

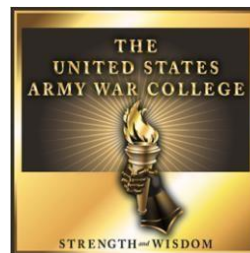
Program Research Project

Toward a Theory of Competitive Advantage

by

LTC Gail Fisher
US Army, Civil Affairs

Under the Direction of:
Dr. Joel R. Hillison



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LTC Gail Fisher
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5. ABSTRACT

This paper argues that understanding how competitive advantage is derived will benefit the DoD in today's competitive environment. Using a business model developed by researcher and author Michael Porter, the paper highlights four mechanisms for deriving competitive advantage: constant innovation, information about competitors, opportunistic decision making, and adaptability produced through a stable organization. The U.S. has used these mechanisms during the Cold War to achieve competitive advantage through inducing cost-imposing behavioral changes in the Soviet Union. Adversaries are using this same approach against the U.S. and imposing costs in the current context. The Joint Force must organize its centers of innovation in force employment and capabilities development to derive competitive advantage. Information about the terms of competition and adversaries' behavior and decision making will help decision makers understand when to act. Finally, some innovations and actions will fail, and the organization must accept those risks.

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Abstract

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Toward a Theory of Competitive Advantage

“For the most decisive victory is of no value if a nation be bled white in gaining it.”¹ Liddel Hart

In his 2018 testimony before the House Armed Services Committee, Chairman of the Joint Chiefs of Staff Dunford remarked on the declining relative capability of the U.S. armed forces. One of his greatest concerns as Chairman was the erosion of our competitive advantage over time.² Describing a world characterized by accelerating competition, the General Dunford worried that the U.S. armed forces were losing the ability to definitively pursue and protect U.S. interests. In comments over the past year, he called for an increase in competitive advantage. Yet in spite of his concerns, the Joint Force currently does not have doctrine on competition, nor a theory for how to derive competitive advantage. For this paper competitive advantage is defined as the ability to impose costs upon an adversary at a lower cost to oneself, and the definition will be further developed below. By imposing burdensome costs, a competitor can sustain the competition without draining valuable resources.

The idea of competitive advantage is not new. Liddell Hart, a famous 20th Century military theorist, wrote: “Instead of giving excessive emphasis to one means, which circumstances may render ineffective, it is wiser to choose and combine whichever are the most suitable, most penetrative, and most conservative, of effort – i.e. which will subdue the opposing will at the lowest war-cost and minimum injury to the post-war prospect.”³ The United States has tended to disregard this approach and to adopt a more direct, Clausewitzian approach to achieving advantage by attacking an

enemy's center of gravity. The adversaries of the United States have taken advantage of this predictable approach by eroding the advantages the United States has had in terms of resources and technology. In 2004, Osama bin Laden articulated his theory of negating U.S. competitive advantage: "we are continuing this policy in bleeding America to the point of bankruptcy."⁴

This paper proposes a theory of competitive advantage for the Joint Force that builds upon a model taken from the business world. The first section reviews the single current Joint Concept that frames the U.S. thoughts on competition. The next section outlines a theory of competitive advantage, taken from the business community. This is followed by a brief history of how ideas of competitive advantage have animated DoD's actions through the strategic arms competition with the former Soviet Union. Finally, the paper examines the implications of competitive advantage against the backdrop of the current environment and provides recommendations for the Joint Force.

The Limitations of the Joint Concept for Integrated Campaigning

Although there is no doctrine for competition or achieving competitive advantage, the Joint Concept for Integrated Campaigning (JCIC) provides a useful, though limited, framework for campaigning in a competitive environment. Under the precepts of the JCIC, a concept and theory for how to achieve competitive advantage could be developed.⁵

The fundamental construct within the JCIC is the description of the operating environment as a continuum from cooperation to competition to armed conflict.⁶ The implications for this shift from a binary peace or war construct are: a) that the environment is one of dynamic interaction among actors with no end state defining a

winner or loser; and b) that the military will have to campaign within this dynamic system of actors, and not always within a context of armed conflict.

Based upon this shift in the definition of the operating environment, the JCIC recognizes that the complex and rapidly changing operating environment requires a new framework for employing Joint Force below armed conflict. While there are robust structures and procedures for armed conflict and cooperation with allies and partners, the “compete” condition requires new constructs.⁷

Accordingly, the JCIC proposes a framework for competition that includes policy outcomes of “improve, counter, and contest.” The definitions for these outcomes follow:⁸

- Improve: Employ all measures short of those that might reasonably lead to conflict in order to achieve U.S. objectives, prevent the competitor from achieving its aims, and improve the overall strategic position.
- Counter: Regulate the competition to ensure the U.S. maintains its relative strategic position and the competitor achieves no further gains; only seek to improve the U.S. position to that achievable given existing resources and authorities, and in a manner that does not jeopardize interests elsewhere.
- Contest: Use prudent means to achieve the best possible strategic outcome within given resources or policy constraints, recognizing that this lesser aim entails risk that the competitor will achieve further gains.

Finally, one of the most important ideas in the JCIC is the idea that progress in competition below the level of armed conflict takes “the form of

modifications in behavior rather than control of territory.”⁹ Further, it asserts that the ability to modify behaviors relies upon “the best possible understanding of how relevant actors will perceive action.”¹⁰ This best possible information forms a central tenet of achieving competitive advantage, explained later in this paper.

While these ideas describe the desired trajectory of the relationships, the JCIC does not answer how the U.S. would maintain its strategic position in the contest or prevent the adversary from achieving its aims. The JCIC adds twelve integrated campaigning factors to the existing thirteen operational design factors found in Joint Publication 5-0 on joint planning, then layers on five ‘mechanisms’ for a total of thirty ideas for achieving success in a competition. This confusing array of possibilities does not focus the strategist or planner on what it means to impose costs through gaining competitive advantage. Other fields of study can provide lessons to focus the strategies.

Theory of Competitive Advantage

Michael E. Porter’s definition of competitive advantage was developed in the 1980’s, and oriented toward business with the aim of providing an item at lower cost than competitor and/or with a unique quality. Of course, the focus was on producing a product that provided value to a consumer. The idea of creating competitive advantage assisted businesses with examining a “value chain” of activities in product development. Porter’s ideas demanded an internal examination of processes as opposed to a comparative or “external” focus.¹¹ The way to produce competitive advantage, he posited, was to examine whether the organization could produce a more desired good at a lower cost than competitors, and to continually refresh this production of value.

Translating Porter's business theory into a theory for national security, a definition of national competitive advantage could be: *the ability to wield elements of national power more efficiently and effectively than adversaries, and in such a way that an adversary would, because of its own behaviors, be drained of power through disproportionate cost over time.* The main question becomes: what creates efficiency and effectiveness in this equation? Porter's theory answers the question and provides four mechanisms to gain advantage.

First, competitive advantage is derived from the ability to constantly innovate at a lower cost than that of competitor. Porter's original idea was that a company would find the one particular and novel element of its product and reduce the costs to build that product to gain and nurture that advantage indefinitely. Porter's idea of innovation recognized the necessity of the pressure of competition. Processes that involve innovation, "...usually require pressure, necessity, and even adversity...."¹² He also recognized that subsequent improvements on the initial innovation must be relentless, as imitation provides a leg-up to the competitor.¹³ Using Japanese auto makers as an example, Porter demonstrated how improvements to production processes as well as to vehicles propelled Japanese brands to the forefront of the international auto market. In Porter's words: "innovation and change are inextricably tied together."¹⁴

In today's environment, the proposition of gaining permanent competitive advantage is no longer feasible according to business Professor and author Rita Gunther McGrath. McGrath points out that business executives face a volatile and uncertain world with fast-paced shifts. Business strategies that focus on developing a

static element that would provide endless competitive advantage are unrealistic. She points out that “leadership in a transient-advantage world calls for a shift in emphasis from the core businesses dominating the agenda to options being equally important.”¹⁵ Generation of options, according to McGrath, requires continuous renewal and innovation. Not only do static processes eventually face erosion of competitive advantage, organizations solidify into power centers based upon past context. According to McGrath, a static approach produces denial reactions to the adversary’s advancements, inhibiting proactive responses appropriate to the changing context.¹⁶ The lesson is that an organization must constantly innovate and develop opportunities for imposing costs upon an adversary.

Scholar Stephen Peter Rosen uncovered parallels during his research into military innovation in his book “Winning the Next War.”¹⁷ Rosen found that innovation in social behavior requires “unconventional creativity” in creating intellectual and structural centers of innovation within a military organization during peacetime. In wartime, Rosen found that a strategic understanding of the conflict and re-definition of a strategic measure of effectiveness would shift the intelligence collection and provide clarity on the most promising trajectory toward success. Rosen also depicted technological innovation as expensive and difficult to assess with respect to producing the desired return on investment, particularly given the considerable lack of understanding of an adversaries’ capability.¹⁸ His findings argue for a shift in emphasis in thinking about innovation away from purely technological developments and toward institutional structural and strategy innovations in today’s context.

Second, competitive advantage is derived from being highly informed about competitors and the future environment. In an article published in 1985, Porter described the influence of the nascent information technology industry on competition. He already understood and described how information was changing the rules of the competition, handing rivals ways to outcompete their competition.¹⁹ Porter called out the need for information that was rarely sought after and relatively unavailable as a driver for competitive advantage.²⁰ Competitive advantage cannot be gained without keen insight into a competitor's behavior and decision making. This insight mirrors that of the JCIC which calls for seeking behavioral changes in adversaries and recognizes the need for high levels of information to make these changes.

Third, competitive advantage is also derived from acting opportunistically to emerging possibilities with new combinations of activities. In 1996, Porter authored an update to his original thesis arguing that competitive advantage rested upon combining unique activities in unique ways, and acting upon the context opportunistically.²¹ Gone was his notion of finding a static rubric for success upon which organizations would coalesce. Constant re-invention of combinations had become key to gaining advantage in the fast paced, information- soaked environment characterized by intense competition.

Business researcher and Professor Donald Sull describes how an organization becomes opportunistic. His research uncovered three domains where business organizations could focus processes: strategic, portfolio, and operational. The strategic domain requires capabilities for "spotting and seizing game-changing opportunities." The portfolio domain requires organizational capability to shift resources such as funds,

talent and management into promising ventures. Finally, the operational domain called for the ability to organize within an existing business model to capture an opportunity, as opposed to entrepreneurial adventures.²²

At the strategic level, Sull defines opportunities as rare events with large effects, making them critical to seize upon as they happen. Because of the rarity of these opportunities, decision makers require patience to monitor and wait for the opportunity to arrive, and boldness to act once it has arrived. Monitoring the environment and being able to make decisions also requires a leader to be able to make decisions which are less emotional and political and more data and logical driven, meaning an information system has to be available for support. Sull's research also uncovered that some amount of centralized decision-making assists with the required changes in direction.²³

Fourth, competitive advantage comes from an adaptive organization characterized by stability so as to accept risk. Risk acceptance is the ability to allow mistakes to happen during a competition. Absent the ability to make mistakes, a competitor would abort all competitive efforts and lose the competition. In her book challenging Porter's work on competitive advantage, Rita McGrath points out that in an adaptive system, "prediction and being 'right' will be less important than reacting quickly and taking corrective action."²⁴ Moreover, competitors must be able to accept multiple failures over the duration of the competition, tapping into systemic resilience and durability.

Business design experts at the consulting firm McKinsey and Company have researched the ability of organizations to adapt. Entrepreneurial start-ups are often extremely agile, while larger and more established businesses become stuck in

practices that once provided revenue. Experts at McKinsey have found that an adaptive organization needs to have a core business practice that maintains stability through scale with established business processes, while also creating risk-taking structures and processes that can seize opportunities.²⁵

McKinsey and Company business consultants' research highlights three organizational processes that are key to maintaining stability and creating flexibility: decision making processes; operational processes for how the organization performs activities; and resourcing processes. The McKinsey consultants advocate for the use of cross-functional teams with an "integrator" role for establishing cross-talk; establishing clearly defined decision-making processes that enable committees to make some decisions and leaders to make others; and maintaining stable activity processes as a backbone from which to deploy innovative efforts.²⁶

In sum, the four mechanisms required to generate competitive advantage are innovation, information, opportunism and adaptiveness. Business researchers have found that in order to develop these four mechanisms, the environment must be pressurized. In response to competitive pressure, organizations must develop information processes that will allow leaders to identify rare opportunities with large pay-offs. Beyond information support systems, other systems must be aligned to create advantage: decision making systems, operational processes, and resourcing systems.

The U.S. harnessed Porter's four mechanisms in unexpected ways during the Cold War against the Soviet Union. Combining policies that demanded innovative strategies with resourcing and innovation in weaponry, the U.S. sought, and at times

gained, competitive advantage. Examining that approach can yield insights for gaining competitive advantage in the current strategic environment.

The Cold War Competition and the Competitive Advantage Strategy

The development and use of the atom bomb might be thought of as the sole ingredient for the U.S. success during the Cold War, yet a closer examination reveals that neither side gained competitive advantage exclusively through advances in weaponry. Technological innovation became the terms of the competition, although not the final determinant of advantage. Rather, the U.S. gained competitive advantage through imposition of cost driven by strategy innovations.

Constant Innovation

The U.S. security strategy immediately after WWII hinged upon the exclusivity of its nuclear weapons capability. Indeed the U.S. strategy rested upon the atom bomb, and seized upon that innovation as an expedient way to outcompete the Soviet Union. The Soviet Union's five-year plan for 1945-1950, called for development of capabilities that would catch up to the U.S. in military technology. The significance of the plan was the level of resources devoted to this competition against the back drop of the physical, economic and political needs due to the ravages of the war. Stalin prioritized jet aircraft development which was achieved through purchase of British engine technology. Production of long-range bombers was also a priority, and the Soviet Union produced 1,800 TU-4 bombers.²⁷ The Soviet investment in technology pushed its capability ahead of the U.S. during this period, as the Soviet Union created 35 aircraft technological innovations vice 23 for the U.S. during the period preceding the Korean War.²⁸ As

Porter's theory describes, innovation on one side generates copying on the adversarial side.

After 1950, the U.S. sought to maintain advantage through staying one step ahead of its competitor in technology. Between 1950 and 1955, the U.S. introduced 18 tactical aircraft innovations, compared to 13 by the Soviets, producing more highly capable aircraft for the U.S. by the middle of the next decade.²⁹

Throughout the Cold War, U.S. innovation waxed and waned in accordance with the ups and down in spending in research and development, while Soviet spending steadily grew. A review of technological development from 1977 concluded that the U.S. led the Soviet Union in ten areas, the Soviet Union in eight, and the two had reached parity or unknown capability in three. The U.S. advantage persisted into the mid-1980's with the U.S. leading in fourteen out of twenty assessed areas, and the Soviets none by that time.³⁰

Acting Opportunistically

Recognizing the need to maintain its advantage, the National Security Council issued NSC 68 in 1950. NSC 68 called for the U.S. to generate situations that were so advantageous as to force a retraction of Soviet power. The document set the U.S. on a course of massive military investment to counter what was perceived as mal-intent on the part of the Soviet Union. The importance of NSC 68 is that it broke ground on establishing a policy of seeking advantage during a window of opportunity when the U.S. still had nuclear superiority.³¹ The idea of advantage seeking that began with NSC 68 underwrote the U.S. competition strategy for decades, even during the period of the Kennan 'containment' policy. NSC 68 established the competitive terms for the Cold

War, focusing on military weaponry and force levels.³² A later strategy, developed in the Reagan administration, furthered the concepts of NSC 68 and will be discussed below.

The Soviet Information Advantage

One of the significant disadvantages the U.S. faced during the Cold War was the absence of adequate information on the Soviet defense enterprise. Because of the relatively open information environment of the U.S., Soviet planners were able to gain more information about the U.S. than vice versa. This caused the U.S. to incorporate significant error in its assumptions, producing a 'missile gap' scare in the 1950's, where defense planners assessed the U.S. as vulnerable to Soviet attacks due to presumed advances in ballistic missile technology. Later it was found that the scare was fictitious and that the U.S. had only serendipitously avoided miscalculation.³³ The U.S. had to overcome this disadvantage elsewhere.

Adaptive Organization

Porter's theory predicts that the pressures of competition will produce risk taking in an effort to create innovation. The competition with the Soviet Union pressured the Defense Department to continue to take risk in the development of weapons, though not always with success. From 1941 to 1961, the U.S. spent approximately \$7 billion to develop a nuclear-powered aircraft.³⁴ The purported benefit was that nuclear planes would not need to re-fuel, thereby eliminating the problem of access and basing for aircraft in the event of a contingency with the Soviet Union. In spite of two decades of work, the effort was never able to overcome the technical difficulties of protecting crews from radiation while in flight.³⁵ Because the U.S. security enterprise had the scale and resources to absorb failures, it was able to move ahead. The U.S. continued to invest in

nuclear technology, shifting its effort to developing nuclear powered submarines and vessels. Because the U.S. economy flourished, the U.S. was able to take the risks demanded by this kind of competition.

Yet, it is difficult to estimate costs for technological innovations. As Rosen points out, the more complex the technology, the more complicated it becomes to determine costs versus benefits.³⁶ As the economy slowed and defense spending became a concern in the late 1960s, the U.S. shifted its innovation strategies again. The new focus was on deliberately creating cost differentials, rather than technological comparative advantages.³⁷

The Culmination- Application of the Four Mechanisms

By the early 1980's the CIA was estimating that the Soviet economy was stagnating badly, and that defense spending was consuming any possibility for raising living standards. Reagan's advisors conducted a study on the Soviet economy and concluded that it was indeed sensitive to external pressure in the form of credit restrictions and embargoes.³⁸ Reagan implemented NSDD-75 which returned to the idea of imposing costs on the Soviet Union.³⁹

Concurrently, defense analysts were debating whether the U.S. should invest in a low-altitude or high-altitude bomber. Analysts in favor of creating competitive advantage argued that development of the B-1 bomber would enable the U.S. to pose a continuing threat to the USSR at a modest cost. They argued that investment in the bomber would play into Soviet paranoia about its borders, thereby prompting the Soviet Union to respond with heavy investments in air defenses which outpaced the costs of the bombers. Additionally, the U.S. could avoid similar air defense costs by reducing

U.S. air defense expenditures. This approach would produce an advantage over the Soviet Union in the ability to sustain defense expenditures.⁴⁰ Although President Carter had cancelled the bomber development, President Reagan re-introduced it in alignment with his policy to seek competitive advantage.⁴¹ In response, the Soviet Union made a significant investment in air and missile defense, an investment that could have been made elsewhere.⁴²

The strategy of opportunistically creating cost differentials ultimately paid off. After the dissolution of the Soviet Union, records released from state archives demonstrated that the Soviet Union was in fact spending at least 25 percent of its Gross Domestic Product on defense spending, if not more. During an interview with a former Soviet officer conducted after the dissolution of the Soviet Union, defense officials learned that Soviet military leaders had accumulated and were maintaining massive war reserve stocks intended to match U.S. military production in preparation for a high-end conventional war. When the Soviet economy stagnated during the 1980's, the high defense spending devoured significant resources needed elsewhere.⁴³

The lesson from the Cold War is that the U.S. successfully attained a competitive advantage that tipped the favor away from the Soviet Union in combination with other factors. The ability of decision makers to recognize and seize an opportunity, develop an innovative strategy, and apply resources toward execution of the strategy provided the U.S. competitive advantage. It continued to use technological and strategy innovation to compete with the Soviet Union. It also overcame its disadvantage in information, by analyzing the weaknesses in the Soviet economy. It also reacted opportunistically, especially near the end of the Cold War. However, it was the

adaptability of the United States that led to its eventual success. The large and robust U.S. economy and stable organizational structures of the DoD allowed it to take greater risks. Ultimately, the U.S. competitive advantage was gained by inducing over-spending by the Soviet Union in response to the buildup during the Reagan years.

Competitive Advantage in Today's Environment

In the immediate aftermath to the Cold War, the overwhelming dominance of the U.S. economy and military served to dampen aspirations of both Russia and China. When these advantages were combined with the wide network of U.S. allies, no other country could afford to compete directly with the United States.⁴⁴ Instead, rivals such as China and Russia have moved beyond using military force in pursuit of their own national interests. While the U.S. focused on global crisis management, counter-terrorist operations, and direct warfare, other nations focused on indirect strategies of political and social manipulation, cyberattacks, and purchasing global influence through development projects. This approach to competition threatens to impose unfavorable cost on the United States and thus erode its competitive advantage.

The renewed great power competitions are driving significant theorizing about the significance competitive advantage. The National Defense Strategy signals this shift: "Today, we are emerging from a period of strategic atrophy, aware that our competitive military advantage has been eroding."⁴⁵ The U.S. military is being called upon to renew its capability to compete across a broad spectrum of conflict. In order to understand how to capture competitive advantage in the new environment, the Department of Defense needs to further advance the mechanisms of competitive

advantage discussed earlier. None of the changes are revolutionary, and all are to some degree being pursued by the Joint Force today.

The Demands of Seeking a Strategy of Competitive Advantage

As Porter's theory predicts, constant innovation will be essential in a strategy of competitive advantage. General Martin Dempsey characterized the rate of innovation as the key to winning in asymmetric warfare: "The rate of innovation becomes a better predictor of success than the Force Management Level... Size matters, but the rate at which we can innovate, adapt, and respond to changes in the environment matters more."⁴⁶ Constant innovation will be required across the spectrum of conflict and strategies for operationalizing the theory of competitive advantage developed in turn. One promising area of innovation must be a focus, that of force management and capability development.

At the strategic level, the focus of innovation must be seeking efficiency and effectiveness in opportunistic force employment, development and design. Scholar Stephen Biddle persuasively identified force employment as the source of military and national power, overriding both technology and preponderance of either force size or industrial production in twentieth century warfare.⁴⁷ While his analysis focused on high end conflict, his lessons remain relevant in competition in that he proves that what matters is the translation of resources into effect. Biddle argues that most defense decision making tends to focus on material factors of military capability. Yet, material factors do not explain the results of modern wars, which Biddle proves were won through an innovative method of force employment that was developed after 1918.⁴⁸ As already described, technological investments are high cost and potentially high risk.

While technological advancement should not be shelved, the Joint Force must look for innovation in force employment methods, working both with and across the Combatant Commands, and with ties to the Services as the force providers.

Major force capability development decisions must also rest upon the recognition that the Joint Force is in a competition for influence, and as such, cannot rely solely upon traditional firepower and maneuver elements both in terms of efficiency and effectiveness. Biddle examines high-end warfare and describes military capability in terms of three capacities: “the ability to control territory, to limit (and inflict) losses, and to prevail quickly.”⁴⁹ Force development for competition similarly might be built on the capacity to build and maintain specific interoperability and relationships (which are the ‘geography’); to maintain or expand non-physical reach across the globe (so as to reduce losses); and to employ and prevail quickly. Non-physical and indirect methods of force employment should be priorities, as they reduce risk and improve efficiency and effectiveness in certain contexts, and promise to impose differential costs.

A strategy of identifying cost-imposing opportunities for innovation demands a high level of information about competitors. Information advantage will be difficult for the U.S., as it was during the Cold War. Achieving competitive advantage will require an understanding of the decision-making behaviors of adversaries within the operating environment. Strategies designed to create cost differentials must seek to efficiently exploit adversarial tendencies, and understanding how and when decisions are made. Beyond single-adversary analysis, determination of opportunities will require examination of the ongoing interdependencies, convergences, and divergences of relationships, economies and power differentials as they affect the competition. The

dynamism of competition implies an infinite number of possibilities for each side, and imitation can and should be expected.

A new method for depicting the dynamics of the competition that communicates a much less deterministic pattern must be developed. Also, information analysis and visualization must become detached from strict geographic bounds. While a global visualization tool based on geography is a useful reference, it limits senior decision makers' abilities to comprehend the dynamics of relationships, behaviors, and decision making of multiple stakeholders in action. This deeper understanding of adversarial behavior and decision making will then lead to the ability to seize opportunities as they appear. Organizational changes for seizing opportunity and remaining adaptive will be discussed below.

Competitive advantage will also come from creating a more nuanced defensive posture. The U.S. can no longer expect to compete solely along the technological weapons trajectory and outspend all competitors with no repercussions. Adversaries are currently shifting the trajectories of the competition toward cheaper and more effective influence continuums in order to control their environment and increase costs to the United States. The U.S. must defend against manipulation by adversaries.

Innovating, seizing opportunities, and taking defensive measures requires supporting business processes. Operationalizing strategies for seeking competitive advantage begins with creating a more adaptable joint force, with the joint staff as a global integrator.

The Joint Staff as the Global Integrator

The Joint Staff has begun to take on the mantle of the “global integrator” within its Title 10 functions. As the business design experts at McKinsey and Company found, organizational competitiveness requires both agility and stability within businesses processes, overseen by a business process manager, as well as an “integrator” that can establish cross-talk among the various established business processes and temporary cross functional teams.⁵⁰ To some extent this has been replicated at the Joint Staff. However, significant further effort must be made at the strategic and operational level to monitor for opportunities and innovate.

As described earlier, decision-makers have to look for new possibilities to develop competitive advantages, while maintaining their core missions.⁵¹ Decision-making processes that allow for expeditious and risk-informed decisions at appropriate levels are required to shift resources and operationalize these decisions. Efficiency and effectiveness in opportunistic decision making requires a separate process from the core business process. This requires both a centralized decision-making process to promote efficiency and a de-centralized model to increase effectiveness.⁵² The Joint Staff decision-making process currently focuses on its Title 10 responsibilities, and the decision-making process for operations rests with the Combatant Commanders, based on a geographic model prepared for high end conflict. Instead, an updated process that reflects the global nature of the competition, as well as the quick timelines required to seize opportunities must be developed. Inevitably the Department of Defense (DoD) will either be forced into a new and more responsive structure through the competition, or it can choose to respond to current conditions. Either way, structural changes will not be

easy. Existing power structures (for decision making and resourcing) will resist reorganization.⁵³

To avoid the stasis created through maintaining existing power structures, the Joint Force must re-examine its current “centers of innovation” and determine whether they are optimally positioned so as to create competitive advantage. Structural and intellectual centers of innovation serve to propel constant change through competition.⁵⁴ While the Services invest heavily in innovation, it is unclear how that innovation is developed efficiently across the Joint Force. Innovation extends beyond technological breakthrough, as already discussed, and force employment and capability development are two areas with the potential for high pay-off. How the Services invest in force employment innovations in concert with each other, and from a global understanding of the competition, will require significant investment at the Joint Staff level.

The demand for more effective and efficient innovation among the Services, with the Combatant Commands, and in concert with the Joint Staff suggests the need for a new cross functional organization. This organization should be composed of the Combatant Command operations, intelligence, and plans divisions along with the Services’ force employment and capability development agencies. The Joint Staff should work to resource the evolving opportunities identified by the cross functional team, while minimizing risk. Current military structures are stuck within a hierarchical model, and within “stovepipes” with no incentive to extend above and below their own chain of command or horizontally across functions, apart from professional courtesy. Staffing must be appropriate to the demands of the task, and apply trained talent to the problem set, as opposed to random selection of the next inbound officer from the field.

Staffing levels must also be appropriate to the level of effort, which at times might be significant.

Research by Sull, described earlier, found that opportunism required an organization that managed strategic patience, yet recognized when and how to act upon rare but high-pay off events.⁵⁵ Cross-functional teams can provide this capability. These cross-functional teams should focus on: monitoring and identifying opportunities; tying resourcing and force employment to operations (in the near and far term); and identifying opportunities and risks to senior leaders. The cross functional team deliberations should tie the Combatant Command's operational monitoring to the Services' ability to respond with force employment innovations. The point would be to afford quicker cycles of decision making in order to match the pace and reach of competitors. However, Combatant Commands must be released from their current geographic restraints so as to pursue competition against competitors who are not so restrained.

The McKinsey and Company researchers described operational performance as an area worth pursuing for deriving competitive advantage.⁵⁶ Current geographic authorities present fiscal and cognitive constraints, and combatant commands lose efficiency and effectiveness over the ability to influence the environment beyond their area of operations. The Unified Command Plan structures the world in a manner that results in a reduction in operational reach during a competition, limiting what a geographic combatant commander can accomplish. Combatant commanders must have operational reach so as to make decisions about and take actions on those decisions that may be in other command areas. Matching the rate of competitors'

abilities to make decisions will require a re-configuration of those authorities and structures in order to operationalize competitive strategies.

Conclusion

Clearly, the Joint Force can build upon different approaches to competitive advantage from the business world. This paper has argued that Porter's theory gives a framework to one such approach. It highlights four mechanisms for deriving competitive advantage: constant innovation, information about competitors, opportunistic decision making, and adaptability produced through a stable organization. The Joint Force can capitalize on these mechanisms to develop a competitive advantage.

Yet competitive advantage is temporary. Opportunities will open and close, and a competitor can seize a transient advantage through innovation or copying their adversary. The Joint Force has not yet fully developed its ability to derive competitive advantage, possibly because it is stuck in the power centers of the past. It is currently organized and equipped for conducting either high-end conflict, or lower-level counterinsurgencies, both amplified with high tech weaponry. It is not optimized for constant innovation and adaptability.

While current national strategy calls for the action within a competitive framework, more work must be done to develop the concept. Current doctrine also needs to be updated. In a competition, the Joint Force must recognize that success will involve imposing costs along a trajectory of the competition, not just attaining a clearly definable end state. The competition will not end, thus there is no termination criterion, nor a "line of effort" to deterministically achieve objectives. The constant upheaval in the global environment produces innumerable choices and changes which must be monitored and

exploited. The Joint Force must be able to seize opportunities and attempt innovations, recognizing that some will fail. Further work on a doctrine and strategy to achieve and maintain competitive advantage is required.

Endnotes

¹ B.H. Liddell Hart, *Strategy*, 2d revised ed., (New York: Meridian Books, 1991) 212.

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