

Knowledge Management in a Combined/Joint Environment

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Abstract—In the current era of shrinking budgets, increasing amounts of worldwide natural disasters, state and non-state initiated conflicts within the world. The response has involved multinational coalitions to conduct effective military operations. The need for a Knowledge Management strategy when developing these coalitions have been overlooked in the past and the need for developing these accords early on will save time and help shape the way information and knowledge are transferred from the staff and action officers of the coalition to the decision-makers in order to make timely decisions within an ever changing environment. The aim of this paper is to show how Knowledge Management has developed within the United States military and how the transformation of working within a Combined/Joint environment in both the Middle East and the Far East has improved relations between members of the coalitions as well as being more effective as a military force. These same principles could be applied to multinational corporations when dealing with cultures and decision-making processes.

Keywords—Civil-military, culture, joint environment, knowledge management.

I. INTRODUCTION

ONE of the major challenges with Knowledge Management domain is people and culture. This challenge is multiplied in complexity when it comes to working within military organizations that involve more than one service and it even complicates it more when multiple countries are involved in a mission.

For terms of reference in this article, the definitions for joint, combined and coalition are derived from Joint Publication 1-02 which is the Department of Defense Dictionary of Military and Associated Terms. Joint refers to “activities, operations, organizations, etc., in which elements of two or more Military Departments participate”. Combined is a “term identifying two or more forces or agencies of two or more allies operating together”. Coalition is an “arrangement between two or more nations for common action” [4]

With working on multiple assignment in a Combined/Joint environment and seeing how Knowledge Management is viewed not only by the leadership of the organization but more importantly by the workers within the unit that are responsible for creating the products, the leaders need to make decisions especially when dealing with the restrictions of information sharing with coalition partners.

II. KNOWLEDGE MANAGEMENT DEFINED

With over 129 definitions of Knowledge Management that are recognized within the military, academia and business settings this is one of the issues with Knowledge Management is the lack of a singular definition that all communities can get behind. A proposed definition should become the standard for Knowledge Management in business, academics and military arenas to include the International Standards Organization (ISO) 9001: *The integration of the organization mission enhanced by the people, enabled by tools and processes to facilitate the exchange of relevant information and expertise to increase the organizational effectiveness and the decision making process.* Within this definition four components emerge that if aligned correctly are the keys to a successful Knowledge Management program.

- A. *People* are the means for all operations in the military and corporations. Putting people in the proper places within the organization can improve productivity as well as develop subject matter experts that can be value added to the business or unit. People are paramount to prosperous Knowledge Management. Knowledge has meaning only in human context. It includes individual experiences, expertise, or insight. Commanders use tacit knowledge (wisdom) to solve quandaries and make choices that can affect they subordinates. Leaders engage subordinates’ tacit knowledge to improve organizational learning and enhance the unit’s innovation and performance. Knowledge managers connect people and build formal and informal networks to transfer knowledge. Knowledge transfer is moving knowledge, including knowledge predicated on expertise or adept judgment, from one person to another [2]. Knowledge managers identify sources of knowledge, capture that knowledge, and facilitate its transfer to those who need it.
- B. *Processes* are repeatable steps that streamline work efforts. The five-step Knowledge Management process, as revealed in Army Training Publication ATP 6-01.1 (Techniques for Effective Knowledge Management), aligns people, processes, tools and the organizational culture to engender shared understanding. Knowledge Management and its associated undertakings are integrated into the operations and all other staff processes. This integration enables the transfer of tacit and explicit Knowledge between and among individuals and organizations. Knowledge transfer occurs formally through

- established processes and procedures to include meetings and informally through collaboration and dialogue [2].
- C. *Organization* is the ends where people, processes, and tools function to integrate individual and organizational knowledge and learning strategies. Individual knowledge includes acquired ideas, attitudes, feelings, beliefs, values, and knowledge. Knowledge management capabilities contribute to a learning organization. Organizations such as staff, squads, and larger groups bring these values, and behaviors together. This generates a process facilitated by tools that characterize that group. These factors are its organizational culture. Knowledge Management practitioners ken this dynamic and advise and assist organizations regarding knowledge solutions. The organizations culture provides the viewpoint by which information, commander's intent, and motivations are observed. This creates rapport, knowledge sharing, and precise interpretation to understand and acquire a broad view of a situation. The commander and primary staff understand the organization's culture to affect organizational change [2]. This does include restructuring positions within the staff to match functions of the directorate or division.
- D. *Tools* can be defined as either technical or non-technical tools everything from notecards to a structured database to assist in transferring tacit to explicit knowledge. In keeping with ATP 6-01.1, management tools share and preserve knowledge. It does not matter if we are talking capturing after action reviews or capturing the plans and operations orders for the past year. Various factors determine the tools to be used for each command including the type of mission, availability of equipment/network, and determination of the simplest or most effective tool for the operation [2].

III. KNOWLEDGE MANAGEMENT IN MIDDLE EAST OPERATIONS

Observations of conducting Knowledge Management Operations in the Middle East under a combined/joint environment where the operation are very dynamic in nature and information must be validated from multiple echelons before actions can take place. The faster and more accurate the information is the quicker the forces can react to the threat.

During from February 2015 through October 2015, the first Chief Knowledge Manager was assigned to the Combined Joint Task Force and was charged to stand up the Knowledge Management Directorate. The directorate was to include a Lieutenant Colonel as the Chief Knowledge Manager, a Major for a Deputy Knowledge Manager. The Italian Airforce was to provide a Captain to conduct the duties of the Knowledge Operations Officer. Finally, two Non-Commissioned Officers from the United States Army was to be assigned as the Knowledge Management Non-Commissioned Officer in charge and the other Non-Commissioned Officer to perform the duties of Content Manager.

Information within the headquarters took many forms from information papers, situational awareness reports, status reports of different areas to include sustainment, locations of coalition

and enemy forces etc. [5], [6]. The way the command displayed this information played a large role in how the Commanders Decision Cycle was able to be completed at an expedited rate. The Common Operating Picture was very focused on information that key staff members were able to collaborate and analyze. Their efforts were lined up with the Commander's Priorities and the overall mission with the Combined Joint Task Force. With this information, the Commander is able to make quick, informed decision with answering the important questions if we strike at a particular location what are the second and third order effects that could have impacts overall.

One of the Commander's Combined Joint Task Force initiatives was to build coalition integration into the processes, in other words what expertise can our partners contribute to the mission. In the realm of Knowledge Management this was accomplished with integrating our coalition members into the Lessons Identified process and in the planning and operations processes.

Meeting management through a tool called Battle Rhythm, which is a deliberate cycle of command, staff and unit activities intended to synchronize the current and future operations [3]. This tool is used maximize staff time to work before presenting to a decision maker. If the meeting does not need to be conducted, it is cancelled thus giving the time back to the staff and the commander. This also assists with resource management of rooms and assets.

Another tool is called Virtual Command Post, which is a website that reflects the current situation in the operating environment, are focused on lines of effort for the command and intuitive for outside organizations or new to the organization to be able to find the information they need in a timely manner.

IV. KNOWLEDGE MANAGEMENT IN FAR EAST OPERATIONS

The current mission set is highly focused on conflict preparation and the concept of train as you fight does not always come into fruition. Institutional memory of how things are done is lost on a yearly basis due to high rotation cycles and not reaching out to counterparts early enough for a productive handover of the mission leaves the individual to figure out how to make processes better for the overall organization. A lot of assumptions are made from all members of the alliance. People and the organizational culture are the major issues with knowledge operations in this area.

The Knowledge Directorate is just over a year in operation. Command is agile in nature, just recently adopted a Battle Rhythm and working on establishing/chartering appropriate meetings to fit both the commander's decision cycle and the staff officers need to get topics and plans approved. This is still a work in progress and some of the staff are not grasping the doctoral terminology or the construct on how information should flow from one meeting to another. Staff sections not embracing KM entirely. Command team (C level executives) have embraced concept not understanding execution.

Tools focused (SharePoint) Currently no overall KM Strategy just reactionary to the needs of the command. Lessons identified is only done for military exercises currently and only

focused on the operations portion and does not integrate those lessons back into the planning process. Not fully integrating the coalition into the processes or tools. Common Operating Picture is only Operations focused and other staff input is not included nor is the staff seeing how the (COP) can be utilized as a place of cross organization collaboration where staff sections can voice their equities in the operation.

Virtual Command Post is cumbersome and confusing for outside entities or new personnel to grasp the concept where information is located. It is owned by operations and not focused on mission or lines of efforts. Highly politically driven in terms of how information is shared and displayed this even goes down to the how locations are being depicted on a map.

V. FAILURES OF KNOWLEDGE MANAGEMENT PROGRAMS

For any successful program there are certain criteria that must be met. Is it measurable, is it cost effective, leadership commitment to the program, and at the end of the day are the decisions being created from this improving the bottom line or staying true to the mission. Over the past couple of decades, Knowledge Management programs have failed (both in military and civilian environments) for multiple reasons.

- A. *Measurable Results*: The lack of ways to measure the success of the program does not lend itself to a self-sustaining program. Not being able to establish the parameters on what defines success. The use of assessments has not been clearly defined throughout the Department of Defense or event within the Joint community when it comes down to how Knowledge Management.
- B. *Meeting Management*: Setting up the way meetings are structured to include what is on the agenda to where the information is flowing out of and flowing into can provide clear structure in terms of how the CEO or the Commander is receiving their information. Meetings should fall into one of the following categories Boards (where decisions are made) Bureaus, Centers, Cells, Working Groups or Planning Teams. To help visualize how topics work through this process an information flow diagram is created. This depicts how meetings are connected along the lines of planning future operations, support and current operations. [3]
- C. *Lessons Identified System* should be more than the tool to help identify what lessons were learned from the mission or focus area but include the process and personnel needed to assist in gathering the information and then plug those lessons back into the planning cycle to ensure the same mistakes are not being made and in turn saves time, money and personal energy. The tools of after action reviews, lessons learned network systems
- D. *Culture*: Many times, especially in a Combined/Joint environment the culture that makes up the coalition is not taken into account when developing policies or how to integrate those members into the decision-making cycle. This becomes even more problematic when coming up with a "tools" solution when the bilateral agreements are not signed or agreed upon by the nations needing to access

the information. This also comes into play when establishing formats for reporting. This is where agreements must be made on how reports should look

- E. *Leadership*: Not showing the return on investment or showing the value added to the organization when it comes to developing a Knowledge Management program will not get the program the recognition it needs to take on bigger organizational level projects. Getting the buy in from the decision-makers early from picking out a few quick projects that will have long term returns to the company will show the need for the program as well as being able to show how the organization is connected. This becomes more difficult when dealing with multiple cultures and leadership styles.
- F. *Tools*: The reliance on a single tool within Knowledge Management can be a double edge blade. One the one hand it does allow the staff to have the single point of entry to conduct business and staff processes. However, without proper training on how the tool is supposed to be utilized it can clutter the system and make it unmanageable.
- G. *Strategy*: Not knowing how the Knowledge Management fits into the overall mission of the command poses a huge issue with a lot of programs within the military and government. Being able to codify where the program is now and how it will change the organizational mindset of how knowledge is captured and disseminated inside and external to the command becomes values added to the leadership [1].

VI. RECOMMENDATIONS

The recommendations are for any organization (military or non-military) when starting or revitalizing a Knowledge Management Program in a Combined/Joint Environment where there will be personnel from different nations or even different cultures involved.

- A. *Develop a Knowledge Management Strategy*: This strategy should look at the organization holistically in terms of tying in the mission of the organization with the connecting the different offices and directorates to coordinate their efforts [1]. Ensure to include the strategy in any and all languages included within the organization, especially if some of those positions are held in the C level executive. This will give the Knowledge Management program an easier time to get buy in at least at the leadership level.
- B. *Take a Knowledge Assessment of the Organization*: Find out how to make the organization run more effectively as well as identify what Knowledge exist within the organization by asking those who are the most affected by change. You might be surprised on how small simple solutions can make a great impact in the organization. Find those people who are subject matter experts in their fields and encourage them to contribute to your community of practices and sit down with them to capture their tacit knowledge on how the organization has succeeded and also failed.
- C. *Lessons Identified System*: This is a key for not repeating the same mistakes over and over again. NASA has one of

the best Lessons Learned systems in the United States Government where they conduct after action reports for each of their projects as well as interview everyone involved. This is videotaped, transcribed and searchable on their network. The can assist others finding out what went right, wrong or what they would change the next time they were performing the task. Part of this system should be a subject matter expert (SME) locator. A SME locator can provide that continuity in projects or even be able to highlight areas that others may not think of unless you are in that field. Finally, what lessons were learned from their foxhole and if they could do it over what they would do differently [6].

- D. *Establish a Battle Rhythm* that includes members of all members of the coalition. In order to gain the opinions and insight of others culture and experiences [3]. The Battle Rhythm by definition should be a repeatable process that focuses on the flow of information up from planning teams to working groups then to the appropriate boards to eventually get to the decision-maker to get the final approval or disapproval on the topic at hand. In the operational environment a Battle Rhythm can be a very short turn of meetings repeating daily or even weekly. In the garrison environment meetings may only need to repeat every other week to once a month depending on the decision support cycle of the executives. When building a Battle Rhythm, one must make sure all of the meetings that are taking place are chartered and ensure that there is a flow of information upwards towards a decision maker with the proper authority to make the decision. To eliminate having superfluous meetings having the charters to develop a holistic view of the meetings can be developed through an information flow diagram where one can map out meetings and see the connections.

VII. CONCLUSION

Working in Combined/Joint Environments can be very challenging but very rewarding in enduring operations. Between learning different cultures and ways of accomplishing the mission at hand. Recognizing how the organizational structure should work and constantly improve the relations between our partners can have significant gains across the operational area. Having meetings, the include the partners whenever possible solidifies the team and ensures everyone has the same picture of the mission.

Leadership needs to actively support Knowledge Management through messaging to the staff that knowledge sharing is essential to the organization. The Knowledge Management Office needs to be located with the Chief of Staff in order to work with all of the staff no matter what directorate they belong to and so the program does not get into the trap of focusing all of their efforts on either the tools or just the mission at hand but the organization overall.

A lessons identified program needs to be established for day to day processes and to capture the tacit/organizational knowledge that developed over the time of people working in key positions. Find out what they wish they knew then and how they would like to see their position or section improve.

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