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WE WILL FIND A WAY: ORGANIZATIONAL INNOVATION AND THE FUTURE OF CANADIAN SPECIAL OPERATIONS FORCES COMMAND

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ABSTRACT

Due to the current fiscal environment, corporations and other organizations, in the public and private sectors, are looking for the best way to maximize innovation to improve their performance. The reality of the global threat environment however, is leading to an increase in the need to utilize the military as a primary instrument of national power. This fiscal and threat environment has created a situation where militaries are being forced to do more with less and must become more innovative. This study examined innovation theory and its applicability to CANSOFCOM. The research found that CANSOFCOM possesses the key innovative characteristics of leadership, a focussed mission and vision, and a culture that promotes innovation. This study also found areas where CANSOFCOM could improve its systems and processes to become a more innovative organization. Recommendations are made for CANSOFCOM to enable these improvements and to formally adopt the "groping along" model for innovation adoption.

INTRODUCTION

There is much discussion, within organizations of all types, about innovation. Corporations and other organizations in the public and private sectors are looking for the best ways to maximize innovation to improve performance. In the current economic climate, private sector organizations are being driven to innovate and create better ways of doing business by the never ending necessity to improve their bottom lines. Government departments, although not driven by profit, are being forced to find ways to deliver more, with continually declining budgets and staff. In this environment, the military is not immune, and many western countries are looking to areas of "discretionary" spending, like defence, to find savings. The reality of the global threat environment however, is leading to an increase in the need to utilize the military as a primary instrument of national power. This fiscal and threat environment has created a situation where militaries are being forced to do more with less.

The current fiscal climate combined with the ever increasing demands on the militaries of western democracies has caused an increased focus on innovation in the military. Within the military, Special Operations Forces (SOF) are in increasingly high demand, due to the unorthodox and complex nature of today's hybrid threats. This has prompted SOF organizations to look for ways to innovate and improve their effectiveness. In January of 2013, the commander of United States Special Operations Command (USSOCOM), Admiral William McRaven, organized the first Commander's Innovation Conference, which he called *Building a Culture of Innovation*. At this conference, Admiral McRaven brought together the leading thinkers on innovation from

the public and private sector to help USSOCOM institutionalize innovation and improve their overall effectiveness against global threats, while learning to do more with less under new US fiscal constraints.[1]

In Canada, Canadian Special Operations Forces Command (CANSOFCOM) is similarly obligated to ensure continual development of capabilities to prepare for the threats that face our nation. CANSOFCOM is dependent upon innovation to ensure technological and operational overmatch against threat forces. This reliance on continual innovation is in keeping with the CANSOFCOM vision of providing a ". . . agile, adaptive and high-readiness Special Operations Force . . ." to the Government of Canada.[2] In terms of fiscal pressures, Canadian Forces Strategic Review has caused all elements to look for more innovative ways to deliver the requirements of Canada's defence strategy.[3] CANSOFCOM, as part of the defence team, is not immune and must make more effective use of taxpayers' money, while continually improving capability. These dual pressures create an even greater requirement for CANSOFCOM to identify ways to innovate, within the larger Canadian Forces (CF), to ensure its continued readiness to face threats to Canada, and to optimize its use of departmental funding.

The research for this paper began with five questions that focussed on the perceived gaps in the current understanding of innovation, as it applies to CANSOFCOM,

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[1] O'Hare, Ryan, "SOCOM Sharpens Spear, Hosts 'Innovation' Conference," *USSOCOM website*. Last accessed 19 April 2013. http://www.socom.mil/News/Pages/SOCOMSharpensSpear,Hosts%E2%80%9CInnovation%E2%80%9DConference.aspx.

[2] Department of National Defence, *Canadian Special Operations Forces Command : An Overview*, (Ottawa: Canadian Special Operations Forces Command, 2008), 8.

[3] Walter Natynczyk, "The Canadian Forces in 2010 and 2011 ~ Looking Back and Looking Forward," *Canadian Military Journal*, vol. 11, no. 2 (Spring 2011): 7-11. http://www.journal.forces.gc.ca/vo11/no2/03-natynczyk-eng.asp.

and their importance to the future success of the command. The first question was *what is innovation*? Within the literature, there is significant debate about what the term innovation really means. This is exacerbated by the many different disciplines that study innovation. There are significant works from the diverse fields of history, technology, business and management, and public administration. There is debate over the relevance of technology to innovation, whether it is an individual or organizational concept, and the difference between invention and innovation. To answer this question, Chapter 1 will examine the current literature to define innovation.

The second question considered was, *what makes an organization innovative*? Are their certain attributes, structures or processes that are common amongst innovative organizations? Chapter 2 will explain the organizational attributes of innovative organizations and identify relevant models available to study them. The third question sought to develop an understanding of how the current theory on innovation is relevant to government organizations, like CANSOFCOM. *What are the essential attributes and key barriers to government innovation*? Do the bureaucratic, policy, and legal restraints of government require different essential attributes than private organizations? What types of barriers to innovation does the research show exist in government organizations like the military? How do government organizations adopt and implement innovations? Chapter 3 will discuss the key issues facing government organizations attempting to innovate.

The fourth question asked was, *what does an innovative organization look like*? By using the models are there examples of organizations who demonstrated that they had

institutionalized innovation? As well, were there examples of innovative organizations from across the spectrum, from private business to government and even military organizations? In Chapter 4, the key elements of innovative organizations will be highlighted through the examination of case studies from private and public organizations. The fifth, and last question was *how can CANSOFCOM become more innovative*? Does the command already demonstrate the attributes of an innovative organization? What lessons can be drawn from the current theories on innovation to make CANSOFCOM a more innovative organization. In Chapter 5, examples will be identified to highlight CANSOFCOM's innovative qualities and areas where it could improve its ability to institutionalize innovation.

This paper will show that CANSOFCOM possesses the key innovative characteristics of leadership, a focussed mission, vision and a culture that promotes innovation. It will also highlight area where CANSOFCOM could improve its systems and processes to become a more innovative organization. It will make recommendations for CANSOFCOM to enable these improvements and to formally adopt the "groping along" model for innovation adoption.

CHAPTER 1 – WHAT IS INNOVATION?

Creativity is thinking up new things. Innovation is doing new things.
- Theodore Levitt, *Harvard Business Review*.

Introduction

In order to determine how to make CANSOFCOM a more innovative organization, it is first necessary to define what exactly innovation means. In this chapter, a review of the literature on innovation will be examined to establish a baseline understanding of the concept of innovation. The complementary concepts of organizational innovation and change management will also be discussed to demonstrate how organizations innovate.

Innovation

Defining innovation is not as simple a task as one might think. It is viewed and defined differently by academics and practitioners from diverse disciplines such as history, science & technology and business and management. There are many working definitions of innovation which, although similar by comparison, are unique. It is vital to ensure a common understanding before any meaningful discussion or study can occur. The Merriam-Webster dictionary defines innovation as "the introduction of something new" or "a new idea, method, or device".[4] With this definition as a start point it is obvious why many synonymize innovation with invention and technological advancement.

[4] Merriam-Webster Dictionary, "Definition of innovation," last accessed 05 April 2013, http://www.merriam-webster.com/dictionary/innovation.

Peter Denning, who heads the Cebrowski Institute at the Naval postgraduate School and Robert Dunham who runs Enterprise performance, began collaborating on the subject of innovation in the 1980s. They brought together a powerful combination of academic and business management experience to discover how individuals and organizations innovate. In their major work, *The Innovator's Way*, Denning and Dunham provide a clear and succinct definition of innovation from their research. "Innovation is the adoption of a new practice in a community." They credit the ability to develop this concrete definition by their decision to reframe the question that was asked. Instead of asking "what is innovation?" they asked "when is an innovation successful?" This allowed for the clear definition, which states that an innovation is more than a new idea or a change but must be put into practice to truly be an innovation.[5] Denning and Dunham make it clear that only when an innovation is successfully adopted is it worthy of study. With this definition, it was shown that an innovation is more than a new idea or technology.

They go on to define what they call the "invention myth", which is the belief that inventions are the main cause of innovations. Their study demonstrates that it is not the invention itself that causes the innovation, but the series of events that lead to its adoption. They show that the outcome of invention practices is a new idea or prototype, which is offered for consideration to a community or organization. The outcome of innovation practices on the other hand, is the adoption of a new practice in the community or organization. Denning and Dunham also describe how the common belief in the

[5] Peter J.Denning, and Robert Dunham, *The Innovator's Way: Essential Practices for Successful Innovation* (Cambridge: The MIT Press, 2010), 6.

"invention myth" causes a disproportionate amount of investment into research and development in the hopes of improving innovation. This investment yields success in creating more inventions, but very few innovations.[6]

Tim Kastelle, of the University of Queensland Business School, agrees that many people confuse the concepts of innovation with invention. He makes the point that if innovation were invention then there would be no value in studying it, as it is impossible to teach an individual or organization to have a brilliant idea. Kastelle argues that the creation of value is the key defining attribute of innovation. He points out that in the field of innovation research that each school has their own definition of innovation, which is necessary to ensure there is a common understanding of the term as they are using it. For Kastelle innovation is "executing new ideas to create value".[7] He adopted the *innovation value chain model,* which views innovation as a process that occurs over three steps. In order for an organization to be successful at innovation it must master all of the steps. The three steps are *idea generation, idea selection and testing* and *idea diffusion*. His analysis provides a definition for innovation that progresses innovation beyond the simple concept of a new idea into a process where a new idea is selected, adopted and adds value to the organization.

Some researchers focus their definition of innovation on the introduction and adoption of new technologies. Clayton Christensen, of the Harvard Business School, has gained a large following for his theories on innovation. In his *Disruptive Innovation*

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[6] *Ibid*., 7.

[7] Tim Kastelle, *Innovation Excellence*, "What is Innovation?" Last accessed 6 April 2013. http://www.innovationexcellence.com/blog/2012/09/07/what-is-innovation/.

Theory, he identifies two types of innovations: *sustaining innovations* and *disruptive innovations*. *Sustaining innovations* are those new technologies which are evolutionary in nature and that support improvements in the existing products or processes, which allow for incremental improvement for the organization. *Disruptive innovations* are those new technologies which are revolutionary and radically alter products, processes or the market itself. Christensen's research is based on his analysis of the hard disc drive industry, which explains some of his focus on technology.[8] Although Christensen provides solutions for organizations to manage change in the face of these innovations, his concepts focus too much on the technology itself, and not on the potential of an innovation as an idea or process within an organization. The discrepancies and debate between definitions of innovation that focus on technology and those that deal more generally with ideas and processes is prevalent throughout the literature.

In the current literature on innovation there is much debate as to what the accepted definition should be. Although all agree that innovation is important, particularly in the business sector, there is disagreement on what it actually represents. It has been argued by Colonel Thomas Williams that the amount of ambiguity surrounding the definition of innovation renders the term useless. He goes as far as to say that the term innovation has lost its meaning and is now ". . . just a buzzword used to sell everything from software to blenders . . ." He contends that we have reached a point where the definition is so broad

[8] Clayton M. Christensen, Scott D. Anthony, and Erik A. Roth, *Seeing What's Next?Using the Theories of Innovation to Predict Industry Change* (Boston: Harvard Business School Press, 2004), xxvi-xvii.

that almost anything can be considered an innovation.[9] Williams recommends that a more narrow definition, and the use of a known model will allow innovation to be examined and institutionalized in a way that will provide value to organizations. For the purposes of this study, an established definition will be used throughout, and several models will be utilized to provide context and meaning.

When it comes to defining innovation, it is necessary to ensure that members within an organization have a common understanding of what the term means for their organization. Kastelle identifies, that the key is to ensure that the definition of innovation that is chosen must work for the organization. Most importantly the definition needs to be understood by all of the members and accepted by the leadership.[10]

Organizational Innovation

As this study focusses on the ability of organizations to innovate, it is necessary to establish a definition for the concept of organizational innovation. In his paper on organizational innovation and change, J.T. Hage, of the University of Maryland, concludes that "Organizational innovation has been consistently defined as the adoption of an idea or behaviour that is new to the organization".[11] He further explains that, within organizations, these ideas or behaviours can manifest in many forms. The adoption of a new product or service, an administrative process or a new technology can be seen as an

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[9] Thomas M.Williams, "Understanding Innovation," *Military Review*, vol. 89, Issue 4 (Jul/Aug2009): 59, http://ehis.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=9b880099-c474-407c-bb4e-207851944bdf%40sessionmgr12&vid=5&hid=6.

[10] Kastelle, *What is Innovation . . .*

[11] J.T. Hage, "Organizational Innovation and Organizational Change," *Annual Review of Sociology*, 25 (1999): 599, http://ehis.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=4c4e9915-a5d9-4902-9c8e-6f350470161c%40sessionmgr112&vid=12&hid=109.

innovation. Again, we see in Hage's definition the key element of innovation is the adoption of something new.

Debra Knopman, the vice-president of RAND Corporation, and her team, make the case in their report on innovation for the US Environmental Protection Agency, that "Innovation encompasses changes in organization culture, outputs, and business processes that collectively make an organization more effective and successful in fulfilling its core mission."[12] This definition goes beyond the concept of an innovation just being "something new" by adding the idea that it increases the effectiveness of an organization. It also adds an important element that innovation could involve changes in one of many areas within an organization and is not restricted to the adoption of new technologies.

Ruth Kustoff, of Knowledge Advantage LLC, defines organizational innovation as identifying new ways that work is organized and completed to improve performance, which includes changes to products, processes or services. She identifies that although change is a central element to innovation, change alone does not make an innovation. She adds further that for organizational innovations to exist a culture of innovation must exist which promotes independent thinking and creativity and pushes members to contribute to challenges that face the organization. Members must believe that the organization welcomes ideas that will lead to new processes that will improve success.[13] This concept

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[12] Debra Knopman, *et al.*, *Innovation and Change Management in Public and Private Organizations: Case Studies and Options for EPA – Report*, (Arlington: RAND Science and Technology, 2003), 2, http://www.rand.org/content/dam/rand/pubs/documented_briefings/2005/DB393.pdf.

[13] Ruth Kustoff, "What is Organizational Innovation?" *ezinearticles.com*, last accessed 25 March 2013, http://ezinearticles.com/?What-is-Organizational-Innovation?&id=1573028.

of an innovative culture is prevalent throughout the literature and will be discussed in detail throughout this paper.

Fairborz Damanpour, of Rutgers University, and Marguerite Schneider, of the New Jersey institute of Technology are two of the key authorities in the field of innovation research. They found that the general definition of organizational innovation is the development and adoption of new ideas or behaviours. While this definition is in line with Hage and Kustoff, they go further to show that organizational innovation is a complex process that they break down into two phases: *generation* and *adoption*. They further sub-divide the adoption phase into *initiation* and *implementation*. Damanpour and Schneider identified that a decision to implement the new idea or behaviour discovered during *generation*, must be made by the organization, which is *initiation*. Once the decision to adopt is made, supporting processes and structures must ensure that the new idea or behaviour is brought into use throughout the organization, which is *implementation*.[14] Their definition reflects the essential fact that a new idea or behaviour cannot be seen as an innovation until it has been put into practice by an organization. By adding to this concept Knopman et al.'s definition of improved effectiveness and success, organizational innovation can be seen as the generation and adoption of a new idea or behaviour within an organization that leads to improved effectiveness in achieving the its core mission.

[14] F. Damanpour, and Marguerite Schneider, "Characteristics of Innovation and Innovation Adoption in Public Organizations: Assessing the Role of Managers," *Journal of Public Administration Research*, Vol. 19, Issue 3 (Jul2009): 496-497, http://ehis.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=32&sid=39006ede-ed70-417b-a21f-c2ad18381499%40sessionmgr12&hid=105.

Change Management

Another important concept that appears continually in the current literature on innovation is the concept of change management. According to Knopman et al., change management, or what they call a "system of innovation" involves three overlapping actions by an organization; preparing for change, executing change and supporting change. In their study they determined that, organizations that routinely sustained innovations with success ensured that all of these areas were addressed. This is further evidence that innovation is a process or "system" that goes beyond having good ideas and requires leadership and management. Their research adds to Damanpour and Schneider's findings and expands our understanding of organizational innovation to include a system or process within an organization to ensure *generation and initiation* (preparing for change) and *implementation* (executing and supporting change) of innovation.[15]

Conclusion

In this chapter we have seen that there are many definitions of innovation and organizational innovation being utilized by theorists and practitioners today. It has been established that organizational innovation, for the purposes of this paper, is a system to ensure the generation and adoption of a new idea or behaviour within an organization that leads to improved effectiveness in achieving its core mission. In the next chapter the attributes, processes and structures that make an organization innovative will be examined.

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[15] Debra Knopman, *et al.*, *Innovation and Change Management in Public and Private Organizations: Case Studies and Options for EPA – Executive Summary* (Arlington: RAND Science and Technology, 2003), E-3, http://www.rand.org/content/dam/rand/pubs/documented_briefings/2005/DB393.1.pdf.

CHAPTER 2 – THEORETICAL MODELS OF INNOVATIVE ORGANIZATIONS

Introduction

Having previously defined innovation and organizational innovation, this chapter will now examine what attributes make an organization innovative. An examination of the literature suggests that there are observable pre-conditions to innovation that must exist within organizations. These pre-conditions can be related to culture, organizational structure, leadership or processes, but there is general agreement that it takes a system incorporating multiple attributes to make an organization innovative. This chapter will examine several different models that have been developed to identify those attributes that make-up innovative organizations.

Peters and Waterman

In 1982 Peters and Waterman published one of the most significant management studies of the past century, *In Search of Excellence: Lessons from America's Best-Run Companies.* They sought to demonstrate what characteristics and actions made certain American companies so successful. Their research identified that innovation was a key aspect to the creation and sustainment of successful organizations in the private sector. They identified eight key attributes that were present in all of the "excellent, innovative" American companies that were found through their research.[16] The model they developed is useful to identify what pre-conditions or attributes an organization requires for it to be innovative and will be discussed in detail in this section.

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[16] Thomas J. Peters, and Robert H. Waterman Jr., *In Search of Excellence: Lessons from America's Best-Run Companies* (New York: Harper & Row, Publishers, 1982), 13.

This model was chosen as it represents the foundational work of what has become a major school of management study. Peters and Waterman's study successfully bridges the gap between purely academic and popular writing on innovation. In particular, the concrete, real world examples of how innovation practices have made certain companies successful, made it useful for identifying ways for CANSOFCOM to become a more innovative organization.

The first attribute of an innovative organization, that Peters and Waterman identify, is a *bias for action*. In all of the successful companies they found that despite their size, structure or analytical approach to decision making, these companies developed methods for identifying problems and rapidly developing and implementing solutions.[17] As we have seen from the definitions in the previous chapter, these companies achieved *initiation* by identifying problems and *implementation* by developing and implementing solutions. This *bias for action* created a culture of innovation that ensured continued improvements in performance. The impact of culture on organizational innovation will be shown to be a common element in all of the theoretical models in this study.

The second attribute Peters and Waterman described was that the companies were *close to the customer*. They identified that the companies that were effective at implementing and maintaining innovation understood the need to seriously and continually listen to customer feedback and apply it to their products or services.[18] This concept of open communication and acceptance of divergent views is an attribute that will be shown in multiple models of innovation in this paper. It is essential for innovative

[17] *Ibid.*, 13-14.
[18] *Ibid.*, 14.

organizations to leverage all sources available to identify problems and to develop novel solutions.

The third attribute of the successful companies was *autonomy and entrepreneurship*. In order to foster the development of innovations, the companies created structures and processes which provided freedom for members to be creative and able to take risks. They would encourage leadership and innovation and ensure that champions at all levels would provide the support necessary to ensure that successful innovations were adopted.[19] This attribute was shown to be part of the organizational culture of Peters and Waterman's successful companies. Organizations that promote creativity, risk acceptance and creative conflict tend naturally towards innovation.

Fourthly, Peters and Waterman identified that success was achieved by *productivity through people*. These companies understood that each individual member of the organization was the source of quality and productivity gains. They avoided the development of "us versus them" sentiments between workers and management and developed systems to encourage contributions from the grass roots.[20] By listening to external sources of information, like customers and to internal sources, like employees an organization will greatly improve the number of potential new ideas that can be considered for adoption. This attribute allows organizations to promote bottom-up solutions by allowing front line members to identify problems and contribute to developing solutions.

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[19] *Ibid.*
[20] *Ibid.*, 14-15.

The fifth attribute of the successful companies was identified as being *hands-on, value driven*. Peters and Waterman found that companies with clearly articulated values, which were reinforced through hands-on leadership and embraced at all levels, were the most successful.[21] In all the models that are studies in this paper, the central concept of strategy, vision, values and leadership will recur.

The sixth quality regarded the necessity for businesses to only diversify, or make acquisitions, into areas in which they possessed the appropriate expertise and experience to be successful. They named this attribute *stick to the knitting*. Peters and Waterman found that companies which strayed from their base business seldom reaped any reward. This quality was closely related to the fifth in that, it is difficult to instill a core value across many diverse companies and achieve the level of acceptance required.[22] In organizations that maintain focus on the core mission, there is more potential for synergy between sub-organizations as they can leverage each other's successes.

The seventh attribute Peters and Waterman identified related to the organizational structure of the companies which they called *simple form, lean staff*. They found that despite the size and complexity of these multi-billion dollar businesses the most successful ones had simple structures with small management teams. These companies avoided creating bureaucracies with ever increasing layers and complexity, which would continue to develop to support themselves. The successful companies avoided creating structures where ambiguity of decision making would paralyze the organization.[23] This

[21] *Ibid.*, 15.
[22] *Ibid.*, 292-296.
[23] *Ibid.*, 306-315.

attribute is especially relevant to a military organization due to the tendency toward large, hierarchical management structures.

The last quality of the successful companies is identified as *simultaneous loose-tight properties*. Peters and Waterman found that although the successful companies encouraged initiative and risk taking at the low levels, and created decentralized systems to encourage innovation, they remained a centralized focus on core values. Peters and Waterman describe this last attribute as the one which embraces all of the others and described the co-existence of "firm central direction and maximum individual autonomy" that they found in the successful companies.[24] Here again, they highlight the essential role of leadership and an innovative culture which is based on a clear core mission and vision.

Although there have been many advancements in the study of innovation since *In Search of Excellence* was published, it provides a solid set of principles that can be used to understand innovation and how organizations can institutionalize innovation. There have been detractors, such as Hitt and Ireland, who question Peters and Waterman's methodology and results. Their main contention is that Peters and Waterman's data set was incomplete due to the financial performance sets used to select the "excellent companies" and their failure to consider other factors that influenced the success of the companies. Despite their concern, Hitt and Ireland concede the importance of innovation, as argued by Peters and Waterman, was borne out in their new analysis as well.[25] For the purposes of this study, which is focussed on innovation, this provides further

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[24] *Ibid.*, 318.

[25] Michael A. Hitt, and Duane R. Ireland, "Peters and Waterman Revisited: The Unended Quest for Excellence," *Academy of Management Executive*, vol. 1, issue 2 (May1987): 96, http://search.proquest.com/docview/210521794/fulltextPDF/13D97C127BC7BF9DC87/5?accountid=9867.

confirmation that the principles proposed by Peters and Waterman for creating an innovative organization are sound.

Knopman et al.

As noted in Chapter 1, Debra Knopman et al., of RAND Corporation, adapted the Balanced Scorecard approach to create a model of innovative organizations that they used to select the organizations for their study on innovation which was commissioned by the US Environmental Protection Agency (EPA). This model, and the research gathered by Knopman et al., was chosen for inclusion in this study for their use of both private and public organizations as case studies. The model's utility for identifying innovative government organization was demonstrated in their research, and provides particular relevance to the subject of this paper. As discussed in Chapter 1, their definition of organizational innovation involved a system of activities or processes that is described here in detail. As shown in Figure 1.1, it is an integrated system of organizational activity domains which are bonded by the organization's mission and strategy. It also highlights the importance of external influences on organizations and their ability to innovate by exploiting knowledge and information from inside and outside the organization. Successful actions in these four activity domains, while supporting the core mission, represent the characteristics of innovative organizations.[26]

[26] Knopman, *Innovation and . . .Report*, 3-4.

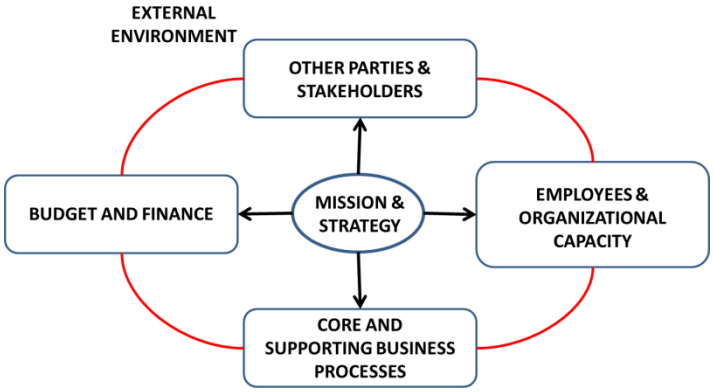

Figure 1.1 – Model of Innovative Organizations
Source: Adapted from Knopson et al., *Innovation and Change Management in Public and Private Organizations*, 3.

The first activity domain, *other parties and stakeholders*, focusses on the key area of external influences. In the private sector this would include the market and customer feedback, while for public organizations this domain would include political leadership and the citizens of the country. For military organizations this could include the departmental leadership or the higher headquarters. The second domain, *employees and organizational capacity*, includes the internal elements that enable innovation amongst an organization's membership. This includes training, culture and rewards that encourage problem solving and innovation. The third domain, *core and supporting business processes*, encompasses the formal processes that encourage problem solving and enable the adoption and maintenance of innovations. These processes also ensure that adopted innovations are linked to the organization's mission and strategy. The fourth domain is that of *budget and finance*. In the study it was found that all of the organizations with successful innovations had institutionalized a funding process for innovation.[27] It is

[27] *Ibid.*, 4.

essential to view the model as a complete system with *mission and strategy* as its central and guiding activity. Knopman et al. found that innovative organizations use performance-oriented management systems that proactively manage innovation.[28]

This model of organizational innovation identified several key characteristics which allow an organization to be innovative. It highlights the need to conduct activities to gather information from external sources to support innovation. It also demonstrated the requirement for an organization to have established processes to support innovation. It is not enough to have novel ideas if there are no processes that will support their adoption by the organization.

In order to institutionalize innovation, Knopman et al. found that beyond simply possessing these characteristics, organizations required an effective system of change management to support organizational innovation. As discussed in Chapter 1 they found change management to be a "system of innovation" which allowed organizations to prepare for change, execute change and support change. A key finding was that no individual action was sufficient by itself to support innovation. An effective change management system is what allows organizations who possess the characteristics described above to be successful in adopting and, most importantly, sustaining innovations. Another important factor of change management was the role of the organizations leadership to successfully communicate the organizations vision and have it accepted by the members. They identified that it was the role of leaders to establish a

[28] Knopman, *Innovation and . . .Executive Summary*, E-2.

culture that supported creativity and innovation.[29] Their study found that innovation involves changes in culture and that an organizational culture that embraces problem solving was found in all of the innovative organizations that they studied.[30] As was discussed in the previous section, Peters and Waterman also identified leadership and a culture of innovation as essential elements in innovative organizations. This theme was found to be consistent throughout the literature on innovation.

Denning and Dunham

Denning and Dunham developed a model that defined the individual characteristics that are required for a person to become an innovator based on eight practices identified through their research. Further to this, their research confirmed that for organizations to be successful at innovation, they needed to embed these practices and create a "culture of innovation".[31] The unique aspect of Denning and Dunham's model for innovation is that their eight practices can be learned, trained, measured and then institutionalized.[32] This aspect makes their model particularly germane to an organization seeking to improve innovation success, hence its selection for inclusion in this study. This section will give a description of the eight practices and how they facilitate innovation in organizations.

Denning and Dunham argued that the eight practices were found universally in their studies of successful innovators. As shown in Figue 2.1, they envisioned the eight practices as ". . . integrated into a non-sequential, coherent whole. . ." and as such they are

[29] Knopman, *Innovation and . . .Report*, 33.
[30] *Ibid*., 2.
[31] Denning, *The Innovator's . . .* , 291.
[32] *Ibid*, xviii-xix.

mutually supporting and overlapping.[33] The first practice described by Denning and Dunham is *sensing*. This is simply the ability to listen, learn and attempt to identify where a new possibility exists. The key aspect to *sensing* is interaction with others who possess diverse viewpoints. The practice of *sensing* is intended to "generate new possibilities".[34] After a new possibility is sensed the next practice required is *envisioning*. *Envisioning* requires the innovator to tell a compelling story about how this new possibility could be made a reality and how it would bring value to the organization.[35]

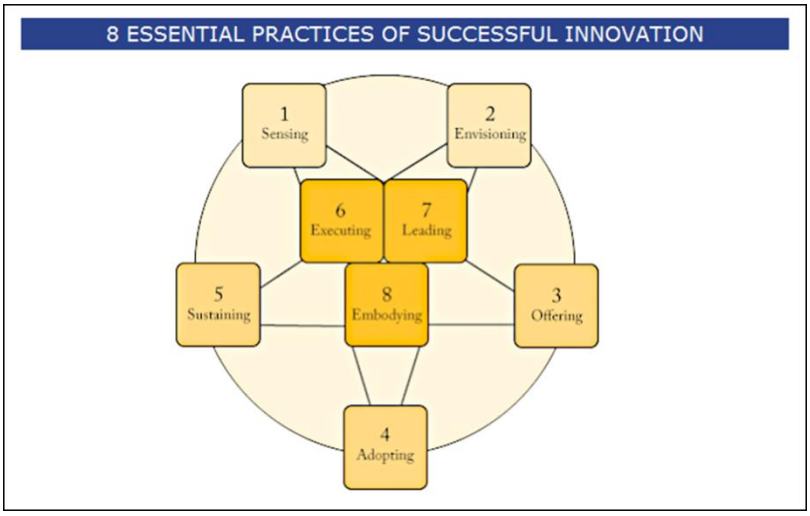

Figure 2.1 – 8 Essential Practices of Successful Innovation
Source: Denning and Dunham, The Innovator's Way

The next three practices form what Denning and Dunham refer to as the "adoption triad", which are the key practices to ensuring that a community accepts and maintains a new idea.[36] The third practice is *offering* which is the extension of the conversation that was begun during *envisioning* and is an interactive process that ensures complete understanding of the value of the new idea. *Offering* is a negotiation that encourages the

[33] *Ibid.*, 31.
[34] *Ibid.*, 137.
[35] *Ibid.*, 141.
[36] *Ibid.*, 203.

adoption of the new idea by ensuring "value, trust and satisfaction".[37] The fourth practice described by Denning and Dunham is *adoption* which is the point at which a community or organization agrees to adopt the new idea. *Adoption* occurs when the organization considers the new idea, when they agree to try it and finally when they agree to keep it.[38] Denning and Dunham make it clear that it must be expected that the organization or community will actively resist the change, which requires the use of the fifth practice *sustaining*.[39] *Sustaining* requires integrating the new idea into the organization, enabling and supporting it while dealing with resistance.[40] This is a critical practice as many new ideas will be dropped by an organization due to difficulties with implementation and group resistance to change.

The last three practices, as depicted in Figure 2.1, are central to the others as they describe the key attributes required by innovators who are able to convince their organizations to adopt and sustain new ideas or practices. The sixth practice is *executing*, which is simply the ability of the innovator to ". . . convert the possibility offered into a promise delivered."[41] The innovator's ability to deliver value as promised will build trust within the organization and improve the likelihood of future innovation. The seventh practice is *leading*, which is the ability of the innovator to motivate the members of the organization to commit to the new idea by providing a vision of future value.[42] Leaders are also vital in creating an environment or culture within the organization where new ideas are encouraged and supported. Here again, the concepts of leadership and

[37] *Ibid.*, 185.
[38] *Ibid.*, 187.
[39] *Ibid.*, 200-201.
[40] *Ibid.*, 218.
[41] *Ibid.*, 219.
[42] Ibid., 241.

organizational culture are identified as essential by Denning and Dunham, as was seen with Peters and Waterman and Knopman et al. The final of the eight practices is *embodying*, which has two aspects. Firstly the innovator must strive to have the organization embody or institutionalize the new practice or idea. Next the innovator, and all members of the organization, must strive to embody the eight practices which will allow continued success in innovation.[43]

Denning and Dunham deal specifically with the embodiment of the eight practices into organizations creating a "culture of innovation". Through their research they developed eight "conversations" that an organization must engage in to achieve a culture of innovation. They define these "conversations" as the process whereby the members of the organization ". . . talk, discuss, commit, and act to address each set of concerns."[44]

The first conversation is *foundational declarations* which includes the organizations mission, values, culture and structure. As the name suggests, this conversation must occur so the organization can identify its core purpose and other central tenets. The next conversation that needs to occur pertains to *strategy*. In simple terms the strategy will determine the ways and means that will be utilized to accomplish the organization's mission. Next the organization must address *planning business or financial outcomes*, which includes an analysis of opportunity and the alignment of these outcomes with the *strategy*. The next conversation is *operations planning* which allows the organization accomplish its business plan by setting responsibilities, timetables and goals. This is followed by *execution* which establishes the processes and tasks required to

[43] *Ibid.*, 257.
[44] *Ibid.*, 293.

accomplish the operations plan. The next necessary conversation is *new offers* which includes the ". . . development, communication and execution. . ." of new ideas and the decision to discontinue or abandon old ideas or practices. Another key conversation is *customer relations and satisfaction* which addresses the need for external input from the customers or users of the service provided by the organization. Lastly is *innovation and learning*, which is important to ensure that the eight practices are implemented, measured and maintained. This is the key conversation that allows an organization to develop a culture of innovation and remain adaptive over time.[45]

Denning and Dunham developed the eight practices through an analysis of successful innovations. The existence of the eight practices within an organization or an individual can be measured and most importantly can be trained. This model is useful in measuring the potential of an organization to be innovative and to teach members of an organization about innovation behaviours.

Conclusion

In this chapter the characteristics of innovative organizations have been examined using three of the prominent models found in the literature. An attempt has been made to balance the study of the current literature between those models designed to study private and public organizations. All three models are consistent in their overall identification of the characteristics of innovative organizations and are mutually supporting. The key elements, identified as essential to developing an innovative organization in all three models were leadership, a focussed mission and vision, and a culture of innovation. An

[45] *Ibid*., 293-294.

examination of the implications of these models to public organizations will be discussed in Chapter 3.

CHAPTER 3 – ESSENTIALS AND BARRIERS TO GOVERNMENT INNOVATION

Introduction

In Chapter 1 a discussion of the many theories and definitions of innovation led to the adoption of a definition of organizational innovation for this study. Organizational innovation is a system to ensure the generation and adoption of a new idea or behaviour within an organization that leads to improved effectiveness in achieving its core mission. In Chapter 2, several models were presented that allow for the identification of key attributes, practices or pre-conditions that exist in innovative organizations. This chapter will answer the question, *what are the essential attributes and key barriers to government innovation?*

Much of the study in the field of innovation has been carried out to help private organizations improve their performance within the competitive market place. Many of the innovative practices described in the models aim to help private companies improve their products or services, in order to increase their market share or profit. Additionally, there is a commonly held belief that hierarchical, bureaucratic organizations like those within government are too constrained by regulation and policy to be innovative. To further complicate the research for this paper, there has been little study on organizational innovation in the military. Miemie Winn Byrd found that the study of military innovation has been too focussed on the adoptions of new technologies and warfighting concepts and

not on organizational innovation. She suggests that the preponderance of study has been on "military innovations rather than innovations in military organizations."[46]

This chapter will examine the essential attributes of culture, mission and vision, and leadership, that were highlighted in all of the theoretical models, in relation to government organizations. Next, it will discuss some of the barriers to innovation that exist within government organizations. Lastly, this chapter will discuss two models that can be utilized by government organizations to initiate and implement innovations.

Culture and Leadership

In Chapter 2, it was shown that many of the current theories and models of organizational innovation emphasize the importance of culture to promote innovation. Peters and Waterman found that a culture of innovation instilled the *bias for action, autonomy and entrepreneurship* and *productivity through people* that were characteristic among the innovative companies they studied. Knopman et al. identified the need of the senior leadership to utilize the activity domain of *employees and organizational capacity* to create a culture of problem solving and innovation within an organization. Due to the many barriers to innovation that exist within government organizations, the necessity to ensure a culture that promotes creativity, debate and risk acceptance is key to fostering innovation. The creation and maintenance of this culture is often reliant on the actions of senior leaders within an organization. As a result, the concepts of culture and leadership are inextricably linked and will be dealt with together in this section.

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[46] Miemie Winn Byrd, "The Anatomy of the Innovative organization: A Case Study of Organizational Innovation Within a Military Structure," (Dissertation, University of Southern California, 2012), 4, http://digitallibrary.usc.edu/cdm/ref/collection/p15799coll3/id/12413.

The importance of culture in creating an innovative organization was prevalent throughout the literature. In Chapter 2 of this study, Denning and Dunahm's eight "conversations" required to build a culture of innovation were described. They emphasized the requirement of a culture of innovation as a pre-condition to effective organizational innovation. They also noted a specific requirement for organizations that are departments or sub-elements of larger ones, which includes most government organizations. For these sub-organizations, it would be necessary to take responsibility for any "conversation" that was not being conducted adequately by the parent organization.[47] This factor is very important as most public organizations, including those within the military, are departments, services or units within the larger government structure.

The importance of culture in promoting innovation has not just been prevalent in the literature pertaining to organizational innovation but to military innovation as well. The study of military innovation differs, in that it focuses on the introduction of new technologies, ideas or practices that had a significant impact on the way military formations conducted warfare. In *Thinking About Innovation*, Williamson Murray, a reputed military historian, who has concentrated much of his research on military adaptations and "revolutions in military affairs", discussed the roots of military innovation. In his research he found that culture, as a pre-condition to successful innovation, had received little attention by historical researchers. Murray argued that culture may be the most important factor in promoting military innovation. His research identified that, a military culture that encouraged ". . .debate, study and honest

[47] Denning, *The Innovator's . . .,* 293.

experimentation. . .” was the key to successful innovation during the inter-war years.[48] Although Murray’s studies focussed on the historical analysis of innovation and not on the organizational analysis, his findings are still germane to this study. Murray’s position supports the argument that a culture of innovation is vital, which is supported by his historical analysis.

It is important to consider not only how culture can promote innovation but also how it can oppose it. For military organizations, it would seem simple for the leadership to communicate an organization’s mission and achieve automatic acceptance amongst members as they are obliged to obey orders. On the contrary, it is very difficult in a conservative organization with a strong culture, like the military, to convince people to support change. In many instances the resistance to change can be significant despite the orders from the top to support the change.[49] An excellent example of this resistance can be seen in the CF Transformation initiative, which took place beginning in 2005 under then CDS, General Rick Hillier. When the collective General and Flag Officers of the CF were initially briefed on the concept of the upcoming transformation, the CDS’ message was well received. The next time they were briefed, which included many specifics of the plan and suggested the magnitude of the change, they immediately resisted.[50] What made CF Transformation eventually successful was the leadership of General Hillier, and his ability to communicate his vision and achieve widespread acceptance amongst the members of the CF, the Canadian public and the Government, despite the resistance of

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[48] Williamson Murray, “Thinking About Innovation,” *Naval War College Review* 54, (Spring 2001): 124-125, http://search.proquest.com/docview/205932501?accountid=9867.

[49] Michael K. Jeffery, *Inside Canadian Forces Transformation: InstitutionalLeadershipas a Catalyst for Change* (Kingston: Canadian Defence Academy Press, 2009), 18-19.

[50] *Ibid.*, 25-26.

some senior officers. Gen Hillier simply found ways to work around those who were resistant to change and promoted his new culture.[51] The experiences of CF Transformation provide an example of how a government organization can innovate, albeit for a single program of change, and not the institutionalization of enduring innovation.

In 2003, the Institute for Defense Analyses (IDA) held a workshop to analyze the culture of the US Department of Defense (DoD) to determine existing barriers to innovation, cultural changes that would promote innovation and means to achieve these. This workshop was sponsored by the Office of Force Transformation as it was identified that technological change was not enough to ensure transformation, but that cultural change would be required to institutionalize innovation.[52] Dr. Edgar M. Johnson identified, through the workshop, that in order to set the conditions for innovation in a government institution such as US DoD, the culture would need to change as a necessary precondition. He highlighted the necessity for cultural change at the individual and organizational level as a precursor to instituting a program of innovation. He asserted that the two main "levers" for changing culture are human resources and processes and systems, and that the leader's ability to utilize these "levers" is the key to cultural change. Johnson explained that "These levers change the people, the experience people have in the organization, and how the experience is interpreted."[53]

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[51] *Ibid.*, 115-117.

[52] Edgar M. Johnson, Report of: Workshop Introducing Innovation and Risk: Implications of Transforming the Culture of DoD, March 2004, ES-1, http://www.au.af.mil/au/awc/awcgate/transformation/oft_intro_innov_risk.pdf.

[53] *Ibid.*, II-9.

The first lever, human resources, includes the organization's education and training system, the personnel management system and the senior leadership. To change an organization's culture it is imperative to ensure that education and training of new members and leaders, introduces or reinforces the desired culture. The personnel management system must include incentives to reward those members who best represent the cultural attributes, which can include postings, promotions or decorations and awards. The most important aspect of this lever is the senior leadership. It is their responsibility to communicate the desired culture to the organization's membership and to external stakeholders. This can be accomplished through signals such as communications, public affairs initiatives and through their oversight of change programs. It is also accomplished through symbolic acts and actions which reinforce to the organization, and external stakeholders the importance of the desired cultural change, and demonstrate the concrete steps being taken to accomplish it.[54] The second lever, processes and systems, can involve more radical change as it involves making changes to organizational structures or introducing new systems that change the way the organization operates.[55] This lever forces changes in culture by creating changes in the way members interact and work. The creation of a new operational command structure during CF transformation is an example of the application of this lever.

In her study, Miemie Winn Byrd found that transformational leadership was an essential antecedent to innovation. She identified transformational leadership as the ability of a leader to develop a clear organizational vision, communicate it internally and

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[54] *Ibid.,* II-11.
[55] *Ibid.,* II-10.

externally, and achieve commitment from the organization's membership. She also identified the importance of creating an organizational structure and culture that supported innovation.[56] Her study concluded that organizations, like the military, that function within ". . . a seemingly rigid bureaucratic structure and system. . ." can be innovative provided that certain pre-conditions or antecedents were present.[57] She identified these internal antecedents as the individual attributes of members and innovators, the roles and attributes of the leaders, and the organizational culture and structure.[58]

In the past eight years there has been positive progress in the development of a culture of innovation within the CF. In 2005 the first major CF Transformation took place which saw a complete change to the way in which CF operations were conducted and also saw the creation of CANSOFCOM. Since that time there has been another major round of transformation conducted which resulted in further changes to improve the operational performance of the CF. The problem with these attempts at innovation within the CF has been the episodic fashion in which they have been conducted. As opposed to creating a "system of innovation" that would promote change and support adoption and sustainment of innovations, the CF has viewed innovation as a project which has a defined end state. However, there have been positive signs within the services that there is now some understanding that innovation and change are "the new normal" and that systems must be created to encourage and support innovation. In 2012, the Commander of the Royal Canadian Navy, Vice Admiral Paul Maddison, made this point regarding Navy

[56] Byrd, *The Anatomy . . .*, 104.
[57] *Ibid.*, 5.
[58] *Ibid.*, 15.

Transformation. "Transformation is not a destination. It's a journey, a process and culture of continuous renewal and improvement, informed by a clear vision of what we need to do today, as well as what we must eventually become."[59] Comments like this suggest that a more fulsome understanding of innovation exists within the CF. As the senior leadership of the CF embrace this concept and communicate it to their subordinates it will make innovative military organizations a much more likely reality.

It has been shown that culture is a key enabler to developing an innovative organization, but it can also be a barrier. Throughout the research of innovation in government organizations the key role of the leadership to promote and enable change is a common thread. Despite the difficulties posed by changing the culture in organization, like the military, which have strong and potentially conservative cultures, the critical first step is identifying the need for change. If the senior leadership of a government organization is committed to promoting innovation they can establish and communicate a clear vision which will change the culture of their organization. There is a requirement to also institute the processes to support the change and deal with the other barriers that will be discussed in the next section.

Barriers to Innovation

As shown in the last section, the culture of an organization can be a significant promoter of innovation. By virtue of its essential nature to enable organizational innovation, culture can also become the largest barrier to innovation. Throughout the literature there are also other barriers identified, that can create difficulty for

[59] Canadian Naval Review, "Naval Transformation Announcement," Last accessed 19 April 2013. http://www.navalreview.ca/2012/05/naval-transformation-announcement/

organizations to become innovative. Some of these barriers are predominant in government organizations and need to be addressed for the development of truly innovative government organizations.

Cohen and Eimicke argue that there are certain barriers to innovation that exist due to the very nature of government organizations. In order to adopt innovation strategies, public organizations must remain vigilant in maintaining the legislated demands of due process that exist for them. In government organizations, including military ones, there is a necessity to balance the desire for innovation and improved performance with the potentials for conflicts of interest, abuses of the public trust and adherence to government policy.[60] The fact that policies and laws exist to regulate the way in which public organizations deliver services is an important and necessary part of a democratic government. While these policies can aid in defining levels of service, preventing the misspending of public funds, and preventing personal gain by public servants, they can also lead to a failure to adapt to new methods of innovation that may contribute to mission success.

Grothe identified that one of the major barriers to developing a culture of innovation within US DoD is the difficulty in supplanting the existing "culture of process". DoD like many other larger, complex organizations has developed a significant bureaucracy, and the accompanying processes, to attempt to deal with the sheer size and complexity of managing the department. He noted that a focus on process as opposed to

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[60] Steven Cohen and William Eimicke, "Understanding and Applying Innovation Strategies in the Public Sector," (presentation, 57th Annual National Conference of the American Society for Public Administration, Atlanta, GA, June 29-July 3, 1996), 7, http://www.columbia.edu/~sc32/documents/aspa96fnl.pdf.

results tends to stifle innovation, as processes focus on control rather than change. He suggests that, to overcome this barrier requires a proactive approach by leaders to promote debate, and risk taking amongst their subordinates. As well, they must focus their attention on the issues and outputs as opposed to dictating the specific process or solutions to their teams.[61]

Johnson made it clear that key enabler or barrier to an organizations ability to sustain change is organizational culture.[62] In his work he underscored three other barriers barriers to innovation within DoD. The first obstacle was that Force Transformation or innovation was not viewed to be essential to the future success of the department. Although clear guidance and direction was given for transformation it was viewed as just another task, and not a key requirement to change the department to improve future effectiveness. A second barrier identified by Johnson was the bureaucracy and perceived complexity of business systems within DoD. These systems such as personnel management, the training system, budget programming and acquisition were not well understood by the members of the organization, which made it more difficult to identify the appropriate areas for change. As well, the complexity and poor understanding of the legalities of financial authorities were also barriers to innovation. Thirdly, he identified that due to the separations of the three services (Army, Navy, Air Force) there was no common understanding across the services of the potential joint areas for innovation. This created a system where action officers in the different services were unable to identify

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[61] Glenn K.Grothe, "Innovation Versus Adaptability: Seizing the Initiative Through Creative Thinking Versus Reacting to the Enemy," (Monograph, United States Army Command and General Staff College, 2009), 36-37, http://www.au.af.mil/au/awc/awcgate/sam/innov_vs_adapt_grothe.pdf.

[62] Johnson, *Workshop Introducing . . .*, I-1.

their counterparts and search for suitable areas for joint innovation and to ensure they were not working against one another.[63]

Johnson identified several key sources of resistance to change that are commonly found in individuals and organizations and impede changing the culture. For individuals there is often a great fear of the unknown, and a craving for security that can be threatened by the potential for change. It was also identified that habit often times won out over the possibility of changing processes, potentially causing a re-valuing of skills or knowledge. This factor was compounded by individual's self-interest, which manifested itself in a fear of "rocking the boat" or the lack of motivation to take risks that offered little personal reward. It was shown that the greatest number of perceived barriers appeared at the organizational level. One of the key barriers was the commonly held perception that the bureaucratic system of DoD constrained freedom of action. This belief could cause members to never attempt change as they believed it was futile under the existing system. It was also identified that between the services and sub-organizations there was a lack of trust, and differing perceptions and goals which was a barrier to change. The most obvious barrier which was confirmed by the workshop was the negative effect of resource limitations. The workshop found that a systematic process was required to identify these barriers to change and to eliminate them in order to develop a culture of innovation within US DoD.[64]

From this example, it is apparent that the focus on policy and regulation within the bureaucracies of government organizations, and the perception that they limit freedom of

[63] *Ibid.,* II-8.
[64] *Ibid.,* II-8-9.

action has become a part of the organization's culture. To eliminate this barrier would require the leadership to promote a cultural change but would also require changes to the management of processes within the organization. There must always be an acceptance of the legislated boundaries where a government organization operates. In an innovative organization that continually questions policies and processes which do not contribute to achieving the core mission, it is possible to eliminate unnecessary impediments while still conforming to the legislated rules that must be followed. It is possible for government organizations to be innovative if it is made a priority.

Public Sector Innovation

Olivia Golden, in her work on innovation adoptions in public sector human services programs, introduced two models of innovation. It is important to differentiate that she was not studying the organizational factors that promoted innovation, but rather the method by which the innovations were adopted and implemented. Her study was particularly relevant to help identify the systems, processes and methods by which a government organization could establish a single innovative operating program.[65] The models do not refer to the establishment of an innovative organization, and in that respect they are complementary to the innovative organizational models studied in Chapter 2.

The first model she identified was the "policy planning model" which focussed on identifying the innovative idea, and designing a detailed program or policy to implement it. Once the policy was in place the manager would use incentives and controls to force

[65] Olivia Golden, "Innovation in Public Sector Human Services Programs: The implications of Innovation by 'Groping Along'," *Journal of Policy Analysis and Management*, Vol. 9 Issue 2 (Spring 1990): 221, http://ehis.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=f1142b53-1394-464f-b451-8b261a89feba%40sessionmgr13&vid=4&hid=7 .

compliance and ensure that further adaptation of the policy would not occur at the ground level. The "policy planning model" also encouraged the use of dedicated analysts, who were not influenced by the day to day pressures of service delivery, to design the policies and enforce compliance.[66] This model is a typical top-down, centralized approach to innovation and can be seen often within government organizations including the military. It involves long and detailed planning, and is relatively inflexible after implementation.

The second model she identifies is the "groping along" model. A polar opposite to the last model, "groping along" suggests that an effective policy or program can only be created once the innovative idea is practiced, experimented with and subjected to the rigours of execution at the ground level. The main concept is that a manger must act on the innovative idea and then make adaptations due to the successes and failures along the way. This would lead to a program or policy that has been validated and tested by the harsh rigours of reality.[67] This approach is a classic bottom-up approach to innovation which Golden's study suggests is sometimes difficult to sell in the public service, where experimentation or failure are often considered to be a waste of resources.

Robert Behn, who was the originator of the "groping along" model, made an important argument against the "policy planning" model's use of dedicated analysts focussing on innovation while mid-level managers keep their focus on the day to day operations. He argues that developing better ways to deliver products or service is the job

[66] *Ibid.*, 224-225.
[67] *Ibid.*, 226-227.

of every member of an innovative organization.[68] The mid-level managers and members of those operating divisions also have the most direct interface with the customers and can apply "ground truth" when developing innovative concepts. It is worthwhile to note that of the seventeen successful, and award winning, innovations in Golden's study, all seventeen utilized the "groping along" method.[69]

Golden's models do confirm that it is possible for government organizations to innovate, at least in an episodic fashion. The two models are important to consider, when an organization designs the processes and structures that it will use to support innovation. From Golden's study it is clear that an innovative organization would be best served by processes that would support a "groping along" model for innovation adoption and implementation.

Conclusion

In this chapter the concept of a culture of innovation and its importance for innovation in government organizations has been discussed in detail. It has been shown that organizational culture can be one of the largest enablers or barriers to organizational innovation. The importance of leadership in establishing this culture, and creating a system of innovation has also been addressed. Leaders are responsible for creating the vision of the organization and developing its mission. They are also required to communicate this vision and ensure its acceptance by the members of the organization. Leading by example, they must ensure that a culture of innovation is established and that

[68] Rober D. Behn, "Creating an Innovative Organization: Ten Hints for Involving Frontline Workers," *State and Local Government Review* Vol. 27, No. 3 (Fall 1995): notes 1. http://govleaders.org/behn_innovation.htm.

[69] Golden, *Innovation in Public Sector . . .*, 242-245.

innovative practices and processes are embedded within and across all functions of the organization.

Through a proper understanding of the role of leadership and culture to promote organizational innovation, and an understanding of the barriers that exist, there is no reason that governments cannot be innovative. In the next chapter, examples of innovative organizations will be discussed, including innovative government organizations to demonstrate how these characteristics manifest themselves in real organizations.

CHAPTER 4 – CASE STUDIES OF INNOVATIVE ORGANIZATIONS?

Introduction

Over the past three chapters we have defined organizational innovation, examined the key attributes of innovative organizations and discussed the ability of government organizations to innovate. In this chapter, two case studies will examine organizations that have been identified as innovative in the literature, to develop a better understanding of how the theories covered in this study apply in practice. In order to get the most comprehensive picture possible, a case study from a private sector organization and a public sector, military organization will be examined.

Private Sector - Procter and Gamble

In a review of the literature on organizational innovation there are certain organizations which appear repeatedly. In the case of private companies, one such example is Procter and Gamble (P&G). From the earliest source used in this study, Peters and Waterman's *In Search of Excellence* from 1982, the name P&G is continually included in discussions of innovative organizations. This section will examine how some of the key characteristics from the different innovation models examined so far manifested in P&G.

Since its founding in 1837, P&G has made continual improvements to its processes, structures and products to improve its overall effectiveness and success. As it states on its company website, it is a "Company Inspired by Purpose" and goes on to describe its purpose to ". . . provide branded products and services of superior quality and

value that improve the lives of the world's consumers. . ."[70] This core purpose, or vision, has been a guiding factor for P&G through much of its history and is the foundation of their organizational culture. Peters and Waterman highlight that commitment to quality and employee relations formed the core vision of the company from the beginning, and have remained extant. They also noted that the cultural mythology of excellent companies, like P&G, were essential to the promotion and enduring nature of their corporate culture.[71] This mythology continually reinforced the core values of the organization so that even new employees accepted them as a given, and as a result bought-in to the culture.

On P&G's home page they also highlight their commitment to innovation, stating that "Since our founding, P&G employees have been driven by our purpose to touch and improve lives with innovation."[72] This enduring commitment to innovation has been noted in many of the studies conducted on innovative organizations. Knopman et al. highlighted that "P&G believes that innovation is the cornerstone of its success and its people are its most important asset".[73] It is important to note that this focus on innovation is not a new occurrence or a reflection of an "innovation fad" in business and management. P&G institutionalized innovation in the 1850s with their adoption of the concept of "continuous improvement", 130 years before this concept became popular

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[70] Procter &Gamble, Last accessed 19 April 2013, http://www.pg.com/en_US/company/purpose_people/index.shtml.

[71] Peters, *In Search of Excellence . . .*,76.

[72] Procter &Gamble, Last accessed 19 April 2013, http://www.pg.com/en_US/company/purpose_people/index.shtml.

[73] Debra, Knopman, et al., *Innovation and Change Management in Public and Private Organizations: Case Studies and Options for EPA – Appendices*, (Arlington: RAND Science and Technology, 2003), 54, http://www.rand.org/content/dam/rand/pubs/documented_briefings/2005/DB393.2.pdf.

amongst American businesses in the 1980s.[74] The combined core values of providing quality products and continuously improving created a winning combination to enable innovation at P&G throughout its history.

Another key to P&G's enduring success at innovation was a concept that the company institutionalized in 1931, the competing brand management structure. Brand management was created to force all of P&G's brands to compete against each other as if they were from different companies. The idea was to create internal competition to provide a "discomfort mechanism" that would force P&G employees to constantly innovate, even if the market provided no significant competition. According to Collins and Porras, who studied P&G in their seminal work on visionary companies, this "discomfort mechanism" was put in place to "combat the disease of complacency" as P&G had the best products, personnel and marketing at that time.[75] Peters and Waterman also emphasized P&G's brand management structure as vital to their success at innovation. They note that P&G's cultivation of not just a culture, but structure, of innovation has allowed them to develop "creative conflict" within their organization.[76] The leadership of P&G identified that they must institutionalize innovation and make it a part of their organization's culture in order to ensure continual improvement in the achievement of their mission.

In more recent times, perhaps the greatest example of P&G's commitment to innovation has been implemented. In the year 2000, P&G suffered a huge loss and saw

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[74] James C.Collins and Jerry I. Porras. *Built to Last: Successful Habits of Visionary Companies*. (New York: HarperCollins Publishers, 1994), 186.

[75] *Ibid*., 187-188.

[76] Peters, *In Search of Excellence . . .*, 216-217.

their stock plummet from $118 to $52 per share. They realized that part of the problem was their failure to update their innovation model since the 1980s despite the many changes that had occurred in both technology, and the ways innovation was being accomplished by other companies.[77] Instead of investing more money into Research and Development (R&D), internal to the company, they realized that a new organizational approach to innovation was required. This led to the development of the new concept of Connect and Develop (C&D) which was a move to increase both internal and external links to improve innovation by identifying good ideas from outside the company, and then using internal R&D, product design and marketing to ensure adoption and dissemination.[78] This new "system of innovation" would focus on leveraging networks to identify new ideas internally, across business units and functions, and externally from universities, research companies and even competitors. This new model was based on the emerging concept of "open innovation" that came into practice after the advent of the internet and the new found ability of organizations to create large networks for sharing ideas. P&G maximized their actions in the activity domain of *other parties and stakeholders* which enabled them to drastically improve their ability to innovate.

This move by P&G to restructure their organizational approach to innovation was an excellent demonstration of their belief in their core principle of continuous improvement. It is important to note that this change, which resulted in a doubling of P&G's innovation success rate, not only required a structural change to accomplish, but a

[77] Larry Huston and Nabil Sakkab "Connect and Develop: Inside Procter & Gamble's New Model for Innovation," *Harvard Business Review*, Vol. 84 Issue 3(March 2006): Reprint R0603C, 2, http://www.proinno-europe.eu/sites/default/files/1_1_von_Heimburg_a7986.pdf.

[78] *Ibid.*, 3.

cultural change as well. The company's long lasting success at innovating had created a culture of resistance to ideas that came from outside the organization, those that were "not invented here". To make C&D successful that attitude had to be shifted to a new attitude towards outside ideas as "proudly found elsewhere".[79]

Another important aspect of the move to C&D was the role of P&G's CEO, A.G. Lafley. It was he who initially identified that the old model for innovation was not sufficient and challenged the organization to ". . . reinvent the company's innovation business model."[80] Knopman et al. noted that Gordon Brunner, former Chief Technology Officer at P&G, emphasized that "the primary determinant of a supportive environment for innovation is an active CEO". Their research also highlighted the requirement of the CEO to take an active role in the innovation process as it is possible that resistance to change will develop within parts of the organization that feel threatened by the proposed changes.[81] The importance of leadership in promoting innovation has appeared throughout all of the models that have been used in this study and was identified as a consistent force in the enduring success of innovation at P&G.

In Chapter 2, Peters and Waterman's concept of *a bias for action* was discussed as an important attribute for innovative organizations. This attribute was described as developing systems for rapidly identifying problems and finding solutions. In their study they found that P&G embodied this attribute throughout its history through their constant efforts to simplify systems and encourage action. "P&G systems are small in number and

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[79] *Ibid.*, 3.
[80] *Ibid.*, 2.
[81] Knopman, *Innovation and . . . Appendices*, A-55.

simple in construction, in harmony with the institution's no-nonsense approach to execution."[82] P&G's belief in "continuous improvement" applied not only to their products but their business systems and structures as well. An excellent example of this was the "one-page memorandum" which is now part of the folklore of corporate America. Peters and Waterman found that the leadership of P&G over the years were consistent in their demand for rapid decision quality information from their members. The idea of the "one-page memorandum" was to force their employees to distill down the amount of information presented to the executive for decisions. Past president of P&G, Richard Deupree stated "Part of my job is to train people to break down an involved question into a series of simple matters. Then we can all act intelligently."[83] The one-page memorandum also ensured that there was no way to bury the details of a problem deep into a report. The numbers and facts were all up-front and could be easily debated and verified so that rapid decisions could be made. The demand for critical analysis, and the presentation of facts and not opinions was the aim of the one-page memorandum, and it was indicative of the way all business was done at P&G.[84]

The culture of P&G is another area that is prevalent throughout the literature. Collins and Porras describe a *cult-like culture* as a key characteristic of visionary companies. They emphasized that P&G was adept at the formal and informal indoctrination of employees into their culture. They are known for their ruthless screening to ensure "tightness of fit" of new members, and their indoctrination heavily emphasizes the heritage of the company and the icons who established it. Members are taught to think

[82] Peters, *In Search of Excellence . . .*,150.
[83] *Ibid.*, 150-151.
[84] *Ibid.*, 151.

of the company as a family and are expected to socialize with and involve fellow P&G employees in all aspects of their lives. P&G is also well known for its excellent pay and benefits, which goes back to 1887 when they introduced profit-sharing to their employees. This financial incentive is used to reward performance and to gain a higher level of commitment from employees. All of these characteristics create a cult-like culture where there is extreme commitment to the organization, its core values and pursuit of excellence.[85]

Using the model from Knopman et al. shown in Chapter 2, it is possible to highlight the areas where P&G demonstrated the characteristics of an innovative organization. Most importantly, P&G based all of its business activities on a well-defined core mission and values that were clearly communicated to all members from the senior leadership. They created a culture of innovation, and ensured that new members were selected and indoctrinated to ensure their compatibility with this core belief in innovation. Those same leaders took an active part in the process by establishing a "system of innovation" to support and guide innovation within the company. They ensured that substantial funding was made available to prepare, execute and support change. P&G developed methods to ensure successful communication from internal and external stakeholders to encourage and support innovation adoption. P&G's ability to create an innovative organization is one of the factors that is credited with allowing them to grow, from a soap and candlestick maker in Ohio, into a worldwide corporation whose market capitalization is greater than the Gross Domestic Product of many countries.

[85] Collins, *Built to Last . . .*,131-135.

Public Sector – Central Identification Laboratory

In her 2012 study on organizational innovation within a military structure, Miemie Winn Byrd, demonstrated that not only was innovation possible within public organizations, but within the military as well. She identified that there is a common perception, as discussed in Chapter 3 of this study, that organizations within a ". . . rigid bureaucratic structure and system – such as the military. . ." are unable to innovate. Her study demonstrated that military organizations are able to innovate, and also to become innovative organizations.[86] In this section her example of an innovative military organization, Central Identification Laboratory (CIL), will be examined.

To ensure an understanding of the role of CIL within US DoD, a bit of background is required on the organization itself. The CIL is a forensic laboratory which is responsible for locating, recovering and identifying the remains of US service personnel from past conflicts.[87] This organization is unique within the military due to its role and the make-up of its membership as primarily forensic scientists. Winn Byrd did note that the application of her analysis to combat units within the military would require additional research as the CIL was purely a support organization. However, the results do account for the establishment of an innovative organization within, what has been considered the large, rigid and conservative culture that is US DoD.[88] By examining the characteristics that allowed CIL to become an innovative organization it will be possible

[86] Byrd, *Anatomy. . .*, 5.
[87] *Ibid.*, 6-7.
[88] *Ibid.*, 11-12.

to identify characteristics that will aid CANSOFCOM to become a more innovative organization.

Winn Byrd's study found that CIL's mission, vision and goals were essential to its ability to be an innovative organization. The research noted that there was a clear understanding of the mission amongst all members of the organization, and that its compelling nature created significant commitment from the membership.[89] It was also noted that this strong belief in the core mission drove the membership to continually find innovative solutions in order to find ways to identify soldiers' remains. According to the research this resulted in the CIL developing ". . . 29 significant innovations in human remain identification methods . . ." over a three year period.[90] This evidence supports the model proposed by Knopman et al. where the core mission and vision are the central factor to developing an innovative organization.

As discussed earlier, leadership and the creation of a culture of innovation is critical to developing an innovative organization. Winn Byrd's study found that transformational leadership and the ability of CIL's leaders to articulate their vision and goals was a key factor in developing a culture of innovation at CIL. She noted that they were able to link CIL's vision to an ideological goal which helped to achieve maximum buy-in from its membership. It was observed that the CIL leadership used ". . . symbols, signs and rituals to promote identity and group cohesion. They make them feel like they are . . . part of something large."[91] This idea of a cult-like culture was also seen in the

[89] *Ibid.*, 57-58.
[90] *Ibid.*, 59.
[91] *Ibid.*, 60-61.

study of P&G, and the research of Collins and Porras who found that all of their visionary companies possessed it. The role of senior leadership in creating a culture of innovation was essential to CIL's ability to innovate.

Although CIL's ability to develop new technological and scientific solutions to problems is impressive, it does not necessarily suggest an ability to achieve organizational change. Winn Byrd's study found that CIL also sought out ways to change their structures and processes to improve the performance of the organization. This was particularly evident in CIL's efforts to ensure that its staff members were the "best and brightest" in the field of forensic science. Winn Byrd's study found that the leadership clearly acknowledged that innovation was only possible where you had the right people working within the right culture and structure. CIL made a concerted effort to develop new solutions to human resource (HR) management while still functioning within the confines of the DoD HR policies and structures. They created a new program, in concert with the scientific community and academic institutions, the Forensic Science Academy (FSA), which allowed them to bring in potential members and evaluate them before hiring for a full time position. In addition, when a member was hired they were given a three year term position, the first year of which was probationary. This allowed CIL to decide if a permanent position would be offered or if the member would be released. This flexibility in staffing allowed CIL to have only the best staff, which had proven themselves and committed to the vision of the organization. The end result of their HR process was a group of people who had competed for several years to earn their positions,

and this was seen to be a powerful driver for innovation and accomplishment.[92] This initiative involves aspects of all four of Knopman et al.'s activity domains, driven by a core mission and strategy, and demonstrates the degree to which CIL achieved organizational innovation. CIL developed the process to ensure that only the best candidates, who believed in the organization's vision and had proven their ability to contribute to the success of the organization, achieved membership. They did this in partnership with the scientific and academic communities and allocated the appropriate budget to ensure its success. This effort has implications across the domains of *mission and strategy, employees and organizational capacity, core and supporting business processes, budget and finance* and *other parties and stakeholders.* This is an excellent representation of the interrelation between the activity domains and how they contribute to organizational innovation in the real world.

Through an examination of Winn Byrd's research, it has been shown that the CIL is an innovative organization. More importantly this research demonstrates that creating an innovative organization is possible for public institutions and also possible within the military. This example has significant potential to demonstrate how CANSOFCOM can become a more innovative organization, which will be covered in the next chapter.

Conclusion

In this chapter real world examples of innovative organizations have demonstrated the validity of the models discussed in Chapter 2. Through an examination of the attributes and characteristics of these organizations, this study was able to show how

[92] *Ibid.*, 61-62.

those characteristics manifested themselves and contributed to the organization's ability to innovate. These examples provide a concrete demonstration of how innovation theory can be put into practice and will be drawn upon in the next chapter to determine how CANSOFCOM can be a more innovative organization.

Chapter 5 – CANSOFCOM AS AN INNOVATIVE ORGANIZATION

Military personnel attracted to special operations forces are those who thrive within the looser structure and culture of innovation that characterizes SOF.
-Susan L. Marquis, *Unconventional Warfare: Rebuilding US SOF*

Introduction

Over the past four chapters organizational innovation has been defined, and the characteristics that are common among innovative organizations have been identified. The barriers to innovation that exist within organizations, and the crucial roles of leadership and culture were examined. Examples of organizations from both the private and public sector were examined to demonstrate that organizational innovation can be achieved within the public sector, including military organizations. In this chapter, all of this research will be utilized to determine how CANSOFCOM can become a more innovative organization. Firstly, some background will be provided on CANSOFCOM as an organization, including its mission, structure and culture. Next, using the theoretical models provided earlier, an examination of the command's possession of the characteristics of innovative organizations will be undertaken to highlight areas where CANSOFCOM is set-up for successful innovation, and areas where requires improvements.

CANSOFCOM Background

In order to appreciate the position of CANSOFCOM within the CF it is necessary to understand some of the history behind its creation. CANSOFCOM was created during the Chief of Defence Staff's (CDS), General Rick Hillier, CF Transformation process and

stood up officially on 1 February 2006. CANSOFCOM was created to increase the CF's ability to conduct special operations that until that time had been limited to Canada's counter-terrorism unit, Joint Task Force 2 (JTF 2). The creation of CANSOFCOM would bring JTF 2 together with key enablers, like the Canadian Joint Incident Response Unit (CJIRU), 427 Special Operations Aviation Squadron (427 SOAS) and the Canadian Special Operations Regiment (CSOR), under a single headquarters (HQ) and one commander. [93] This structure allows the Commander of CANSOFCOM to bring together the unique capabilities of each unit to form task-tailored Special Operations Task Forces (SOTFs) for each particular mission. This method of employment is called the Integrated Operating Concept, and it gives the Commander the flexibility to respond with the appropriate force package considering the scope of the problem, impact of timelines, desired effects and the need for precision.[94] CANSOFCOM employs the integrated operating concept to achieve its mission of ". . . provid[ing] the Government of Canada with agile, high-readiness SOF capable of conducting special operations across the spectrum of conflict at home or abroad."[95]

The roles and structure of CANSOFCOM are unique within the CF, in that it has responsibilities similar to that of a military service, an operational command, a formation and a training and doctrine command. It has responsibilities which overlap across the force development (FD), force generation (FG), force employment (FE) and force management (FM) spectrum. It acts as an operational command, in its role to force

[93] MikeRouleau, *Between Faith and Reality: A Pragmatic Sociological Examination of CANSOFCOM's Future Prospects* (Kingston: Canadian Defence Academy Press, 2012), 13.

[94] Canadian Special Operations Forces Command, last accessed 16 April 2013, http://www.cansofcom-comfoscan.forces.gc.ca/gi-ig/ioc-coi-eng.asp.

[95] Canada. Department of National Defence, *Canadian Special Operations Forces Command : An Overview*, (Ottawa: Canadian Special Operations Forces Command, 2008), 8.

employ SOTFs directly or in conjunction with Canadian Joint Operations Command (CJOC). It has military service-like responsibilities as it is responsible for the FD, FG and FM of all SOF in the CF. It is a formation, with responsibility for four operational units and a training and doctrine command, responsible for its own training institution, the Canadian Special Operations Training Centre (CSOTC), and its own doctrine development.

Another unique aspect of CANSOFCOM is the make-up of its sub-organizations and its membership. As noted by Colonel Rouleau, the current Director of Special Operations Forces, in his sociological study of the command, due to the manner and timing in which CANSOFCOM was created, its sub-organizations are in different phases of organizational development. While JTF 2 was a developed and operationally proven organization in 2006, the other units and CANSOFCOM HQ were fundamentally new organizations which would require time to mature.[96] The ability of SOF organizations to conduct screening and selection to choose their members is a key contributor to the organizational culture. This is similar throughout CANSOFCOM's units but not the case for its HQ. The HQ is staffed in a similar manner to the other HQ organizations throughout the CF, although there is constant consideration given to staffing the HQ with a sufficient number of operators from across the units in key positions.[97] This diverse membership has the potential to create friction within the organization, and particularly between the units and the HQ. The presence of these two "constituencies" can create very different perceptions of the same situation as each ". . . possess different lenses through

[96] Rouleau, *Between Faith . . .*, 67-69.
[97] *Ibid.*, 69.

which they view one another and the overall mission."[98] This aspect of CANSOFCOM's make-up and its organizational culture will be discussed in the next section.

It is worthwhile, as background to the discussion of innovation within CANSOFCOM, to dispel some myths about SOF and the way it fits within the CF as an institution. One myth is that SOF are extremely expensive, and therefore create a drain on the operational budgets of the other services. Due in large part to the fact that SOF are not equipment platform-based forces, like the other services, they are very cost effective. Due to their small numbers it is possible to outfit SOF operators with equipment that would be far too expensive if put into general service. Another myth is that SOF is agile because it is not subject to the normal legal and policy restrictions as the other services. CANSOFCOM must conform to all the same government rules for finance and procurement as the rest of the CF.[99] Considering these facts, the regulatory and legislative barriers to innovation are the same for CANSOFCOM as they are for the rest of the CF.

Next, it is relevant to examine the specific tasks that CANSOFCOM has been assigned by the CDS. In order to carry out its assigned mission, CANSOFCOM has been given five core strategic tasks by the CF:

> 1. Provide advice on special operations to the Chief of the Defence Staff and other CF operational commanders;
> 2. Generate deployable, high readiness Special Operations Forces (SOF) capable of deploying as part of a broader CF operation, or independently;
> 3. Conduct and command SOF operations on behalf of the CDS;
> 4. Continuously develop SOF capabilities and tactics; and

[98] *Ibid.*, 70.

[99] Bob Kelly, "Special Operations Forces Force Development," In *Special Operations Forces: A National Capability* (Kingston: Canadian Defence Academy Press, 2011), 81-82.

> 5. Maintain and promote relationships with Canadian security partners and allied special operations forces.[100]

These core tasks highlight the breadth of functions that the command must accomplish within its own force. The fourth core task of "continuously developing SOF capabilities and tactics" is particularly germane to the discussion in this paper. It is apparent from these assigned tasks that CANSOFCOM must promote some level of "continuous improvement" as we have seen in the innovative organizations studied in the previous chapters. As discussed in the introduction to this paper, the CANSOFCOM vision also calls for agility, adaptability and high-readiness which also reinforces the conclusion that innovation is a necessity for CANSOFCOM. In the next section CANSOFCOM will be examined to determine its existing and required attributes to be an innovative organization.

CANSOFCOM's Innovative Characteristics

Using the different models examined in Chapter 2, it is possible to gauge the characteristics that are currently present to allow CANSFOCOM to be an innovative organization. A culture of innovation is the most apparent characteristic of an innovative organization that CANSOFCOM demonstrates. In the previous chapters it has been shown both through theory and practical examples that culture and leadership were the decisive elements of innovative organizations. These characteristics will be discussed in depth, and then focus will be placed on the systems and processes that CANSOFCOM has established to promote innovation.

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[100] Canadian Special Operations Forces Command, last accessed 16 April 2013, http://www.cansofcom-comfoscan.forces.gc.ca/gi-ig/ioc-coi-eng.asp.

Culture and Leadership

Culture has emerged throughout this study as the most commonly identified trait of an innovative organization. As was shown in the examples of P&G and CIL, a culture of innovation was vital to their success. In several respects, CANSOFCOM has excellent attributes that contribute to the development of this type of culture.

To understand the organizational culture of CANSOFCOM, it is relevant to examine the qualities of their specially selected operators, and how those attributes influence the culture. Colonel Bernd Horn describes the qualities of SOF operators, taken from CANSOFCOM's Capstone Concept, as: "Risk Accepting, Creative, Agile Thinkers, Adaptive, Self-Reliant, Eager for Challenge, Naturally Oriented to the Pursuit of Excellence, Relentless in their Pursuit of Mission Success and Culturally Attuned".[101] At first glance there are obvious indications of a focus on innovation. In all of the theoretical models, and the case studies, there was continued reference to these same qualities. Attributes like risk acceptance, creativity, agile thinking (inventiveness), pursuit of excellence (bias for action), and pursuit of mission success are precisely the qualities that innovative organizations try to instill in their members. Dr. Robert Spulak argued that there is a fundamental difference between the way that SOF and conventional forces innovate. He pointed out that it was possible for SOF to conduct rapid, bottom-up innovation due to the operator's personal attributes and the culture of the organization.[102]

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[101] Bernd Horn,"Education: A Key Enabler for SOF Operators," In *Special Operations Forces: Building Global Partnerships* (Kingston: Canadian Defence Academy Press, 2012), 140-142.

[102] Robert G. Spulak, *Innovate or Die:Innovation and Technology for Special Operations*, (MacDill AFB, Florida: The JSOU Press, 2010), 53, http://www.au.af.mil/au/awc/awcgate/jsou/innovate_or_die_spulak_dec2010.pdf.

Spulak also argued that the ability of SOF to successfully achieve their missions was due to their ". . . skills applied with adaptability, improvisation and innovation. . ."[103]

Due to the nature of SOF operators it is clear that CANSOFCOM has a strong foundation for building a culture of innovative. The impact of having a group composed of these operators was summed up well by Susan Marquis in her seminal work on the rebuilding of US SOF in the 1980s:

> SOF organizational culture has also been maintained through the inculcation of organizational values through selection, assessment, and training. Special operations training attempts to find and develop within individuals an extraordinary inner strength and an ability to think and innovate.[104]

As mentioned in the previous section, not all members of the command are special operators who are selected for those attributes that were discussed above. All members of the command are screened to a certain extent but not to a level that can ensure the presence of innovative attributes. How then can CANSOFCOM ensure that it does not jeopardize its culture by overwhelming the innovativeness of its operators with conventional personnel? The answer comes in the clear communication of the command's mission and vision, and a formalized indoctrination program that promotes a culture of innovation. All new members to the command must undergo the Special Operations Common Environmental Training (SOCET) course. During this course, new members to the command are given an introduction to the mission and vision of the command and its

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[103] Robert G. Spulak, "A Theory of Special Operations: The Origin, Qualities, and Use of SOF," *Military Technology*, Vol. 33 (2009): 23, http://ehis.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=886d11b2-d014-43fe-8edf-f3ed683c0fdc%40sessionmgr110&vid=5&hid=107.

[104] Susan L. Marquis, *Unconventional Warfare: Rebuilding U.S. Special Operations Forces* (Washington: Brookings Institution Press, 1997), 264.

culture. This is in line with the recommendation made by Rouleau, who emphasized in his study that there must be significant attention paid to the cultural indoctrination of new members. He also noted that there is a requirement for the continued reinforcement of the culture through professional development at all levels.[105] CANSOFCOM has developed a system which ensures the maintenance and dissemination of SOF culture, and that the organizations mission and vision are clearly articulated to new members. It also ensures that the SOF attributes of agility, adaptability, creativity and pursuit of excellence are understood and adopted by all members, whether SOF operators or supporters.

Another key aspect of CANSOFCOM's culture is the promotion of "creative conflict" which is used as a "discomfort mechanism" as seen in the P&G case study. This concept is well suited to the nature of SOF and their abilities as agile thinkers who are creative yet decisive. This concept finds its origins in the way that SOF conduct their mission planning, from the bottom up. Every operator who will take part in the mission is given equal voice to make recommendations or raise concerns. This not only allows for the generation of more creative solutions but gives each team member ownership of the final plan. This tactical construct, which traces its roots to the beginning of modern SOF, has become the foundation for how all business is done in SOF.

Encouraging "creative conflict" within the command encourages all members, regardless of rank, to be frank and honest in their assessments, and provide their truthful opinion to the team, good or bad. This honesty ensures that the best ideas are always given a chance to be viewed, and that all of the available information is considered before

[105] Rouleau, *Between Faith . . .*,74.

a decision is made. This conflict is encouraged throughout all levels of the command, so that there is a tangible sense of ownership and commitment by the members to achieving the mission. As Rouleau argued, CANSOFCOM "must continue to embrace a climate fostering cognitive conflict at all levels. Candour is as much a force multiplier as rigour of analysis. In fact, they are mutually supporting."[106] This climate of "creative conflict" is a key element of CANSOFCOM's culture of innovation.

Force Development and Innovation

It is not possible to assess the ability of CANSOFCOM to be an innovative organization without examining the processes and systems that exist to develop new capabilities.[107] Colonel Bob Kelly, as the Chief of Staff for FD of CANSOFCOM, made it clear that FD was crucial to the ability of CANSOFCOM to fulfill its mission. He defined FD as the ". . . ability to conceive, design, build and eventually manage new and renewed capabilities. . ." The FD process could be said to be the formal organizational system for innovation within CANSOFCOM. It is important to note that FD within the military has traditionally been a top-down, hierarchical process. He suggests that to ensure CANSOFCOM is able to remain ". . .on the cutting edge of new technologies, ideas, and tactics, techniques and procedures demands that research and development be

[106] *Ibid*., 63.

[107] CFJP 01 defines Force Development as "A system of integrated and interdependent processes that identifies necessary changes to existing capability and articulates new capability requirements for the CF. It is driven by changes in policy, actual or projected, changes in the security environment and lessons learned from operations. Force development comprises capability based planning, capability management and capability production."

continuously undertaken." He also notes that it is necessary to ensure the correct organizational development to support the FD process.[108]

In his article *Creating a Culture of* Innovation, Krieger suggests that organizations must avoid focussing on research and development and find ways to embed innovation throughout the organization.[109] Returns on investment from research and development will not be successful without the processes and systems to support adoption and implementation. In line with this concept of dispersed innovation, CANSOFCOM has adapted its FD system to push the responsibility for certain capabilities down to the units within the command. This ensures maximum participation in the *generation* and *initiation* process by SOF operators, and the unit commanders who are responsible for the operational outputs of the command. This modification to the FD process which improves the command's ability to innovate is a positive sign that CANSOFCOM has made concrete steps to become a more innovative organization. The research in this study suggests that establishing a fulsome "system of innovation" at CANSOFCOM would improve its ability to innovate. Further organizational process changes need to be contemplated to make the FD branch part of a complete system of innovation.

It is useful to use Knopman et al.'s model of innovative organizations to highlight the areas where CANSOFCOM has been successful at innovation. CANSOFCOM has been successful in the establishment of a coherent *mission and strategy* which has been clearly communicated by the senior leadership and understood and accepted by its

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[108] Kelly, *Special Operations* . . ., 82-83.

[109] Jason Krieger, "Creating a Culture of Innovation," *Gallup Business Journal Online*, http://businessjournal.gallup.com/content/143282/creating-culture-innovation.aspx.

members. In the domain of *employees and organizational capacity* CANSOFCOM has built an organization where the membership are selected or screened and formally indoctrinated to create tremendous buy-in and dedication to the vision and mission. It has also developed a culture where innovation and adaptability are prized, and creative conflict is encouraged. In the domain of *core and supporting business processes*, CANSOFCOM has taken steps to improve the formal processes that generate new ideas and lead to the development of new capabilities.

In the domain of *budget and finance*, CANSOFCOM has always demonstrated a commitment to innovation in the allocation of funds to develop new capabilities that will help to ensure mission success. In these key areas CANSOFCOM has demonstrated that they possess many of the characteristics of an innovative organization. In the next section some of the areas where further development is required will be highlighted.

CANSOFCOM Areas to Improve

While CANSOFCOM benefits from a strong innovative culture due to its ability to carefully screen and select its membership, there are still several areas that could be addressed to improve organizational innovation within the command. Based on the examples in this study, innovative organizations continually seek to adapt their processes and structures to improve overall performance. As an organization with a mandate for continuous improvement, CANSOFCOM must do the same.

As discussed in the background section, one of the challenges for the command has been creating a single, unifying culture across the command. This is due to the

internal organizational challenges that initially resulted from the need to create a unified command with units who were at different stages of development, under a HQ made up of personnel without prior SOF experience. As Rouleau argues, there is a need for CANSOFCOM to develop a command culture that allows for the existence of distinctive unit sub-cultures that are aligned within the dominant culture.[110] While the establishment of a pan-command mission, vision and culture has been successful, there needs to be a calculated effort to preserve the unit cultures which help to encourage the "creative conflict" that has been referred to previously. CANSOFCOM needs to view the distinct culture and viewpoint of each unit as an enabler to innovation.

Marquis considered the risks to SOF organizational culture, through the lens of US SOF and potential service rivalries within the Army dominated USSOCOM. She cautioned ". . . if one tries to mold them into traditional unit organization for ease of management, they will lose the appeal that draws unique people into unique organizations."[111] She notes that volunteers who joined to become Rangers, Special Forces operators or Navy SEALs all possess certain common traits like creative thinking, but are drawn by the unique challenges of those different units. She warns of the potential danger of the higher headquarters, USSOCOM, trying to force the units to become a generic whole, which may be easier for management reasons, but would destroy the uniqueness of these units and possible deter potential volunteers.[112]

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[110] Rouleau, *Between Faith,* 16-17.
[111] Marquis, *Unconventional Warfare*, 262.
[112] *Ibid*., 261-262.

CANSOFCOM is in a similar situation, in that it is composed of four unique units which all possess their own distinctive sub-cultures. There is a real danger that CANSOFOCM HQ may try to push the units towards like solutions to problems to simplify the issues that affect the HQ at the strategic interface. As Rouleau warns, ". . . CANSOFCOM must eschew normative levelling in a "one size fits all" staff reflex driven by regulatory requirements. To do so would erode its competitive advantage in short order."[113] In order to avoid this, CANSOFCOM must make the promotion of these unique sub-cultures part of its indoctrination, so that all personnel who are new to the command understand the need to maintain them. This culture is best maintained through the assignment of clear roles and responsibilities to the different units within the command. A strong understanding of the unique roles of each unit will also assist in innovation, as it will make it easier to identify development leads and requirements for new capabilities. Within CANSOFCOM the organization that requires significant effort to develop its own organizational culture is the HQ. A more deliberate focus around its role as the strategic interface, and on its institutional and governance responsibilities would allow the HQ to develop its own unique culture within the command. CANSOFCOM must ensure that its policy of placing SOF operators in key positions throughout the command is maintained. This is another positive link in the open exchange of ideas between the sub-organizations of the command as operators move from the units, to the HQ, and back.

A key domain where CANSOFOCM can seek to improve its ability to innovate is in its relationships and processes with *other parties and stakeholders*. For CANSOFCOM this domain includes the way it interacts with all external influences. Due to

[113] Rouleau, *Between Faith*, 83.

CANSOFCOM's unique role and position within the CF, these not only include the higher military chain of command and the other CF services, but also allies and other government departments and agencies with whom the command works on a continual basis. An important role for CANSOFCOM HQ is to continually look for ways to network with these outside agencies and the larger CF to bring new ideas into the command. The P&G case study provided an excellent example of establishing more opportunities for "open innovation" through novel networking solutions. Similar to P&G CANSOFCOM could leverage these ideas within its own innovation processes to select ideas for adoption and dissemination. USSOCOM's current initiative to establish a global SOF network to enable the sharing of information and ideas, and to ensure that regional expertise can be leveraged by allied SOF is another excellent example of open innovation.[114]

CANSOFCOM must also continually invest effort into managing its relationships with the CF at large. The first priority is to establish sufficient networks to gain feedback from the CF's senior leadership with regards to CANSOFCOM's performance, potential future tasks and capabilities. In the CANSOFCOM context, the senior leadership of the CF, and by extension the Government of Canada, are the customer base. The need for innovative organizations to leverage consistent input from its customers was seen throughout the literature. Although the established chain of command provides a structured way to gain this type of input from external sources, it is lacking. The chain of

[114] Barbara Opall-Rome, "U.S. Seeks Global Spec Ops Network: 1st 'Node' to Stand Up in 2013," *Defense News, l*ast accessed 21 April 2013, http://www.defensenews.com/article/20120512/DEFREG02/305120003/U-S-Seeks-Global-Spec-Ops-Network.

command, as it is hierarchical and inflexible, does not provide a fulsome picture of the needs or perceptions of the entire external audience. CANSOFCOM must establish processes to enable an open network for sharing of ideas with external stakeholders. This would allow input and idea generation from experts and interested parties who work outside of the chain of command.

More emphasis should also be placed in creating open innovation networks within the command. These networks would allow members of all ranks and units to put forward ideas that could be considered either by the unit FD leads or at the command HQ by the FD section or functional FD leads. This network would require structure and process adaptations, to ensure that ideas are given due consideration and potential for adoption.

Rouleau warns that although CANSOFCOM's effort to maintain minimal bureaucracy and a small, flat HQ helps it to maintain its agility, it makes it difficult for the command to hold its own when faced with the sheer size and complexity of the bureaucracy of the other services and the CF at large.[115] This is the area where CANSOFCOM HQ can make its most vital contribution. In this era of ever-tightening fiscal restraints there is a clear possibility of conflict between the services within the CF for shrinking resources. It is crucial that CANSOFCOM establishes a network that will enable it to ensure its relevance and develop the future capabilities that it may be called upon to employ. It would be possible to maintain what Peters and Waterman called *simple form, lean staff*, by ensuring an HQ focus on governance and strategic interface,

[115] Mike Rouleau, "Special Operations Forces: Shaping the Area of Operations," In *Special Operations Forces: A National Capability* (Kingston: Canadian Defence Academy Press, 2011), 92.

while the units maintained their focus on generating operational outputs and conducting operations.

Another area for improvement is in the area of open networking as it relates to security and operational security (OPSEC). Security concerns can often become barriers to innovation due to the requirements of security clearances or the need to protect unclassified information that could compromise a mission or create a risk to SOF personnel. CANSOFCOM needs to leverage an open network approach wherever possible to harness the innovative power of other CF organizations, other government departments, the scientific and academic communities, and industry. Greater effort needs to be expended to identify where OPSEC or security measures are too restrictive and inhibiting innovation. Where security measures are absolutely necessary, CANSOFCOM needs to invest in the establishment of secure networks with stakeholders to enable innovation.

Despite the good fortune of having an organizational culture that is prone toward innovation, CANSOFCOM must ensure that innovation is not taken for granted. The danger of having a command formed of committed, mission focussed over-achievers is that sometimes their focus can become narrow. CANSOFCOM needs to define innovation, as suggested by Kastelles, in a way that works for it after taking into account all of the internal and external factors. Innovation, as we saw from Denning and Dunham, is not a mystery but can be trained and measured. CANSOFCOM needs to institutionalize innovation by establishing formal processes to train and measure innovation throughout the command.

To become a more innovative organization CANSOFCOM must also consider carefully the processes and structures it will put in place to adopt and implement innovations. As discussed in Chapter 3, Golden's "groping along" model provides a proven and effective method for innovating in government organizations. The existing culture of CANSOFCOM is perfectly suited for a bottom-up, adaptive innovation implementation process. With the appropriate support from senior leadership, the improvement of networks for idea sharing, and the appropriate structures and processes put into place, the groping along model could make CANSOFCOM a truly innovative organization.

Conclusion

It has been shown that CANSOFCOM possesses some of the key attributes of an innovative organization. It leadership, mission and vision, give it the core necessary to have an innovative organization. Its ability to screen, select and indoctrinate personnel allows it to maintain a membership of innovative thinkers. The command promotes a culture of innovation that emphasizes creativity and cognitive conflict. It has institutionalized the concept of bottom-up planning and capability development and has demonstrated its resolve to innovate by assigning appropriate levels of budgetary commitment to new capabilities.

On the opposing side CANSOFCOM has areas where it could improve its system of innovation by ensuring processes are in place to maintain the unique cultures of its units. This will continually provide the creative friction required to generate ideas for new capabilities, processes and systems to improve mission success. Another key area where

improvements can be made is in the area of open innovation. CANSOFCOM must continue to improve its networks to ensure maximum collaboration amongst its own members and with partners and stakeholders to improve innovation. CANSOFCOM must also leverage a bottom-up approach to innovation implementation to maximize the creativity provided by its members.

CONCLUSION

Findings

In Chapter 1 of this study, a definition for organizational innovation was established which would be useful for adoption by CANSOFCOM to ensure a baseline understanding and agreement before pursuing any innovation initiatives. In Chapter 2, three models of innovative organizations were presented which would be useful for CANSOFCOM to determine if its current organizational structure and practices are maximized to promote innovation. In Chapter 3, leadership and culture were identified as the key enablers, or potential barriers, to innovation. In Chapter 4, two case studies were provided to demonstrate how the characteristics from the theoretical models manifested in real life examples. The P&G example, from the private sector, is an excellent example of enduring organizational innovation and success. The CIL example, is proof that a government organization, even a military one, can be truly innovative. The key attribute that enabled the organizations in the case studies to be truly innovative was proven to be leadership and culture as the theories indicated. In Chapter 5, CANSOFCOM was examined using the theoretical models and it was shown that it possesses many of the characteristics of an innovative organization. Most importantly the leadership and culture is pre-disposed to innovation, which was shown throughout this study to be vital. Several areas for improvement were suggested along with a model for innovation implementation.

Recommendations

Based on the research conducted in this study the following recommendations are made:

- CANSOFCOM should actively promote the unique roles and sub-cultures of its units to perpetuate its culture of "creative conflict";
- CANSOFCOM should actively investigate open innovation network concepts to increase idea sharing between its sub-organizations (the units and HQ, including the functional sub elements);
- CANSOFCOM should actively investigate open innovation network concepts to increase idea sharing between the command and the larger CF, DND, other government agencies, the scientific and academic communities, industry and allies;
- To improve its ability to conduct open innovation, CANSOFCOM should actively identify areas where security classifications or OPSEC can be minimized to allow for idea sharing;
- CANSOFCOM should undertake a study to determine the state of innovative characteristics of its members, sub-organizations and the command itself, using the individual and organizational assessment tools developed by Denning and Dunham ;
- CANSOFCOM should develop an innovation evaluation and training program, to be included during indoctrination training and at key professional development milestones, to improve members understanding of innovation and to further promote a culture of innovation; and

- CANSOFCOM should adopt the "groping along" model for innovation adoption and implementation, with clear advocacy and intent communicated by the senior leadership. Systems and processes should be adapted to allow unit commanders and heads of sub-organizations to rapidly identify innovative ideas and perfect them through trial and error.

Suggestions for Further Research

As this study focussed on the internal characteristics of innovative organizations, more research is required to understand the influence of external factors and how they enable or act as barriers to innovation. As CANSOFCOM is just one sub-organization of the CF, which is one part of DND, which in turn is only one department of the Government of Canada, there are many external influences that need to be assessed. As noted in the recommendations, it would be valuable for the command to conduct a suitably sized study, using Denning and Dunham's assessment tools, to measure the current state of innovation for CANSOFCOM's members and sub-organizations. That research would be critical to identify area for individual training and process adaptation to allow for greater innovation for CANSOFCOM.

Final Remarks

The application of the findings and recommendations of this study would be beneficial to helping CANSOFCOM become a more innovative organization. CANSOFCOM's successful institutionalization of innovation would improve its overall effectiveness and contribute to fulfilling its vision and assigned tasks. Where possible,

aspects of successful innovation initiatives within the command could be disseminated throughout the CF and provide benefit to the entire institution. CANSOFCOM is an organization that is made up of members who have a bias for action, an innate ability to innovate, and embody the relentless pursuit of excellence. It is critical that the command continue to find new ways to improve its ability to innovate as an organization and deliver operational success to the Government of Canada. CANSOFCOM is an organization that must innovate by necessity. Its innovative culture, built on the foundation of its special operators, is enshrined in its motto: *Viam Inveniemus!* We will find a way!

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