When basic needs are established, the external influences can be derived. This informs an organization when direct intervention with some of the external influences need to occur. Nevertheless, when discussing military organizations, of considerable weight are both the culture that has existed for many years and how its leadership is portrayed.

The impact of the literature review has allowed insight to the way military organizations perform and how they are changing their habits to become more efficient in all that they do to include how DSS could be utilized for selecting military personnel. The Department of Defense is trying to raise the standards and at the same time assist all individuals in ranks/grades meet those new standards, but with new programs set in place to mentor, grow, and develop.

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