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ENTER THE MATRIX

DECENTRALIZATION AS A KEY TO ORGANIZATIONAL SUCCESS

by

John W. Heck, Lieutenant Colonel, USAF

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Advisor:
Ms Diane Fanelli
SAP Corporation

Newtown Square, Pennsylvania

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Preface

This paper discusses the theory and practice of a "matrixed" organization; i.e. one that has no distinct chain of command and where organizational charts cross domains, creating a matrix with solid and dashed lines instead of the more common "up and down" pyramid chart familiar to Department of Defense personnel. This style of organization is highly utilized in corporate America and is, if implemented correctly, a successful model. During my assignment at SAP Corporation, the world's largest business enterprise software company, I observed the matrix model used across software platforms, lines of business, and with business partners. When I had the good fortune to meet the CEO, Bill McDermott, he greeted me with a smile and said "please call me Bill." This is a classic matrix moment, where employees are made comfortable during all interactions, be it with the most senior of managers or to those occupying entry level positions. This paper discusses why it works and how the DoD can adopt some of its practices to improve and enhance mission success.

I wish to acknowledge my sponsor and mentor, Ms. Diane Fanelli, for providing the many opportunities to explore, grow, and learn within SAP. Her support has been invaluable. I also wish to thank Ms. Lisa Bonsall, who helped acclimate me to SAP's culture and gently reminded me how their system worked when I would cling to standard DoD processes. Finally, I would like to thank the Air Force Fellows office and the Secretary of Defense Corporate Fellowship Program for providing me this once-in-a-career opportunity.

Abstract

The concept of a matrixed organization—one in which an organization has parallel and multidimensional reporting mechanisms—is not a new one. Indeed, it came into vogue in the late 1970s as corporations realized that the increasing complexity of business and the need for simultaneous and multiple management oversight required they re-think their typical hierarchical structures. What has changed, however, is the speed and amount of data available to businesses, as well as increasing customer demands. When properly executed, the matrix model is well-suited to absorb and process this vast quantity of information, as its multiple layers permit managers to correctly identify problems, collaborate on the best solutions, and bring them to senior levels for action.

This paper endeavors to compare how a matrix model allows a corporation to more freely innovate, and how the historically hierarchical model of the Department of Defense often impedes that innovation. This paper does not propose a radical overhaul of the command and control that is foundational to any military establishment; rather, it looks at best practices that can be combined to enhance and improve mission effectiveness in a world where the rate of change continues to increase.

Chapter 1

Overview of Matrix Management

A leader's job is to provide air cover for the troops, and the first form of air cover is a bulletproof strategy.[1]

—Bill McDermott, SAP CEO

It is often said that one of the greatest challenges facing business today is the speed at which change occurs. The amount of data available, coupled with the need to adopt new and innovative technologies to meet consumer demand, have forced corporations to abandon their need to manage change and instead adopt a culture of agility. More often than not, executive decisions and direction must be rapidly re-thought, approved, and implemented lest the company find itself lost in the contrails of its competition.

The U.S. military faces a similar need for agility, but its mission—to deter war and protect the security of the Nation—is far more detached from the need to adopt new technologies given the pace of acquisition and complex security requirements inherent in a "no fail" model. OIn addition, the traditionally hierarchical nature of military service draws a bright-line distinction between officers who are commissioned and those who are not; the latter being far more limited in strategic decision making responsibilities. As a result, the agility and responsiveness of the military complex is often left in the hands of a select few, most of whom wear stars on their

[1] Bill McDermott, *Winners Dream: A Journey from Corner Store to Corner Office* (Simon & Schuster, 2014),Kindle Locations 3362-3363.

shoulders or collar, and the vast majority of the establishment's creativity is left to decide how to execute the mission rather than reflect upon the means by which warfare is conducted.

This model stands in stark contrast to that of corporate America, who out of necessity must be able to "turn the battleship" when market conditions, competitive forces, or data analysis requires it. Consequently, the corporate hierarchical model has largely been transformed into a matrixed one, with parallel reporting mechanisms and supervisors, and one individual may report to multiple supervisors rather than a single "boss." A matrixed organization is therefore better prepared to foster a functional environment in an organization where many complex, conflicting interests must be balanced.[2]

This model is not merely academic. Most corporations address all co-workers, be they CEO or new hires, by their first name. Org charts change routinely and often have as many dashed lines as solid ones. Formality has given way to collegiality. And although there is an understanding that certain titles carry more responsibility than others, it is not uncommon to find some executives working in a cube next to a new hire, or to have top executives work out of a relatively small office. The days of a large "corner office" where the top staff reside, isolated from most other employees, are largely gone.

History of Corporate Governance

The modern corporation began as a result of the Great Depression, when public companies began to replace family-run businesses.[3] Those companies formed largely hierarchical

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[2] Stanley M. Davis and Paul R. Lawrence, *Problems of Matrix Organizations* (Harvard Business Review, 1978), 132.
[3] "Survival of the Fittest," *The Economist*, 18 Apr 2015 (online edition).

structures, where "functional managers" reported to a general manager, the general managers reported to executives, and the executives reported to the CEO and the Board of Directors.[4]

This pyramid model worked well until the 1970s, when corporations such as Dow Chemical, Shell Oil, and General Electric began to diversify their portfolios. When this diversification led to complexity, the need to aggregate data and ensure cross-communication became readily apparent.[5] The result was the matrix model, where middle-level managers could coordinate and make decisions in a rapidly changing market and balance seemingly conflicting interests.

During this era, electronics company Philips led the way in matrix management. It formed National Organizations (NOs) and Product Divisions (PDs), which operated successfully as a network. When conflict naturally occurred, a number of coordinating committees resolved it. The model struggled when it became difficult to determine who bore the burden of profit and loss accountability: in the 1990s Philips' organizational structure was overhauled and a few PDs put in charge of profit and loss.[6]

Although not without its problems, which will be discussed later, the Philips example highlights a common complaint in the matrix leadership model: its multiple reporting systems lead to added complexity and exacerbate the very thing it attempts to solve. In today's globally interconnected world, barriers of distance, language, culture, and time would seem to make the matrix model impossible to implement. Yet over the past two decades, it has not only survived, it has thrived and helped numerous companies make it to the Fortune 500 list.

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[4]Davis and Lawrence, *Problems of Matrix Organizations*, 131.
[5] Ibid, 132.
[6] "Matrix Management," *The Economist,* 23 Oct 2009 (online edition).

Criticisms and Perceived Shortcomings

No perfect governance model exists, and the matrix construct is no different. Over its development and implementation, three shortcomings became apparent. The first is the perception that not having a "boss" to whom one reports leads to industrial anarchy, as no one person is responsible for the team and other team members can "hide out." Second is the concern that the tendency for decentralization inherent in the matrix model leads to group-think, and executive decisions are made by consensus rather than through leadership. The third is that the matrix leads to strangulation of the decision process, and decisions are watered down or made too late for effective action.

Perhaps the most stubborn criticism of the matrix model is the lack of personal accountability and responsibility due to overlapping responsibilities and a lack of clarity.[7] Although a very real problem, it is often overcome by developing smaller teams that work closely and form solid relationships. These tight-knit groups ensure no one is lost in the shuffle, and as long as frequent communication exists the productivity of each team member, or lack thereof, is evident. These groups should not be set up haphazardly: indeed, careful consideration must be given to each individual's strengths and weaknesses when assigning roles, as overlap often leads to the confusion that the organization hopes to avoid. Conversely, when each role is distinct and clearly identified, personal accountability happens quite naturally.

The second concern is that matrix management is simply group decision making with another moniker. In one example, a company required *all* decisions be made in group meetings, which led to a rapid decrease in productivity as employees attended meeting after meeting, many

[7] Christopher A. Bartlett and Sumantra Ghoshal, *Matrix Management: Not a Structure, a Frame of Mind* (Harvard Business Review, 2000), 139.

of which were not relevant to their functional area.[8] Because one of the cornerstones of matrix management is speed and agility, top managers had to step forward to clarify that group meetings were neither required nor desired in all cases, and that fewer, more responsive meetings were needed. Teamwork, they stated, should happen as often as necessary and as little as possible—a principle that has stood the test of time.

A final concern, "decision strangulation," is also procedural rather than structural. As long as strategic direction is clearly articulated and straightforward guidance issued, there should be no need to submit every recommendation for approval. Functional specialists should feel comfortable taking quick action when needed because control has been properly delegated to their level. When two managers disagree over a solution to a shared problem or receive conflicting instructions, those managers should bring their concerns to the next level, even if that level necessitates the involvement of two executives due to the cross-functional model of the matrix. Those executives could, in turn, identify the issue as either miscommunication from corporate leadership or a simple turf war that can be addressed through personnel changes or retraining. Conflict can be managed, even if it is not always resolved.[9]

Each of these concerns stem from a common cause: although organizations may recognize the need for multidimensional adaptation to increased complexity, the implementation of that construct addresses only structural and not organizational changes. To succeed, matrix constructs must alter organizational psychology and anatomy through formalized changes in organizational structure and the thought process must be institutionalized in corporate

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[8] Davis and Lawrence, *Problems of Matrix Organizations*, 135.
[9] Ibid, 141.

management.[10] Fortunately, as the matrix model has evolved, most needed improvements have been made.

[10] Bartlett and Ghoshal, *Matrix Management,* 140.

Chapter 2

Today's Matrix Model

"Most people think of leadership as a position and therefore don't see themselves as leaders."

—Steven R. Covey

Many concerns pervasive throughout the early year of matrix management have been addressed and ameliorated. Although no one can claim to have solved the challenges inherent in any complex, multinational marketplace, many organizations have made the reforms necessary to survive and even thrive in today's business market. Most of these reforms have centered on three areas: structural, psychological, and managerial.

Most important is structural. Early adopters of parallel organizational models such as matrix management correctly identified structural reforms as important but focused too narrowly on process implementation rather than changing the entire corporate culture. As a result, although defined goals were readily understood, corporate complexity grew in concert with the external business environment. Today, many corporations understand that the systems and relationships that make the company work must holistically adopt matrix philosophy, and the shared ideals, values and beliefs that form the lifeblood of the organization must be inculcated into managerial thinking.[11]

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[11] Bartlett and Ghoshal, *Matrix Management,* 140.

This is accomplished through rigorous and frequent communication from the most senior levels to all employees. Whether at through the corporate board or within the offices of the Chief Executive, Chief Financial, or Chief Information officers, a clear and coherent strategy must be formulated and all reasonable measures taken to communicate that message. In today's virtual world, strategic messaging takes many forms, including phone conferences, e-mail, in-person meetings, white papers and employee guides, and conventions. As a result, communication must be standardized, its message easily understood, and the goals challenging but obtainable. By establishing a clear sense of corporate purpose, context and meaning are given to each manager's particular roles and responsibilities, which they can then pass along to employees.[12]

The psychology of corporate culture is also an essential element to a successfully matrixed organization. As with the structural component, creating a team that feels continuity of purpose across all domains is key to uniformity throughout the company.[13] Likewise, communication is also extremely important, and the messaging must be clear, consistent, and relevant. Communication from the top is not enough; corporate culture must embrace "cognitive diversity" among team members, or the ability to put together different points of view that will challenge conventional thinking.[14] As one executive remarked, "… a lot of the key day-to-day things people need to do to function are things we can train almost anybody to do. [] The complicated part is coming up with a high level of intellectual curiosity, with different skills and experiences."[15]

[12] Ibid.
[13] Ibid.
[14] Interview with Michael J. Mauboussin (Chief Investment Strategist, Legg Mason Capital Management), *Embracing Complexity* (Harvard Business Review, Sep 2011), 91.
[15] Ibid.

Corporate psychology is not limited to cognitive diversity, as well-articulated solutions must still be a viable part of a company's strategy. As a result, psychology is inextricably linked to structure, as top management must maintain a framework where there is continual reinforcement, elaboration, and interpretation of the core vision.[16] Consistency of purpose is crucial: for example, in the early years of video recording, Philips corporate management had difficulty persuading its North America Philips (NAP) division to support its global strategies. As a result, when its first VHS recorder was launched, NAP refused to sell it, arguing that competitor's systems were superior and had features Philips couldn't match. Instead, NAP management outsourced products from Japanese companies, and in the process removed the ability of Philips to challenge Japanese dominance of the VCR business.[17] The rift between the two divisions had its roots in a post-WWII corporate restructure, which gave legal autonomy to different units. Had Philips been more matrixed and its employees embraced a universal corporate vision, it may have emerged as the dominant player on the video recording stage.

Managerial reforms have also been embraced by matrixed companies. In addition to traditional functions, corporations now understand the need for managers to recruit and develop new talent and assign them to the roles for which they are best suited. This can be particularly challenging in a global marketplace: organizations that remain mired in hiring domestically or bring in the least expensive labor pool overlook a vast range of high-potential employees and do so at their peril.[18] Managers both inside and outside the human resources department must constantly evaluate how their human talent is allocated and make adjustments accordingly. Fortunately, the fluid model of a matrixed corporation allows this goal to be realized without much difficulty, as shifts in staffing and employee movement are commonplace.

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[16] Bartlett and Ghoshal, *Matrix Management,* 141.
[17] Ibid, 142.
[18] Ibid.

Besides utilization of its vital talent, managers must also train, utilize, and retain their people, and they must inculcate a common vision and shape relationships that help develop contacts and broaden perspectives.[19] Doing this often requires movement of selected people across functions, lines of business, or geographic units so they may build networks, cross-pollenate through shared experiences, and ensure consistency of message. The frequency and timing of these movements is certainly subject to corporate needs, but they should be tracked and actively managed to ensure an adequate return on investment.

As managers move about and shape corporate perceptions, they often find inherent conflict in balancing corporate goals with an individual's energy and focus. The solution, even in extraordinarily complex organizations, is to develop simple and straightforward guidelines that provide assistance to employees who make critical decisions. In this situation, the matrix style of management greatly assists the cross-talk needed for conflict resolution, as the multiple layers of familiarity can overcome much of the paralysis that often gets in the way of clearly codified objectives. As previously mentioned, to avoid misunderstandings matrixed corporations create cross-functional teams that use simple rules as a concrete guide to decision making. These rules provide an agreed-upon framework to evaluate specific proposals and permit managers to approach solutions logically rather than at the behest of emotion and politics.[20]

The methodology by which managers develop a culture where employees are focused on the same strategy but maintain the flexibility needed to innovate is relatively straightforward: set a corporate objective, identify which parts of the corporation get in the way of meeting those objectives, and create rules which mitigate those shortfalls.[21] Most corporate objectives are

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[19] Ibid, 143.
[20] Donald Sull and Kathleen Eisenhardt, *Simple Rules for a Complex World* (Harvard Business Review, Sep 2012), 71.
[21] Ibid.

simple: sell the world's best business software, produce the best office supplies, etc. Yet because no organization has adequate manpower, funds, or cross-functional capacity, requirements often outstrip resources and cause bottlenecks. Matrix managers who focus on the few critical bottlenecks that cause the most disruption are well placed to find simple solutions.

This is not as easy as it might sound; indeed, corporate strategists often find simplicity to be anything but simple, but with the right approach innovative and clear solutions can be found. For example, Skrill, a London-based corporation that provided online payment services, wanted to expand its customer base to include service providers like Facebook and Skype. Faced with hundreds of ideas about which payment options to develop, Skrill convened cross-functional teams with representatives from the operations, legal, and marketing departments. These teams negotiated all of these ideas down to a few simple rules such as "the customer can complete payment in five steps or less" and "more than one customer requested the payment option."[22] Ultimately, these rules revealed previously held imperfect assumptions that had hindered effective communication.

When developing these rules, executive leadership should be aware that the teams exist and why they have been formed, but not control them from afar as doing so would be far too cumbersome and likely hurt morale. As former Secretary of Defense Gates stated, "once you try to micromanage The Department of Defense with three million employees, you're in trouble. You need . . . microknowledge, but not micromanagement."[23] This maxim is equally applicable to corporate America, where leadership should directly select team members to explain why simple rules matter, but not tell them what those rules should be. This has the added advantage of permitting the C-suite to watch how its top managers perform while showing they are equally

[22] Ibid, 73.
[23] Interview with Robert Gates (former Secretary of Defense), *The Management Style of Robert Gates* (Jan 2014), https://hbr.org/2014/01/the-management-style-of-robert-gates/ (last accessed 07 May 2015).

committed to success. Finally, these rules should evolve, as outcomes that prove fruitful today might not last tomorrow.

Today's business leaders face challenges not known to previous generations: a massive amount of information coupled with changing technologies that require institutions with tens of thousands of employees to "turn on a dime" or risk being left behind by those who do. Also, the world is now flatter than ever before: cultures, languages, and time zones are no longer significant barriers to business. This paper will next explore how one company, SAP, has made great strides in the struggle to bring simplicity to a complex world.

Chapter 3

SAP: A Matrix Success Story

SAP, the world's largest business enterprise software company, is a highly matrixed organization and a perfect case study. From their first day, SAP's talented workforce of employees and contractors are brought into teams and taught to approach management when needed. SAP (spoken as the letters S-A-P, just like IBM or ABC) is a good example of how a corporation has learned to overcome geographic, cultural, and historical differences to ensure success in the rapidly-changing Information Technology world.

Founded in 1972 by German software designer Hasso Plattner, SAP today has over 72,000 employees and serves over 263,000 customers in 190 countries. A truly international organization, SAP has built a business essential to global commerce: 74% of the world's transaction revenue touches an SAP systems, as does $16 trillion of global retail purchases.[24] Although headquartered in Walldorf, Germany and overseen by the Chairman of the Supervisory Board, Mr. Plattner, SAP has an American CEO, Bill McDermott, and its president of Global Operations, Rob Enslin, hails from South Africa. These are but a few examples of the far-reaching and diverse nature of SAP leadership.

For a global company such as this to have a consistently delivered message and product is remarkable. This success is largely due to SAP's strict adherence to the first principle of matrix management: communication. SAP's CEO holds bi-monthly teleconferences with all senior

[24] *SAP Fact Sheet* (SAP Global Corporate Affairs), 20 Sep 2014.

executives to discuss the company's strategic vision, and those executives often hold weekly meetings and calls with their teams to ensure that vision is well understood. Additionally, SAP holds two major events per year: the First Kick Off Meeting (KFOM) in January at numerous global locations, and an annual SAPPHIRE convention in May in Orlando with over 20,000 attendees. In addition to the pageantry of these events, employees and customers alike are able to hear simple messaging about both SAP's vision and the roadmap for that vision directly from the top. Since communication flows in both directions, SAP ensures customers have a presence both on-stage and off, where booths, networking events, and cross-talk all ensure that attendees understand how SAP can best find the solutions they require. If communication is an art, SAP is its Rembrandt.

SAP's message is not only clear but elegant: "Simple Wins." Acknowledging that businesses lose significant revenue due to the need to solve technologically complex problems, SAP promises that its systems will "Run Simple" and free up time for executives and staff to make strategic choices, not evaluate data. Indeed, the SAP's vision is to "help the world run better and improve people's lives," which it accomplishes by providing information technology services that help its customers innovate and drive business outcomes while lowering the total cost of ownership and optimizing resources. To provide best-in-class service, SAP developed HANA (pronounced "hannah"), a platform and database solution that provides unmatched speed and agility when running SAP's software.

All of SAP's senior leadership, managers, and employees are well-versed on the capabilities of these products. Goals are clearly defined, and SAP's strategy is easily understood: "become *the* Cloud Company powered by HANA." Employees are not simply given a few handouts about SAP's software; rather, they are indoctrinated into through ceaseless and effective messaging.

Large screens present the latest statistics at the front door, signs are routinely visible extolling the benefits of HANA and SAP solutions, and the CEO routinely videotapes messages to the troops on how, with their help, SAP will outpace all other competitors in the marketplace. Senior managers are able to cascade the company's vision with clarity, because it recognizes that without that clarity the salesperson on the street won't know what to do. The strategy works, but it does not stop there.

SAP also fosters cognitive diversity in its employees through innovation centers and incorporation of a concept known as Design Thinking into its corporate culture. Design Thinking, conceived by the Darden School of Business out of the lessons learned from industrial engineering concepts, is a solution-based methodology that starts with a goal in mind and creates a framework to achieve that solution. This differs greatly from conventional, problem-based thinking, which focuses on a present state and often does not devote sufficient resources to achieving a desired end-state. Under Design Thinking, there are initially no "wrong" ideas, which reduces fear of failure and encourages maximum input and participation. Although a full review of the principles of this concept are beyond the scope of this paper, put simply Design Thinking focuses on three key questions: is an idea viable as a business and will people pay for it; is the idea desirable and do people want it; and is it feasible and could it be built to work? If the answer to all three is yes, then the concept can become more than just an idea.[25]

SAP's innovation is not limited to Design Thinking: its team building extends well beyond the walls of its headquarters in the form of community projects like the KaBoom! playground build, frequent family functions and holiday parties, and SAP-sponsored sporting and community events—all of which are well-attended by senior managers and corporate leadership and their spouses. Although these activities certainly make SAP a valuable and responsible

[25] Bill McDermott, *Winners Dream,* Kindle Loc. 3686.

member of the community, they also reinforce the corporate belief that the team is what matters, that no one individual at any level is above getting their hands dirty, and that together we can become greater than the sum of our parts. Through it all, everyone is on a first-name basis and co-workers often become friends. This unity of effort and cross-functional model is at the heart of matrix management, and is an express acknowledgement that teams can only be built outside the walls of an office cubicle. When corporate structure and ideals are expressed in actions rather than words, they become powerful and lasting.

Studying SAP's methodology and processes is also illustrative. SAP leverages much of the same technology it sells to get relevant information needed to make informed decisions quickly. This practice is part of a larger, more extensive effort to simplify functions and processes across SAP in order to be able to make changes quickly and better support its customers. Also, because SAP recognizes that in a matrixed model it is important that teams and organizations have common goals and objectives to ensure alignment, its people and organizations are measured semiannually to provide quantifiable metrics for senior management. Lastly, SAP's leaders are measured on annual leadership "trust scores," which becomes a significant component on their ability to be considered for future career advancements.

In successful companies such as SAP, strategic objectives are shared and those assigned to tasks are able to understand the overall goal and are dedicated to achieving it. That dedication comes only with a sense of personal ownership and pride, and although this is often not easy to accomplish, SAP is proof that it can be done. SAP understands that to create a matrixed organization, you must first create a matrix structure in the hearts and minds of corporate managers.[26]

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[26] Bartlett and Ghoshal, *Matrix Management,* 145.

Chapter 4

Conclusion

The Department of Defense and similar governmental entities can learn much from matrixed organizations. Although the hierarchical structure of a military organization cannot and should not be discarded, the need for flexibility and agility within a combat environment is well understood. What is less discussed is the need for that same responsiveness within other areas of the defense establishment, particularly staff agencies that are routinely subjected to territorial disputes, purposefully withhold information, and face bureaucratic inertia. Organizational change, to include well-considered staffing and organizational transparency, is sorely needed. Under today's model, assignments are made based on reactionary "needs of the service," and the flawed theory that all troops are created equal remains pervasive.

Matrix modeling would go far to change this mentality. Communication would improve, leaders would be required to clearly and frequently provide their "commander's intent" across all levels, and teams would be carefully selected to ensure functional expertise and team building are aligned with mission goals. It is difficult to understate the importance of communication in a matrix model, as frequent repetition, clarity, and consistency are crucial in forming a large-scale unity of purpose that can also produce first-rate results in smaller groups. What the military possesses in discipline, it lacks in communication, and no amount of annual computer training simulations will indoctrinate the flexibility, viability, and strength of will needed to win the next fight. As SAP's CEO stated, "the problem that most people have when they try to drive organizational change is they forget a very simple principle: anything worth communicating is almost always under-communicated."[27]

It is noteworthy that variations of matrix-style management have already been successfully used in the Air Force: Crew Resource Management (CRM), where aircrew metaphorically remove rank in the flight deck so that even the newest recruits feel comfortable bringing potential safety concerns to senior aviators, has enhanced flight safety for years. Although CRM's departure from a traditional military hierarchy does not involve overt familiarity—crew positions, rather than first names, are used when communicating—it provides a good basis for comparison and evaluation.

The ability of matrix leadership to move a large organization nimbly and fairly expediently provide valuable lessons for the Department of Defense. Budget constraints such as sequestration are now a new normal for the military establishment, and adopting the best practices of a corporate model successfully used for fifty years would go far to ensure the U.S. remains the preeminent military power for generations to come.

[27] Interview with Bill McDermott (CEO, SAP), *The Stuff of Dreams: SAP CEO Bill McDermott on Sales, Coaching, Motivation & Trust*. 30 Oct 2014, http://blog.hubspot.com/sales/sap-ceo-bill-mcdermott-sales-coaching-motivation-trust-qa (last accessed 07 May 2015).

Bibliography

McDermott, Bill. *Winners Dream: A Journey from Corner Store to Corner Office.* New York: Simon & Schuster, 2014

Barlett, Christopher A. and Ghoshal, Sumantra. *Matrix Management: Not a Structure, a Frame of Mind*. Harvard Business Review, July 1990.

Davis, Stanley and Lawrence, Paul. *Problems of Matrix Organizations*. Harvard Business Review, May 1978.

Sull, Donald and Eisenhardt, Kathleen. *Simple Rules for a Complex World.* Harvard Business Review, September 2012.

"Matrix Management," *The Economist,* 23 October 2009 (online edition).

"Survival of the Fittest," *The Economist*, 18 April 2015 (online edition).

SAP fact sheet (SAP Global Corporate Affairs), 20 September 2014.

Interview with Michael J. Mauboussin (Chief Investment Strategist, Legg Mason Capital Management), *Embracing Complexity* (Harvard Business Review, September 2011).

Interview with Bill McDermott (CEO, SAP), *The Stuff of Dreams: SAP CEO Bill McDermott on Sales, Coaching, Motivation & Trust*. 30 Oct 2014, http://blog.hubspot.com/sales/sap-ceo-bill-mcdermott-sales-coaching-motivation-trust-qa (accessed 07 May 2015).

Interview with Robert Gates (former Secretary of Defense), *The Management Style of Robert Gates* (Jan 2014), https://hbr.org/2014/01/the-management-style-of-robert-gates/ (accessed 07 May 2015).