



**An Exploration of Features within Organizational  
Culture that Promote Risk Acceptance in order to  
Enable Innovation within Army Acquisition**

**Paige R. Walker**

March 16, 2022

**DAU**

Submitted to Defense Acquisition University in  
partial fulfillment of the requirement of the Senior  
Service College Fellowship

**Approval Page**

Title: An Exploration of Features within Organizational Culture that Promote Risk Acceptance in  
order to Enable Innovation within Army Acquisition

Author: Paige R. Walker

Organization: Senior Service College Fellowship

Date of Paper: 03/16/2022

Research Advisor approval: Jack Coyne, 03/17/2022

Research Reviewer approval: Dana Stewart, PhD, CDFM, 03/21/2022

OPSEC Approval: Amy Tolson, PR20220165 04/18/2022

SSCF Huntsville Director approval and submission to DAU: Deborah DiCesare, 04/12/2022

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### **Abstract**

The government will provide the workforce with the cutting-edge technology they need, while encouraging new organizational structures and the culture of innovation required to address today's complex challenges (President Joseph R. Biden, 2021). This research paper focuses on the organizational cultural features that promote risk acceptance in order to enable innovation within Army Acquisition. Innovation is one of the keys for achieving dominant capabilities and competitive advantage for American military power over the next decades. Prudent risk taking is also necessary for successful and sustained innovation (U.S. Army, 2016). This research will show the correlation between risk acceptance and innovation. In addition, this research will provide analysis for the most probable features within an organizational culture that promote risk acceptance in order to enable innovation.

Overall, this research was successful, in addition, this research provides recommendations for follow on research. The research revealed that there are organizational cultural features that promote risk acceptance while enabling innovation. By calling cultural features out specifically in their strategies, the Army has recognized many of the innovative enabling organizational cultural features along with the need to promote risk acceptance within their acquisition programs. The evolution of the Army Acquisition culture will take time. Therefore, the two focused organizations, Army Futures Command (AFC) and Rapid Capabilities and Critical Technologies Office (RCCTO), are the Army organizations to evaluate and learn from as each evolve.



## Chapter 1 - Introduction

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*“Creative risk-taking is essential to success in any goal where the stakes are high. Thoughtless risks are destructive, of course, but perhaps even more wasteful is thoughtless caution which prompts inaction and promotes failure to seize opportunity.” – Gary Ryan Blair (Gaille, 2017, p. n.p; para 12)*

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### Background

In support of the 2018 National Security Strategy, the Department of Defense (DOD), to include the Army, is preparing to remain the dominant military power in the world. (Office of the Secretary of Defense, 2018). The Army will prioritize long-term strategic competition with China and Russia while deterring regional adversaries and sustaining irregular warfare competency. Political, economic, social, and technological changes will continue to create challenges and opportunities as we maintain our land dominance (Department of the Army, 2018). The Army Modernization Strategy (AMS) (2019) is based on four key assumptions:

1. The Army’s budget will remain flat.
2. Demand for Army forces will remain constant during this execution time period.
3. Research and Development will mature in time for significant improvements in Army capabilities by 2035.
4. Adversary modernization programs will remain on their current trajectories.

The Army will innovate how we fight, what we fight with, and who we are to enable building the multi-domain operational force by 2035. (Department of the Army, 2019).

The United States (U.S.) Federal Government will provide the workforce with the cutting-edge technology they need, while encouraging new organizational structures and the culture of innovation required to address today's complex challenges. As defined in the Army Innovation Strategy, "Innovation is the result of critical and creative thinking and the conversion of new ideas into valued outcomes (U.S. Army, 2016, p. 1)". We will take urgent action to ensure that our national security workforce reflects the full diversity of America and all the strengths it brings. As we take these steps, we will emphasize professional integrity, accountability, and transparency (President Joseph R. Biden, 2021). In addition to President Biden's emphasis on a change in culture, GEN McConville has acknowledged that "for leaders in the 21<sup>st</sup> century, it isn't whether culture should change but *how* it should change" (Department of the Army, 2019, p. 11)". Some of the changes recommended from the Army People Strategy (APS) are to "Incorporate new cultural elements to meet the challenges of the Information Age. These include (but are not limited to) inquiry and innovation; intellectual flexibility; knowledge sharing; systems thinking; and continuous learning (Department of the Army, 2019, p. 12)". As part of the culture change, the Army stood up the organization Army Futures Command (AFC). Within AFC's Mission is innovation. "With innovation, we must create and cultivate a culture that front loads smart risks through iteration and prototyping" (Wakefield, 2019, p. 3).

AFC's mission references smart risks. There are many definitions and interpretations for risk acceptance. As such, there is not one standard by which to analyze risk acceptance. The definitions will be explored in depth within Chapter 2.

The President of the United States, AMS, AIS and APS have recently placed an emphasis on establishing a culture that enables innovation to address complex challenges. Based upon this

emphasis, the researcher has chosen to explore features within the culture of an organization that promote risk acceptance in order to enable innovation within the Army Acquisition.

### **Statement of Purpose**

The purpose of this research is to explore the organizational cultural features that promote risk acceptance in order to enable innovation within Army Acquisition.

### **Research Questions**

1. What is risk acceptance?
2. How does risk acceptance enable innovation in Army Acquisition?
3. What organizational cultural features promote risk acceptance?

### **Conceptual Framework**

This research was completed to develop a recommendation which highlights the features within an organizational culture that best promote risk acceptance while enabling innovation. A conceptual framework was created to define the scope of this research. The framework begins by focusing on the need for innovative technology within the DOD and within the Army. The study then moves to focus on risk acceptance definitions and risk acceptance within innovative technology. The culture is then researched to determine which cultural aspects most promote risk acceptance. Finally, the research culminates on the features within the organizational culture that most promote the risk acceptance while enabling innovation. Figure 1 is a pictorial depiction of this evaluation.

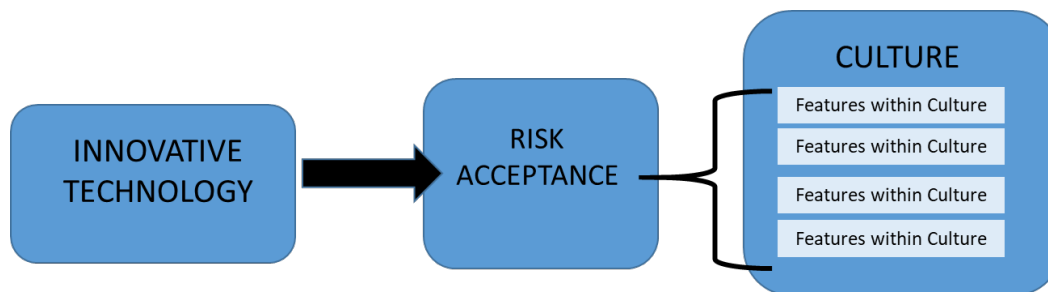


Figure 1 – Conceptual Framework

### Significance of This Research

The United States has been in conflict in Afghanistan since 2001, but in 2014 the Army had to respond to worsening situations between Russia and Ukraine in addition to deploying humanitarian assistance in Africa due to the pandemic Ebola. “These diverse mission sets highlighted to the Army leadership that the force and its equipment needed to be agile across all warfighting functions” (Office of the Deputy Chief of Staff, G8, 2015, p. 2). Numerous articles written about the Army’s strategy have documented the necessity for competition overmatch and a requirement for innovation. Examples include the “Interim National Security Strategic Guidance” issued March 2021 from the President along with the “Message to the Force” also issued March 2021 from the Office of the Secretary of Defense. Both of these documents along with additional Army Strategies and testimonies provided further basis for the need for innovation in DOD and the Army. These documents will be reviewed in the literature review in chapter 2 and analyzed for the benefit of the research questions.

This study provides insight to Army leadership into the features of an organization’s culture that would best promote risk acceptance and therefore enable innovation. The newest Army organizations focused on innovation, such as Army Futures Command (AFC) and Rapid Capabilities and Critical Technologies Office (RCCTO), may utilize this research to modify or enhance their cultures.

## **Overview of the Research Methodology**

A qualitative research methodology was utilized for this study while exploring the statement of purpose and research questions. Qualitative research utilizes an inquiry approach and explores an overarching theory or phenomenon. (Creswell & Guetterman, 2019) Data collection was achieved through literature reviews. These literature reviews were obtained from U.S. Government National Strategies and Hearings; peer-reviewed journals, articles, and online sources with emphasis on strategies for the Army's future, culture within an innovative organization, and risk taking in an innovative organization. Literature sources were obtained through Lawrence Technical Library, Google Scholar, Defense Acquisition University Virtual Research Library, U.S. Government Accounting Office (GAO), and the DOD Defense Technical Information Center (DTIC). Sources were categorized by risk in innovation, cultures for innovation and Acquisition strategies or documents dealing with innovation.

## **Limitations of the Study**

This research does not contain interviews with Subject Matter Experts (SMEs) and is limited by the availability of information posted in the public domain. Due to the limited time to complete the research, a smaller portion of the available information was analyzed. This study focuses on risk acceptance and how it can be applied to Army Acquisition and does not focus on the entire risk mitigation process although there is mention to it within the literature review.

## **Summary**

Innovation is one of the keys for achieving dominant capabilities and competitive advantage for American power over the next decades. Prudent risk taking is also necessary for successful and sustained innovation (U.S. Army, 2016). This research will show the correlation between risk acceptance and innovation. In addition, this research will provide an analysis for the most

probable features within an organizational culture that promote risk acceptance in order to enable  
innovation.

## Chapter 2 – Literature Review

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### Introduction

The purpose of this literature review is to research pertinent writings associated with defining risk acceptance and if risk acceptance is an enabler for innovation. This research will also review literature for the impact of the organizational culture on risk acceptance. The research began with government strategies and testimonies followed by peer-reviewed articles along with excerpts from relevant books. The following is a review of twenty pertinent documents to this study.

### Statement of Purpose

The purpose of this research is to explore the organizational cultural features that promote risk acceptance, thus enabling innovation within Army Acquisition. The topic was examined utilizing a conceptual framework that addressed the three research questions:

1. What is risk acceptance?
2. How does risk acceptance enable innovation in Army Acquisition?
3. What organizational cultural features promote risk acceptance?

### Strategic Guidance

The following DOD and Army guidance along with strategies and hearings are the foundation for the shift in the call for innovation from the nation's leaders. These documents also help to illustrate the awareness for a need to modify or adapt the current defense culture.

### **Interim National Security Strategic Guidance, 2021**

The Interim National Security Strategic Guidance lays out the vision and the priorities for the national security which forms the defense and military posture of the United States. The most effective way for America to out-compete a more assertive and authoritarian China over the long-term is to invest in our people, our economy, and our democracy. “By restoring U.S. credibility and reasserting forward-looking global leadership, we will ensure that America, not China, sets the international agenda, working alongside others to shape new global norms and agreements that advance our interests and reflect our values” (President Joseph R. Biden, 2021, p. 20). The strategy states that there will be cutting edge technology for the workforce and new organization structures along with a new culture of innovation to address today’s complex challenges. “As we take these steps, we will emphasize professional integrity, accountability, and transparency” (President Joseph R. Biden, 2021, p. 22). In conclusion, the strategy states that there is little distinction now between foreign and domestic policy. Therefore, the nation must rethink the departments and focus on individuals with experience in science, technology, engineering, mathematics, economics and finance, and critical languages to ensure they are fully integrated into the decision making process. The government will never have all of the expertise and must develop partnerships to coordinate better policies and implementations across its stakeholders (President Joseph R. Biden, 2021).

### **Memorandum for All DOD Employees**

Secretary of Defense Lloyd J. Austin III wrote a memorandum to all of the defense employees stating he was “committed to ensuring that the Department develops the right people, priorities, and purpose of mission to continue to defend our Nation” (Austin III, 2021, p. 1). Secretary Austin had three main points; Defend the Nation, Take Care of Our People, and



Succeed Through Teamwork. Within a sub-point to defending the Nation he highlighted that “The Department must innovate at a speed and scale that matches a dynamic threat landscape. This will require advances in our joint warfighting concepts and a commitment to rapid experimentation and fielding of capabilities” (Austin III, 2021, p. 2). Another key sub-point for taking care of our people is growing our talent. Secretary Austin acknowledges that there must be an investment in training, both civilian and military. “We will focus our efforts on building out a range of skills and capabilities among the workforce and removing barriers that limit our people from realizing their full potential as partners in the work of the DOD” (Austin III, 2021, p. 2). In the sub-point of succeeding through teamwork, Secretary Austin states there must be cooperation between private industry, Congress and the American people. In conclusion, Secretary Austin (2021) highlights that the resources must be matched to the strategy and by developing a policy it will ensure securing of the necessary resources.

### **Army Vision**

The Army Vision articulates that we must retain our overmatch against all adversaries and be capable of accomplishing the Army Mission in the future. The Army Mission is “To deploy, fight, and win our Nation’s wars by providing ready, prompt, and sustained land dominance by Army forces across the full spectrum of conflict as part of the Joint Force” (Department of the Army , 2018, p. 1). The Army Vision plans to meet this mission with the following objectives; man, organize, train, equip and lead. The two that have particular impact to this research are equip and lead. “Equip” is to modernize first by reforming the acquisition system, unifying under a single command focusing the Army’s efforts on delivering the systems and equipment that the Soldiers need when they need it. The “Lead” effort is to develop innovative leaders of character who are comfortable with complexity and capable of operating at

both tactical and strategic levels. There is also an intent to trust and empower subordinate leaders to facilitate reform and greater performance. There will be efforts to ensure professional opportunities for both soldiers and civilians. Lastly there is a stressing of maintaining Army Values as the Army faces the challenges ahead (Department of the Army , 2018).

### **The Army Strategy**

The Army Strategy articulates how the Total Army achieves its objectives defined by the Army Vision and fulfills its Title 10 duties. In support of the 2018 National Defense Strategy, the Army Strategy describes how the Army will build a more lethal force to retain overmatch in order to deter, and defeat, if necessary, all potential adversaries. The Army Strategy carries on the Army Vision with more details that include four lines of effort as the strategic approach; readiness, modernization, reform, and alliances and partnerships. The Army leaders do not expect this change to be immediate, but to happen within a decade in a series of phases (Department of the Army, 2018).

This research focuses most on the modernization and reform lines of effort (LOE). The modernization LOE emphasizes continuing to have overmatch in the future environments. The Army will prioritize research and development on the six modernization priorities as defined by the Army Modernization Strategy. Army Futures Command was fully operational in summer 2019 and unifies the modernization enterprise under one command. “Having a single organization dedicated to thinking about the future, developing operational concepts, aligning resources, and delivering modernization solutions will bring efficiencies to the Army’s modernization process” (Department of the Army, 2018, p. 7). There is also intent to overhaul the current Acquisition system to enable the acceleration of innovation and technology development. “The Army will work with defense industry, university, and private sector

partners to pursue opportunities for combined research and development on emerging technologies” (Department of the Army, 2018, p. 7).

The Army acknowledges it is necessary to free up time, money and manpower for the highest priorities. The LOE focused on this is Reform. The Army senior leaders are prioritizing empowering subordinates. “We will push authorities, responsibilities, and resources to the lowest level of command that is competent and capable of using them to allow for expeditious action and decisions” (Department of the Army, 2018, p. 9). There is also an effort focused around manpower and overhauling the personnel management system to attract, develop and retain exceptional Leaders and Soldiers. “We will more effectively manage careers through a new talent management system and we will structure the force appropriately to place talent in the right echelons” (Department of the Army, 2018, p. 10). In conclusion, the Army strategy provides an overview of the strategic environment and the LOE the Army intends to pursue to achieve the Army Vision by 2028.

### **The Army People Strategy (APS)**

The APS is the roadmap the Army will use to build a twenty-first century talent-based personnel management system, reform essential quality of life programs and build cohesive teams that are ready, professional, diverse and integrated for the Joint Force. The Total Army will acquire, develop, employ and retain the diversity of Soldier and Civilian talent needed to achieve Total Army readiness (Department of the Army, 2019).

After all, equipment does not learn, understand, innovate, build cohesive teams, or exercise judgment – people do. Human capabilities such as resiliency, critical thinking,

comfort with ambiguity, and the ability to accept prudent risk and adjust rapidly all define our profession. (Department of the Army, 2019, p. 2)

The APS points out threat trends from adversaries but also non-threat trends. These non-threat trends include a shift in generational values and technological advances. “The information-age economy demands a far higher share of “knowledge workers,” people who add value and increase productivity through creative thinking and innovation” (Department of the Army, 2019, p. 3). Steady employability is valued more than steady employment and the marketplace makes it more feasible for workers to move for greater job satisfaction and personal fulfillment. The Army must compete in this high-demand, high-skill labor market and will do this by focusing on talent management leveraging the unique industrious capacities of its people (Department of the Army, 2019).

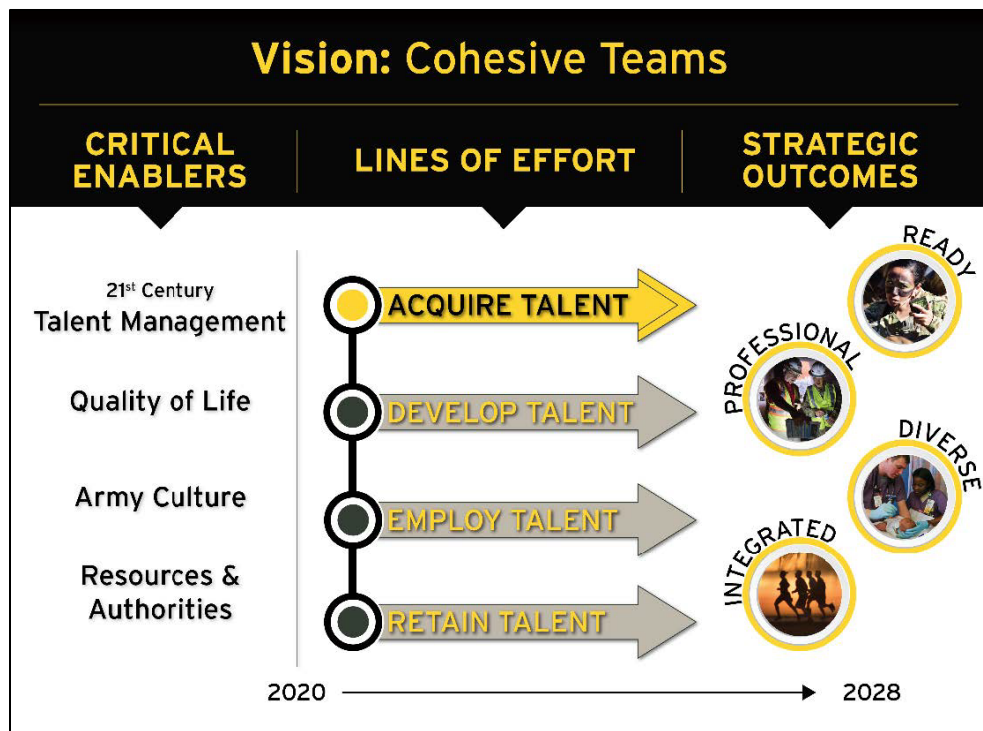


Figure 2- Strategic Approach through 2028 (Department of the Army, 2019)

The APS desired strategic outcomes by 2028 are Ready, Professional, Diverse and Integrated workforce as shown in Figure 2. The Ready outcome focuses on rapidly building talented special mission teams that are trained, disciplined and fit to win. The Professional outcome focuses on Army training, education and leader development. “Its people treat one another with dignity and respect, retaining the trust and confidence of both the American people and each other. Army professionals are people of character, presence, and intellect, committed to reflective practice and continuous learning” (Department of the Army, 2019, p. 5). With the objective of Diversity, the strategy focuses on diversity of talent. Where knowledge, skills, behaviors and preferences are drawing from all corners of the country and focusing on the diverse population.

Finally, Integrated is focused on fully harmonizing the capabilities of the Total Force; Active, Guard, Reserve Soldiers, and Civilians. The objective aims to unify the workforce benefiting the Army and its people (Department of the Army, 2019). The APS will utilize talent management and focus on four lines of effort to achieve the strategic outcomes; Acquire, Develop, Employ and Retain Talent as shown in Figure 2. When acquiring talent, the Army is attempting to align talented accessions, leaders and instructors to the force and incentivizing them to guarantee innovation. In talent development, the Army is striving to ensure the talents fluency with emerging technology. The APS illustrates the Army’s plan to develop the workforce through education, training and rigorous alignment of credentials to job requirements (Department of the Army, 2019).

In reference to Employing Talent, the Army G-1 will align the unique talents of Soldiers and Civilians to organizational demands. There is an initiative to create talent-focused individual career paths for every member of the Army team. For the Retention focus, the Army is looking

to engage, compensate and appropriately transition its employees. “To complement the shift to a 21st century talent management system, explore new authorities to create appropriate tailored compensation packages that ensure Soldiers and Civilians are valued based on their responsibility, authority, and skills” (Department of the Army, 2019, p. 8).

There are 3 critical enablers for the APS; Talent Management System, Quality of Life, and Army Culture, as shown in Figure 2. The APS ties specifically into this research because it relates to the draw on Army Culture, the 3<sup>rd</sup> Critical Enabler for the APS. The APS acknowledges that culture changes constantly to remain in alignment with the organizational strategy. “In the 21st century, the question for leaders is not whether culture should change, but how it should change” (Department of the Army, 2019, p. 11). Army culture is based off of the Army values of Loyalty, Duty, Respect, Selfless Service, Honor, Integrity and Personal Courage. The Army faces many of the same cultural challenges today as the nation and must be concerned with a break of trust within the Army teams.

The APS states culture must be defined, driven, and aligned with the vision of cohesive teams (Department of the Army, 2019). When defining culture, the Army should base it upon the trust across the formations and the people focused Army.

Amplify the positive behaviors that align with our vision of cohesive teams: civility and positive relationships; diversity, equity and inclusion; honor and respect; empathy; and care for Soldier and Civilian well-being. Incorporate new cultural elements to meet the challenges of the Information Age. These include (but are not limited to) inquiry and innovation; intellectual flexibility; knowledge sharing; systems thinking; and continuous learning (Department of the Army, 2019, p. 12)

Leaders must also drive change in culture by defining and communicating it. In addition, as leaders drive the culture, they will inspire their workforce by modeling the principals authentically. The Army leadership will be required to check alignment of Army culture to the Army Strategy for misalignment in results and mission failure. Leaders can do this by conducting cultural assessments, realigning and redefining Army culture as the strategy and the mission evolves (Department of the Army, 2019).

“The Total Army People Enterprise serves over 3.5 million people: nearly one million Active, Guard and Reserve Soldiers, 295,000 Army Civilians, over 1.3 million family members, nearly 900,000 retired Soldiers and over 100,000 surviving spouses” (Department of the Army, 2019, p. 13). The military and civilian implementation plans include specific governance structures and are appropriately integrated into the Planning, Programming, Budgeting, and Execution (PPBE) process (Department of the Army, 2019).

In conclusion, “The Army People Strategy represents a commitment to innovation and thoughtful leadership in the realm of people management” (Department of the Army, 2019, p. 15). The strategy is intended to move the Army not only from the industrial to the information age but also to extend the Army’s overmatch capabilities. The focus is to bond Soldiers and civilians into cohesive teams as a large federal workforce in the nation (Department of the Army, 2019).

### **Army Modernization Strategy, 2019**

“The Army Modernization Strategy (AMS) describes how the Total Army – Regular Army, National Guard, Army Reserve, and Army Civilians – will transform into a multi-domain force by 2035” (Army, Department of the, 2019, p. 1). More specifically, the AMS outlines an

end state for the future Army but also points to the necessity to continue to refine concepts, technologies and anticipate changes in the operating environment. “The Army will modernize how we fight, what we fight with, and who we are” (Army, Department of the, 2019, p. 1). The AMS is based on four key assumptions; the budget remains flat, demand for Army forces will remain constant to execute the strategy, research and development (R&D) will be mature enough to make improvements by 2035 and adversaries R&D programs will not advance any faster than currently expected (Army, Department of the, 2019). How the Army fights will require a continuous update to doctrine, organizational design, and training as each relate to the Multi Domain Operations (MDO). The Army will use experimentation, war gaming and analysis to inform design and material solutions for the MDO force.

Development will be driven by continuous operational testing and analysis ... regular war gaming and experimentation, and rapid and iterative capability assessments with units deployed and in the field. The Army will use the lessons learned from this experimentation to refine the design of future multi-domain formations. (Army, Department of the, 2019, p. 5)

Systems the Army fights with are enabled by the modernization priorities executed by Army Futures Command’s Cross Functional Teams (CFT’s). Early Prototyping, testing, and touch points with Soldiers from the operational force help refine solutions as they are generated. “The Army may not succeed on the first demonstration and experimentation for every system, but we will learn and rapidly adjust programs and concepts” (Army, Department of the, 2019, p. 7).



Who the Army is, will rely on the training and capability of soldiers and civilians. The Army will update the leader development and education processes. The Army will “use talent management principles to transform our personnel systems to maximize individual knowledge, skills, behaviors, and preferences that help our Soldiers and Civilians reach their full potential” (Army, Department of the, 2019, p. 8).

The Army leaders acknowledged that there are risks with this strategy. There are risks with readiness and risk in capability. There is also risk in the fact that there will be a shift in resources to modernize versus that to maintain. As systems transition, there will be stress on the logistics systems. There will also be risk if capabilities are delayed as many systems within the MDO are interdependent. In addition, there will be a risk for infrastructure if the Army does not modernize facilities at the same pace as new weapon systems. Lastly, there will be risks for budget increases, if there are funding delays or if industry is unable to fulfill their commitments (Army, Department of the, 2019).

### **Army Innovation Strategy (AIS)**

In the forward of the Army Innovation Strategy 2017-2021, Thomas Kelly and General James McConville state that “Army leaders must continuously communicate the importance of innovation to the long term-success of the Army. They must also reinforce the fact that failed innovation initiatives are learning opportunities and they must reward, recognize and share successes” (U.S. Army, 2016, p. ii). The document lays out the strategy for the Army to accelerate innovation by incorporating processes and programs which would allow new ideas or solutions for consideration; “increased tolerance for risk and failure in experimentation; changing the way that the Army is managed, including innovation and entrepreneurship” (U.S. Army, 2016, p. 3). The strategy has three lines of effort proposed to help create the culture and

structure for innovation and entrepreneurship; Innovation Leadership and Strategy, Managing for Innovation and Innovation Tools. Innovation Leadership and Strategy is broken into another three prongs two of which include Culture and Leadership. There are five proposed levels to this roadmap for improvement. Managing for Innovation is broken into another four prongs two of which are People and Performance Measurements.

One of the key strategic challenges identified in the AIS is the Army Culture's low tolerance for risk.

A culture that promotes repeatable and sustainable innovation in any organization requires prudent risk-taking and a reasonable tolerance for failure... the Army... has a deeply ingrained culture of risk aversion, particularly within the institutional Army where this is reflected in approaches to managing the Total Army and the prioritization of both money and time. (U.S. Army, 2016, p. 6)

The strategy provides an overarching goal to overcome this barrier along with four underlying objectives. These four objectives are as follows:

Objective 1.1 Facilitate the surfacing, vetting, refinement, and implementation of workforce generated ideas. ...

Objective 1.2 Incentivize, reward, and recognize innovation that supports the current needs and future objectives of the Army through formal approaches ...

Objective 1.3 Remove bureaucratic and technical barriers to solution emergence with approaches such as the Army Rapid Capabilities Office and Army Cyber Challenges. ...

Objective 1.4 Incorporate innovation and entrepreneurship in Army doctrine as key characteristics of the military profession. (U.S. Army, 2016, p. 7)

Another key strategic challenge identified within the AIS is that the “Army’s approaches to recruiting, developing, managing, retaining, and recognizing the uniformed and civilian force do not fully support these values” (U.S. Army, 2016, p. 9). The values referenced are new ideas, willingness to experiment and take risks, workforce engagement and diversity all of which are strong enablers for innovation. As with the previous challenge, the strategy provides a goal to overcome this challenge along with five underlying objectives. These five objectives are as follows:

Objective 3.1: Build the Army’s innovation network. ...

Objective 3.2: Integrate innovation and entrepreneurship into the Army’s talent management practice. ...

Objective 3.3: Better leverage the Continuous Process Improvement community, including Lean Six Sigma as Business Process Re-Engineer practitioners and related infrastructure for the identification of institutional challenges and solutions. ...

Objective 3.4: Understand, promote, and set conditions to exploit the positive correlation between force diversity and innovation. ...

Objective 3.5: Cultivate intrinsic motivation. ... (U.S. Army, 2016, p. 10)

A final challenge relevant to this research illustrated within the AIS is that of demonstrated and sustained leadership commitment to innovation. The challenge, better defined, “to ensure this support remains responsive to the evolving needs of the Army, continuous

evaluation of their approaches to innovation (e.g., prudent risk-taking, openness to new ideas, rewards and recognition, workforce development, and resource commitment) is necessary” (U.S. Army, 2016, p. 10). The strategy provides an overarching goal with three underlying objectives.

In conclusion, the strategy provides five challenges; Army Culture’s low tolerance for risk, programming and resourcing for innovation, leveraging the total force, leadership commitment to innovation, and aligning processes with strategic outcomes. Two key outcomes came from this document; “Across the Army the call for innovation has not gone unheard. ...The second learning ... is that successful, sustainable innovation with demonstrable outcomes requires a three-pronged approach, driven from both top-down and bottom-up” (U.S. Army, 2016, p. 12). The three approaches are innovation tools, managing for innovation, and an innovation leadership strategy.

### **Army Futures Command**

This testimony is from Under Secretary of the Army (USA) Honorable Ryan McCarthy to the House Armed Services Committee and subcommittee on Military Readiness. McCarthy begins by acknowledging that the “U.S. faces a return to great power competition” (McCarthy, 2018, p. n/a; para. 1) in addition to the current terrorism threats and regional threats. USA acknowledges that the United States is challenged in their warfighting supremacy and cannot continue to delay modernization. The Army intends to increase investments and move towards a future force that is more modernized with the help of a new organization, Army Futures Command (AFC). AFC is a change to the business model which allows the Army to “adapt, innovate and integrate technology at a speed and scale, ensuring continued battlefield supremacy for our warfighters (McCarthy, 2018, p. n/a; para. 2)”.

AFC challenges the Army's organizational culture. The new focus is on the future to bridge the gap between the future and the fielded force. AFC addresses process, organizations, knowledge, skills, abilities and the culture of the people within them. The USA iterates that AFC is to set the strategic direction by "integrating the Army's future force modernization enterprise, aligning resources to priorities, and maintaining accountability for modernization outcomes (McCarthy, 2018, p. n/a; para. 5)". The unification of this command allows a flatter organization which will help drive results and processes.

AFC also challenges the Army culture by melding the Army with industry and academia. AFC will place Army leaders into the private sector via partnerships in efforts to solve emerging and complex problems. By doing this, it is envisioned that there will be a more active voice "unique ecosystem of critical thinkers, innovative developers, commercial investors, scientists, and engineers (McCarthy, 2018, p. n/a; para. 7)". This blend of organizations, will allow for increase in speed through streamlining processes, along with a modification in culture for a more integrated solution which will ultimately reduce risk to our warfighter. (McCarthy, 2018)

AFC was structured to enable interaction with industry and academia in an effort to promote a culture of innovative ideas with an emphasis on speed for solutions. Having the AFC as a major Army command allows it to function as the driver of major acquisition, while also addressing solutions to the battlefield. By allowing for equality with the other commands, it gives AFC clear priorities and continuity within modernization efforts versus having to ask for permission or adjudication within the Department of the Army level. (McCarthy, 2018)

AFC is also developing the CFT's. This allows the warfighter and the developer to work together on capability documents, inform program of records, and enable the rapid and timely

delivery of capabilities to the warfighter. The CFT's will utilize technical demonstrations and prototypes to inform requirements. This allows rapid feedback from the soldier through teaming and agility in the design and requirements teams (McCarthy, 2018).

AFC was placed where collaboration, innovation and chance meetings could happen daily, to achieve the desired change in culture. The Army realized that it could not place AFC within a traditional post or fort so they placed AFC within an urban community, Austin, TX. "Following the theory developed by Dr. Thomas Allen, the Allen curve, shrinking the distance between the workforce and innovators is important to increase communication, drive change, and increase the speed at which an organization can achieve its objectives (McCarthy, 2018, p. n/a; para. 15)".

The success of AFC is based off of the ability to get the next generation equipment into the formations of the units that deploy, fight and win our Nation's wars. McCarthy acknowledges challenges and past failures of programs and states that the AFC is the method to address these shortcomings and modernize the force. "With the help of industry, academia, and Congress we can accelerate timelines and move at the speed of the information age (McCarthy, 2018, p. n/a; para. 26)".

### **Promoting Defense Innovation**

This testimony in April 2018 is from Dr. Eric Schmidt, Chairman, Defense Innovation Board, DOD to the Committee on House Armed Services. Dr. Schmidt explains that his engagements with senior commanders, service members and facilities in combination with the Defense Innovation Board's (DIB) expertise provided insight for the testimony that he made.

Dr. Schmidt states that there are creative and innovative people within DOD with good, new ideas. However, they are hindered by the process and regulations which appear to have not been changed in decades in addition to misplaced incentives. He states that intrapreneurs are required to find workarounds to the systems. An intrapreneur is “a person within a large corporation or organization who takes responsibility for turning an idea into a profitable, finished product through assertive risk taking and innovation” (Harper Collins Publishers, 2022).

The upfront conclusion is that “DOD does not have an innovation problem; it has an innovation adoption problem” (Schmidt, 2018, p. n/a; para. 3). Schmidt attributes this lack of innovation adoption to hesitancy towards making decisions, along with slower decision making processes that have in essence driven layers and layers of coordination into a final decision. He states that in the DIB’s findings, they found more often than not, that the norm was to go along with agreement with the supervisor versus consideration of a new approach.

“It is not will, but inertia, which hinders innovation” (Schmidt, 2018, p. n/a; para. 5). He discusses the Department’s need to continuously have consensus, stability and transparency versus what is now needed for innovation which is speed and agility. The culture that now is in place favors compliance over results and consistency over ingenuity. “When there is relatively little benefit for entrepreneurial results, but grave potential consequence for entrepreneurial risk, there is little incentive to serve as a change agent” (Schmidt, 2018, p. n/a; para. 5).

There is a need for speed to get systems onto the battlefield. The requirements process is a key driver of the technological process and is the Department’s way to manage complexity and gains across the many systems that are required. Per Schmidt, the current requirements process is a barrier to rapid technology and innovation. The Department built itself as the main entity for weapons development to include requirements. While this process worked in the past with nuclear

and stealth weapons, it is not acceptable for today. Taking years to develop capability, with risk of eventual failure, is pushing that risk down to the battlefield where the soldiers have to wait years to work with the technology. “While change has inherent risk, I believe there is more at stake by maintaining the status quo in the face of quickly evolving security threats and adversaries that are accelerating their technological advancement” (Schmidt, 2018, p. n/a; para 7).

Dr. Schmidt also discusses the DIB’s findings with the DOD’s people and talent. The people desire to innovate, but due to little incentives or motivation for change, there has been no growth in the culture for innovation. The red tape has tapped down the innovative personnel. The DIB states that in order to maintain superiority in technology, there must be a change in recruiting, education and culture. One of the key changes being “the will and imagination to see beyond current workflows and discover future concepts of operation that create advantage over adversaries” (Schmidt, 2018, p. n/a; para. 41). Many of these new innovative organizations must be set up outside of the standard acquisition organization. They must be set up with different culture, rules and often different people. They must be protected from the bureaucracy (Schmidt, 2018).

## **Risk**

Risk management applies critical thinking and adopts a culture of managing uncertainty or risk while having an increased ability to predict outcomes while delivering capabilities (Defense, Department of, 2017). The following section within the literature review will concentrate on risk acceptance and the definition of such as it will be studied within this research. The review will then concentrate on a risk guide and technical publication for both engineers and operators within the Army.



### **Risk Acceptance Definitions**

There are many definitions and interpretations for risk acceptance. As such, there is not one standard by which to analyze risk acceptance. Some examples follow.

As defined in Science and Engineering: Risk Acceptance is the overall risk level that is considered acceptable, with respect to a defined activity period. Acceptance is defined for each of the consequence categories (very low to very high) and is often based on experience, design, legislation and analysis (Bai & Bai, 2019).

As defined by the Finance Industry: Risk Acceptance is a management strategy where the identified risk is considered acceptable enough that no effort or expense is made to avoid the risk. It is deemed by management that the potential loss from the risk is not great enough (Dvorak, 2021).

As defined by Department of Defense: Risk acceptance is where the program acknowledges that the risk event may be realized and knowingly accepts the risk with its consequences. Accepting the risk does not mean it is ignored (Defense, Department of, 2017).

### **Risk, Issue, and Opportunity Management Guide**

The DOD Risk, Issue, and Opportunity Management Guide for Defense Acquisition Programs (2017) provides the framework, procedures and standards for risk and opportunity management for acquisition programs. Mr. Frank Kendall, former Under Secretary of Defense for Acquisition, Technology and Logistics, provided a memo at the beginning of this document to highlight that the main changes in the revision dated January, 2017 were to assist with mitigating technical risks before they became issues, along with recognizing and pursuing opportunities. Within the risk management portion of the introduction, the document identifies the Program Manager as the responsible party for implementing effective risk management. This includes early

implementation to aid in identifying risks to inform decisions and help mitigate risks that should be addressed that could hinder delivering the intended capability (Defense, Department of, 2017).

The Risk Mitigation strategy for program level risks should be documented in the Acquisition Strategy and communicated to those within the program. Included within this risk mitigation strategy are what should be done, by when, by whom; the total cost, schedule and performance along with the resources to implement the mitigation plan. Program managers should also consider, accept, avoid, and transfer options not just the control option. There is also an emphasis on informing peers and stakeholders on high-risk items along with elevating the risks when needed (Defense, Department of, 2017).

Risk acceptance is defined within this document as “the program acknowledges that the risk event or condition may be realized and the program is prepared to accept the consequences” (Defense, Department of, 2017, p. 33). The program should continue to monitor and track the risk to ensure the risk does not increase, in which case the decision to accept the risk would need to be revisited. As a risk is accepted, the manager must identify resources and schedule needed in case the risk is realized and manage accordingly. It is also relevant for a manager to discuss with the next highest in command to either seek relief or to just inform. In a resource constrained environment, there are times a manager must simply accept risks. A manager should attempt, at all times, to understand the risk so that they are prepared if the risk is realized.

### **Operations Risk Management**

The Army Techniques Publication (ATP) 5-19 Risk Management guidance details the risk management (RM) process for identifying, assessing and controlling risks to make the best decisions to balance risk, cost and mission benefit during operations. “RM is the Army’s process

for helping organizations and individuals make informed decisions to reduce or offset risk” (U.S. Army, 2021, November, p. 11).

The principles of RM are detailed throughout the document but are as follows;

- Integrate RM into all phases of missions and operations
- Make risk decisions at the appropriate level
- Accept no unnecessary risk
- Apply RM cyclically and continuously. (U.S. Army, 2021, November, p. 11)

Particular note within this document was the emphasis of risk decisions at the appropriate level. This operational document highlights that RM is effective only when the information about the risk is passed to the appropriate level of command for the risk decision. Equally, the commander must provide appropriate risk tolerance levels to the subordinates when responding as to what they are willing to accept. “RM application must be inclusive; those executing an operation and those directing it participate in an integrated process” (U.S. Army, 2021, November, p. 12).

Risk acceptance decisions are defined within as “a level of risk in which the potential benefit outweighs the potential loss. The process of weighing risks against opportunities and benefits helps to maximize unit capability, save lives, and preserve resources” (U.S. Army, 2021, November, p. 12). Commanders are encouraged to not be risk-averse but to determine the sum of the benefits of accepting the risk, which exceed the sum of the costs to mitigate the risk utilizing RM.

### **Mission Command: A Senior Enlisted Leader’s Perspective**

At first, this article appears to be solely about mission command as defined in the operational sense. However, this Non-Commissioned Officer (NCO) takes this article in a

different direction to explain implementation of the Mission Command principles both on and off the battlefield for improvement in Army Culture. Relationships between commanders and subordinates must be “centered upon seven principles within mission command; competence, mutual trust, shared understanding, commander’s intent, mission orders, disciplined initiative, and risk acceptance” (Tolman, 2020, p. 2).

An organization should work to grow the competence of its employees. Through continuous training, education and self-development this will increase competence. As competence is established, mutual trust and shared understanding is obtained between the leader and subordinate (Tolman, 2020).

Mutual trust will allow leaders and subordinates to focus on their specific jobs. The leaders can focus on the big picture or strategic outcomes instead of the individual unit or activity. “Mutual Trust is shared confidence between commanders, subordinates and partners that they can be relied upon and are competent in performing their assigned tasks” (Tolman, 2020, p. 2).

Shared understanding is also critical for ensuring that all personnel within a unit or organization understand the vision, values and commander’s intent. Effective communication and collaboration are necessary for shared understanding. There must also be a foundation set for shared understanding to carry throughout difficult operations or developments. Without a foundation, there will be challenges due to the lack of communication and collaboration (Tolman, 2020).

The leader of the unit or organization is responsible for clearly articulating their intent down to the lowest level. “The intent must articulate the purpose of the mission and the desired end state” (Tolman, 2020, p. 2). If the commander’s intent is clearly articulated, this allows all of

the leaders at every level to adjust plans after first contact or beginning the program while ensuring they are completing the mission and still accomplishing commander's intent.

The commander should have commander's intent that can be deconstructed into mission orders. These mission orders will serve as guides for the employees within the organization. These mission orders should not be too specific as to how the employees should carry out the task to maximize creativity and individuality. Disciplined initiative is simply the ability to keep to plan and having the initiative to stay within the constraints of the commander's intent to achieve the desired end state, unless or until the plan is no longer suitable. Those that take disciplined initiative create opportunity and take action without being asked to do so or without further guidance. All operations and programs will have a certain amount of risk. Leaders must take disciplined initiative with their decisions when faced with that risk (Tolman, 2020).

Risk acceptance is defined within this article as "assess risk to mission, and risk to force, while mitigating risks with control measures" (Tolman, 2020). The risk assessment is listed last because all other principles come into play. The commander must have trust that their intent was relayed properly and the subordinate is competent and has the correct disciplined initiative to make the decisions based upon the commander's intent. There must also be trust and effective communication within the organization to properly assess the risk. "Through trust, initiative and rapid decision making at all echelons, the Army will be better prepared for the future fight" (Tolman, 2020, p. 4).

### **Risk Culture**

The following section within the literature review will concentrate on risk culture as it will be studied within this research. As defined by the Institute of Risk Management, "Risk culture describes the values, beliefs, knowledge, attitudes and understanding about risk shared by a group

of people with a common purpose” (Anderson, n.d., p. n.p.; para. 3). The review will concentrate on risk assessments and then how risk culture relates to the overarching culture of the organization.

### **A Better Way to Think About Risk**

Risk assessment is a valuable tool. However, with further investigation, it could be a double edged sword. There are several examples such as Facebook which would never have been initiated if a risk assessment had been performed on the particular business. This article recommends three ways to think about risk. “1) Understand how the brain processes risk; 2) remember that risk-taking can be a good thing; 3) learn to become an expert at bouncing back from failure, thus taking some of the sting out of risk-taking” (Pillay, 2014, p. np; para 3).

This article suggests better ways to think about risks in this ever-changing environment. The first way is to “Understand how the brain processes risk” (Pillay, 2014, p. np; para 4). Recent neurological science studies suggest that there is a need for better tools to assess risk. We all have biases, and these biases could consciously or unconsciously be affecting our risk assessment limits. Therefore, doing a risk assessment may cause our conclusion to be based off of conscious factors and not include the unconscious biases (Pillay, 2014).

The second recommendation is to realize that risk-taking can be a good thing. “Risk often has inherently negative connotations, which may bias you against taking smart risks” (Pillay, 2014, p. n.p.; para 9). Risk mitigation may sometimes not allow you to take the risks that could lead to a big payoff. Leaders must assess opportunities within the adversity and see if there are any hidden dangers in being too risk-averse.

Third, one must learn to bounce back from failure. The article describes those who have failed but have learned from that failure and subsequently succeeded. The brain is wired for error-based learning so we are designed ourselves to become better by experimenting instead of trying

to avoid failure through risk assessment. The article states that the traits making those organizations different are resilience and openness. The conclusion of the article is that while risk assessments are valuable toolsets, organizations need to capture lessons learned to reflect on that data and focus on opportunities (Pillay, 2014).

### **The A-B-C of risk culture**

“Culture is the values, beliefs, knowledge and understanding, shared by a group of people with a common purpose” (Hillson, 2013, p. 1). Hillson (2013) includes two elements to emphasize that culture exists at different levels within the organization -- culture is internal and hidden. These elements make it difficult to measure and monitor cultural development and or to modify and manage culture. This article points out the importance of acknowledging that more than one culture can exist within a single organization. This can reflect the individuals within smaller groups within a larger organization. It is also noted that the culture reflects the specific challenges and constraints relative to the group’s goals and performance (Hillson, 2013).

This paper delves into how to improve or change culture to include the risk acceptance culture. First this is done by explaining the A-B-C Model. This model is based on the definitions of Attitude, Behavior and Culture along with how they are interrelated. Attitude is “the chosen position adopted by an individual or group in relation to a given situation, influenced by perception. Behavior comprises external observable actions, including decision, processes and communications” (Hillson, 2013, p. 2) The A-B-C model drives the necessity that culture cannot just be driven from senior leadership but must also be addressed at all levels and aligned across the entire organization.

The A-B-C model considers that the culture of a group arises from repeated behavior of the members and the behavior of the group is shaped by the attitudes while both the behavior and

attitudes are influenced by the culture. The only observable element in this model is behavior because attitude and culture are internal. “As a result, we can only assess the nature of the culture by observing the external behaviors that it produces” (Hillson, 2013, p. 2). This model has a feedback loop and is not static. Culture is formed by behavior, which in turn is shaped by attitude, but culture also influences current and future attitudes and behavior.

There is a risk variant of the A-B-C model. The risk variant is illustrated in Figure 3.

Risk attitude is the chosen position adopted by an individual or group towards risk, influenced by risk perception. Risk behavior comprises external observable risk-related actions, including risk-based decision making, risk processes, risk communications. Risk culture is the values, beliefs, knowledge and understanding about risk, shared by a group of people with a common purpose (Hillson, 2013, p. 2).

Risk culture exists at different levels within the organization and needs to be coherent and aligned. The risk culture is hard to see and measure, therefore, just as in regular culture and behaviors, one must measure more behavior versus the culture. Feedback loops can develop between risk attitudes, risk behaviors and risk cultures due to the cyclical nature of the A-B-C Risk Model (Hillson, 2013).

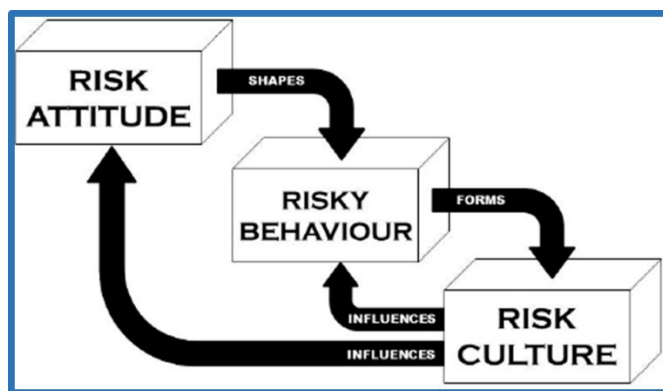


Figure 3- The A-B-C Model for Risk (Hillson, 2013, p. 3)



Risk culture affects how much risk to take in a range of situations, shapes the way individuals and groups position themselves towards risk, informs objective and strategies in an uncertain environment, influences the effectiveness of risk policies and procedures, and can prevent sending inconsistent messages on the level of acceptable risk. Risk culture requires a clear statement of intent. This must be laid out with vision and with a policy for risk management having top leaders describing their values and approach to exploit risk and create benefits (Hillson, 2013).

There are measurable behaviors which are indicators for a risk culture. The Institute of Risk Management (IRM) describes these behaviors as follows;

1. Distinct and consistent tone from the top on risk-taking
2. Commitment to ethical principles and practice
3. Wide acceptance of importance of managing risk
4. Transparent and timely risk information flow up and down
5. Risk reporting and whistle-blowing is encouraged
6. Active learning from impacted risks and near misses
7. Risk –taking behaviors rewarded or challenged
8. Risk management skills are valued, encouraged and developed
9. Properly resourced risk management function
10. Regular challenging of status quo from diverse perspectives. (Hillson, 2013, p. 4)

The IRM also offers a model of risk culture grouped into four themes which are utilized as indicators of the existing risk culture of an organization. This is summarized in Table 1. It is still

not possible to think that risk culture can be monitored and modified to produce the desired risk behaviors (Hillson, 2013).

Table 1 *IRM Risk Culture Aspects Model (Hillson, 2013, p. 4)*

<b>Theme</b>	<b>Aspect</b>
Tone at the Top	Risk Leadership, clarity of direction
	How organization responds to bad news
Governance	Clear accountability for managing risk
	Transparency and timeliness of risk information
Decision Making	Well informed risk decisions
	Reward appropriate risk-taking through performance management
Competency	Status, resourcing and empowerment of risk function
	Embedding of risk skills across organization

“If we can manage and modify risk attitudes, then those changed risk attitudes will influence risk behavior in the right direction and hence build a new and more risk mature risk culture” (Hillson, 2013, p. 5). There are alternative ways to look at risks that is based on the theories of emotional intelligence.

Table 2 *Alternative Ways to Think About Risk (Hillson, 2013, p. 5)*

<b>Negative Perspective</b>	<b>Positive Perspective</b>
Risk is Avoidable	Risk is natural
Risk is bad	Risk is good
"High risk" means dangerous	"High risk" means exciting
Risk should be prevented	Risk should be exploited
Risk management protects value	Risk management enhances value
Risks should be managed by specialists	Risk should be managed by everyone
Discussing risk shows weakness	Discussing risk shows maturity

One can see that there is a difference in these two attitudes in Table 2. But how do we change these attitudes which lead to different behaviors and risk based decisions? Figure 4 shows a structured approach for groups to adopt an appropriate risk attitude in a risky and important situation. This framework is known as the Six A's.

There is a need for Awareness and Appreciation of the current risk attitude. Next is an Assessment to determine if the risk attitude will lead to an acceptable outcome. If the assessment indicates an intervention is required, Assertion and Action are necessary for change. If the assessment shows the risk attitude is appropriate, then it can be Accepted (Hillson, 2013, p. 6).

This provides a framework to choose the appropriate risk attitude in order to provide a control loop that can influence risk behavior and ultimately build a changed risk culture.

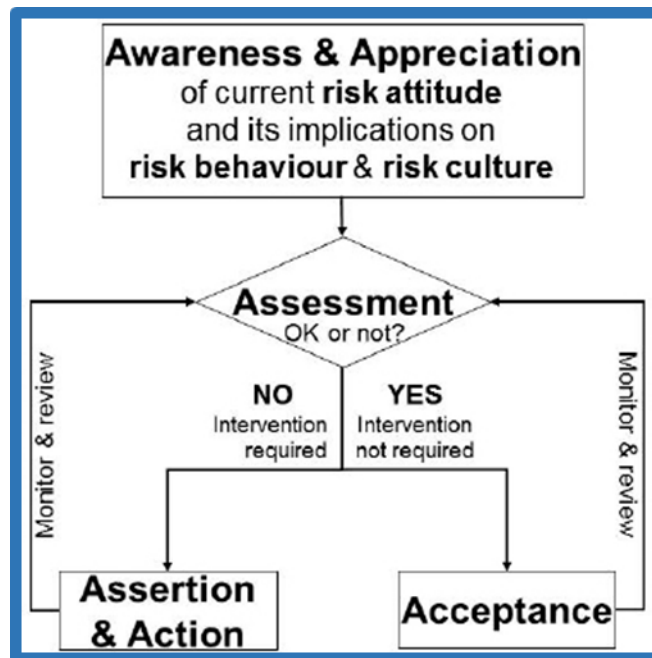


Figure 4 - *The Six A's Framework (based on Murray-Webster and Hillson, 2008) (Hillson, 2013, p. 6)*

There are 10 questions illustrated in Figure 5 that can help us determine the organization's risk culture. These can be applied at any level within the organization but when answered honestly, helps determine the maturity of the risk culture and identify the areas that need to be actively managed. These areas can then be actively managed through risk attitudes changing risk behaviors which will build a new risk culture.

1. What tone do we set from the top? Are we providing consistent, coherent, sustained and visible leadership in terms of how we expect our people to behave and respond when dealing with risk?
2. How do we establish and maintain sufficiently clear accountabilities for those managing risks and hold them to their accountabilities?
3. What risks does our current corporate and project culture create for the organization, and what risk culture is needed to ensure achievement of our corporate and project goals?
4. Do we acknowledge and live our stated values when addressing and resolving risk dilemmas? Do we regularly discuss risk dilemmas in value terms and does it influence our decisions?
5. How do our structure, processes and reward systems support or detract from development of our desired risk culture?
6. How do we actively seek out information on risk events and near misses and ensure key lessons are learnt? Do we have sufficient organizational humility to look at ourselves from the perspective of stakeholders and not just assume we're getting it right?
7. How do we respond to whistle-blowers and others raising genuine concerns?
8. How do we reward and encourage appropriate risk-taking behaviors and challenge unbalanced risk behaviors (either overly risk-averse or risk-seeking)?
9. How do we satisfy ourselves that new joiners will quickly absorb our desired cultural values and that established staff continue to demonstrate attitudes and behaviors consistent with our expectations?
10. How do we support learning and development associated with raising awareness and competence in managing risk at all levels?

Figure 5 - *Diagnostic Questions for Risk Culture (Hillson, 2013, p. 6)*

Risk culture matters because it drives thinking and attitudes, as well as, risk taking behavior. An immature culture can cause a group to take too much or too little risk so it is important to understand the culture and take the appropriate steps to change it if necessary. "Risk attitudes can be changed in an intentional and managed way, allowing us to develop more appropriate risk taking behavior and to build a more risk mature culture (Hillson, 2013, p. 7)".

## **Culture**

The following section within the literature review will concentrate on organizational culture as it will be studied within this research. The review will concentrate on organizational culture initially focusing on the definition of organizational culture and the framework of an organizational culture. The research then evaluates culture as it drives innovation. The research also assesses the features of an organizational culture that promotes risk acceptance and enables innovation. The research then looks at the needed cultural changes within acquisition programs to enable acquisition reform. In conclusion, the research examines psychological safety as an enabler for changing organizational culture and having a more risk accepting organization.

### **Definition of Organizational Culture**

“Organizational culture — often called company culture— is defined as the shared values, attitudes and practices that characterize an organization” (Heinz, 2022, p. n/a; para.1). The company’s culture should reflect the values and align with the overall mission and vision of the organization. There are four well documented organizational cultures originally researched by Robert E. Quinn and Kim S. Cameron from the University of Michigan. The organizational cultures along with key polarities are known as the Competing Values Framework. The research behind the framework divided 39 attributes into the following key polarities: (1) internal focus and integration versus external focus and differentiation, and (2) flexibility and discretion versus stability and control (Heinz, 2022). These key polarities and the corresponding cultures are illustrated in Figure 6.

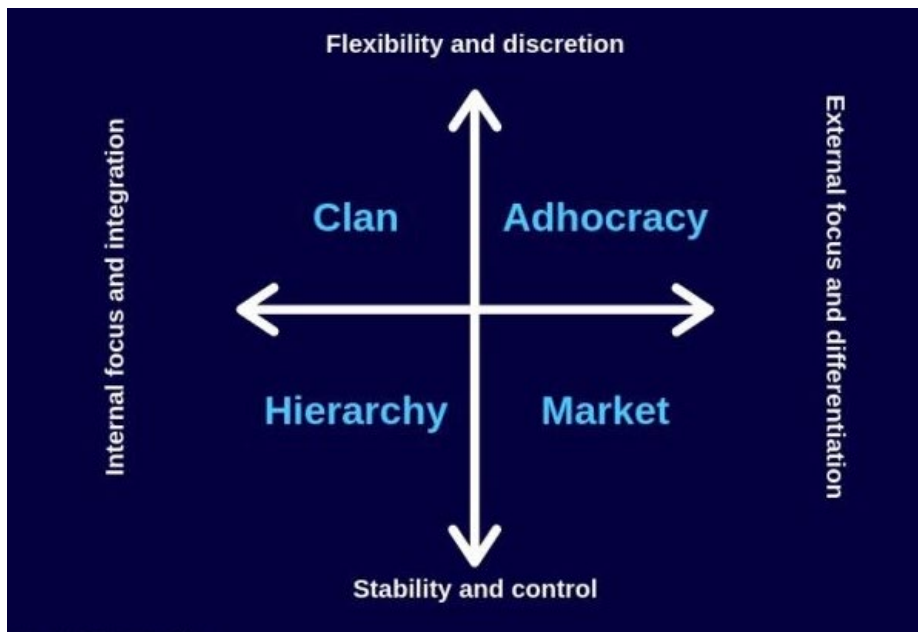


Figure 6- *Competing Values Framework* (Heinz, 2022)

Within the competing values framework, there are the four cultures identified; clan, adhocracy, hierarchy, and market. The first culture type is the clan culture. Clan culture focuses on teamwork and people. Clan Culture promotes a collaborative environment with a horizontal structure meant to break down barriers between the executives and the employees. This environment encourages mentorship, consensus and communication (Heinz, 2022).

The second culture type is adhocracy culture. “Adhocracy cultures are rooted in innovation and adaptability. These are the companies that are on the cutting-edge of their industry- they’re looking to develop the next big thing. ... they need to take risks” (Heinz, 2022, p. n/a; para. 16). Individuality and creativity is valued within adhocracy culture. The organization bonds by doing experiments and trying new things. The leaders within an adhocracy culture must create an entrepreneurial setting. A benefit to the adhocracy culture is that professional development opportunities are easily justifiable due to a key focus on encouraging employees to have new ideas and be creative. A drawback to the adhocracy culture can be that it will foster competition between

the employees and the risk when a new venture does not pan out may hurt the business (Heinz, 2022).

The third culture type is the market culture. Market culture prioritizes profitability where everything is looked at with the bottom line in mind to include each position as it aligns with the company's larger goals. There are several degrees of separation between the employees and the leadership. Market culture focuses on results while stressing the importance of external success versus internal satisfaction. Market cultures are externally focused and look towards profitability which is a key objective the entire organization can focus on as their key objective. The drawback to the market culture lies within the companies tie to numbers for all decisions, projects and positions which makes it difficult for employees to see mobility within the company (Heinz, 2022).

The fourth culture type is the hierarchy culture. The hierarchy culture focuses on control and structure. Within an organization which has a hierarchy culture, the policies and procedures are well defined for everything the employees have to do. There is a high value for predictability and efficiency within the hierarchy culture. Values that are important for these types of companies include consistency, stability and timeliness. "Hierarchy cultures have a set way of doing things, which makes them stable and risk-averse" (Heinz, 2022, p. n/a; para. 27). The benefit to a hierarchy culture is that it has a clear direction that is in line with the company's objectives. The drawback to the hierarchy culture is that, due to its rigidity, there is "little room for creativity, making these companies relatively slow to adapt to the changing marketplace. The company takes precedence over the individual, which doesn't necessarily encourage employee feedback" (Heinz, 2022, p. n/a; para. 29).

### **Workplace Culture Versus Climate**

Organization climate is the perception and attitudes about the organization. Whereas organization culture is the shared beliefs and assumptions about the organization's expectations and values. "There is value in understanding how both climate and culture are influencing our work to effectively manage problems, challenges, or goals" (Kuppler, 2015, p. 3). As one understands the difference between the two, you will need to ensure you know what you are measuring. Do not be fooled by engagement and other climate measures so that you think you are measuring the behavioral norms of culture. Understand what you are analyzing. Climate is very important, but understand that when you change behavior you are not necessarily changing the underlying culture. "If you are interested in sustainability, it's critical to understand how culture is both helping and holding back your progress as you deal with problems, challenges, and goals" (Kuppler, 2015, p. 5). In conclusion, climate is very important but will change as leaders, workload, policies and other areas change. Culture is the enduring organizational shared beliefs that we would like to establish and sustain (Kuppler, 2015).

### **Is Your Company's Culture Positioned to Drive Innovation?**

According to Bond's 2016 article, companies must innovate in order to survive. Companies must create and sustain a culture that fosters innovation in order for an organization to succeed. "The process starts with "imagination," which is a safe space to explore possibilities. Imagination then sparks creativity, and creativity leads to innovation" (Bond, 2016, p. 2). Some of the most innovative companies have cultures that drive creativity. "These cultures are built on high levels of trust, as evidenced by the strong connection employees have to their leadership, a strong connection to fellow team members, as well as the ability to operate in an atmosphere that encourages risk taking" (Bond, 2016, p. 2).



There are three aspects associated with some of the most innovative companies and their cultures that drive creativity. One enabler for an innovative culture is a strong relationship that employees have with their leaders. This relationship is measured through trust.

These high-trust relationships create opportunities for the sharing of ideas that help fuel innovation...Leadership behaviors that encourage idea exchange can have an even greater impact. Driving innovation requires leaders to adopt the stance that within their employee population exists an unlimited reservoir of creativity. (Bond, 2016, p. 3)

Teamwork and social collaboration are also enablers for innovation. Innovative cultures must have highly integrated organizations that can make accelerated decisions and encourage strong collaboration. A strong connection between colleagues that provides a sense of teamwork where people can count on each other and cooperate is an enabling environment for innovation.

Another essential cultural enabler for innovation is having a greater appetite for risk. Not only is risk-taking tolerated in high-trust cultures, but it's often celebrated. Having an innovative culture will require adopting a more experimental approach to work. Within exploring ideas, prototyping and testing, there is an inherent higher failure rate. When asked whether management "recognizes honest mistakes as part of doing business," 85 percent of employees of Fortune 100 Best Companies respond that this is often or almost always true. (Bond, 2016, p. 4)

### **The Hard Truth About Innovative Cultures**

Innovative cultures are generally fun to work in. The list of characteristics utilized to describe innovative cultures are: tolerance for failure, willingness to experiment, psychological safety, highly collaborative, and nonhierarchical. These behaviors generally support better innovative performance. Even though these cultures are fun to work in and with, they are

difficult to implement and hard to sustain (Pisano, 2019). Innovative cultures are misunderstood, and the easy-to-like behaviors must be counterbalanced by some tougher, less-fun behaviors. This article details five of those less favorable behaviors needed to carefully manage an innovative culture (Pisano, 2019).

The first counterbalanced behaviors are a tolerance for failure but no tolerance for incompetence. Innovation involves exploration and uncertainty therefore there must be some tolerance for failure.

And yet for all their focus on tolerance for failure, innovative organizations are intolerant of incompetence. They set exceptionally high performance standards for their people.

They recruit the best talent they can. Exploring risky ideas that ultimately fail is fine, but mediocre technical skills, sloppy thinking, bad work habits, and poor management are not. (Pisano, 2019, p. 3)

High innovation companies such as Google are known for moving people into new roles if they are not excelling in their existing ones. Creating novel technology is fraught with uncertainty.

You often don't know what you don't know, and you have to learn as you go. Failures under these circumstances provide valuable lessons about paths forward. But failure can also result from poorly thought out designs, flawed analysis, lack of transparency, and bad management. (Pisano, 2019, p. 4)

Innovative companies, such as Google, that have the counterbalance of assured competence in their employees can encourage risk taking and not assume the failure is due to incompetence (Pisano, 2019). It is desired to have a culture that values learning through failure and outstanding performance. Senior leaders should articulate the difference between productive and unproductive failures. Productive failures provide valuable information relative to their cost. "A

simple prototype that fails to perform as expected because of a previously unknown technical issue is a failure worth celebrating if that new knowledge can be applied to future designs” (Pisano, 2019, p. 4). Leaders should also strive to build a culture of competence and clearly articulate standards of performance. If the standards are not communicated clearly and regularly, personnel decisions could be misunderstood as punishment for failure. Striking a balance between tolerating productive failures and rooting out incompetence is hard because the causes of failure are not always clear. “Everyone makes mistakes, but at what point does forgiveness slide into permissiveness? And at what point does setting high performance standards devolve into being cruel or failing to treat employees- regardless of their performance-with respect and dignity” (Pisano, 2019, p. 5)?

The second counterbalance in leadership behavior is willingness to experiment but highly disciplined. Organizations that are innovative embrace uncertainty and do not expect to know all the answers up front. The organizations experiment to learn rather than to produce an immediate product.

Discipline-oriented cultures select experiments carefully on the basis of their potential learning value, and they design them rigorously to yield as much information as possible relative to the costs. They establish clear criteria at the outset for deciding whether to move forward with, modify, or kill an idea. (Pisano, 2019, p. 6)

By following a disciplined approach and killing losing projects, it makes it less risky for leadership to try new things. They utilize prototyping and experiments designed for less than \$1 million that take less than six months. This lean approach to testing allows them to cycle through ideas quickly and psychologically allowing them to walk away from projects that are not feasible. “The philosophy is to learn what you have gotten wrong early and then move quickly

in more promising directions” (Pisano, 2019, p. 7). The data from experiments at Flagship is sacred. If it is negative data, it is not viewed as bad news but the teams are expected to reformulate their ideas based off of the learnings.

Scientific and business judgments are required to figure out which ideas to move forward, which to reformulate and which to kill. But senior leaders need to model discipline by, for example, terminating projects they personally championed or demonstrating a willingness to change their minds in the face of the data from an experiment. (Pisano, 2019, p. 8)

The third paradoxical behavior is to be psychologically safe but brutally candid. Employees need the freedom to speak their minds without fear but it must be a two-way street. It must always be safe for me to criticize your ideas, but it must also be safe for you to criticize mine no matter where you are in the organization in relationship to me. In some organizations, to challenge too strongly would appear you are not a team player. “When it comes to innovation, the candid organization will outperform the nice one every time. The latter confuses politeness and niceness with respect. There is nothing inconsistent about being frank and respectful” (Pisano, 2019, p. 9). Brutally honest organizations are not the most comfortable environments to work and outsiders might see these organizations as aggressive or hard. “Senior leaders need to set the tone through their own behavior. They must be willing to constructively critique others’ ideas without being abrasive” (Pisano, 2019, p. 10). Eisenhower is utilized as an example of this three weeks before the invasion of Normandy.

I consider it the duty of anyone who sees a flaw in this plan not to hesitate to say so. I have no sympathy with anyone, whatever his station, who will not brook criticism. We are here to get the best possible results. (Pisano, 2019, p. 10)

This is also another aspect of military culture, duty.

Collaboration, but with individual accountability is the fourth behavior paradox. Innovation requires collaboration from colleagues and they must have a sense of collective responsibility which often will be confused with consensus. There must be rapid decision making in an innovative environment. Committees may review decisions and make recommendations but in the end, an individual is responsible for the decision and must remain accountable.

Accountability and collaboration can be complementary, and accountability can drive collaboration... There is no hiding. You own the decisions you make, for better or worse. The last thing you would do is shut yourself off from feedback or from enlisting the cooperation and collaboration of people inside and outside the organization who can help you. (Pisano, 2019, p. 11)

The fifth paradox described in the research is flat but strong leadership. A culturally flat organization allows people to have latitude to take actions, make decisions and voice their opinions. Respect is granted based off of competence and not title. Flat organizations can respond more quickly to rapid changes and have more decentralized decision making because it is closer to the source of the information. Decision making and accountability are pushed down to employees at all levels and they have a high degree of autonomy to pursue innovative ideas. In order for this to be successful, the leaders must be visionary leaders who communicate goals and key principles for their respective organizations (Pisano, 2019).

Getting the balance right between flatness and strong leadership is hard on top management and on employees throughout the organization. For senior leaders, it requires the capacity to articulate compelling visions and strategies (big-picture stuff)

while simultaneously being adept and competent with technical and operational issues.

(Pisano, 2019, p. 13)

In conclusion, it is difficult to build and sustain an innovative culture. Leaders must be transparent with the organization about the challenges. Leaders must also realize that there are no shortcuts to building an innovative culture. Lastly, leaders must be “vigilant for signs of excess in any area and intervene to restore balance when necessary. Unbridled, a tolerance for failure can encourage slack thinking and excuse making but too much intolerance for incompetence can create fear of risk taking” (Pisano, 2019, p. 16).

### **Acquisition Reform Requires Cultural Change**

There is a trend of decreased corporate spending on research and development over the last several decades which has led to a fragmenting innovative environment. This has presented a challenge to scientific discovery in the defense industry. Despite the government’s sponsorship of science and technology programs and novel capabilities, “the Department of Defense (DOD) struggles with crossing the “Valley of Death” from basic research to fielded products and capabilities” (Kovach & Mabbett, 2020, p. 16). The Kovach article summarizes the necessity to understand why the government and its contractors work the way they do and how the government and industry incentives stimulate and reinforce this problem (Kovach & Mabbett, 2020).

The DOD is seeking innovative solutions, but standard acquisition systems continue to focus on structured program execution with minimal risk. If Program Managers and industry do not follow these acquisition standards, they are scrutinized. This incentivizes a culture of restraint and risk aversion, one that limits what the DOD is seeking with innovation and rapid acquisition. The Pentagon has attempted to address certain challenges within acquisition reform

initiatives. Middle Tier Acquisition pathways are one such policy that has been introduced to assist in improving the pace of innovation. (Kovach & Mabbett, 2020)

“Pervasive change in the processes and culture that supports them takes time” (Kovach & Mabbett, 2020, p. 16). There is a desire for change. Organization and process change is challenging and it will take time to flow this down through all the organizations and the supporting groups. “Leadership, consistent vision, and alignment of incentives at all levels must be rigorously pursued in order to change culture” (Kovach & Mabbett, 2020, p. 16).

Program managers are trained to keep a steady battle rhythm and they have a mindset to not accept failure. While there is not an intent to fail, innovation and change require calculated risks that sometimes may result in a failure. With development, and in particular for advanced innovations, failure with measured risk should be accepted as “learning” and rewarded. “The risk-accepting culture is a dramatic shift for industry which has been trained through experiences based on the risk-averse tenets of defense acquisition policies” (Kovach & Mabbett, 2020, p. 16). The culture will begin to change when programs are allowed to gain experience in driving innovative behaviors and are empowered to make timely decisions and accept more challenges by rewarding active management of calculated risk.

There could be an incubator for cultural change as a potential for adopting these practices. This organization must be focused on delivering significant, urgent advancements in capability and empowered to prove out innovative approaches. Examples of this include the Air Force’s “Vanguard” programs. The new team must be encouraged and rewarded for innovative ideas and processes that advance the managed risk approach. Incentives could range from that of tangible bonus pay to special commendations at project events. There is also the ability to create

brand appeal such as has been done with Defense Advanced Research Projects Agency (DARPA) “come here, do great things and change the world!” (Kovach & Mabbett, 2020, p. 17).

The people are everything. In this organization, the individuals selected should be able to think creatively and apply their experiences to understand why the process exists but challenge the process, adapt it or modify it to meet the needs of the project. The people must be “hard charges that excel in uncertain climates and, if incentivized correctly, will drive cultural change” (Kovach & Mabbett, 2020, p. 17). The DOD and industry alike should think about creating incubators that are staffed with the right people which are incentivized and chartered to solve the urgent needs of our country. “Through the shared successes and failures, a culture will emerge with the ability to harness the tools Congress has provided, leading to the acquisition change desired as individuals return to the broader defense acquisition community” (Kovach & Mabbett, 2020, p. 17).

### **High-performing Teams Need Psychological Safety. Here’s How to Create It**

This article assesses the principle of psychological safety and the effects it has on team performance. The conclusion of the article is that high performing teams have psychological safety and believe they will not get in trouble or be punished if they make a mistake. The article also states that “psychological safety allows for moderate risk-taking, speaking your mind, creativity, and sticking your neck out without fear of having it cut off- just the types of behavior that lead to market breakthroughs” (Delizonna, 2017, p. 2).

There are steps that the author, Delizonna (2017), recommends replicating to feel more psychologically safe. Approach the conflict and be a collaborator not an antagonist. Speak to others as a human with respect, competence and autonomy. Speaking as a human will promote trust and positive behaviors. Think through how people will react to your messages and plan for



the difficult conversations ahead of time. Adopt a mindset for curiosity instead of blame. By having curiosity, you are more likely to have a conversation and explore the possibilities. Ask others how the delivery of your message was received. Finally, measure the psychological safety of your team. Determine how likely they believe they are to provide feedback without retaliation or if they make a mistake they will not have criticism. By implementing these types of engagement, leaders are likely to see increased motivation with more learning and development along with increased performance (Delizonna, 2017).

### **The Fearless Organization**

This article is a transcript of an interview with Dr. Amy Edmonson who has been recognized for her work in Psychological Safety. The definition of psychological safety is “the belief that the environment is safe for interpersonal risk taking. In a psychologically-safe workplace, people know that their voice is both welcomed and expected” (Christensen, 2019, p. 75). Psychological safety varies throughout the organization because it is centered around the main leader. It is the main leader, or director, which influences what is appropriate and how people will interact with each other. There are two risks when people do not speak up within an organization. The first risk is a safety problem which could actually lead to people getting hurt or even killed. The second is much less measurable at first, it is a risk to share ideas or recommendations. This is a risk to the organization because they lose out on possibilities for innovation. People err on the side of silence because they remain safe. They don’t wish to stand out or be thought poorly by peers or leaders (Christensen, 2019).

Innovative teams are ones that engage and recognize there will be some failures. “Everyone wants the results of innovation – but most people aren’t that terribly enthusiastic about experiencing the risks of innovation. We know intellectually that it will require failure, but

emotionally, we would rather only experience success” (Christensen, 2019, p. 76). If the team is not talking about things going wrong, they are not learning about them and may not feel comfortable to speak up.

Dr. Edmunson also stresses the need to be situationally humble. In the innovative world where there are new experiences and uncertainty, we will be faced with new situations. Leaders must be humble in these situations and willing to listen to others. It is also best to practice humble listening. Humble listening requires the leader to listen with curiosity and true interest at what is being stated to understand the situation. Being situationally humble and practicing humble listening provides a more psychologically safe environment for others to speak up (Christensen, 2019).

A fearless organization is one in which “people feel truly engaged, inspired and willing to take interpersonal risks of speaking up and experimenting that are necessary, so as to gain the shared rewards of making a difference” (Christensen, 2019, p. 76). Leaders and employees alike share the vision and mission of the organization and are all needed to make progress. It is the leadership’s responsibility to ensure the organization has a clear understanding of the mission set and has also clearly framed the work. “Framing the work includes two key elements: re-framing failure and clarifying the need for voice” (Christensen, 2019, p. 77).

Being willing to acknowledge vulnerability as a leader will give permission to others to do likewise. Others will follow you in your example. Your words, interests and availability to your employees will provide more of a safe space for them to begin to open up and contribute. By doing this, it encourages employees to take more risks with innovation (Christensen, 2019).

## **Summary**

The literature review resulted in a successful compilation of information and data consisting of DOD and Army strategies including the call for innovation and how it relates to the culture of the organization; multiple definitions of risk acceptance and how it relates to and enables innovation and; features within organizational culture that promote risk acceptance and enable innovation. The information provides the basis for the analysis which will be provided in Chapter 4 and the conclusion and recommendations which will be provided in Chapter 5 of this research paper.

### **Chapter 3 – Research Methodology**

#### **Statement of Purpose**

The purpose of this qualitative research is to explore organizational culture that promotes and enables risk acceptance in order to increase innovation within the Army Acquisition.

#### **Research Methodology**

A qualitative research methodology was utilized for this study. Qualitative research utilizes an inquiry approach and explores an overarching theory or phenomenon. In qualitative research, the questions are broad and open ended where the researcher can “interpret the meaning of the information, draw on personal reflections and past research. The final structure of the report is flexible and displays the researcher’s biases and thoughts” (Creswell & Guetterman, 2019, p. 627). The research questions were designed to be open ended and assist in guiding this qualitative research. The research questions are as follows:

1. What is risk acceptance?
2. How does risk acceptance enable innovation in Army Acquisition?
3. What organizational cultural features promote risk acceptance?

The researcher conducted a qualitative review of published information. Data collection was achieved through literature reviews. These literature reviews were obtained from U.S. Government National Strategies and Hearings; peer-reviewed journals, articles, and online sources. The research emphasis was placed on strategies for the Army’s future, culture within an innovative organization, and risk taking in an innovative organization. Key terms derived from the research questions were utilized to focus the literature review; risk for innovation and culture in an innovative organization. Literature sources were obtained through Lawrence Technical Library, Google Scholar, Defense Acquisition University Virtual Research Library, U.S.

Government Accounting Office (GAO), and the DOD Defense Technical Information Center (DTIC). Sources were categorized by risk in innovation, cultures for innovation and Acquisition strategies or documents dealing with innovation.

The literature research began at understanding the requirement for innovation by analyzing the DOD Strategies along with Army Strategies and Army leader hearings. Risk Acceptance definitions were analyzed to inform how different communities perceive the term along with how the term can be interpreted by the personnel within the organization. The research then led to determining if an increase in risk acceptance would aid in enabling innovation. Lastly, the research ended by categorizing the features within the organizational culture that promote risk acceptance.

This research does not contain interviews with Subject Matter Experts (SMEs) and is limited by the availability of information posted in the public domain. Due to the limited time to complete the research, a smaller portion of the available information could be analyzed. This study focuses on risk acceptance and does not focus on the entire risk mitigation process although there is mention to it within the literature review.

## **Summary**

The intent of this chapter is to describe the research methodology. In this chapter, the definitions and research questions were addressed along with the utilization of the qualitative research methodology. The analysis is qualitative and the results are described in Chapter 4.

## Chapter 4 – Findings

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*“I have not failed 10,000 times. I have not failed once. I have succeeded in proving that those 10,000 ways will not work. When I have eliminated the ways that will not work, I will find the way that will work.” Thomas Edison (Furr, 2011, p. n/a; para. 4)*

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### Introduction

The research purpose and questions are restated to help frame the analysis and findings for each of the research questions. Risk acceptance definitions, the ability of risk acceptance to enable innovation and the features within an organizations culture to provide an environment for risk acceptance are analyzed based on the information presented in the literature review. A summary is provided at the conclusion of this chapter.

### Statement of Purpose

The purpose of this research is to explore the organizational cultural features that promotes risk acceptance in order to enable innovation within Army Acquisition.

#### Research Questions:

1. What is risk acceptance?
2. How does risk acceptance enable innovation?
3. What organizational cultural features promote risk acceptance?

This chapter analyzes the information gathered during the literature review which is located in Chapter 2. During the literature review of relevant topics, the call for innovation within DOD and the Army was prevalent. Risk acceptance was defined within the literature review for several industries and for the DOD. The literature analysis also assisted in asserting the requirement for risk acceptance in order to enable innovation. The analysis then follows a

sequence to conclude if an organization's culture affects risk acceptance. Along with that analysis, there will be a collection of predominant features within an organization's culture that promotes risk acceptance while enabling innovation.

The strategic guidance from the DOD and Army along with testimonies from DOD and Army leaders served as a foundation for a call for innovation from the nation's leaders. These strategies and hearings also served as a basis for the awareness of a need for a change in culture along with the need to accept more risk in order to enable the innovation.

### **Strategic Guidance**

The strategic guidance section in the literature review in Chapter 2 resulted in a call for innovation from across all levels of the DOD. The DOD and Army strategies along with the testimonies of Army senior leaders reviewed provided strategies, plans or methods for how to achieve this innovation to out-compete both Russia and China.

The DOD and Army strategies also emphasized cutting edge technology along with a push for new organizational structures to enable a new culture for innovation. President Biden calls out a culture that reflects the country's values and emphasizes "professional integrity, accountability and transparency" (President Joseph R. Biden, 2021, p. 22). These values, along with others taken from additional strategies and research, will be collected from this body of research and evaluated as particular features within an organization's culture. These features will be collected in their entirety and shown in Table 3.

Secretary Austin added taking care of our people as a feature within an organizational culture that must exist if the DOD is to "innovate at the speed and scale that matches a dynamic threat landscape (Austin III, 2021, p. 2)". Austin iterated that taking care of our people is growing our talent and hence investing in training. In addition, Austin included the feature of

teamwork. This teamwork is not just within the military and civilian workforce but includes private industry and Congress. Lastly, Secretary Austin discussed the requirement to provide a prioritization of resources. The resources must be aligned to the strategy and policy must aid in securing the resources. (Austin III, 2021)

The Army Vision provides additional features for consideration. One of the first features is that of unification. Unification under the Army Futures Command was a key effort recognized by Army leadership as a necessity to reform the acquisition system and ensure a change in culture (Department of the Army , 2018).

Another feature for consideration mentioned in the Army Vision is to have a comfort with complexity or cognitive complexity (Department of the Army , 2018). Cognitive complexity focuses on the alternatives, is proactive and facilitates ethical decision making. Organizations or leaders with higher cognitive complexity develop creativity, take risks, engender faith and focus on specific questions. When difficult situations or problems come about, leaders in an organization that have cognitive complexity will stress appreciative inquiry, celebrate failures and be willing to re-engineer. The Army Vision is one of the higher level strategies evaluated where risk acceptance is specifically identified within as an enabler for innovation. It is the combination of the risk acceptance sub categories found also within cognitive complexity where organizations are able to achieve their goals by uniting people, technology and processes in a more efficient and human way (Jacobs, 2013).

The Army Vision also mentions the intent to trust and empower subordinate leaders. These two features, to trust and to empower, are additional features that will be utilized in the analysis to follow. There is also a desire to create opportunities for professional growth through training and development assignments for both military and civilians. Professional development



is a feature of an organizational culture to also be evaluated. Lastly, the Army Vision brings out the features stressed by the Army Values. These features are loyalty, duty, respect, selfless service, honor, integrity and personal courage (Department of the Army ).

The Army Strategy reinforces the several features brought out by both Secretary Austin and by the Army Vision. These features revisited include unification, teamwork, empowerment, professional development and prioritization of resources. The Army Strategy acknowledges that unification and teamwork are enablers for innovation and technology development. The Army Strategy encourages empowerment of subordinates so that decisions can be made at the lowest levels which will allow for faster decisions. The talent management system is also facing an overhaul to focus on the organizational feature of professional development. Not only is the Army looking at how to attract and develop talent but also looking at placing the right skillset with at the right level (Department of the Army, 2018).

The Army People Strategy (APS) provides the method for how the Army intends to fulfill the organizational feature of taking care of people with its sub categories of growing and investing in talent management. The APS also focuses on investing in professional development or the training of talent just as previous strategies have mentioned. The APS acknowledges that the information age is an age that requires more “knowledge workers which are those that add value and increase productivity through creative thinking and innovation” (Department of the Army, 2019, p. 3).

The APS introduces another feature, diversity of talent. This is one where knowledge, skills and behaviors are not all similar therefore allowing for variances in opinions and diversity of thought. APS also calls out the feature of unification but titles it as integrated. Within this

analysis, unification will be the term chosen to include that of integrating and harmonizing the capabilities of the Total Force.

APS dissects taking care of people further by adding an additional subcategory of employing talent. Within employing talent, there is an emphasis to align talent to the organizational demand but also to ensure that there is a talent focused career path. In addition, there is a desire to create tailored compensation packages that are value based according to responsibility, authority and skill (Department of the Army, 2019).

Army Culture is a critical enabler for the APS. “The question for leaders is not whether culture should change, but how it should change” (Department of the Army, 2019, p. 11). APS highlights the feature of organizational culture teamwork that has been consistently mentioned throughout DOD and other Army Strategies and documents. In addition, the feature Trust is highlighted as that which the Army should base their organizational culture upon.

The APS incorporates additional features within the document that merit mentioning because they will enhance the analysis around risk acceptance. These features include “inquiry, intellectual flexibility, knowledge sharing, systems thinking and continuous learning” (Department of the Army, 2019, p. 12).

The Army Modernization Strategy (AMS) truly begins to discuss the risk that will be required and encouraged to transform the force by 2035. By the use of lessons learned from experimentation, early prototyping, testing, and touch points with soldiers to help refine solutions, the AMS highlights the feature of cognitive complexity brought out by the Army Vision. One of the sub categories within cognitive complexity is to take risks. The Army leaders within the AMS acknowledged that there will be risks within the strategy, risks with readiness, and risk in capability. Celebrating failures is another subcategory that can be found in

the feature cognitive complexity which is recognized within the AMS. The AMS acknowledges there will be failures which must be celebrated through learning and adjusting of the programs and concepts (Army, Department of the, 2019).

In addition to acknowledgement of risks and celebration of failures, the AMS emphasizes another feature in organizational culture with talent management. The recurring theme throughout these strategies is that the talent management is intended to realize the full potential of the talent within the employees. The Army is committed to understand what it is that the employees want out of their careers and help them to reach their goals by providing them with additional education and leadership development opportunities.

The Army Innovation Strategy (AIS) further solidifies the Army leadership's recognition that there will be risks in innovation. This is exemplified in the following: "increased tolerance for risk and failure in experimentation; changing the way that the Army is managed, including innovation and entrepreneurship" (U.S. Army, 2016, p. 3).

The AIS acknowledges the Army Culture's low tolerance for risk and identifies four sub-objectives to assist with this challenge. These sub-objectives are evaluated to form additional features or to fit within features previously identified by other DOD and Army strategies. The first objective identified fits within the feature of developing creativity. The second objective is to reward or recognize those that innovate. The removal of bureaucratic and technical barriers to provide for emerging solutions is the third objective the AIS identifies as assisting in advancing a risk tolerant culture. The fourth objective is to incorporate innovation into the Army Doctrine. The last two objectives will contribute by removing old processes and procedures and replacing with new and different ones that will promote risk acceptance in an innovative culture (U.S. Army, 2016).

The testimony of the Under Secretary of the Army (USA) challenges the Army's organizational culture to be able to innovate at the pace required. A feature that the USA brings out is unification of the command to allow for a flatter organization. This is a reiteration of what was expressed in the Army Vision and the Army Strategy. Within this unification under the Army Futures Command (AFC), USA highlights features that have been mentioned by other strategies such as aligning and prioritizing resources along with accountability. AFC is also intended to assist with the organizational cultural feature of teaming. Teaming between industry, the commercial sector, academia, and the Army through a unique partnership which will allow for solving complex problems (McCarthy, 2018).

The USA highlights an additional feature for an organizational culture and that is equality between other organizations. Equality is the enabler which allows AFC to have an equal voice and clear priorities. Equality is often viewed as an enabler but within this research will be evaluated as a feature for an organizational culture that enables risk acceptance and innovation.

AFC will also utilize technical demonstrations and prototypes to inform decisions. Through this rapid feedback process, AFC introduces the additional features of prototyping and tech demonstrations into the organizational culture that enables innovation. Another feature identified by the USA is the location for the work. To enhance collaboration for innovation and allow for chance meetings between those doing development and requirements, there is a need to be within a close vicinity working together. The Army chose Austin, TX as its location for unification to change the culture and increase the speed at which it could collaborate and innovate (McCarthy, 2018).

The testimony of Dr. Eric Schmidt, head of the Defense Innovation Board (DIB), further explains the necessity for a shift in the Army culture if there is to be innovation. The DIB's

findings express that there is “great consequence for entrepreneurial risk and little incentive to serve as a change agent” (Schmidt, 2018, p. n/a; para 5). Both entrepreneurial risk and being a change agent are necessary enablers of innovation. The features which can be derived from these statements within the testimony are speed, agility, results and ingenuity. The DIB also stresses that there must be a different culture that is protected from bureaucracy. This feature, removal of bureaucratic and technical barriers, was also identified within the Army Innovation Strategy.

Table 3: *Features Identified as Enabling Innovation through evaluation of DOD Strategies Acknowledged within this Body of Research*

<b>Features</b>	<b>Sub-Category</b>
Professional Integrity	
Accountability	
Transparency	
Taking Care of People (talent management)	Grow the talent, Invest in Training, Employing the right talent, professional development plans.
Teamwork	Both internal teamwork and external to include industry and Congress.
Prioritization of resources	
Unifying	Integrating the Total Force
Character	
Cognitive Complexity	Develop Creativity or ingenuity, Taking Risks, Stress Appreciative Inquiry, Celebrate Failures
Trust	
Empower	
Army Values	Loyalty, Duty, Respect, Selfless Service, Honor, Integrity, Personal Courage
Diversity of Talent	
Intellectual Flexibility	
Knowledge Sharing	
Systems Thinking	
Continuous learning	
Reward/recognize employees	
Removal of bureaucratic and technical barriers	
Equality	Clear priorities, Equal Voice
Location of workforce	

The research revealed that the DOD and the Army have acknowledged there is a need for a culture change to enable innovation and out-compete both Russia and China. The research also identified multiple features within an organizational culture, as shown in Table 3, that enable innovation. It is clear that through the initiation of the Army Futures Command and the Rapid Capabilities and Critical Technologies Office that the Army is committed to change culture and enable innovation. These organizations are the incubators for cultural change and as they share successes and failures, a new Army culture for innovation will emerge.

### **Risk Acceptance**

There is not one standard by which to analyze risk acceptance. For clarity purposes, the definition that will be utilized for this analysis is that defined by the DOD. Risk acceptance is where the program acknowledges that the risk event may be realized and knowingly accepts the risk with its consequences. Accepting the risk does not mean it is ignored (Defense, Department of, 2017).

Another document within the DOD that identifies risk acceptance and what a program manager or leader is to do with risk acceptance is the Risk, Issue and Opportunity Management Guide. Within this guide, there is a risk mitigation strategy called out where program level risks should be documented in the Acquisition Strategy and communicated to those within the program. Those risks that the manager chooses to accept, should be monitored and if realized, prepared to also accept the consequence. The program manager is often expected to identify resources, whether it be schedule or funding, to hold in reserve to cover these risks if the risk is realized. With budget and schedule constraints, this can be a difficult decision for managers to make and to understand. It is often that a program manager just has to accept and inform those in the next highest command. This type of risk acceptance requires empowerment of that manager and trust

from their leadership along with transparency, accountability and professional integrity. There must also be a prioritization of resources by the manager and their higher command in case of realization of that risk. Trust, transparency, accountability, professional integrity and prioritization of resources are organizational features that have been previously identified but can now also be tied to risk acceptance within the organization (Defense, Department of, 2017).

The Army provides an additional guide for Operations Risk Management, ATP 5-19. This guide details the risk management process for those that are within an operational, or military, setting. This is of particular interest because acquisition leaders are predominantly military. The beginning of their training was operational and will be rooted in what was learned while either preparing for combat or in combat. For risk management in the operational setting, it is emphasized to make sure that risk decisions are made at the appropriate level, communication and transparency is key. There is also an emphasis that there must be no unnecessary risk acceptance. Lastly, and key to what is seen within this document is that the commander must provide an appropriate risk tolerance level to all subordinates. The risk acceptance decisions in ATP 5-19 are defined as a “level of risk in which the potential benefit outweighs the potential loss. The process of weighing risks against opportunities and benefits helps to maximize unit capability, save lives, and preserve resources”(U.S. Army, 2021, November, p. 12). Operationally, the leaders are taught to not necessarily be risk-averse, but to determine if the benefits exceed the costs while ensuring that the decision is made at the appropriate level.

There was an additional definition of risk acceptance within the Army through the viewpoint of the NCO by evaluating the Mission Command article. The NCO defined risk acceptance as that where a commander must assess the risk to mission, and risk to force, while mitigating risks with control measures. However, the NCO provides his perspective of risk

acceptance by identifying features which must be present within the culture to accept risk. These features are part of the principles of Mission Command and are competence, mutual trust, shared understanding, commander’s intent, mission orders, disciplined initiative and risk acceptance. Detailed descriptions of these features are within Table 4. These mission command words, are common words but they have a specific meaning. These explanations are given in more detail below within Table 4. Table 4 contains the explanations of the principles of Mission Command and how these features are related to a culture that promotes risk acceptance (Tolman, 2020).

Table 4 *Principles of Mission Command* (Tolman, 2020)

Feature	Explanation
Competence	Organizations develop competence through training, self-development and professional development
Mutual Trust	Mutual trust is a shared confidence between the leader, subordinates and partners that they can be relied upon and perform their assigned tasks.
Shared Understanding	Common understanding and shared visualization. Communication here is key and commanders intent must be understood.
Commander's Intent	The Leader or commander is responsible for relaying their intent down to the lowest level to include the purpose and the desired end state.
Mission Orders	The staff should make mission orders that describe the situation to include the commanders intent, the desired results and the subordinate tasks. The staff must make sure not to specify how to accomplish the tasks in order to maximize creativity
Disciplined Initiative	Ability to keep to plan and having the initiative to stay within constraints of the commander's intent to achieve the desired end state . Creativity can be utilized if the plan becomes no longer suitable
Risk Acceptance	Assessing risk to mission and risk to force, while mitigating risks with control measures.

Another feature which was identified by the NCO but was not included within the original Mission Command table was flattening the organization. Flattening the organization emphasizes the vertical and lateral communication while increasing information sharing and increasing efficiency for situational awareness.

Risk acceptance, while technically the same across DOD definitions, can be interpreted differently. It is acknowledged that risk must be accepted, it is also acknowledged that risk must



be communicated to the appropriate level, both up and down the chain of command. However, within operational situations, the commander is more often dealing with situations of life and death within combat and will be less likely to risk a failure. There is a hesitancy for risk acceptance to the point of a potential failure in order to allow learning during innovation. This is a missing feature within the organizational culture that must be present to enable innovation. There is an opportunity for additional training and changes for current leaders as they are transitioning to acquisition and or development efforts within the Army. This was identified through several of the organizational cultural features brought out within the Army Innovation Strategy as removal of bureaucratic and technical barriers to provide for emerging solutions in addition to incorporating innovation into the Army Doctrine. Transition to acquisition workforce out of operational workforce and the potential need for additional risk acceptance could be emphasized within the feature of professional development and growing of talent.

The research revealed that risk acceptance is where the program acknowledges that the risk event may be realized and knowingly accepts the risk with its consequences but does not ignore the risk. Mutual trust, transparency, accountability, professional integrity, clear priorities of commander's intent, talent management, and prioritization of resources are organizational features that were identified as enablers of innovation and also as features that promote risk acceptance within an organizational culture. The research also concluded that there is additional training or professional development that would be beneficial for those within the acquisition profession as they are transitioning from operational command due to their resistance to accept risk to the point of a potential failure and allow learning with innovation.

**Risk Culture**

“The prevailing risk culture within an organization can make it significantly better or worse at managing risks” (Hillson, 2013, p. 3). The risk culture within an organization will shape the way employees position themselves towards risk in situations that are seen as risky and important. The risk culture also helps to inform a leader when setting objectives and the strategy of the organization. The definition utilized within this analysis of risk culture is that similar to organizational culture in that it is a group with a common purpose and is defined as the values, beliefs, knowledge and understanding of the organization toward risk (Hillson, 2013).

Table 5 identifies additional risk behaviors that can be utilized as indicators for a leader to use in an assessment to determine if their organization is a risk-mature organization. These behaviors are measurable features and can be assessed. Using this tool, the leader can define the desired risk culture, assess the current risk culture, define the gap and create a plan for an improvement. Not all are necessary but may be utilized as cultural diagnostics (Hillson, 2013).

Table 5 *Optimal Risk Behaviors* (Hillson, 2013, p. 4)

	Feature
1	Distinct and consistent tone from the top on risk-taking
2	Commitment to Ethical principles and practice
3	Wide Acceptance of importance to managing risk
4	Transparent and timely risk information flow up and down
5	Risk reporting and whistle-blowing is encouraged
6	Active learning from impacted risks and near-misses
7	Risk taking behaviors rewarded or challenged
8	Risk management skills are valued, encouraged and developed
9	Properly resourced risk management function
10	Regular challenging of status quo from diverse perspectives

Leaders must understand how the brain processes and thinks about risk and that everyone naturally has biases which can consciously or unconsciously affect the amount of risk one is willing to accept. The study of emotional intelligence shows peoples perspectives when evaluating

the features within a risk culture. Particular aspects brought out include viewing risks as good versus bad, risks enhance the value versus protecting the value, and discussing risks shows maturity versus a weakness. While risk assessment is a valuable tool, leaders must utilize risk assessments to take calculated risks and turn risk taking into a good attribute. Leaders must realize that if a risk results in a failure, they must bounce back from that failure, learn from the failures therefore gaining the positive from risk-taking. The human brain is wired for error-based learning and is designed to become better by experimenting instead of trying to avoid failure (Pillay, 2014). Resilience and openness to experimentation, or active learning, are important for an organization to affectively have innovation.

Why does risk culture matter? It matters because it drives the attitudes and behaviors that those within the organization take towards risk. The risk culture can determine if the group will take too much or too little risk. The organizational features that have been identified within the research that correlate to the optimal risk culture behaviors are professional integrity, transparency, clear priorities of commander's intent, prioritization of resources, cognitive complexity, trust, empower and equality.

## **Culture**

“Organizational culture is a group of shared values, attitudes and practices that characterize and organization” (Heinz, 2022, p. n/a; para. 1). There are four types of organizational cultures; clan, adhocracy, hierarchy and market. Of these four well studied organizational cultures, adhocracy is the culture that most promotes innovation. The adhocracy organizational culture appears within the framework of organizational cultures on the quadrant where the polarities for external focus, differentiation, flexibility and discretion are most dominant. Adhocracy organizational culture encourages experiments and creativity. In addition, an adhocracy

organizational culture embraces risk taking. Growing people's talents and providing professional development is key to an adhocracy organizational culture. It is simple to justify talent growth within an adhocracy organization because leaders desire their employees to be creative and have new ideas. On the opposite quadrant of the organizational framework is hierarchy. A hierarchy organizational culture is one that appears within the framework of organizational cultures on the quadrant where the polarities for internal focus, integration, stability and control are most dominant. A hierarchy organizational culture is the one that most accurately portrays that of the military or DoD culture. A culture with processes, procedures and a clear chain of command.

For the Army to have an organizational culture with features that promote risk acceptance the culture must evolve. The evolution of the organizational culture would require a shift from an organization that values features of accuracy and stability above all within the hierarchy organizational culture. The organizational culture should reposition towards the center of the values framework which values organizational features such as flexibility, differentiation and continuous learning as demonstrated within the adhocracy organizational culture. Flexibility, differentiation and continuous learning promote the features identified in Table 4 as optimal risk behaviors. These behavioral features shown in Table 5 which are promoted within the adhocracy organizational culture include; 5. Risk reporting and whistle blowing is encouraged; 6. Active learning from impacted risks and near missies; 7. Risk taking behaviors are rewarded or challenged; and 10. Regular challenging of status quo from diverse perspectives.

Processes and procedures that are utilized within a hierarchy type of organizational culture will prove beneficial and even necessary when promoting risk acceptance. The features that require processes and procedures as shown in Table 5 include: 3. Wide acceptance of importance to managing risk; and 8. Risk management skills are valued, encouraged and developed. The

drawback of the hierarchy culture is its rigidity and lack for creativity along with little employee feedback. It is due to the rigidity and lack of creativity feature that the organizational culture must shift more towards the adhocracy quadrant while maintaining some of the benefits of the hierarchical culture of the feature where processes must be followed with risk management.

Innovation is a key for achieving dominant capabilities and the competitive advantage for American power over the next decades. Army organizations must foster a culture that allows for innovation to align with the current strategies directed by the leadership. A culture that promotes innovation has a psychologically safe environment where employees are free to discover, imagine and create. The features that allow for this psychologically safe space of discovery, imagination and creativity include trust, a strong connection between employees and leadership, and a strong connection between team members. These types of organizational cultural features also promote risk taking. “Not only is risk-taking tolerated in high-trust cultures, but it’s often celebrated. Having an innovative culture will require adopting a more experimental approach to work. Within exploring ideas, prototyping and testing, there is an inherent higher failure rate” (Bond, 2016, p. 4).

Innovative cultures are often fun to work in but difficult to implement and hard to sustain. The features mentioned previously that make innovative cultures successful and easy to like, such as tolerance for failure, willingness to experiment, psychological safety and trust, highly collaborative and nonhierarchical must be counterbalanced by some of the less liked features. These counterbalancing features and the corresponding features commonly identified within innovative cultures are shown in Table 6.

Table 6 *Counterbalance Features for Features Identified within an Innovative Culture*

	<b>Innovative Culture</b>	<b>Counterbalance</b>
<b>1</b>	Tolerance for Failure	High Performance Standards
<b>2</b>	Willingness to Experiment	Highly Disciplined Experimentation
<b>3</b>	Psychological Safety	Brutally Candid
<b>4</b>	Highly Collaborative	Individual Accountability
<b>5</b>	Nonhierarchical	Strong Leadership

One of the counterbalancing features is high performance standards for employees. In order to allow for a tolerance for failure with experiments, there is no tolerance for incompetence. The best talent is recruited in order to have confidence in accepting risks. In order to have confidence while accepting risks, the best talent must be recruited. There is no room for “poor technical skills, sloppy thinking, bad work habits and poor management” (Pisano, 2019, p. 3).

Innovative organizations that have the counterbalance of assured competence in their employees can encourage risk taking and not presume that the failure is due to incompetence. The leadership should also value learning through productive failures and outstanding performance. A productive failure provides valuable information relative to its cost. Productive failures are worth celebrating if the knowledge can be applied to future designs or programs. Leaders within the organization must strive to build an organization of competence and communicate their standards of performance clearly and regularly to ensure that personnel decisions are not misunderstood as punishment for failure.

A second counterbalancing feature shown in Table 6 is highly disciplined experimentation. This means that an organization that is innovative and does not know all of the answers up front will select the experiments based upon what can be learned and will “design them rigorously to yield as much information as possible relative to costs. They establish clear criteria at the outset for deciding whether to move forward with, modify, or kill an idea” (Pisano,

2019, p. 6). Disciplined experimentation is a feature which promotes risk acceptance because it allows leaders to try new things with a lean approach cycling through ideas quickly with a disciplined process and canceling unsuccessful projects. Both scientific and business judgements are required within disciplined experimentation to best determine which ideas to move forward with, which to re-scope and which to kill. Disciplined experimentation enables the organization to learn from what has gone wrong early and move quickly to a more auspicious direction.

The third counterbalancing feature in Table 6 is to be brutally candid. Brutally candid is the counterbalance to psychological safety. While employees do need to have trust in leadership and throughout the organization to speak freely, it must be a two-way street. It must be acceptable for ideas to be discussed freely up and down the chain and for challenges to be made to these ideas both up and down the chain no matter where you are in relationship to others in the organization. Challenging ideas and being brutally candid does not mean being disrespectful. Brutally candid organizations have learned how to have crucial conversations and often show personal courage through the willingness to discuss concerns or issues with concepts to the senior leaders. Eisenhower expressed this in his example, when three weeks before the invasion of Normandy he stated;

I consider it the duty of anyone who sees a flaw in this plan not to hesitate to say so. I have no sympathy with anyone, whatever his station, who will not brook criticism. We are here to get the best possible results. (Pisano, 2019, p. 10)”

Individual accountability is the fourth counterbalancing feature shown in Table 6. This is the counterbalance to the organizational feature collaboration. In an innovative organization, teams or committees may review plans, work on input or provide courses of action. In the end, one person is responsible for or held accountable for the final decision.

Accountability and collaboration can be complementary and accountability can drive collaboration. ... You own the decisions you make. ... The last thing you would do is shut yourself off from feedback or from enlisting the cooperation and collaboration of people inside and outside the organization who can help you. (Pisano, 2019, p. 9)

Personal accountability is a feature that promotes risk taking because it allows for those within the organization that are in support of you to take the risks while you take the blame. This may seem counterintuitive, but if the leader within the organization allows the accountability to go past them, then those that took the risk to initiate, design and manage the program will become risk-averse and the ideas and innovativeness of the organization lessens.

The fifth counterbalance organizational feature for an innovative culture is a strong leadership. Strong leadership is the counterbalance to a flat organization. Organizations that are flat make decisions more quickly because they are decentralized and closer to the source of the relevant information. This lack of hierarchy requires senior leaders to maintain the “capacity to articulate compelling visions and strategies... while simultaneously being adept and competent with technical and operational issues” (Pisano, 2019, p. 10). The empowerment of employees within a flat organization requires the employees to develop their own strong leadership capability and become comfortable with making decisions and being accountable for the decisions that they make.

Tolerance for failure, high performance standards, willingness to experiment, highly disciplined experimentation, psychological safety, brutally candid, highly collaborative, individual accountability, nonhierarchical, strong leadership are the complementary features for an organizational culture that enables innovation and promotes risk acceptance. Innovative cultures are not all fun and games but many employees will be excited to work in a culture that



allows for more freedom to experiment, fail, collaborate, speak up and make decisions. With these freedoms do come difficult responsibilities including high performance, disciplined experimentation, accountability, willingness to be up-front and empower workforce. Leaders should be aware of tendencies to lean toward either side of these counterbalancing features within Table 6 and strive for a delicate balance between them.

Decreased corporate spending on research and development leading to less of an innovative environment has presented a challenge to discovery in the defense industry. Even though the government has sponsored research and development programs and novel technologies, “the Department of Defense also continues to struggle with crossing the “Valley of Death” from basic research to fielded products and capabilities” (Kovach & Mabbett, 2020, p. 1). The normal acquisition process focuses on structured processes and procedures with minimal risk. If the program managers, both government and industry, do not follow these processes, they are scrutinized. This scrutiny and risk avoidance limits what the current DOD and Army strategies are calling for with innovation.

There is a desire to change the culture within the Army which is evident by statements such as the following from the 2019 Army Modernization Strategy;

The Army may not succeed on the first demonstration and experimentation for every system, but we will learn and rapidly adjust programs and concepts. Key to developing the technologies necessary to meet our modernization goals is encouraging a culture of innovation within the Army... We will use adaptive acquisition approaches... (Army, Department of the, 2019, p. 7)

Program managers are accustomed to not accept failures. With the culture change for innovation, DOD must take more calculated risks that could result in a failure where learning

could occur and also be rewarded. This would likewise be a cultural shift for the defense industry partners. Both industry and defense program managers can grow modernization by encouraging innovative behaviors and making decisions off of highly disciplined experimentation and empowering employees to manage with calculated risks. Defense and industry should consider staffing organizations with the right, competent employees to solve the needs of the warfighters. By starting with incubator programs, the successes and failures of a culture will become more apparent and provide a clear path for acquisition modernization for the community.

### **Summary**

In this chapter the researcher provided the analysis of the information revealed in the literature review documentation. Included in the analysis are the definition for risk acceptance how risk acceptance enables innovation and what features within an organizations culture most promote risk acceptance. There is a desire to change culture within the DOD and Army promoting risk acceptance and enabling innovation. This is not an overnight process. By learning from AFC and RCCTO, the successes and failures of a culture will provide a path for acquisition modernization for the community as a whole. The next chapter will summarize the conclusions, provide recommendations based on the research findings, and offer areas for additional research.

## Chapter 5 – Conclusions and Recommendations

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### Introduction

This chapter provides the conclusions of the research based on the exploration of the organizational cultural features that promotes risk acceptance in order to enable innovation within Army Acquisition. The research also takes into account the following three research questions:

1. What is risk acceptance?
2. How does risk acceptance enable innovation?
3. What organizational cultural features promote risk acceptance?

### Conclusions

The research revealed that the DOD and the Army have acknowledged there is a need for a culture change in order to enable innovation and out-compete both Russia and China. The research also identified multiple features within an organizational culture that enable innovation. It is clear that through the initiation of the Army Futures Command and the Rapid Capabilities and Critical Technologies Office that the Army is committed to change culture by promoting risk acceptance within acquisition and development programs while enabling innovation. These organizations are the incubators for cultural change and as they share successes and failures, a new Army culture for innovation will emerge.

The research revealed that risk acceptance is where the program acknowledges that the risk event may be realized and knowingly accepts the risk with its consequences but does not ignore the risk. Mutual trust, transparency, accountability, professional integrity, clear priorities of

commander's intent, talent management, and prioritization of resources are organizational features that were identified as enablers of innovation and also as features that promote risk acceptance within an organizational culture. The research also concluded that there is additional training or professional development that would be beneficial for those within the acquisition profession as leaders are transitioning from operational command. This transition point is critical due to the potential for resistance to accept risk to the point of a failure and thus missing out on future learning through innovation.

The risk culture of an organization is important because it drives the attitudes and behaviors that those within the organization take towards risk. The risk culture can determine if the group will take too much or too little risk. The organizational features that have been identified within the research that correlate to the optimal risk culture behaviors are professional integrity, transparency, clear priorities of commander's intent, prioritization of resources, cognitive complexity, trust, empowerment and equality.

For the Army to have an organizational culture with features that promote risk acceptance, the culture must evolve. This evolution would include a shift from a hierarchy organizational structure that values the features of accuracy and stability. The organization needs to evolve towards a culture that is more centered in the values framework and focuses on organizational features such as flexibility, differentiation and continuous learning as demonstrated within the adhocracy organizational culture. Tolerance for failure, high performance standards, willingness to experiment, highly disciplined experimentation, psychological safety, brutally candid, highly collaborative, individual accountability, nonhierarchical, strong leadership are the complementary features for an organizational culture that enables innovation and promotes risk acceptance. As the culture evolves, leaders should be

aware of tendencies to lean toward either side of these counterbalancing features and strive for a delicate balance between them.

Program managers are encoded to not accept failures. With the culture change for innovation, Army Acquisition must take more calculated risks that could result in a failure where learning could occur and also be rewarded. This would likewise be a cultural shift for the defense industry partners. Both industry and defense program managers can grow modernization by encouraging innovative behaviors and making decisions off of highly disciplined experimentation and empowering employees to manage with calculated risks. Defense and industry should consider staffing organizations with the right, competent employees to solve the needs of the warfighters. By starting with incubator programs, like those at AFC and RCCTO, the successes and failures of a culture will become more apparent and provide a clear path for acquisition modernization for the community.

## **Recommendations**

The research resulted in the following recommendations.

1. This research recommends that the Army Acquisition communities take an assessment utilizing the optimal risk behaviors. Based upon this outcome, create a plan for improvement or measurement of the risk culture of the organization to ensure there is an optimal environment for innovation.
2. Create a Risk Acceptance program for acquisition leaders to help ensure there is a clear understanding of the need to take more calculated risks that could result in a failure where learning could occur and also be rewarded. This program would allow leaders to better understand the counterbalance of organizational features in order to promote risk acceptance while enabling innovation.

3. Create a repository of lessons learned from AFC, RCCTO and other programs as they begin to prototype within the Army. This repository of lessons learned can assist future organizations as they innovate and learn about risk assessments.
4. Create a Talent Management System for those that are working within the area of these innovation efforts. Consider changes to performance evaluation systems to include bonuses based on innovation / cost saving ideas. Provide training for employees around the risk management system. Within this talent management system, provide training for the employees around the features shown in Table 7 Counterbalance Features for Features Identified within an Innovative Culture.

### **Areas for Future Research**

Based on the findings of this research there are several areas to explore in future research. At the time of this research, there is limited information on the successes and/or failures of programs from the newly formed AFC and RCCTO. Future research can focus on specific Cross Functional Team's (CFT) and their risk acceptance to promote innovation. As the programs near completion, or near the expected fielding dates, metrics to understand risk acceptance to enable innovation and further warfighting capabilities can help determine effectiveness of cultural changes expected by the DOD and Army strategies.

Another area for a follow-on study would be to focus on the differences in the services and how they relate to each other. There was quite a bit of information about the Air Force and innovation. It would be an interesting comparison to look at the Air Force Acquisition with a comparison to the Army, successes and failures of innovation and acceptance of risk along with programs that carry on to programs of record.

In addition, there is quite a bit of information available on commercial industry. A follow on study could compare companies such as Google, Space-X and Apple. The research could focus on how these companies manage talent to include organizing teams and training employees. The research could also evaluate how successes and failures of innovation are rewarded within the cultures of these commercial cultures.

### **Summary**

This chapter provides the researcher's conclusions, recommendations, and potential areas for future research. The research revealed that there are organizational cultural features that promote risk acceptance while enabling innovation. By calling them out specifically in their strategies, the Army has recognized many of the innovative enabling organizational cultural features along with the need to promote risk acceptance within their acquisition programs. The evolution of the Army Acquisition culture will take time. Therefore, the two focused organizations, AFC and RCCTO, are the Army organizations to evaluate and learn from as each evolve. There are several areas of future efforts identified by this research. The efforts include evaluating how well the risk acceptance culture is promoting innovation within the CFT's along with a comparison of successes and failures of innovation and acceptance of risk within the Army versus those within other services. This research concludes that to promote risk acceptance and enable innovation, the Army's organizational culture must evolve to one that values tolerance for failure, high performance standards, willingness to experiment, highly disciplined experimentation, psychological safety, brutal candidness, collaboration, individual accountability, nonhierarchical and strong leadership.

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**Appendix A – Glossary of Acronyms**

AFC.....	Army Futures Command
AIS.....	Army Innovation Strategy
AMS.....	Army Modernization Strategy
APS.....	Army People Strategy
ATP.....	Army Techniques Publication
CFT.....	Cross Functional Team
DARPA.....	Defense Advanced Research Projects Agency
DIB.....	Defense Innovation Board
DOD.....	Department of Defense
DTIC.....	Defense Technical Information Center
GAO.....	Government Accounting Office
IRM.....	Institute of Risk Management
LOE.....	Lines of Effort
MDO.....	Multi Domain Operations
NCO.....	Non-Commissioned Officer
PM.....	Program Manager
PPBE.....	Planning, Programming, Budgeting and Execution
R&D.....	Research and Development
RCCTO.....	Rapid Capabilities and Critical Technologies Office
RM.....	Risk Management
SME.....	Subject Matter Expert
USA.....	Under Secretary of the Army

## **Appendix B – Author Biography**

Ms. Walker assumed her current duties in the Army Hypersonic Project Office as the All Up Round + Canister (AUR+C) Project Manager on March 2019. She is responsible for technical and programmatic oversight of the AUR+C to deliver the first prototype battery in FY23. Hypersonics is one of the highest priority modernization areas the Department of Defense is pursuing to ensure our continued battlefield dominance.

Ms. Walker previously served as the Multi Mission Launcher (MML) Deputy Program Director and Program Director from December 2013 March 2019. In these positions, she was responsible for the design, development and demonstration of the MML; this Organic Industrial Base development team of 250 demonstrated multi-missile / multi-mission capability launching five missile types from the same launcher in addition to producing and acceptance testing six launchers for the program of record. Ms. Walker's team was awarded the Army Acquisition Executive's Excellence in Leadership Award 05-Level product team of the year in 2015 for excellence in Army acquisition, teamwork and innovation. Ms. Walker also spent a number of years working as the lead in Air Defense Science and Technology (S&T) for U.S. Army Combat Capabilities Development Command Aviation and Missile Center (DEVCOM AvMC). In this role she performed mid/far-term S&T planning for tactical missile systems and component technologies focusing on development of future missile systems and system-of-system concepts to mitigate materiel gaps identified by the Warfighter.

Ms. Walker served for twelve years in commercial industry at Fortune 100 companies in a wide variety of roles to include Manufacturing Manager, International Project Lead, Division Environmental Health and Safety Coordinator, Quality Assurance Plant Manager and Chemical Process Engineer.

Ms. Walker attended The University of Alabama in Huntsville graduating in 1998 with a Bachelor of Science degree in Chemical Engineering. In 2012, Ms. Walker received an Executive Master of Business Administration from the University of Alabama. In 2013, Ms. Walker became a member of the Army Acquisition Core being level III certified in the engineering career field. In 2021, Ms. Walker achieved advanced level in the Civilian Education System. In addition to numerous performance and service awards, Ms. Walker received the Order of Saint Barbara, Commanders Award for Civilian Service and the Superior Civilian Service Award.