

Dominating the War Marketplace: A Case for Expanded Strategic Education in the US Army Acquisition Officer Corps

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Abstract

This article argues for expanding the Army Acquisition Corps' traditional Science, Technology, Engineering and Mathematics (STEM) focus of graduate education programs for its junior field grade and senior company grade officers to include National Security, and Strategic Studies programs. Implementing this change will increase the acquisition corps' intellectual capital to manage the evolving assumptions about future wars and adversaries inherent in the Army's 30 year modernization strategy. Currently Army acquisition branch limits the scope of graduate programs for Army Acquisition Officers to Science, Technology, Engineering and Mathematics (STEM) graduate programs. While the latter programs are vital to the mission of the acquisition corps, expanding the educational scope to include Strategic and National Security graduate programs will grow a segment of junior acquisition officers that make cost, schedule and performance decisions with a more intimate understanding of increasingly complex strategic security environment. Moreover, such officers will be better equipped to extrapolate current global security trends to shape future requirements. Acquisition investments expected to be relevant to future conflicts require effective management of assumptions about the future strategic security environment - the types of wars the Army might fight, and nature of future adversaries. The Army Acquisition Corps should increase sponsorship of strategic education graduate programs for its Officers to better prepare for future wars and adversaries.

Keywords: U.S. Army; Acquisition; Officer; Graduate; Strategic; Education; Manage; Risk; Future; War

Introduction

"The measure of success for Army Acquisition is the success of the soldier. The goal of every weapon system program, contract, investment and experiment is to provide our soldiers with the decisive advantage on the battlefield."

"It is the right time to entertain a comprehensive and strategic approach to Army equipment modernization in which we adapt a systemic approach to setting and determining long-term equipping priorities" [1].

This article argues for expanding the Army Acquisition Corps' traditional Science, Technology, Engineering and Mathematics (STEM) focus of graduate education programs for its junior field grade and senior company grade officers to include National Security, and Strategic Studies programs [2,3]. Implementing this change will increase the acquisition corps' intellectual capital to manage the evolving assumptions about future wars and adversaries inherent in the Army's 30 year modernization strategy.

The U.S. Army Acquisition Corps identifies "strategic leadership" as one of the career developmental levels in the acquisition career model; this level entails educating acquisition personnel to make strategic level decisions [4]. Including National Security, and Strategic Studies programs in the civilian graduate education requirement can begin to develop military acquisition personnel early in their careers to become strategic leaders. Moreover, the Army's continued drive to improve mission command (decentralized execution of mission tasks by subordinates using disciplined initiative) urges strategic education earlier to build Officers capable of developing, and implementing strategic decisions. The U.S. Army Acquisition Officer Career model in Figure 1, emphasizes strategic leadership at the top of the developmental pyramid. The change proposed in this writing seeks to establish a way to educate Officers throughout the course of their development for better strategic leadership and decision-making. Currently Army

acquisition branch limits the scope of graduate programs for junior and midgrade Army Acquisition Officers to Science, Technology, Engineering and Mathematics (STEM) graduate programs, which is consistent with the functional and broadening developmental levels in the career model. While the latter programs are vital to the mission of the acquisition corps, expanding the educational scope to include Strategic and National Security graduate programs can sensitize and accustom junior and midgrade acquisition officers to making far reaching decisions in an increasingly complex strategic environment. Moreover, such officers will be better equipped to extrapolate current global security trends to shape future requirements.

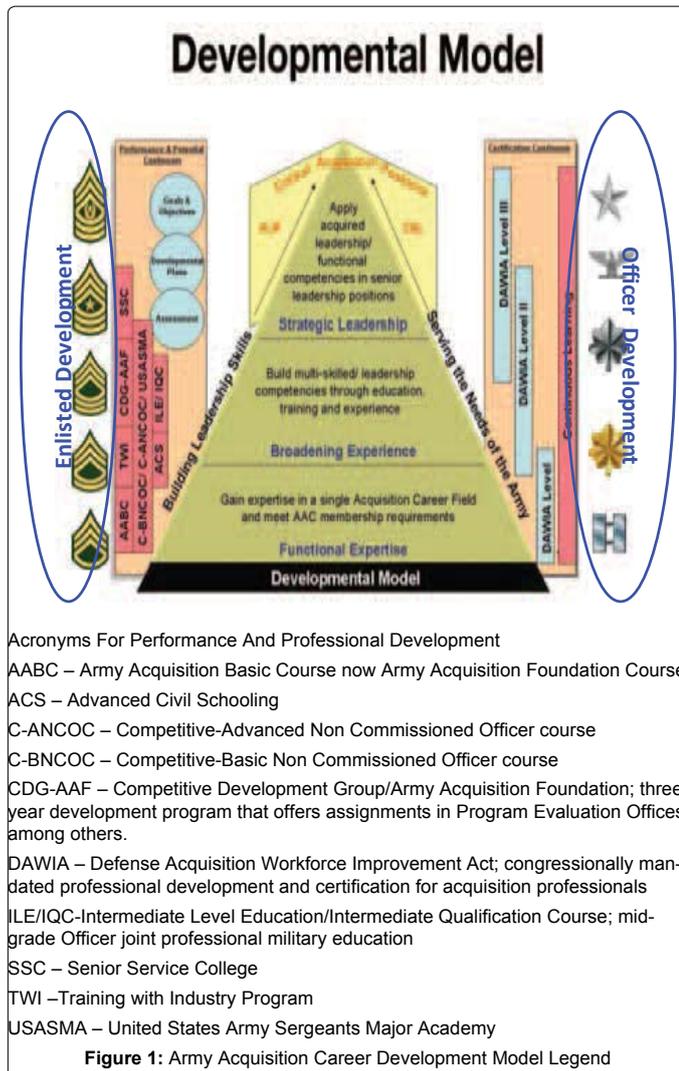
Figure 1 Army Acquisition Career Model [5] Acquisition investments expected to be relevant to future conflicts require effective management of assumptions about the future strategic security environment - the types of wars the Army might fight, and nature of future adversaries. The Army Acquisition Corps should increase sponsorship of strategic education graduate programs for its Officers to better prepare for future wars and adversaries. Margaret Roth writes that the Army's 30 year modernization plan involves a process that "combines a detailed analysis of ...current and planned investments in Science and Technology and materiel development, linked to emerging threats and capability gaps across a long-term, 30-year planning period [6]." As the Director of Research Development and Engineering Command (RDECOM), Mr. Dale Ormond remarked about the

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and procuring capabilities. The current emphasis on Officer higher civilian education for this marketplace is in business, management, engineering and some other natural sciences programs essential to research and development. This is very pragmatic as it optimizes the manpower of the Acquisition Corps to innovate, work with industry, and efficiently use the taxpayers' dollars toward the overarching goal of fielding a superior Army war fighter.

Strategic education

Army acquisition must increase emphasis on this type of education in its Officer ranks because it is vital to the Army Acquisition Corps' ultimate measure of success – war. War is where the war fighter measures the success of his training and equipment. In a study of America's best run companies Thomas Peters and Robert Waterman assert that the key to the success of top companies lies in understanding the market – they aptly asserted that “if you can't understand the customers, you won't understand the business... the answer on how much service is enough or what kind of quality is right lies in the marketplace” [8].

War as a Market

Analogy introduction

Given the acquisition corps appreciation of business and private sector perspectives, consider the analogy of war as a seasonal market where the products of the U.S. Army compete against foreign products of potential adversaries like Russia and China, and allies like France and Great Britain.

The customer

The customer in this analogy is the U.S. Army Warfighter whose superiority on the battlefield is synonymous with customer satisfaction. This construct puts Army Acquisition products in a direct product competition against major rival producers like Russia and China (and even allied producers) for customer satisfaction in the next market season of war. Note however that in this analogy, the war market is different from the private sector market where the Army Acquisition Corps procures and develops capabilities.

The market

The Army Acquisition Corps primary customer is the U.S. warfighter, and the market this customer participates in is war. War is the ultimate litmus test of the military profession. War is where our warriors pitch their training, wits and every piece of equipment the Army Acquisition Corps has procured them against the enemies of the U.S. War is where the products of the Army Acquisition Corps are consumed by the U.S. Warfighter; it is where they compete against the products of rival acquisition corps like those of the People's Liberation Army of China, the Russian Army, Iran and even those rudimentary acquisition cells of non-state organizations like terrorist and insurgent groups. Thus the success of the Army Acquisition Corps' 30 year modernization strategy can be forged to a large extent by increasing the emphasis on the study of the customer and the market; in other words by sending more Officers to study the way the U.S. fights, new ways it can fight, and the capabilities, training and fight doctrine of their future adversaries. Decisions on acquisition program investments, choice of capability development, and product performance measures should be closely attuned to the war marketplace.

Dominating the market

To dominate the war market, Acquisition Corps APMs and PMs

strategy “this is hard stuff, [projecting] where we're going to be in 30 years that gets a bit sketchy [7].”

This article does not intend to underplay the importance of sending Acquisition Officers to Science, Technology, Engineering and Mathematics (STEM) programs because these are vital to the daily management of programs, contracts, product development etc. However, the article urges strategic education programs as an additional area of emphasis to the traditional acquisition focus on STEM graduate programs.

Dual Areas of Higher Education Emphasis

The measure of success of the Acquisition Corps' 30 year modernization strategy rests on how the equipment it provides the Army war fighter performs in future wars against the equipment of future adversaries. Thus it is imperative that in addition to STEM programs the Acquisition Corps emphasize strategic education programs that cultivate Officers who understand the global security environment, and the defense capabilities of future U.S. adversaries – the foreign competitors in market terms.

Business and technical education

This is vital to the Army Acquisition Corps mission of developing

have to be able to advise war fighters on their requirements with current, relevant data on trends and product capabilities of foreign competitors in the war marketplace. APMs and PMs have to be strategically aware of how their products stack up against what the competition is producing – this calls for studying a diverse range of foreign competitors. For example, an APM or PM strategically attuned to existing and developing foreign capabilities in the market (war) off-season would not advise the war fighter to reduce their requirement for armor on a fighting vehicle when the acquisition corps of a potential adversary just developed and procured a new generation of armor piercing rounds. This is analogous to Samsung intentionally programming a feature on a new concept cell phone that renders the product fundamentally inferior to Apple's iPhone in the smart phone market. A strategically attuned APM or PM would advise that the fighting vehicle as specified by the war fighter would prove an inferior product that will not compete successfully in the war market, and inform the war fighter of current competitor trends. This example is similar to the more traditional scenario of APMs and PMs - attuned to trends in the Private sector market - advising the war fighter on manufacturing and product trends to better inform their requirement.

According to the Assistant Secretary for Acquisition, Logistics and Technology Ms Shyu, fielding a superior war fighter in combat is the measure of success of the Army Acquisition Corps' strategy. The single greatest challenge to the superiority of the U.S. warfighter in a future conflict is the warfighter fielded by the competition – the competition are the future adversaries of the U.S. whose acquisition organizations are building capabilities to counter the U.S. Army war fighter. Similar to private companies in the auto or technology industry the Army Acquisition Corps should promote increased study and understanding of defense capabilities and development efforts of its competition, and maintain close situational awareness of trends among them in its workforce.

As the Afghanistan war closes, Army Acquisitions finds itself in a similar position like the manufacturers of Christmas related products. During the off-season such manufacturers pay close attention to market trends and competitors so they can design and field not just competitive, but superior products when the Christmas season begins. In this vein, the U.S. Army Acquisition Corps must emphasize developing more APMs (particularly newly accessed officers) and PMs who are strategically attuned to trends and capabilities of its foreign competitors in the war marketplace so when the season of war begins Army Acquisitions can field a products that are not only competitive, but superior to the competition in terms of success in combat operations. The Army Acquisition Corps should invest in strategic education for its Officers to develop greater proficiency at monitoring its competitors, in the marketplace of war.

Potential Implications on the War Market of Not Adjusting the Higher Education Focus?

A low emphasis on strategic education can make for a midgrade corps of acquisition professionals that are strategically insulated, and apt to struggle when they reach the strategic leadership level of the career model. This can increase the risk for program decisions that contribute to adversary technological surprise. According to Secretary Shyu "as we look ahead, many potential adversaries will have greater access to sophisticated and disruptive technologies that could greatly complicate our operations. We cannot afford to let technological change level our advantage in any potential conflict [9]." In other words, the pace and proliferation of technology makes it possible for

our competitors to produce equipment that can disrupt the amount of customer (warfighter) satisfaction with Army Acquisition products in the war market. This is not helped by having a wide range of competitors in the war marketplace to compete against – Dr. John Peters et al write that "the adversaries and the missions that the Army must be prepared for are more ambiguous and diverse than at any time since the period between the World Wars. Additionally, the pace of technological advance...presents a number of challenges, including preventing technical surprise [10]." Increasing emphasis on strategic education early can cultivate greater strategic awareness and better decision making at the strategic leadership level of the career model. Moreover, this can have the added effect of reducing the risk of surprise from disruptive enemy technology. In other words, growing APMs and PMs that are more attuned to U.S. strategic interests relative to competitors can mitigate the possibility of technological surprise by those competitors in future conflict.

Possible future implications from past experience

The disruptive and devastating consequence of having a low situational awareness of the product capabilities of competitors in the war marketplace became evident to the U.S. Army Ordnance Department (WWII predecessor of today's Army Acquisition Corps) when the U.S. Army Armor war fighter met his German counterpart in the first tank battle in WWII. Historian John Muller writes that the 26 November 1942, Thanksgiving Day Battle of Happy Valley in North Africa was the first tank battle between U.S. and German forces in WWII [11]. From a business perspective this can be viewed as the first release of a tank product to compete in the war marketplace since the WWI market season ended two decades earlier. The U.S. Army War fighter was using the M3 Stuart tank developed in 1941 while the Germans were using the Panzer Mk IV tanks fielded in 1939; according to Muller, U.S. Army First Lieutenant Freeland A. Daubin Jr of the 1st Regiment, 1st Armored Division wrote that him and "his loader picked out one particular Mk IV tank... then pumped more than eighteen rounds [from the Stuart's 37mm "squirrel rifles"] at the German tank... which ricocheted harmlessly off its armor." Daubin added that "the effect of the Mk. IV's long 75mm gun on the Stuart" blew him out of his tank turret and killed his crew" [12] German Army Acquisitions had developed and upgraded the Panzer Mark IV tank going back to 1939 – two years prior to the development of the Stuart tank – this was plenty of time for strategically attuned acquisition officers in the U.S. Army's Ordnance department to develop a superior product based on the existing trends among competitors in the war market – 75 mm main guns and rolled cast iron frontal armor. Strategically aware officers in the war department would have been able to alert Army leaders and warfighters to the comparative inferiority of their product requirements relative to trends in the war market. This product inequity between Army Ordnance tank products and German tanks would continue with the competition between the U.S. Army's M4 Sherman tank and the German Panther tank. Adrian Lewis wrote that the Sherman tank's "designers consciously emphasized speed and mobility, limiting the thickness of the armor and the size of the main gun, thereby compromising on firepower and survivability [13]." In other words, Army acquisition officials in an effort to lower manufacturing costs and accelerate production cut back survivability (lighter armor) and lethality (smaller main gun) in favor of speed and mobility. This best value yet strategically misguided decision would prove fatal to tank crews in North Africa and the European Theater of Operations as they faced German panther tanks in Operation Overlord. According to Max Hastings a German Army Panther tank Commander, Lieutenant Fritz Langangke recalled a certain feeling of invincibility from destroying

four U.S. Army Sherman tanks in a single engagement [14].

Adjusting the higher education focus

Increasing sponsorship of strategic education in its Officer Corps will help Army Acquisition cultivate a culture of awareness of threat equipment production much like the Cold War—though the global security environment is much more complex and arms producers now are far greater. During the Cold War when the nation and the Army as a whole was highly attuned to the defense capabilities of a single threat – the Soviet Union – the Army Acquisition Corps fielded superior products like the M1 Abrams Tank, the M2 Bradley, the AH-64 Apache, the Patriot Missile and the UH-60 Blackhawk. These were known as the Big Five Systems and they were developed in the market off-season between the Vietnam and Persian Gulf Wars. The M1 Abrams’ superb market performance during its spectacular release in the 1991 Persian Gulf War season is evidence of a calculated effort by Army Acquisitions to dominate Soviet products in the war market. The M1 Abrams tank aided by its Big Five sister products dominated the Russian made T72, BMP, Scud, and BTRs in terms of customer satisfaction (successful combat operations) in the 1991 Persian Gulf War market season. For example, in the Battle of 73 Easting, Captain (now Major General) H.R. McMaster’s Eagle troop “assaulted through four kilometers of heavily defended ground...[and] destroyed over thirty enemy tanks, approximately twenty personnel carriers and other armored vehicles, and about thirty trucks” [15] In the singular, threat based planning environment of the Cold War, Army acquisition officers were strategically focused on the performance of existing and developing Soviet capabilities, and so developed equipment to out-perform existing and developmental products put out by Soviet Army Acquisitions. The result was U.S. armor and infantry formations destroying enemy formations twice their size. This is a complete contrast to the Sherman – Panther tank contest.

As the Afghanistan war ends, the strategic security environment will come to look more like the Interwar period (1918-1939) in terms of uncertainty about future wars and adversaries than the Cold War, which means contemporary Acquisition Corps faces the similar challenge of strategic ambiguity like its interwar predecessor – the U.S. Army Ordnance Department. Unlike the Ordnance Department however, today’s Acquisition Corps can deal better with strategic uncertainty by cultivating segments of Officer year groups educated to manage strategic assumptions, and make performance, cost and schedule decisions with full situational awareness of the capabilities of future adversaries as well as those of our allies.

Recommendation

Increasing sponsorship of higher education in strategic studies programs will build a strong focus on competitors in the war marketplace. It will cultivate a greater number of APMs and PMs that are strategically attuned to the acquisition activities of potential future adversaries, and who make performance, cost and schedule decisions with a current understanding of the existing and developing capabilities of potential competitors in the war marketplace.

Increased strategic education and awareness amongst acquisition officers will help ensure that in the areas of tank development for example decisions about performance upgrades to the M1 Abrams greatly factor developments in design of competitor tanks like the Russian T99 Armata Main Battle Tank, and the Chinese ZTZ99 Main Battle Tank. The latter for example features a laser guided antitank, main gun launched missile with a range up to 4000km – a new

tank threat to rotary aviation – and active Laser Self-Defense Weapon (LSDW) that can disable optics and gunner eyesight on other tanks [16].

An argument against sending acquisition officers to strategic studies program earlier in their development is that it is irrelevant to the business and technical focus of their career development level. The cost, schedule and performance decisions these Officers frequently make produce the operational and tactical means for realizing U.S. strategic interests and goals, thus they should be educated and attuned to the latter as well as strategic security challenges.

Officer career timeline is a genuine constraint to implementing this recommended change. In terms of timeline, it is very possible for a newly accessed acquisition officer to attend a strategic studies masters program, followed by the Army Acquisition Foundation Course(AAFC) at Redstone Arsenal, and go on to serve their first utilization. The Acquisition Corps can also bill sending officers to such programs as a post key-developmental broadening assignment.

The core measure of success of the U.S. Army Acquisition Corps’ 30 year modernization strategy rests on how successful its products perform in future war. Thus it should emphasize within its officer corps an increased understanding of the strategic environment and the defense capability development of potential future adversaries. The Acquisition Corps should cultivate increased situational awareness of the single point of failure to its success – the future adversary, and what they are developing and fielding.

Conclusion

This publication has argued for a change to the traditional focus of higher education for acquisition officers, and offered a recommendation. It believes a rebalance in the areas of emphasis on higher education of Acquisition Officers should be part of the Corps’ method to manage the risk of disruptive technology. In simpler terms, if the Army Acquisition Corps broadens its emphasis on higher education to encompass strategic studies program it will grow more APMs and PMs who are strategically attuned to the activities of its competitors in the marketplace of war, and so field products in future wars that have accounted for potentially disruptive enemy technology. It is not enough to assume that the capabilities put into the hands of the U.S. Army war fighter will give him an advantage over the products of foreign army acquisition corps; Army Acquisition should educate more strategically minded officers who emphasize what the acquisition corps of potential rivals as well as that of allies are producing, when making program cost, schedule and most importantly performance decisions.

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