UNDERSTANDING OTHER TRANSACTIONS, A DOD CONTRACTOR'S PERSPECTIVE

by

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Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Liberty University, School of Business

May 2020

Abstract

After losing financial leverage over the private industry due to self-investment in Research and Development (R&D), the Department of Defense (DoD) sought out new ways to acquire critical technology from the private industry. To address the problem of many companies no longer needing to work with the administratively burdensome and regulatory heavy FAR-based supply chain, the DoD adopted NASA's Other Transactions (OTs) through congressional action in 1989. Unlike FAR-based contracts, OTs are not subject to many of the laws and regulations that caused the private industry to become disengaged from working with the DoD. As Congress continues to expand the DoD's authority to utilize the OT acquisition process and encourage the DoD to use the process, more non-traditional contractors are open to working with the DoD supply chain. While this is positive for the DoD and non-traditional contractors, this has left the DoD's main suppliers, traditional contractors, left evaluating their ability to work with the DoD using the OT acquisition process. Traditional contractors have infrastructures, processes, and acquisition strategies that are all centered on the FAR-based acquisition process. Given the OT acquisition process purposely removes many of the requirements of the FAR-based acquisition process, traditional contractors must now access their current infrastructure, processes, and acquisition strategies to ensure they are able to continue to work with the DoD using the OT acquisition process. This study explores the perception that traditional contractors have of the OT acquisition process and the use of consortia to administer OTs. The study relied on interviews with DoD traditional contractors. Previous case studies and perceptions were used to corroborate the interview findings. The study findings aimed at ensuring the DoD and traditional contractors can make the appropriate changes to continue working together using OTs.

Key words: other transactions, defense acquisition, traditional contractors

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Dedication

This study is dedicated to my loving wife, Kelly, who has stood by my side throughout my academic and professional endeavors. This study is also dedicated to my two children, Samuel and Abigail, for providing joy to my life at the end of each day of work.

Acknowledgments

First and foremost, I would like to thank Dr. Scott Quatro for the time he spent working with me over the past year and a half as my dissertation chair. I would also like to thank Dr. Carle Hunt for providing insightful feedback at various points during my research that ensured the final study would stand up to scientific scrutiny. I also want to thank Dr. Edward Moore for assisting and guiding me over the past 7 years, not only in this program, but also my MBA. Without his wisdom, none of this would have ever been possible. Finally, I would like to thank all the staff members of Liberty University who got me to this point. The many different teaching style I encountered over my time at Liberty University made me a better researcher one class at a time.

Table of Contents

List of Figures

Section 1: Foundation of the Study

This research was carried out to further the fields of supply chain management and logistics, specifically this research focused on the Department of Defense's (DoD) acquisition processes. This research investigated the impact of the DoD's increasing usage of a once novel acquisition process, Other Transactions (OTs), on companies that traditionally contract with the DoD. In the 1980s, the DoD realized that the private industry no longer relied on the government to be a primary source of funding for Research and Development (R&D) work, thus the DoD could not leverage their position to access critical technologies without working with the private industry on a mutual basis (Lopes, 2018). However, the private industry was hesitant, and in some cases, unwilling to work with the DoD due to their standardized acquisition processes, known as the Federal Acquisition Regulation (FAR; 2019). The strict regulations found in the FAR caused an undue financial, administrative, and regulatory burden on private industries and some companies decided it was not worth the investment to work with the DoD (Fried, 1989). Realizing their dire and worsening position in being able to access critical and innovative technology, the DoD adopted the use of Other Transactions (OTs) in 1989 (Dunn, 1996). Originally developed for NASA to compete with the USSR during the Cold War, OTs provided an acquisition environment that was free of the burdensome regulations found in the government's traditional acquisition process. Purposely flexible, the creation of each OT agreement was designed to form from collaboration between the government and the private industry whose innovation they seeking to access.

Adopted by the DoD as a way to capture technological innovation from the private sector using a process that was designed to be far more industry-friendly than traditional acquisition methods, the sparse usage of OTs in the past has left traditional contractors confused on how to

utilize this acquisition process. The purpose of this study was to examine the reasons traditional contractors are struggling to understand the DoD's OT acquisition process. Using a qualitative case study, this research gathered data concerning a DoD contractor's perception concerning their use of an OT acquisition in relation to their use of the traditional DoD acquisition process. Using current literature, this research analyzed this data using a conceptual framework to determine the relevancy of the data and help shape the findings of this research. To ensure that the findings of this research were not misconstrued, this research established boundaries in the form of assumptions, limitations, and delimitations. With these boundaries established, the published findings of this research are expected to reduce gaps of knowledge in the overall supply chain field and DoD acquisition process, while also being presented in a manner that is consistent with a biblical worldview.

Background of the Problem

Codified under 10 U.S.C. § 2371b, OTs are a relatively new authorized acquisition method being used by the DoD to increase innovation, decrease costs, and reduce the administrative burden associated with traditional acquisitions (Lopes, 2018). Prior to 1989, DoD acquisitions were performed under a regulated and standardized set of rules known as Federal Acquisition Regulation (FAR). As the need for time-sensitive, mission-critical, and advanced technology emerged, the DoD found a new, faster way to perform acquisitions through the adoption of OTs from NASA, which were free from many of the traditional acquisition rules and regulations (Nunez, 2017; Tobin, Millner, & Gillette, 2016).

Unlike traditional (FAR-based) DoD contracting, there are no defined processes in place for bidding, awarding, or administrating OTs (Mathis, 2018). This has caused the DoD to turn to consortia to perform many of the functions that the DoD government workers would normally

perform; which has led to traditional DoD contractors facing new challenges in understanding this new acquisition method, which is counterintuitive to the purpose of using OTs. This less-regulated acquisition process was meant to and should be mutually beneficial to the government and DoD contractors by making the process quicker and more efficient than traditional acquisition methods (Tobin et al., 2016). This desired acquisition environment can only be accomplished if the DoD and their contractors understand the OT acquisition process with, if not more, knowledge than the traditional acquisition process. This means that DoD contractors must have an understanding of what OTs are and the consortia used to administer them on behalf of the government.

There is a small but growing body of literature on the OT acquisition process that provides some insight into the issues that current process has, but the majority of the research focuses on the government's need and ability to administer OTs. Research by Weinig (2019) and Monaco (2018) established the need for the OT acquisition process by showing the inability of the DoD to acquire critical technologies under traditional methods. Additional current research (Lopes, 2018; Manley, 2018) clearly shows flaws within the use of OT acquisitions within the DoD that are making the process ineffective. These researchers propose solving the problems by addressing the government's execution of the OT acquisition process through legislation, training, and better defining the process.

While this body of research provides a strong foundation for understanding the OT acquisition process in the DoD, there is little, if any, research that focuses on the contractor's perspective of understanding the OT acquisition process. Furthermore, while there is literature on the government's use of the OT acquisition process, there is not much mention of the use of consortia in the process as a standard method of acquisition. This means that even if the

researchers correctly identify and solve the government's problems in the OT acquisition process, the problems would still exist from the contractor's perspective; although better defining the process could perceivably assist in addressing any problems identified from the contractor's perspective.

This research sought to provide the contractor's perspective so that the OT acquisition process and their insight into the use of consortia during the OT acquisition process. This will allow current and future research to analyze the OT acquisition process from a more holistic approach given that the perspective of both the government and their contractors can use to evaluate the process. This could lead to the reevaluation of proposed solutions due to the way they would impact the contractors, as well as the government. Overall, this research sought to provide the perception of government sellers in an effort to ensure that OT acquisition process operates as designed and that future changes to policies, methods, and regulations can be assessed using the impact it could have on both the government and their contractors.

Problem Statement

The general problem addressed was the proliferation of OTs in Department of Defense (DoD) acquisitions, resulting in traditional DoD contractors being unprepared for mainstream OT acquisitions. While OTs were rarely used in DoD acquisitions when first authorized and are still not a mainstream form of DoD acquisitions, from 2013 to 2018 usage of OTs increased by 800% for DoD acquisitions (Lopes, 2018; Schwartz & Peters, 2019). As shown by Fike (2009), OTs were chosen by the DoD to decrease the administrative and cost burden associated with traditional acquisitions but given the vast differences in the methods, they could not be administrated in the same way. This led to the development of consortia to administer the OTs for the government, which caught many traditional DoD contractors unprepared for OT

administration (Manley, 2018). Privately managed, consortia each have their own terms and conditions, access to specific OTs, and members (Schwartz & Peters, 2019). The specific problem addressed in this research was the impact that the continued proliferation of OT utilization and the use of consortia to administer OTs are having on traditional DoD contractors and their ability to remain an integral part of the DoD acquisition supply chain.

Purpose Statement

The purpose of this qualitative case study was to understand the way traditional contractors' perceive OTs and the use of consortia to administrator them. The way OTs are utilized and administered by the DoD are only half the equation to the acquisition process. The level of understanding that the traditional contractors have of this acquisition method will determine the overall effectiveness of the entire process. Given that the DoD is the one initiating this acquisition process, it assumed they already have a firm understanding of the best ways to implement and administrator it. Therefore, further research is not imperative to ensure that the DoD supply chain is being managed effectively. This does not mean that the traditional contractors that are familiar with the supplying the DoD are as familiar with the process.

Unlike the traditional DoD contractors were not trained and prepared for the OT acquisition method (Tobin et al., 2016). This leaves a wide area of research that could wield potentially useful information in developing a framework for ensuring that the DoD and traditional contractors are sharing the same preparation in using OTs and consortia. The purpose of this research was accomplished by analyzing contractors in their natural environment while they attempted to navigate the OT acquisition process. The goal is to yield the necessary information to find ways to unite both sides of the DoD supply chain and create an effective acquisition process.

Nature of the Study

Before this study was conducted, the research method and design had to be chosen. Given there were multiple research methods and designs to choose from, each method and design had to be explored before a decision could be made on which one to use to answer these research questions. This section will explain the reasoning behind choosing this method and design, along with providing justification why other methods and designs were not chosen.

Discussion of method. Three research methods were evaluated for this research – qualitative, quantitative, a mixed method. Before evaluating the research methods, criteria that were essential to performing this research were defined to compare to each research method to determine which one would be best utilized. The general overview of this research sought to understand the perspective of the research subject about a certain aspect of their business. The research subject was studied within their natural environment and there was no isolation of factors. Finally, there was no working hypothesis which was tested in this research as the goal of the research was focused solely on learning about the subject's perception of a particular aspect related to their operations.

As shown by Pope, Ziebland, and Mays (2000), the qualitative method is appropriate for developing raw data by having the researcher holistically evaluate the subject of the research. This method is able to develop raw data given that it is not working towards disproving a hypothesis and is able to holistically evaluate the subject of the research because it is not focused on studying a specific, isolated factor. Unlike the quantitative method which relies on statistical inferences, this method allows for research to be gathered and utilized from the natural environment of the research subject (Antwi & Hamza, 2015). This is important to this research method due to the underlying belief that the environmental impacts and periodically changes the

perception of the research subject. This allows for the flexibility to understand the viewpoints of the research subject from a subjective and wide lens to gain a broader understanding of the phenomenon. For these reasons, the qualitative method was determined to be the best research method for this research.

As stated by Creswell and Miller (2000), the quantitative method focuses on collecting and analyzing numerical data using an objective, isolated, and statistical approach. Additionally, the quantitative method begins with a hypothesis and tests the hypothesis against the data collected (McCusker & Gunaydin, 2015). This method is not suitable to answer the research questions for this research given that no single aspect of the research subject would be isolated and numerical data would not be collected or analyzed. Additionally, there is no hypothesis to be tested in this research as data are simply be gathered to add knowledge to a growing body of research. Given that the mixed method contains traditional aspects of both the qualitative and quantitative methods (Johnson & Onwuegbuzie, 2004) and this research is not suitable for the quantitative method, the mixed method is not suitable for this research.

Discussion of design. As explained by Cooper et al. (2019), there are multiple designs within the qualitative method that can be used to answer research questions, but ultimately the case study design was chosen for this research. The case study design revolves around studying a single phenomenon, group, or event at an in-depth level to understand the underlying foundation of the case study subject (Flyvbjerg, 2006). In a pure qualitative context, this application of case study use will not rely on quantitative data to support the study; and will focus on studying the research in its natural environment to gain a holistic view of the impact. Data will be collected through interviews and publicly available information that will be used to shape questions and validate responses (Meyer, 2001). Since the researcher can be an active participant in this design,

the reduction or elimination of bias is essential when using this design (Pannucci & Wilkins, 2010). Bias can be mitigated in this design through the use of standardization of interviews, clear parameter definitions, and careful research design. Using this qualitative design, this research effectively and accurately answered the research questions.

Aside from the case study design, the phenomenological, grounded theory, narrative, and ethnography designs exist under the qualitative method as well (Al-Busaidi, 2008; Noor, 2008). The phenomenological approach is not appropriate for this research as it investigates and attempts to describe a phenomenon using an interview design to speak with 5 to 25 people (Groenewald, 2004). This study sought to analyze the subject phenomenon in more detail than simply describing it through interviews. The grounded theory approach analyzes the underlying reasoning behind the phenomenon, but this research is seeking to identify the contractor's perspectives and not the reason why they have those perspectives (Al-Busaidi, 2008). The narrative design seeks to tell a story, while the ethnography design involves having the researcher immerse themselves in the environment being studied (Reeves, Kuper, & Hodges, 2008). The ethnographical approach entails the researcher immersing themselves in the environment being studied, essentially becoming a participant in the environment being studied. While some interviews were used for this research, it was not the sole focus of the research, thus a narrative design was not appropriate. Likewise, the ethnographical approach is mostly used in social sciences, thus was not suitable for this research.

Summary of the nature of the study. Although multiple methods and designs were available to conduct research, the nature of this study was determined by evaluating the data that would be gathered from the research questions and how that data could be presented. Given the focus of the research revolves around the perception that traditional DoD contractors have

concerning OTs and consortia, the qualitative method was used to answer the research (Antwi & Hamza, 2015; Pope et al., 2000). Within the qualitative method, the case study design was chosen due to the in-depth interest in the subject of the research in its natural environment (Flyvbjerg, 2006; Meyer, 2001; Pannucci & Wilkins, 2010). Based on the evidence presented in this section, a qualitative case study is the best method and design combination to conduct this research.

Research Questions

While once used on rare occasions and under extreme circumstances, OTs are now being utilized more frequently by the DoD for acquisitions. This new acquisition process has contributed to a smaller number of traditional contractors being able to navigate both the traditional and OT acquisition processes, thus leaving the government with fewer potential suppliers (Bloch & McEwen, 2001). This research sought to improve the government's supply chain by answering the following questions related to traditional contractors' perception of OTs and the government's method of deploying them:

1. How well do traditional DoD contractors understand the similarities and differences in OT and traditional DoD acquisition processes?
2. What common issues are traditional DoD contractors facing during the proliferation of DoD OT acquisitions using consortia?
3. What are the critical success factors (CSF) that traditional DoD contractors must accomplish to be successful in OT acquisitions?

Conceptual Framework

The conceptual framework is an important aspect of qualitative research as it is a focal point of all the gathered and analyzed research from the literature review and is used to propose

new associations and views concerning the research topic (Bloomberg, 2012). The scope of the concepts discussed in the conceptual framework is meant to encompass the research on multiple levels and in ways that could not be accomplished without the synthesis of the literature. Given the purpose and fluidity of the conceptual framework, this research's conceptual framework concepts were based on the research questions seeking to be answered within this research. This section will discuss the three concepts used to develop this research's conceptual framework, their relationship to the research questions, the relationship between each other, and a conclusion that provides a summary of the conceptual framework as a whole.

DoD contracting similarities and differences. The first concept within the conceptual framework is directly related to the first research question of this research – the similarities and differences in OTs and traditional DoD acquisitions. This concept encompasses not only the regulatory and legal similarities and differences, but also the practical applications and literature-defined advantages and disadvantages of each acquisition process. The inclusion of this concept into the conceptual framework is essential to conducting this research as it provides the groundwork for identifying the gaps, if any exist, in the perception of the contractor versus the literature-defined realities of the different acquisition processes. As shown in Figure 1, establishing this concept provides a foundation for understanding the different acquisition processes and allows a framework to be developed to evaluate an acquisition process. Given that there is a large amount of research that is involved in this concept, the basis for gauging the responses to this research question can be put into context as answers can be compared to existing literature.

The formulation of the concept relies on understanding the predetermined similarities and differences in OT and traditional acquisition processes. Prior research provides a strong case in

identifying these regulatory similarities and differences within the acquisition processes. While both set of agreements still must abide by certain core regulatory protections, the traditional acquisition process is more regulated and standardized through the use of the FAR, DFARS, and other supplemental regulations while the OT acquisition process is largely exempt from these burdens (Halchin, 2011; Lopes, 2018; Stevens, 2016). These regulatory differences are combined with a government culture that prefers using the traditional acquisition process (Dunn, 2017; Fike, 2009). Finally, research shows that the government does have an interest in increasing OT acquisitions given that they provide more administrative flexibility, reduce cost, and persuade new talent to participate in government acquisitions, which help the government meet their defined goals within FAR (Dunn, 2017; Halchin, 2011; Lopes, 2018).

Problems in DoD contracting. The second concept within the conceptual framework is directly related to the second research question of this research – common issues that contractors face in OT acquisitions. This concept is developed on the basis of the identified problems that the government has already been made of in the utilization of OT acquisitions. Additionally, this concept is important for identifying or overlapping problems within the OT acquisition process from both the government and contractor perspective. Common problems shared amongst both the government and contractors could show a complete failure in the process or the need for a unified solution, while one-sided problems could be addressed with a targeted solution.

Much like the first concept, there is a lot of research to support multiple issues within the OT acquisition process, but most of the issues identified are at the government level. This lack of utilization of OTs by government officials is explained, in part, by lack of defined processes and templates within the OT acquisition method (Cassidy, Plitsch, & Barclay, 2012; Dunn, 2009; Lopes, 2018). This is coupled with a lack knowledge by government officials on the proper

application of OT acquisitions, which is further paired with a lack of training programs on the OT acquisition process (Fike, 2009; Stevens, 2016). In addition to the government not understanding how or when to utilize OTs, when they are utilized, there is often a sense of mistrust or miscommunication among the government and the contractor (Dunn, 2017; Lopes, 2018; Stevens, 2016). Ultimately, this culmination of factors creates an inefficient environment for the OT acquisition process to exist in.

Critical success factors in DoD contracting. The third concept of this conceptual framework is related to the critical success factors (CSFs) that are needed to be successful using the OT acquisition process within government DoD contracting. This concept views government acquisition as a single process and is built upon the CSFs that have been identified in prior government acquisition methods. While these CSFs may not be the same ones needed to be successful in the OT acquisition process, this concept could show CSFs that have been successful across a broad scope of acquisition processes and could be applied to the OT acquisition process. This concept could also be used to identify new CSFs that are present within this research.

Unlike the other two concepts that have a limited perspective, CSFs have been well documented across multiple acquisition processes and applies to both the government and contractor. Research supports that government and contractor internal processes for handling acquisitions play an integral part in acquisition success (Brubaker, Dean, & Posey, 2018; Hunter, Sanders, Ellman, & Riley, 2015; Rodriguez-Segura, Ortiz-Marcos, Romero, & Tafur-Segura, 2016). Some of these internal processes, such as sourcing contractors, are bolstered through a contractor rating system (CPARS) which uses contractor past performance to analyze future success probabilities (Brubaker et al., 2018; Dixon, Apte, & Rendon, 2015). Once awarded, the

project management method(s) employed by the government and contractor contributes to the overall success of the acquisition in terms of completion, costs, and customer satisfaction (Chang & Modigliani, 2015; Hunter et al., 2015; Rodriguez-Segura et al., 2016). Finally, factors such as levels of corporate and individual knowledge, training, and preparation coupled with strong communication and a performance conducive environment have been shown to create a successful acquisition environment (Chang & Modigliani, 2015; Hunter et al., 2015; Rodriguez-Segura et al., 2016).

Relationships between concepts. While each of the concepts can operate independently to answer each research question, they can also operate in relation to answer the research questions from a more comprehensive lens. Concepts 1 and 2 of this conceptual framework work in unison to provide a clear pathway showing the ways that certain similarities and differences can lead to common issues within each acquisition process. While researchers such as Stevens (2016) and Lopes (2018) make some direct connections, other research has provided foundational information that could use additional research to make direct connections. Using this information, the contractor's perspective can be analyzed to determine which similarities and differences they know of and can be used to validate or predict the issues they are having using the OT acquisition process.

Concepts 1 and 2 have of this conceptual framework have no direct overlapping research to make direct connections with Concept 3, but can work in unison to answer the research questions. The similarities and differences within the acquisition processes are seemingly related to the CSFs needed to address the common issues within broader acquisition processes. Using this information, suggested CSFs that have worked in prior acquisition processes could be

applied to the OT acquisition process if the common issues are similar to past acquisition processes and the similarities and differences between the acquisition processes are understood.

The three concepts for this conceptual framework can be visualized below in Figure 1. As shown in Figure 1, without Concept 1 there is no baseline for evaluating Concept 2 and 3. Concept 1 simply provides the foundational research to gain an understanding of the attributes that separate the different acquisition methods. Concept 2 can only be truly realized and put into context after establishing Concept 1 as it attempts to separate the acquisition processes by common issues. Simultaneously, Concept 2 establishes a stronger framework for linking issues with individual attributes of the acquisition processes when paired with Concept 1. Concept 3, provides the CSFs needed to address systematic failures based on acquisition problems, but has yet to be applied to the framework established the combination of Concepts 1 and 2. This means that Concept 3 provides a foundation for addressing the issues with the acquisition processes and their attributes, but has not been used extensively in this environment. Without any piece of this conceptual framework, the research questions could not be answered in the context and scope to fulfill this research's goal.

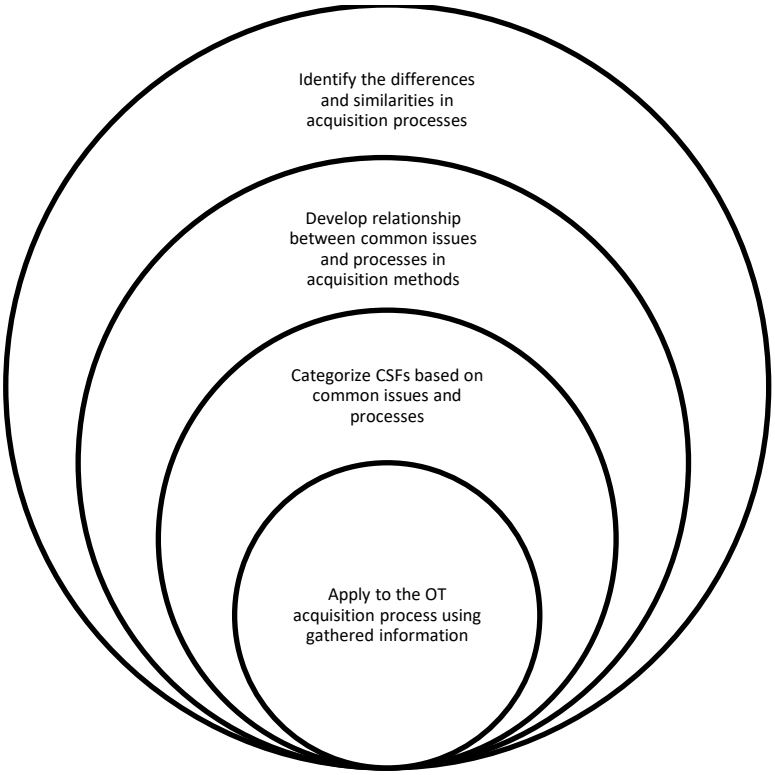

Figure 1. Relationships between concepts.

Summary of the conceptual framework. This conceptual framework is derived from three concepts that are directly related to the research questions. Prior research provides a strong foundation for analyzing each question but does not provide a direct answer for the research question. Using these foundations, the data can be applied against the concept to fill the gaps in the research and help validate or refute prior research. While individually these concepts are scoped to help analyze the data gathered for each individual research question, the concepts also work in unison and across research questions to place research data in a larger view. This conceptual framework brings research together in ways not previously done and analyzes the research problem from a different perspective. Overall, this conceptual framework provides a strong basis for completing this research.

Definition of Terms

The following terms were defined relative to their use in this research:

Acquisition: The acquiring by contract with appropriated funds of supplies or services (including construction) by and for the use of the Federal Government through purchase or lease, whether the supplies or services are already in existence or must be created, developed, demonstrated, and evaluated. Acquisition begins at the point when agency needs are established and includes the description of requirements to satisfy agency needs, solicitation and selection of sources, award of contracts, contract financing, contract performance, contract administration, and those technical and management functions directly related to the process of fulfilling agency needs by contract (Federal Acquisition Regulation, 48 CFR § 201.101, 2019).

Contractor: means any individual or other legal entity that (1) Directly or indirectly (e.g., through an affiliate), submits offers for or is awarded, or reasonably may be expected to submit offers for or be awarded, a Government contract, including a contract for carriage under Government or commercial bills of lading, or a subcontract under a Government contract; or (2) Conducts business, or reasonably may be expected to conduct business, with the Government as an agent or representative of another contractor (Federal Acquisition Regulation, 48 CFR § 9.403, 2019)

Defense Federal Acquisition Regulation Supplement (DFARS): A FAR supplemental that exists to manage the investments of the United States in technologies, programs, and product support necessary to achieve the national security strategy prescribed by the President pursuant to section 108 of the National Security Act of 1947 (50 U.S.C. 3043) and to support the United States Armed Forces (Improve Acquisition Act of 2010, 10 U.S.C. 2545, 2010; Federal Acquisition Regulation, 48 CFR § 201.101, 2019).

Department of Defense (DoD): the Department of Defense, the Department of the Army, the Department of the Navy, and the Department of the Air Force that has OT award

authorization (Research projects: transactions other than contracts and grants, 10 U.S.C. § 2371b, 2019; Federal Register, 56 FR 36284, 1991).

Federal Acquisition Regulation (FAR): The FAR provides a uniformed approach to procurement and acquisition of goods and services for all executive agencies within the United States Government (Defense Acquisition Improvement Act of 1986, 10 U.S.C. § 2302, 2010).

Other Transaction Agreement (OT): Any transaction that is authorized by 10 U.S.C. 2371 and has been executed between an authorized DoD agency and a contractor. OTs fall outside the scope of the traditional acquisition process and are not a grant, cooperative agreement, or contract (Research projects: transactions other than contracts and grants, 10 U.S.C. § 2371b, 2019; Other Transactions Guide, 2018).

Assumptions, Limitations, Delimitations

To holistically explore the subject of this research, this research had to rely on a series of assumptions, while acknowledging the limitations and delimitations that existed within the scope of this research. When facts did not exist to justify statements or inferences, assumptions were made using a combination of literature, professional experience, and general knowledge (Kickert & Van der Meer, 2011). To increase the trustworthiness of this research, limitations were identified to show any weaknesses within the research (Bloomberg, 2012). Finally, delimitations are identified so that the findings of this research are placed into the proper scope and context based on the conditions in which the research was performed. This section will describe the assumptions made throughout the research and describe all known limitations and delimitations.

Assumptions. Assumptions are needed to join bodies of knowledge, ideas, and research together and must be used as the foundation for analyzing information (Armstrong & Kepler, 2018). They are made using facts considered to be true that have been learned through

experience and research and are used to evaluate an event or phenomenon through a specific lens (Kickert & Van der Meer, 2011; Lopes, 2018). Without them, explanations and findings may be taken out of context based on different viewpoints, which could lead to the quality of the research to suffer (Hagger & Chatzisarantis, 2009). For this reason, researchers must ensure that their readers have a clear understanding of the assumptions that preface any research and the findings of that research. The section will describe the assumptions made throughout this research.

First, it is assumed that the OT that was used in this study was awarded, negotiated, and administered in accordance with the DoD policy regarding OT utilization. This assumption is based on the codification of section 815 in the FY16 NDAA in 10 U.S.C. § 2371b and the release of the DoD "Other Transaction Guide" (2018) that outlines the appropriate application of OTs. Deviation from this guidance could cause OTs within the DoD to be executed outside their designed method, which could ultimately skew the perception of the contractor. This risk carried in this assumption was mitigated by reviewing publically available information concerning the OT to determine whether there were any reports that would show deviance in policy throughout the execution of this OT.

Second, it is assumed the consortium administrating the used standard terms and conditions and structured their prime contract in a manner that reflects their normal business operations. This assumption is based on the use of a master agreement that the consortium uses to issue subcontracts under the OT. Given the numerous terms and conditions associated with the execution and administration of an OT, each term and condition could potentially change an organization's perception of an OT. If the consortium uses different terms and conditions for each new OT subcontract, this could significantly change the perceptions of different contractors

working under the same OT. This risk was mitigated by the use of a master agreement that allows for subcontracts to be issued with minor alterations to the master agreement.

Finally, it is assumed that the answers provided by the interviewees were honest, accurate, and reflect the organization's perspective on OTs. This assumption was based on the previously working with the interviewees and insight into their general consensus of the OT acquisition process. If the interviewees were not honest and accurate or reflect the views of the organization, this research would provide false data to the academic and practical community. This risk was mitigated by asking the interviewees to be honest and accurate with their answers.

These three assumptions are based on the outlined policies and procedures that should be followed, but in reality, there is no viable way to ensure that they were followed as designed within the scope of this research. Although unproven, these assumptions will greatly impact the environmental conditions under which this research is performed, and results are interpreted. Similar research performed under a different set of assumptions would yield a different process and interpretation for this research and its results. Additionally, as this research progresses the need for additional assumptions may be needed to account for unknown variables. If this happened, this section wouldl be updated as needed.

Limitations. Limitations are constraints that are placed on research to control the generalization, application, or characterization of that research's results (Labaree, 2009). As described by Baron (2008), limitations are factors that impact the manner in which the research results are interpreted. Outside of the control of the researcher, limitations are used to put the findings of research into the appropriate context of study as a whole. Limitations can include, but are not limited to, sample size, lack of prior data or research, data assessment techniques, and the researcher's own bias (Baron, 2008). Without them, research findings could be applied to

generalized situations, events, or environments; resulting in the misuse or application of the results. Finally, while all research contains some degree of limitations, only those limitations that are related to the research problem should be identified (Baron, 2008; Labaree, 2009). This research has three identified limitations that will be discussed in this section – sample size, lack of prior research, and researcher bias.

The first limitation found in this research was the sample size of the research. The narrow scope of this research only allowed for data to be gathered from traditional DoD contractors to establish their perception of OTs. While there was not an accurate count on the number of traditional DoD contractors that work under OTs, there are numerous traditional DoD contractors that are known to have worked on OTs (Clark & Moutray, 2004). Anyone of these contractors could have been chosen to be studied in lieu of, or in conjunction with, the chosen traditional DoD contractor. The purpose of this research was to establish an initial set of perceptions and the results of this study should not be applied in a generalized manner to all traditional DoD contractors.

The second limitation found within this research was the lack of prior research concerning contractor perceptions towards OTs in the DoD or similar environments. Given that there are multiple other federal agencies that have OT authorization (Neumann, 2016), having prior research related to a contractor's perception could bolster the validity and reliability of this research's findings. During an exhaustive literature review, no such literature was discovered. As shown by Labaree (2009), a lack of prior research can cause the scope of the research to be limited or cause the research to have a weak foundation. To mitigate this limitation, multiple concepts, theories, and foundations from prior research were used to construct the foundation of this research through a series of assumptions and inferences.

The third limitation found within this research was researcher bias. The researcher was immersed within DoD contracting environment, had four years of experience in OT administration, had worked for both the government and traditional DoD contractors during OT management, and formerly worked for the traditional DoD contractor that was used for this case study. Any one of these factors, or combination of these factors, could impact this research at any phase of the research; ranging from planning to publication (Pannucci & Wilkins, 2010). When research has too much bias or bias targeted in a critical area of the research, the reliability of the research can be called into question. Although this bias cannot completely be eliminated from any research, the impact of the bias on the research can be mitigated by having the researcher be aware of bias, making judgments objectively, and having outside sources review each process of the research for the existence of bias; all of which were used in this research (Kaptchuk, 2003).

The identification and acknowledging of limitations were paramount to ensuring that this research was performed in a manner that allowed it to be reliable, valid, and trustworthy. The sample size, lack of prior research, and researcher bias were the three main limitations of this research. As previously stated, more limitations exist to this research but were not mentioned because they did not impact the ability to thoroughly answer the research questions presented within this research. As this research progressed, it was possible that additional limitations may be discovered and added to this section.

Delimitations. Delimitations are borders that are applied to the research to create a framework so that meaningful results can be derived from a constructive research environment (Bloomberg, 2012). Unlike limitations, researchers have some degree of control over delimitations (Baron, 2008). While researchers can, in part, control delimitations, the number,

and scope of delimitations can be countless, making accounting for all them in a single research study impossible. Delimitations include boundaries such as time, geographic location, and other aspects to narrow the research to an attainable focus. This section will describe the four delimitations that were set for this research.

The first delimitation of this study was that the interview data gathered for this study was from five participants working as traditional DoD contractors. While publicly available information and research were gathered concerning the DoD and their contractors, only five DoD contractor was interviewed for this case study. These DoD contractors do business with relatively few DoD buying authorities. There are countless other DoD contractors that are working through consortia or directly with OTs that were not considered for this research. The purpose of this delimitation was to gather in-depth information on OTs from a traditional contractor's perspective, which this approach accomplishes within the set boundaries.

A second delimitation of this study is that this study only examined the OT process for the DoD as authorized under 10 U.S.C. § 2371b. Including the DoD, 11 federal agencies have OT authorization. As shown by Neumann (2016), each agency has a specified delegated authority to use OTs in various capacities. The majority of the agencies have developed their own guidance dictating the use of OTs and seven of the agencies have designed custom contracts when using an OT. This data, at the very least, shows that there could be large deviance from the findings of this research if it were to be reexamined using an agency different from the DoD. With this information, the scope and purpose of this research were limited only to the perceptions of DoD contractors working under DoD issued OTs.

The third delimitation of this study was the consortia that are administering the OT to the DoD contractors. Each consortium develops a custom subcontract to provide the DoD contractor

that outlines the terms and conditions that the DoD contractor must adhere to throughout the performance of the OT. Given that a consortium is a private organization and cannot have its subcontracts dictate by the government, each consortium could have its own contract with different terms and conditions. For this reason, only the consortia that administrated this OT could be assessed as impacting the DoD contractor's perception of the OT acquisition process.

The fourth delimitation of this study was the timeframe in which this OT was developed and issued. Although OTs have been around in some capacity since the 1960s, this OT was developed and executed within the past three years. Over that time, more federal agencies have received various changes to the scope and authority they have been allowed for exercising OTs. In fact, it was not until 2016 when section 815 of the NDAA permanently codified OTs in 10 U.S.C. § 2371b (Other Transactions Guide, 2018). Given that guidance and policies have and continue to change to account for these changes, this research was limited to assessing contractor perceptions for OTs issued after the implementation of the FY 2016 NDAA section 815 update.

While these are the major delimitations found within this research, the existence of other delimitations such as individual base, program, and personnel all play a role in developing the contractor's perception of the OT acquisition process. It would be burdensome and unconstructive to the research to attempt to account for the delimitations at this level. For this reason, most of these delimitations were addressed in the assumptions section of this research to remove levels of details that should be dictated by higher-level delimitations and fall outside the scope of this research.

Significance of the Study

This research originated from a genuine interest in ensuring that the DoD supply chain operates as designed while utilizing the OT acquisition process. A part of that process is ensuring

that the DoD contractors are aware of the policies and practices that are used during the OT acquisition process. This research is significant because it seeks to close the knowledge gaps that exist between the information the DoD is using to create and execute the policies and practices regarding OT acquisitions and the information that DoD contractors understand concerning current OT acquisitions. Additionally, this research sought to collect and analyze data through a biblical lens so that the process used to conduct this research and the findings of this research were valuable from a secular and Biblical worldview. Finally, this research seeks to contribute to the overall supply chain and logistics field of studies. This section will describe the ways in which these three criteria are met within this research.

Reduction of gaps. The primary reason for performing this research was due to the gaps in research that did not allow for the research questions to be properly answered. According to Bloomberg (2012), these gaps can only be identified by performing a search of the current and relevant literature in an attempt to answer the questions. In addition to searching relevant literature, special care was taken to ensure that distinctive aspects of this qualitative research were not overlooked and answered under different research topics (Tummers & Karsten, 2011). This process was performed and all relevant literature was carefully read and considered to help shape the questions posed in this research. Only when this process was completed could the gaps in the research be clearly identified.

The first gap in knowledge that was discovered was the lack of research concerning the contractor's perspective on their preparedness for the OT acquisition process. As shown by Manley (2018), the traditional suppliers of the DoD, along with the DoD itself, were largely unprepared for the OT acquisition process. The unpreparedness has led to OTs not being used to their maximum value; thus, an inefficiency exists in their supply chain and logistical networks.

This research seeks to uncover the areas that traditional contractors felt the most unprepared for concerning the OT acquisition process by detailing their base knowledge of the OT acquisition process. This will open the door for applying current DoD guidance, training, and other resources to ensure that the DoD and their contractors are operating with the same base knowledge during the OT acquisition process.

The second gap in knowledge that was discovered was the lack of research concerning the use of consortia during the OT acquisition process from the contractor's perspective. Consortia have existed for over a century and span across multiple markets, such as academia, research and development, commercial, and government (Peterson, 2002). While organizations that normally work within consortia are familiarized with their structure and culture, traditional DoD contractors were not part of that group until the proliferation of OT acquisitions. According to Fried (1989), this caused traditional DoD contractors to struggle in merging their structure and culture with that of a consortium. Although Fried (1989) identified this gap, no research has been conducted to understand why these issues exist. This research seeks to understand, from the contractor's perspective, why these issues exist and use the success of prior consortia to develop a framework that traditional DoD contractors can use to successfully integrate into a consortium.

The third and final gap in knowledge that was discovered was the lack of defined CSFs that traditional DoD contractors should achieve to be successful in both the OT and traditional acquisition process. While some CSFs, such as communication, internal processes, and management styles have been identified as essential for traditional contracting, there is not enough evidence to state that these CSFs would be applicable to the OT acquisition process (Brubaker et al., 2018; Hunter et al., 2015). These CSFs can only be evaluated by gathering information on the knowledge base and issues that traditional DoD contractors are having during

the OT acquisition process. By filling the first two knowledge gaps, this research attempted to also begin filling this knowledge gap by applying traditional CSFs to shared issues or recommending new CSFs to address unique problems generated by a specific acquisition process.

Overall, this research seeks to fill three separate, but interlocked gaps in the DoD OT acquisition process by analyzing the process through the contractor's perspective. Given the scope and size of this research, none of the gaps mentioned in this section were completely filled at the outcome of this research. While this was an expected outcome from the start of this research, this research hoped to provide enough new information to the academic and practical communities to better define and develop the focus of future research and policy creation concerning the DoD OT acquisition process.

Implications for Biblical worldview integration. While the main focus of this research was focused on the direct impact of improving the DoD supply chain, this study also sought to collect and analyze the data using a Biblical worldview. While there is no agreed upon standard for what a Biblical worldview is, this study views a Biblical worldview as the manner in which a Biblical lens is used to analyze data in addition to a scientific lens. This not only adds a layer of depth to the study, but also ensures that the study serves the overall greater good of serving God's Kingdom. This will also allow this study to contribute to the secular body of knowledge in greater depth by offering a Biblical perspective in addition to the filling gaps in knowledge within the field.

From a Biblical perspective, this research has the same overtone has the Bible as it transitions from the Old Testament to the New Testament. As shown in Jeremiah 31:31-34, God saw the need for a new covenant far before implementing one because the written law was being

used inefficiently and often incorrectly. By introducing the new covenant in the New Testament, God allowed His people to live more freely but kept the core of His written law intact. In the same manner, traditional contracting is a burdensome way for the government and contractors to do business that is often contorted to make ends meet. OTs were introduced to remove the burdens, while still allowing for the core spirit of government contracting to continue as designed.

The introduction of the new covenant, like the introduction of OTs, was not without some form of confusion during the rollout process. As seen in Acts 10:9-16, Peter, one of the greatest followers of Jesus, had to be corrected by God after calling certain meat unclean and it was not under the new covenant. Unlike the biblical implications, in which the only man was confused, the OT rollout process has shown signs of confusion from both the implementing party (government) and the receiving party (contractors). While the government and current research have focused on improving the rollout process from the government's perspective, this research sought to find out the ways in which the contractors were being confused. This allowed corrective guidance to be provided in the same way that it was provided to Peter after the introduction of the new covenant.

Since there are many similarities between the Biblical and acquisition transitions from an old system to a new one, Biblical guidance could also be applied to assisting acquisition transition from traditional to an OT environment. Romans 15:4 states that everything that was written in the past was done so to teach; while 2 Timothy 3:16 states that everything that is written has value and should be studied. In the same way, part of this research considers how much time and effort contractors have taken to read the available literature concerning the OT acquisition method. In the same way that Christians must study the Bible to become strong in

Christ, this research acknowledges to some degree that contractors must study current guidance to become strong in contracting.

Overall, there is a direct overlap between the Biblical transition and OT acquisition process transition. This overlap provides a strong foundation for applying Biblical guidance to assessing the OT acquisition transition. When examined through a Biblical lens, common problems can be viewed from a new light and solutions to those problems can be found. Likewise, the use of guidance is paramount to success in both cases and should be evaluated throughout the research. Based on Biblical principles, when guidance is used correctly it significantly reduces confusion and creates an environment for learning, growth, and an easier transition.

Relationship to the field of study. This research is applicable to the fields of supply chain management, logistics, and acquisition from both a general application of information and specifically to government acquisitions. From a general application, this research synthesizes existing literature with newly collected data to improve the relationship between the customer and seller. According to Larson, Carr, and Dhariwal (2005), this action is paramount to creating a system that fosters an effective continuous improvement (CI) environment. The establishment of a CI environment can lead to a series of short and long-term benefits for all parties involved, including higher customer satisfaction, lower costs, and higher profits (Salah, Rahim, & Carretero, 2011). This would benefit every link in the supply chain, in turn, be a benefit to the entire supply chain field.

From a logistical and acquisition aspect, this research relied on understanding the ways that large, complex supply chains can adapt and overcome drastic changes to their acquisition process. Given that small changes can have a significant impact on a large supply chain, major

changes, such as an acquisition process, can disrupt and ripple through the logistical and acquisition mechanisms of a large supply chain (Lewis & Suchan, 2003). By studying the impact of the introduction of new acquisition method on the suppliers, this research sought to understand the ways in which the mistakes in this situation could be avoided in future implementations. Overall, this research could be used in conjunction with other research to ensure that logistical and acquisition networks remain running as planned during a major transition.

From a government perspective, the DoD has one of the largest supply chains in the United States, but it has been plagued with a multitude of acquisition issues (Khajavi, Holmström, & Partanen, 2018). The DoD is a highly complex, bureaucratic system that has a highly sophisticated, but regulated supply chain that spans across geographical, technological, and industrial realms (Lewis, 2005). As within any supply chain, changes to the DoD system are designed to benefit the government. While OTs appear to assist the DoD in meeting their acquisition goals by removing many constraints in traditional acquisitions (Dunn, 1996), any acquisition tool is only as good as the mutual understanding between the parties on how to utilize the tool (Salah et al., 2011). This focal point of this research sought to provide a more holistic view of the manner in which OTs are impacting the suppliers of the DoD. This research can then be used to assist in improving the DoD supply chain and acquisition process.

Summary of the significance of the study. This research has many important applications within and outside the scope of the research questions being presented and answered. Within the direct scope of this research, it seeks to fill key gaps within the body of research that currently exists pertaining to the adoption and use of the OT acquisition process by the DoD and play a larger role in contributing to the fields of supply chain management for DoD

acquisitions. Outside the scope of this research, it seeks to contribute to the body of knowledge of the supply chain management and acquisition bodies of knowledge. Additionally, this research sought to integrate Biblical principles into its scope to ensure that it holistically analyzed the research questions and the data collected throughout this research to answer these questions. Overall, this research is significant due to the reduction in knowledge gaps in certain fields of study through secular and Biblical data collection and analysis.

A Review of the Professional and Academic Literature

While once the largest investor in innovative technologies, the DoD has fallen behind the private sector over the last 50 years (Nelson, 1991). Over the years, private industries began investing more of their funds into innovation and reached a point of investing four times as much as the DoD to develop and acquire the latest and most innovative technologies (Lopes, 2018). This accelerated investment by the private sector led to them outpacing the DoD in innovation development, while simultaneously decreasing their dependence on the DoD to provide funding. As such, the DoD attempted to use their traditional acquisition techniques to access the private sector without the leverage of being the main funding source. Unfortunately, these industries were not interested in going through the maze of endless bureaucracy to work with the DoD, leaving the DoD with limited access to the expanding innovation market (Krieger, 2015).

This led to the adoption of a new acquisition method by the DoD – Other Transactions (OTs). However, given their rarity in the private sector, it caught both the DoD and the private sector off guard when OTs suddenly began to proliferate in 2017 after the codification of Section 845 as 10 U.S.C. 2371b in the FY2016 NDAA (Schwartz & Peters, 2019). This literature review was performed to gain a better understanding of why this happened and how the government and their contractors can overcome the surprise proliferation of OTs. This literature review analyzed

general procurement practices to compare the OT acquisition process to the traditional government acquisition process, identify common problems in acquisitions to determine problems related to each process, and examine critical success factors that may be used to overcome the proliferation of OTs in the private sector. Finally, this literature review identified any emerging concepts and themes associated with the OT process, their common problems, and the CSFs needed to overcome those problems.

Acquisition processes. As shown by McCalla, Reid, and Schneider (1982), the acquisition process is just one piece of the larger hierarchy or running a successful entity. The acquisition process focuses on the ability of an entity to acquire goods and services from other entities whether they be public or private. Many theoretical and practical elements are brought to form the acquisition process and these elements are always evolving in research, meaning it would be almost impossible to re-create a specific acquisition process. This also means that understanding any acquisition process relies on the identification and understanding of the supply chain management theories and principles that create the acquisition process.

In developing their acquisition process, the DoD followed the same path as private or public sector entity. The DoD performed research on the theories and practices they believed would be most beneficial to their style of acquisition and then built internal policies and procedures to enshrine those theories and practices into their operations (Capoccia & Kelemen, 2007; Lopes, 2018). To understand their acquisition process, the primary elements of their acquisition process must be deconstructed and analyzed as both individual components and as part of the DoD's acquisition system. Unlike most private acquisition processes which can have countless elements, the DoD has two primary non-technical elements to their acquisition process – the method of procurement and the government regulations that dictate how the procurement is

performed (Harper, 2018). While other minor elements of the DoD acquisition process exist on the technical side, they fall outside the scope of this literature review and will not be discussed. This section of the literature review analyzed both of these elements to deconstruct and understand the DoD acquisition process.

Procurement methods. The procurement process is major pillar in the establishment of an acquisition process within any entity. While the acquisition process is complex in nature, the procurement process is simply the methods used to actually acquire the goods or services (Fang, Liu, Pardalos, & Pei, 2016). This process began when the good or service had been identified and ended when the good or services were received by the entity. Given the major role the procurement process plays in defining the over-arching acquisition process, entities spend a significant amount of time tailoring this process to their acquisition goals.

In general, there are six major types of procurement methods that can be implemented by an entity during the procurement phase of the acquisition process (Sponaugle, 2014; Thai, 2017). These six procurement methods fall under three broad categories – competitive, semi-competitive, and sole source (Aydinliyim & Murthy, 2016; Breeding, 2015; He, Huang, & Yuan, 2016). To determine which category and procurement type to use, entities must analyze the size, complexity, and environment of the goods or services being sought. This section of the literature review will discuss the three broad categories of procurement methods, explore each of six procurement methods within the context of their respective category, and define the conditions in which each procurement category and type should be used.

Competitive. The competitive procurement category and method is defined as a one that is open to all qualified suppliers (Sponaugle, 2014). In this procurement method, the entity seeking to acquire goods or services releases a general solicitation that specifies the requirements

that the goods or services must meet. To be considered for contract award, suppliers must be able to provide goods and services at a standard that meets these requirements. Any supplier that can meet these requirements receive equal consideration in their proposal submission. As shown by Aydinliyim and Murthy (2016), this category and method of procurement encourages maximum competition during the procurement phase due to this openness to competition.

While this procurement method allows for an endless number of qualified bids to be compared side-by-side, this procurement method faces two major limitations. First, the solicitation placed by the buyer must be defined with clear and defined technical specifications (Sponaugle, 2014). This limitation exists because the potential sellers must all be provide bids based on the same expectations of the potential buyer. Loosely defined requirements could leave the bid open to the seller's interpretation, which could lead to them providing bids on something other than the buyer's intent (He et al., 2016). Second, the bid must be able to be objectively evaluated by the buyer using defined criteria (Sponaugle, 2014). This will ensure that bids are not subject to subjectivity by the buyer's evaluator, which could result in a different set of standards being applied to each bid evaluation. The interjection of subjectivity to this bidding process would eliminate the purpose of competitive bidding, thus should be avoided in its entirety when using this process (Aydinliyim & Murthy, 2016; He et al., 2016).

While competitive bidding could be suitable for both private and public sectors, research indicates that it is most predominate in the public sector (Lalive, Schmutzler, & Zulehner, 2017). Given that competitive procurements provide the lowest cost through competition, public procurements use this method to maintain public trust by showing due diligence with public funds (Lalive et al., 2017; Maser, Subbotin, & Thompson, 2010). In fact, the federal government goes as far to encourage competitive procurements in the Federal Acquisition Regulation (2019)

as much as practically possible and only allows for other procurement methods to be used when competitive procurements are not suitable. While private sector entities also worry about maintaining public trust, the use of their financial resources to acquire goods and services are not metric for determining their trust worthiness to the public. For this reason, the private sector would be more geared to using either a semi-competitive or sole source procurement method.

Semi - competitive. The semi-competitive procurement category and is defined as a one that is open to a select group of qualified suppliers (Moran & Odeh, 2016). In this procurement category, the entity seeking to acquire goods or services releases a solicitation to select group of sellers or writes the solicitation in a way that prohibits some sellers from participating although they could deliver the technical requirements of the solicitation. Entities could use this category over the competitive category if they are have constraints on the number of proposals they can evaluate, have already sourced suppliers, or they are seeking to analyze the proposals from a subjective lenses (Aydinliyim & Murthy, 2016; Sponaugle, 2014). While this method still promotes a level of competition among sellers, the limitations provided in this category confines the competition to boundaries not seen in the competitive category.

Within this category of procurement there are four main types of methods that entities can use – restrictive tendering, request for proposals (RFP), request for quotations (RFQ), and two-stage bidding (Sponaugle, 2014). Restrictive tendering is essentially competitive bidding from a pre-selected group of suppliers. To make this method cost and time effective, entities should have already completed background research and vetting of the suppliers in the pre-selection group. This method is most popular with the private sector as it saves time and money for the companies involved and does not require additional sourcing for routine or specialized goods or services (He et al., 2016). RFPs are simply announcements that solicit proposals under

specified contract terms and price while outlining the format that the proposal must be submitted under (Moran & Odeh, 2016). This allows entities to tailor proposals to certain sectors, business sizes, or any other factor deemed important by the buyer. Given the flexibility in the way RFPs can be presented, they are used frequently within all public and private sectors for procurement (Sponaugle, 2014). Similar to RFPs, RFQs simply solicit the cost of the required goods or services without the proposal. This allows entities to quickly identify and select which goods or services they want without technical specifications and is best suited for low cost or commercial acquisitions in the private and public sectors (Moran & Odeh, 2016). Two-stage bidding is a process which mixes the competitive category and other semi-competitive methods to create a process in which two bids are made on the same procurement. Used primarily in construction procurements, two-stage bidding first solicits a bid through competitive, restricted competitive, or RFPs (Topcu, 2004). Once bids are evaluated by the buyer, a select group from the initial round of bidding hold further discussions with the buyer before submitting a final bid. This allows the buyer to customize the requirements based on the original submission and objectively and subjectively analyze the final bid.

Sole source. The sole source procurement category and method is defined as a procurement method in which there is no competition and a single supplier is selected (Breeding, 2015). In this procurement method, the entity seeking to acquire goods or services has identified the supplier they wish to work with through internal methods and have determined there is no need for a competitive or semi-competitive procurement. As shown by Ramos, De Jonghe, Gómez, and Belmans (2016), sole source procurements can be the most cost effective method of the procurement given that no sourcing is required by the acquisition team. However, the cost savings associated with this procurement category comes with the heavy risk of relying on a

single supplier. To mitigate this risk, entities should have establish and maintain a strong relationship with the seller or have a critical need for their goods and services before using this procurement method.

Both public and private sectors utilize sole sources acquisitions, but they do so with different intentions and tools. Within public procurement, sole procurement are highly regulated. According to the Federal Acquisition Regulation (2019), sole source procurements in the federal government should only be used under certain conditions. The use of sole source procurements are limited to micro-purchases, critical need of the government, and only one provider of the goods are services. As shown by Breeding (2015), the primary reason behind these limitations is due to the inherent risk related to using this method, along with the lack of competition associated with the method. In private procurement, sole source acquisitions could be used to acquire any goods or services that the individual entity determined that there was no need for bidding for, but there are no general rules that govern all private sector business like in the public sector (Pheng, 2018). Given that private sector entities are driven solely by profit, these entities would use sole source procurements whenever they believed the cost and risk of the sole source procurement outweighed the cost and risk of other procurement methods (Nicolaides & Schoenmaekers, 2015). This could range from a specified dollar value or type of goods or services, such commercial goods and service. Given that the private sector is more concerned with cost savings and the public sector is concerned with balancing competition, transparency, and cost; the private sector is overall less constrained in using this procurement method.

Government acquisitions. The federal government has two ways to acquire goods and services – the traditional FAR-based approach or the use of OTs (Federal Acquisition Regulation, 2019; Lopes, 2018; “Other Transaction Guide,” 2018). To best understand why the

government and contractors were surprised by the proliferation of OTs, it is imperative to understand the similarities and differences between them and the traditional acquisition process. As shown by Fike (2009) and Krieger (2015), the differences in the traditional and OT acquisition processes goes beyond simple regulatory definitions of the two acquisition processes. To truly understand the deeper concepts related to the two DoD acquisition processes, they must first be placed into the scope of the overall acquisition environment by identifying and describing the procurement methods available in the modern environment. Once this is completed, there are multiple specialized technical and practical areas that help differentiate the two acquisition processes. As shown by Lopes (2018), the technical parts of the two acquisition processes are their contractual structure, underlying governing regulation, and terms and conditions will shape the actual agreement that is signed in each process. Practically, the administrative burden, financial aspect, and choice of acquisition tool will shape the ability to form an agreement between the government and their contractors (Lopes, 2018; Stevens, 2016). This section of the literature review will analyze the technical and practical aspect of the traditional and OT acquisition processes to determine their similarities and differences.

Acquisition contractual structures. Regardless of the acquisition process used by the government, the structure of the actual contractual agreement to carry out the acquisition will impact the process as much as agreement contents itself. Five basic principles must be adhered to when developing a contract to ensure that it is legally enforceable (Burton & Drahozal, 1995). The contract must contain a definable offer that has explicit terms and conditions. This offer must then be considered and accepted by both parties mutually by someone who has authority to bind the parties in the agreement. As long as the criteria of this framework are met, the contract

can be structured any way the parties see fit. This section will analyze the paths of traditional government and OT acquisition process take in accomplishing their valid contract structure.

As shown in Figure 2 below, the Federal Acquisition Regulation (2019) establishes a very strict and standardized way that traditional contracts are structured. This structure breaks the contract down into sections that are outlined in the FAR and ensures that the contract is FAR compliant while meeting the contracting principles. This allows the government's acquisition team to easily follow the contract structure with repetition, regardless of the acquisition taking place. Although this structure provides the government with an easy contractual structure to do business with and train to, it also presents barriers to contractors looking to work with the government (Berrios, 2006). Contractors are not able to negotiate or change the way that these contracts are structured when using the FAR-based contracting approach. This means that they must agree to the structure outlined in the FAR or not choose to do business with the government. Organizations that are solely dedicated to working with the government may be able to function using this style of contracting, but this makes up a small percentage of businesses in the private sector (Lopes, 2018; Stevens, 2016). This could overall limit the ability of the government to work easily with the private sector companies not dedicated to contracting with the government, while simultaneously increasing the odds that traditional government contractors will continue their work with only the government.

Uniform Contract Format

Section	Title
Part I - The Schedule	
A	Solicitation/contract form
B	Supplies or services and prices
C	Description/specifications
D	Packaging and marking
E	Inspection and acceptance
F	Deliveries or performance
G	Contract administration data
H	Special contract requirements
Part II - Contract Clauses	
I	Contract clauses
Part III - List of Documents, Exhibits, and Other Attachments	
J	List of documents, exhibits, and other attachments
Part IV - Representations and Instructions	
K	Representations, certifications, and other statements of bidders
L	Instructions, conditions, and notices to bidders
M	Evaluation factors for award

Figure 2. Federal Acquisition Regulation contract structure.

In stark contrast to the traditional government acquisition process, the OT acquisition process is not standardized nor is their strict guidance to developing contracts with contractors. As stated originally in the "Other Transactions Guide for Prototype Projects" (2017), the OT acquisition process was purposely created without these restrictions so that the government and their contractors could create a contract using a more mutual approach. Although this guidance was updated in Other Transaction Guide (2018) to include some guidance on structuring, the guidance purposely remained non-binding and was meant to serve primarily as a suggestive guide for government acquisition teams to use when structuring an OT agreement.

From a government perspective, these guides were needed due to the lack of training or understanding of contractual structuring outside of the traditional FAR-based contracting (Manley, 2018). Without these guides, it was feared that the government acquisition teams would rely on their experience and knowledge of traditional FAR-based contracting to structure OTs,

thus defeating the purpose of using the OT acquisition process. From a contractor perspective, the OT acquisition process allows contractors to act by the normal private sector contractual practices (Lopes, 2018; Manley, 2018). When practiced in this manner, private companies that normally conduct business with other private companies could develop contracts that mirror their normal operations. Private companies that primarily work with the government would most likely favor FAR-based contractual structures. In either situation, companies would be able to operate under the contractual structure they were most comfortable with as long the government agreed to it.

Governing regulation. Given the government's size, scope, and capacity, the government relies on standardization to ensure that operations, such as acquisitions, are carried out in a way that maintains the public's trust (Grimmelikhuijsen & Knies, 2017). To accomplish this standardization, the government has instituted a series of regulations that are meant to establish normal and acceptable behaviors and actions while also placing limitations on the authority and actions of government employees, contractors, and other parties in a government environment (Lemaire, 2017). Any person or party that fails to meet the standard outlined in one of these regulations are subject to the punitive actions outlined within that regulation or related regulation. In some cases, these punitive actions can include the inability to work with the government in current and future environments, which would be devastating to an organization that has a business model built solely around government work (Berrios & McKinney, 2017).

Encompassed within the government's regulatory matrix is the regulation for the government's acquisition processes. As explained by Kaye, Cuda, and Wu (2017), the traditional DoD acquisition process begins with the Federal Acquisition Regulation (FAR). The Federal Acquisition Regulation (2019) states that it is part of the Federal Acquisition Regulation System

and was “established for the codification and publication of uniform policies and procedures for acquisition by all executive agencies”, which includes the DoD (p. 1). While the FAR establishes the foundation for the traditional DoD acquisition process, the DoD has enacted their regulations in addition to the FAR; known as the Defense Federal Acquisition Regulation Supplemental (DFARS). The DFARS does not duplicate or contradict anything within the FAR but rather adds additional layers of regulation to the acquisition process specific to the DoD (Kaye et al., 2017). Finally, within the traditional DoD acquisition process, each agency under the DoD has its regulations that add additional layers of regulation that is specific to that agency. Together, these regulations combine to form the framework for the traditional DoD acquisition process.

While the FAR framework was designed with government acquisition as the main outcome, the framework for the OT acquisition process was not originally designed for DoD use. As stated by Gunasekara (2010), the National Aeronautics and Space Act of 1958 included a provision that created the Other Transaction Authority (OTA). The OTA granted permission to NASA to engage in OTs with the sole purpose of winning the Cold War, specifically the race to space, in mind. This authority was later delegated to the DoD under 10 USC § 2371 and has been continually expanded since its original delegation (Kuyath, 1994; Lopes, 2018). The regulation concerning OTs was developed to be free from regulatory burdens, thus the FAR and other regulations designed specifically for the traditional DoD acquisition process do not apply to OTs (Halchin, 2011).

While traditional government acquisitions and OTs are governed by two completely different sets of base regulations, there is still some common ground between the two acquisition processes in terms of governing regulation. As explained in the “Other Transaction Guide” (2018), many regulations are found in both the traditional government acquisition and OT

acquisition process. Regulations concerning security, appropriations, criminal law, export control, and many others are not tied to a specific acquisition method, thus are not excluded from the scope of either acquisition method (Nunez, 2017). Each one of these regulations is specific to the type of goods or services being provided to the government and the circumstance under which they will be delivered (Lopes, 2018; "Other Transaction Guide," 2018). This means that these regulations could be included in either, both, or neither of these acquisition processes depending on the individual circumstances of that contract.

Common terms and conditions. While the previously discussed regulations may provide a framework for reaching the agreement stage for both processes, each agreement must contain its own set of terms and conditions to make it legally enforceable. In the realm of contracting legalities, terms and conditions govern the rules of an agreement. When using either the traditional DoD acquisition process or OTs, the agreement between the DoD and the desired party must be a mutually agreeable offer in which the DoD and other party have considered and have the proper capacity and authority to legally enter into to be legally enforceable (Burton & Drahozal, 1995). Given that each acquisition process is governed by a different set of contractual structures and regulations, it should be no surprise that these processes differ in the terms and conditions as well.

Under the traditional government acquisition process, the framework for most of the terms and conditions used within the agreement are derived directly from the FAR, DFARS, and agency supplemental regulations (Kaye et al., 2017). When an expected agreement uses a certain contractual structure, meets certain dollar thresholds, or provides certain goods or services under certain conditions, required terms and conditions are automatically populated into the expected agreement. These required terms and conditions are non-negotiable in traditional government

contracting and are enforceable even if they are not included in the agreement through a concept known as the Christian Doctrine (El-Adaway et al., 2018). Aside from the required terms and conditions derived from the FAR, DFARS, and agency supplements, additional terms and conditions may be recommended by either the government or another party about one of these regulations. The non-required terms and conditions are negotiable by either side and are not retroactively enforceable via the Christian Doctrine.

In stark contrast to the voluminous terms and conditions required for traditional DoD acquisitions, OTs do not require any of mandatory or recommended terms and conditions found within the FAR, DFARS, or agency supplements (Dix, Lavallee, & Welch, 2003). Instead, the framework for establishing terms and conditions for OTs is a clean slate that is to be developed through collaboration between the parties (Smith, Drezner, & Lachow, 2002). This provides the government more flexibility to accept or slightly alter the terms and conditions proposed by private industries or develop an industry-friendly agreement, which is drastically different than the government's normal acquisition process.

While the framework for establishing an agreement under each acquisition process are complete opposites, there are many similarities in the formation of agreements under each process. First, the government negotiator for terms and conditions must ensure that any agreement is in the government’s best interest (“Other Transaction Guide,” 2018). Additionally, the terms and conditions derived from regulations outside of the FAR, DFARS, and agency supplements are also normally required in both agreements (“Other Transactions Guide for Prototype Projects,” 2017). These terms and conditions could relate to a variety of aspects, such as security, ITAR, export control, and other areas of DoD and contract law. Finally, while not definitively ruled on, the Uniformed Commercial Code (UCC) does not appear to apply to either

agreement as federal law appears to be outside the reach of the UCC (Application of the Uniform Commercial Code to Federal Government Contracts: Doing Business on Business Terms, 1974).

Administrative burden. In comparing acquisition processes, one important factor that must be considered is the administrative burden that each process places on the parties involved. As stated by Kovacic (1991), the administrative burden associated with DoD contracting relates to the number of resources it takes to interpret and enforce the regulations, terms, and conditions before, during, and after the execution of an agreement between the DoD and the contractor. While any agreement between the parties would result in some level of administrative burden, the difference between reaching an agreement or not depends on the level of benefits gained from a holistic view by undertaking the administrative burden (Morrison, 1993). This is because while both parties have different objectives during the acquisition process, they both have a finite amount of resources and must them in the most advantageous way possible.

The traditional DoD acquisition method is extremely burdensome to both the DoD and their contractors. As explained by Vadiee and Garland (2018), the DoD and the contractor must go through a never-ending gauntlet of regulations and their supplements to ensure that an acquisition is performed in a compliant manner. Any minor mishap during this process could derail the acquisition. The government must also document every aspect of the traditional DoD acquisition process to ensure they are regulation compliant, which depletes the government's budget (Lorell & Graser, 2001). From a contractor's perspective, the administrative burden of the traditional DoD acquisition process is one of the biggest deterrents from doing business with the government (Vadiee & Garland, 2018). Meeting this burden significantly drives up overhead costs for the organization due to the lack of flexibility within the application of administrative requirements. This could lead to the organization becoming uncompetitive outside of the

government realm, which could be devastating if the contractor does not solely rely on government contracts.

Current evidence shows that the OT acquisition process is significantly less burdensome to both the DoD and the contractor when compared to the traditional DoD acquisition process (Halchin, 2011). While OT acquisitions are free from the burden caused by a myriad of FAR, DFARS, and agency supplements, they have their own unique, albeit less capacious, set of administrative burdens. As described by Lopes (2018), the administrative burdens associated with OTs are more related to the time and effort it takes to draft an agreement from a scratch, rather than negotiating one based on a template. While this may significantly reduce the burden of the contractor since they may already have experience in crafting such agreements, it could increase the administrative burden if the government negotiators have a predisposition to use the FAR, DFARS, and agency supplements as a starting point for crafting the agreement (DCMA Manual 2501-08, 2017). To mitigate this risk, the DoD has issued guidance through the "Other Transactions Guide for Prototype Projects" (2017) and Other Transactions Guide (2018) that provide resources to government negotiators to determine the most efficient course forward when using OTs.

Costing, pricing, and fee structure. The government's perspective during the CPF process is to spend the public's money most effectively and efficiently possible while maintaining the public's trust in government (Rendon & Rendon, 2016). When using the traditional DoD acquisition process, the government can rely on the authorities granted under 40 U.S.C. 121(c); 10 U.S.C. Chapter 137; and 51 U.S.C. 20113 to establish FAR Part 15 to solicit, evaluate, negotiate, and agree to the contractor proposed CPF. Among other aspects of FAR Part 15, this section of the FAR establishes the guidelines for evaluating the proposed direct costs and

prices and the recommended and maximum fee that can be awarded under specific contract types. Additionally, indirect rates are established through a DCAA accounting approval process, thus are not up for negotiation or evaluation (Samuels, 2018). This structured environment means that the government must only document their compliance with the regulation during the assessment of CPF under the traditional DoD acquisition process.

When using the OT acquisition process, the government loses the CPF protections and structure offered within the FAR and DCAA. As stated by Dunn (2009), the loss of this guidance oftentimes leaves government negotiators ill-equipped for analyzing, negotiating, and awarding OTs. This is unfortunate given that the government can significantly reduce the cost and price of the transaction when using the OT acquisition process given that the costly FAR, DFAR and agency supplemental compliance requirements are removed from the transition (Fike, 2009). While the government may enjoy a significant reduction in terms of cost and price, the government can expect to pay the same or a slightly high fee when using the OT acquisition process. As stated by Vadiee and Garland (2018), the government's utilization usually requires the award flow through a consortium which then flows money to its members through the use of a subcontract. This causes the realization of fee for both the consortium and the subcontractor, but the amount is usually far less than providing a traditional acquisition contract to a prime contractor directly.

From a contractor's perspective, regardless of the market in which they are operating, their goal during the CPF process is to maximize profit (Hague, 2018). Within the traditional DoD acquisition process, the proposed costs are established by combining direct costs such as labor, material, and travel; along with any indirect costs such as overhead, fringe, G&A, and M&H as defined by 48 CFR § 15.401. While direct costs are established by the contractor, the

indirect costs are established by DCAA per ICE reporting (Samuels, 2018). When using the traditional DoD acquisition process, the contractor incurs a higher level of labor, overhead, and G&A costs because they must account for the high level of regulation that must be complied with when compared to the private market, but this cost is passed on directly to the government without impacting the contractor's profit. The price the government is willing to pay is derived from negotiations of the direct costs and fee, as indirect costs are pre-established by DCAA. The contractor's profit is then negotiated using the guidelines outlined in 48 CFR § 15.405. In all but firm fixed price (FFP) contracts, the contractor's fee is usually a fixed amount or fixed cost per delivered goods or services (Apte, Rendon, & Dixon, 2016). Within an FFP construct the estimated profit is agreed upon, but the contractor is ultimately responsible for controlling costs to ensure they make the estimated profit. As pointed out in the Federal Acquisition Regulation (2019), except for FFP contracts in the traditional DoD acquisition process, contractors are not incentivized to control costs because their profits are impacted negatively during rising costs.

As shown in the "Other Transaction Guide" (2018), the OT acquisition process removes the requirement for direct and indirect cost breakouts, CAS, DCAA involvement, ICE reporting, and contract types. Although contractors still incur direct and indirect costs as part of commercial business practices, the contractor will not be required to conform to government accounting practices. This allows contractors using the OT acquisition process to operate in a manner which resembles a commercial environment. The contractors using this acquisition process simply present their burden costs to government, in the same manner, they would to another private organization. Although the government must still determine the cost and price to be reasonable, guidance deters the government from requesting additional information from the contractor about their costing data.

Preferred acquisition methodology. Aside from the legalities of the traditional and OT acquisition processes, the human element of working with each acquisition process must also be addressed. While regulation and guidance can dictate how acquisitions are performed once the solicitation phase begins, these requirements do not dictate which acquisition method must be used. As such, the DoD must decide on the appropriate contractual pathway using a mixture of regulation, official guidance, expertise, and sound judgment (Halchin, 2011; Lopes, 2018; "Other Transaction Guide," 2018). In the absence of binding regulation and guidance, this primarily leaves the personal decisions of individual contracting officers and programs managers as the deciding choices for choosing the acquisition processes. Unsurprisingly, these personal decisions often led to the use of the FAR and DFARS based approach over the OT acquisition process, even when the OT acquisition process would be more effective and efficient in certain scenarios (Lopes, 2018; "Other Transaction Guide," 2018; Stevens, 2016).

As shown by Lopes (2018), the DoD's preference in using the FAR and DFARS is rooted in the decisions made during the DoD's development and growth as an institution. The DoD began developing a strong reliance on the FAR and DFARS for most of their acquisitions in the 1990s and with no other major alternatives, this short-term decision to depend on the FAR and DFARS resulted in it becoming the focal source of guidance for future acquisitions. Capoccia and Kelemen (2007) explained this phenomenon as path dependence, in which the decisions made in the 1990s were at a critical development point for the DoD and have shaped the continued formation of the DoD ever since. Schreyögg and Sydow (2009) further explained that due to path dependence, a dominant process has developed that is resistant to alterations. In the case of the DoD, the FAR and DFARS process for the acquisition became dominate although the OT process existed during the critical decision-making points.

Current literature appears to support the existence of a dominant acquisition process within the DoD when comparing FAR and DFARS-based acquisitions to OT acquisitions. As shown by Schwartz and Peters (2019), OT usage accounted for less than 1% DoD spending from 1990 to 2017. From 1990 to 1993, this low usage could be attributed to the cap on OT awards ranging from $25 million to $75 million for those years with incremental increases in cap each year. This legislative cap could also help explain why the FAR and DFARS acquisition processes became dominant, as use of the OT process was severely limited when compared to overall spending profile of the DoD during that time frame. After the cap was lifted in 1994, the use of OTs remained relatively stagnant in terms of funds obligated in comparison to the overall DoD budget and amount of OTs awarded.

Although the sparse use of OTs for DoD acquisitions appears to support these findings and support the preference for FAR and DFARS based acquisitions, recent changes to DoD guidance could be disruptive to this dominant process. As OT authority continually evolved from its inception in 1990, the OT authority for the DoD was finally codified Section 845 as 10 U.S.C. 2371b in the FY2016 NDAA (Schwartz & Peters, 2019). After this codification, the DoD began to aggressively focus on providing more avenues for OT usage through non-binding guidance and formal legislation. In terms of non-binding guidance, the DoD released two guides for government acquisition officials educating them on OT usage. In 2017, the DoD released the "Other Transactions Guide for Prototype Projects" (2017) which provided the first official guidance on how the DoD should use OTs in an acquisition environment. This guide was replaced one year later with the "Other Transaction Guide" (2018) which provided a mix of guidance and practical examples of when OTs should be used. From a legislative standpoint, the Senate voiced their concern about the DoD's sparse use of the OT acquisition process (S. Rep.

No. 115-125, 2017). This concern matriculated into the passage of NDAA FY 18, which mandate that the DoD create a preference for using the OT acquisition process (Pub. L. No. 115-91, 2017). While the results of these actions have yet to be seen, it does appear that the DoD is taking both voluntary and mandated steps to change the culture and thinking towards the preference given to the OT acquisition process.

Summary. The current literature provides a strong framework for identifying the similarities and differences between the traditional and OT acquisition processes. While from a technical aspect there contractual structure and governing regulation are vastly different, the acquisition processes often share a multitude of terms and conditions. This is primarily explained through the application of multiple regulations must still be adhered to when operating under either acquisition process, thus removing some of the flexibilities initially granted by the use of the OT acquisition process. From a practical aspect, both the administrative burden and financial aspects of each acquisition process are uniquely different. The traditional DoD acquisition process is heavily administratively and financially burdensome to both the government and their contractors due to regulation and compliance formalities that must be followed. The OT acquisition process removes the regulation and compliance formalities but leaves the government and contractors without a template to start developing an agreement from. This can lead to longer negotiations and negate some of the benefits gained initially from the OT acquisition process. The choice to use either the traditional or OT acquisition process is left entirely up to the DoD, which has preferred the use of the traditional acquisition process over the OT acquisition process despite the known benefits. While recent strides have been made by the DoD to utilize the OT acquisition process more, the results of those efforts have yet to be quantified. In conclusion, although the two acquisition processes are technically different, they share many similarities in

their practical execution due to the DoD's affinity for embracing the traditional acquisition process and using this process to help, in part, shape the OT acquisition process.

Problems with acquisitions. An aspect of any acquisition process that must be considered when evaluating them is the problems that exist in an acquisition. Evaluating traditional and OT acquisition processes in a DoD environment begins with identifying the general areas in which problem exist in the modern acquisition environment. Identifying these problems will allow for unique problems associated with federal government acquisitions to be isolated and examined. Only after these two levels of generalizations are identified and explained can each acquisition process be thoroughly investigated for unique problems to those acquisition processes. This section of the literature review will analyze the problems associated with general and governmental acquisitions before identifying unique problems associated with traditional and OT acquisition processes.

General acquisition problems. Before attempting to dissect the acquisition problems that are unique the government or their acquisition processes, it is important to understand that some acquisition process concerns are characteristic of both public and private sectors and could be found within industries both large and small (Tan, 2006). Through exhaustive research, four major areas were identified across the field of supply chain management that could impact acquisition processes and they will be discussed in this section – infrastructure, resource optimization, employee and vendor management, and sustainability. While it is important to identify these general areas so that they are not attributed to any acquisition process, it is equally as important to note that the causation and impact for each problem will be unique to each acquisition process. This means that although these areas have problems are general if they exist

in an acquisition process, they must uniquely be addressed within the scope of that acquisition process.

The first general area of concern in the acquisition process is an entity's infrastructure. An organization's infrastructure consists of physical and non-physical assets that allow entities to perform their desired operations (Johnson, 2011). As stated by Edwards, Kao, Hamlet, Bailon, and Liptak (2016), the reliance on globalization in the current acquisition environment has led to brick and mortar infrastructures to be largely supplemented with IT infrastructures. While the need for physical infrastructures largely remains needed to be competitive, the focus on IT infrastructures allows organizations to connect with customers and vendors, market effectively, perform data collection and analytics, and other essential acquisition functions that were once done manually from a physical office (Mergel, 2016). From investing in an initial IT infrastructure, entities must ensure that they continually update their IT infrastructure to meet the standards set in the current market. While entities that invest in and maintain their IT infrastructure meet the minimum requirements of today's acquisition environment, entities that do not invest in building or maintain their IT infrastructure as well as their physical infrastructure, run a high risk of not being able to compete in the current acquisition market (Cleary & Banasiewicz, 2018). For these reasons, both physical and IT infrastructures are essential to have an effective acquisition process in the current environment.

The second general area of concern in the acquisition process is resource allocation optimization. As stated by Garcia and You (2015), there are limited resources that an organization must apply to each function of their operations. Within the acquisition process, these resources must be spread out to ensure that the acquisition process can be completed from contemplation through the finished product (Zhou, Cheng, & Hua, 2000). In addition to using

resources to optimize current operations, organizations must also optimize the resources they invest in infrastructure to scale to their operations (Garcia & You, 2015). This process requires entities to run complex investment cost/benefit analysis that take factors, such as opportunity costs, risk, and short and long-term impacts, into consideration. Overall, resources are finite in any environment and entities seeking to be competitive must use their resources to gain the maximum benefit available.

The third general area of concern in the acquisition process is the ability to manage suppliers, employees, and customers. Entities can have single or multiple suppliers, employees, and customers that could be involved in a single acquisition and must manage their expectations, time, and costs to be successful in the acquisition process (Marshall, McCarthy, McGrath, & Harrigan, 2016). Managing suppliers becomes more complex as factors, such as supplier dependency, critically, reliability, and logistical planning (Wilhelm, Blome, Wieck, & Xiao, 2016). From the customer perspective, the focus of entities is on managing their expectations, forming newer and stronger relationships, and meeting their contractual obligations (Sweeney, Armstrong, & Johnson, 2016). These supplier and customer ends of the acquisition process are tied together by the entity's employees. The employees of the entity serve as the overall coordinators for the acquisition process and their skills, abilities, and knowledge have a direct impact on the success of the entities acquisition process.

The fourth general area of concern in acquisition processes is sustainability. From a broad perspective, acquisition process sustainability refers to the ability of the process to maintained or improved over the life of the entity (Quarshie, Salmi, & Leuschner, 2016). While this general area of concern will be impacted by the decisions made in the infrastructure, resource, and people management areas, it also consists of unique factors, such as corporate social

responsibility, ethical considerations, and green practices (Bhardwaj, 2016). While there is no single way to achieve supply chain sustainability, but entities that use currently identified best practices within their industry or area of operations (Dubey et al., 2016; Hong, Zhang, & Ding, 2018). To achieve sustainability, entities could collect information on rival entities, soliciting feedback from their customer base, invest and improve their infrastructure and processes, or manage their resources more efficiently. While these options represent only a small amount of the possible steps that an entity could take to achieve sustainability, entities must at the very least acknowledge the need for sustainability and invest in achieving a sustainable acquisition process.

Government acquisitions. Within the general framework of problems faced in the acquisition process, the federal government has problems that are unique to their operations that impact any acquisition process they would use. Identifying these common problems will further assist in deciphering which problems are unique to each acquisition process versus which problems exist at the entity level. This will also allow for literature concerning the two bodies of study to be more thoroughly analyzed to identify overlapping problems within the two acquisition processes that may or may not have common roots at the entity level. A failure to identify these problems could lead to certain problems be attributed to an individual or multiple acquisition processes, which would be a resultant of the entity level problems rather than the root cause.

Infrastructure. Using the general framework of acquisition problems, the first area within the federal government that has problems is the physical and IT infrastructure. From an infrastructure perspective, the government's infrastructure is unique in that it has an over-arching infrastructure with multiple layers of sub-infrastructures within it (Schwartz, Sargent, Nelson, & Coral, 2016). Decisions made within each layer of infrastructure will impact the ability of the

lower layers to perform essential tasks, such as acquisition functions, due to the availability and state of the physical and IT infrastructures appropriated to them. This means that the impact of the current state of the physical and IT infrastructure would be the same regardless of the acquisition process chosen by the government at any particular level.

As stated by Mynatt et al. (2017), the current state of the federal government's physical infrastructure is severely degraded and impacts every layer within the federal government. While most of the funds are needed to repair federally-owned structures, such as highways and railroads, some funds are also needed to maintain the federal government's physical critical infrastructures. These critical infrastructures, which include both physical and technical facilities, "are socially, economically or operationally essential" for the federal government in "both routine circumstances and in the extreme circumstances of an emergency" (Pescaroli & Alexander, 2016, p. 5). The current degradation of these critical physical infrastructures causes the federal government to have a heightened propensity for disruptions in the function that can vary in degree, scope, and time across all departments and agencies.

While the physical infrastructure of the federal government could cause disruptions in their acquisition process, the poor state of their IT infrastructure impacts their ability to even begin the acquisition process. As shown by Mergel (2016), the federal government uses an outdated and inefficient IT infrastructure at almost every level of operation when compared to the private sector. This underinvestment in IT infrastructure has led to the federal government to be inefficient in connecting with and obtaining data, goods, and services from the private sector. The lagging IT infrastructure is due to a mix of cost, regulatory compliance, and complexity; which culminates into the federal government's inability to update or change their IT infrastructure in a timely fashion (Mergel, 2016; Schwartz et al., 2016). Unfortunately, this is a

top-down problem that only increases in difficulty to fix with each additional layer of infrastructure.

Resource optimization. Unlike the private sector, public resources are established through a legislative process rather than a business process. The resources received by a particular department or agency within the federal government are decided by a combination of layering budgeting reviews and Congressional approval (Liebman & Mahoney, 2017). This process often results in each layer of the federal government receiving less, but sometimes more, resources than they requested during the formation of their budget. In either situation, it is largely outside the control of these departments and agencies what resources they will receive, but it is well within their control on how they utilize the resources they do receive.

In reviewing the current literature, there appears to be a clear theme that various departments and agencies within the federal government do not use their resources effectively or efficiently. As stated Lorell and Graser (2001), evidence of this theme materializes through two general problems within federal layering – cost overruns and wasteful spending. The root of both of these problems can be found in a system that does not incentive cost controls or innovation (Edwards & Kaeding, 2015). Given that each department and agency is provided a set budget at the beginning of the year, they must expend their budget to justify receiving funding in the upcoming year (Liebman & Mahoney, 2017). This lays the foundation for federal government departments and agencies to spend without consequence as long as they follow the rules and regulations associated with their spending.

Although rooted in the same governmental structure problems, these two problems impact the government's acquisition processes in different ways. Cost-overruns occurs when the actual cost of an acquisition exceeds the quoted cost and have been under intense scrutiny by

watchdog groups and Congress alike (Berteau, Hofbauer, Sanders, & Ben-Ari, 2010). When cost-overruns happen, they are generally seen as a negative acquisition feature for the department or agency and could result in additional oversight of their acquisition process. For these reasons, the government is sensitive to this issue and attempts to control cost overruns within its acquisition process.

Wasteful spending comes in two varieties – unintentional and intentional. Unintentional wasteful spending is derived from when the government acquires goods are services that do not have a value equal to the cost (Maskin & Tirole, 2008). Unlike a cost overrun, this type of spending may be quoted at a price that exceeds the value of the good or service and the government accepts the cost. Unintentional wasteful spending could result in the same consequences as cost overruns, meaning that the government implements controls in an attempt to control it. Intentional wasteful spending comes from deliberate acts by government departments and agencies to spend their remaining budget by the end of the fiscal year (Liebman & Mahoney, 2017). While officially discouraged by the federal government, intentional wasteful spending appears to be an actively encouraged practice within the federal government due to the way budgets are designed and approved (Edwards & Kaeding, 2015; Liebman & Mahoney, 2017). Federal agencies and departments that do not exhaust their budget are often penalized with a lower budget in the following year, which incentives them to ensure all funds have been exhausted.

Employee, supplier, and customer management. The federal government identifies and manages a large and unique base of employees, suppliers, and customers. In line with the infrastructure of the federal government, the ways that these parties are managed falls under a general structure that is altered at each level (Schwartz et al., 2016). This means that

management of these parties can generally be the same across departments and agencies, but micro-factors could impact the overall outcome of the management style. Given that there is no way to review each department and agency within the federal government, this section will be limited to reviewing only the overall structure of how the federal government manages each group.

Federal employees consist of both military members and civilians. These two groups are mostly managed under two sets of rules although their roles and functions can be identical (Lindemann, 2007). While they often receive the same training concerning the acquisition process, their performance could be altered by their employment status. Military members and some federal civilian employees are managed under the DoD primarily through the Uniformed Code of Military Justice (UCMJ) and other directives and policies designed solely for military members. Military members are assigned to a command for a short period to carry out their duties and then move on to an unrelated command to carry out their orders. Federal civilian employees are managed under the rules and regulations outlined by the Consumer Product Safety Commission (2019). They could change roles, but could also stay at the same department or agency for the entirety of their career. The operation of these parties under two sets of rules and structures, along with any additional rules and regulations set forth by each department and agency could result in very different actions or inactions being taken throughout the federal government during conflict resolution, acquisition tactics, or customer service.

From a supplier perspective, the federal government has a vast system of resources to source, use, and track suppliers. To source potential suppliers from the private and public sectors, the federal government uses general announcements, industry days, and most commonly, Fedbizopps (Halchin, 2011; Lee, 2010). These sourcing methods are designed in a way to

promote transparency, maintain public trust, and promote competition to maximum extent possible (Maser et al., 2010). As suppliers show interest in the government, supplier credentials are posted and verified in a centralized location known as the System of Award Management (SAM) to show their compliance with federal requirements and regulations. This once again is done so to maintain public trust and transparency in government acquisitions. During the execution of a contract, suppliers are managed through the use of Contract Delivery Requirement Lists (CDRLs) and their performance is recorded in the Contractor Performance Assessment Reporting System (CPARS; Dixon et al., 2015). Once a contract has ended, the supplier receives a final CPARS rating and could be issued follow-on work to the original contract if their performance was superior and the need for follow-up work exists (Brubaker et al., 2018). Overall, this system allows the federal government to be fair in sourcing potential suppliers, while maintaining a system to track the performance of the suppliers during the contract.

Although the federal government is the overall customer during the awarding of federal contractors, there are multiple levels of customer engagement that must be managed. Often supported by branch or agency-centered procurement centers, government customers must be able to procure goods and services for federal government using acquisition tools provided by the government (Flammer, 2018). Given their expertise is likely within their field, rather than government acquisition, these customers rely on the expertise of their acquisition team to find the right acquisition methodology to procure the goods or services sought after (Hawkins, Yoder, & Gravier, 2016). Research suggests that some federal government acquisition teams are more experienced in some acquisition methods than others, meaning there could be limited options for customers to acquire goods and services in some areas of the government (Halchin, 2011; Lopes, 2018; Stevens, 2016).

Sustainability. The sustainability problems within the federal government can only be analyzed by examining the combined impact of their infrastructure, resources, and management styles within their system. The sustainability of the federal government begins with the way that they obtain funding. The federal government begins this process by budgeting out each lower tier of government until a final amount is agreed upon (Liebman & Mahoney, 2017) As shown by Claeys, Ramos, and Suriñach (2008), the sustainability of the federal government continues with a financial position that is solidified in the way that the federal government has the ability to raise or increase fund through taxation (Neu, Everett, & Rahaman, 2015). This is not a luxury that is enjoyed within the private sector and allows the federal government to increase or decrease their spending based on the number of funds raised in a particular year.

As the funds are collected, the federal government uses its tiered infrastructure to flow funds to each department and agency as designed within their approved budget (Claeys et al., 2008). This fund flow-down, like all flow-downs in the federal government, involves individual decisions made at each level by government officials on the best way to allocate and optimize the higher tier's resources. This could result in some departments or agencies receiving more or fewer resources than initially budgeted to help accommodate higher tier priorities (Grimmelikhuijsen, & Knies, 2017). Changes at any tier unsurprisingly send a ripple effect throughout the lower tiers that require them to change their resource optimization strategy or people management plan. This could cause a department to grow, shrink, or be done away with entirely to support the overall goal of the federal government. While this would not impact the sustainability of the federal government as a whole, it could impact the resources and capabilities of the tiers within the federal government.

Traditional acquisitions. As the preferred, and trained to, method of procuring goods and services, the traditional, FAR-based method is widely used throughout much of the federal government during the acquisition process (Lopes, 2018). While used in over 95% of federal procurements, this traditional approach is plagued with problems that have impacted the federal government's ability to work with the private sector. The government has traditionally maintained the strict regulations related to procurement and acquisition processes are needed to maintain the public's trust by providing a transparent and fair way to dole out public funds to the private sector (Grimmelikhuijsen & Knies, 2017). However, the private sector has grown increasingly louder in voicing their complaints with the traditional acquisition process on multiple fronts.

The traditional acquisition process is problematic for both the federal government and the private sector but from two different perspectives. From a government perspective, the traditional acquisition process is problematic due to the restrictive timing and regulatory way acquisitions can be made (Lopes, 2018). When the government needs to acquire goods and services quickly or for critical missions, they are stifled when using when attempting to use the traditional process. This could result in gaps being developed in mission-critical areas, thus directly impacting national security (Harper, 2018; Stevens, 2016). From a private perspective, the traditional acquisition process is burdensome to work with compared to private sector norms. As explained by Berrios (2006), the structuring of working with the government places the full burden on the private sector to adapt their business practices to meet government acquisition regulations. While this may have worked when the government was the primary provider of certain funds and markets, the shift in private industry priorities has resulted in private companies simply not doing business with the government (Fried, 1989). This shift has created

problems for the federal government in their ability to acquire critical goods and services, promote competition, and maintain the public's trust; which goes against the government's intention of using the traditional acquisition process (Grimmelikhuijsen & Knies, 2017; Maser et al., 2010). While the overall use of the traditional acquisition process is problematic for all parties, the use of individual procurement strategies under the framework of the traditional acquisition process provides unique challenges.

Competitive. The competitive procurement process is the most preferred method by the federal government but has also proved to the problematic method for both the government and potential sellers (Lopes, 2018; Stevens, 2016). As shown in the Federal Acquisition Regulation (2019), the competitive procurement process requires that the federal government engage and respond to every potential bid. This requirement could use a significant amount of federal resources depending on the number of bids and the complexity of the solicitation. As shown by Hawkins et al. (2016), this process does allow the federal government to procure goods and services at the lowest cost but fails to assess the quality of the seller. This means that the government could contract with and retain mediocre sellers throughout this process. Additionally, the competitive procurement process can deter private sector participation in federal procurements. From a private sector perspective, competitive bidding in federal contracting is often not a desirable or feasible way of doing business. Under the competitive procurement process in the government, the sole assessment is based on cost ("Federal Acquisition Regulation," 2019). This means that private companies must lower their profit margins or other costs to remain competitive (Lopes, 2018). This could ultimately deter private sector companies from competing in the federal marketplace, resulting in lower competition in

the federal marketplace. This means that the federal government does not meet its objective of obtaining the lowest price using the competitive acquisition process under the traditional method.

Semi-competitive. While not the most preferred method of procurement, according to the Federal Acquisition Regulation (2019) the semi-competitive procurement method is widely used throughout the federal government (Halchin, 2011; Harper, 2018). As shown in the Federal Acquisition Regulation (2019), the federal government uses a wide array of tools used in the private sector for procurements, such as RFPs, RFIs, and two-step bidding. The federal government can control the number of resources they dedicate to their procurement process. Using RFPs and two-step bidding, the federal government must still respond to all the submissions received, but they can tailor their solicitations to only allow or attract certain private sector companies (Bastola, Findley, & Woodward, 2015). Using the more informal RFIs, the federal government can bypass the response requirement, while still gaining private sector insight. In all these methods, the federal government can assess submissions on more than a cost basis, meaning they can use quality, reputation, and other factors that are deemed important during the decision-making process (Kaye et al., 2017). This could help the government in retaining the strongest private sector companies while discarding the private sector companies that underperform.

Sole source. Sole source procurements are the least preferred method of procuring goods and services according to the Federal Acquisition Regulation (2019), but this procurement method is a necessity that must be utilized in some cases. The mission to promote competition and fairness is, at the very least, questioned by the public when sole source procurements are used. As such, sole source procurements are highly regulated in the federal government because, in addition to eroding public trust, they can reduce competition, innovation, and flexibility in the

procurement process (Hawkins et al., 2016). According to the Federal Acquisition Regulation (2019), this procurement process can only be utilized in cases where a single contractor can provide the goods or service or such a critical need is identified that it must be filled immediately to ensure continuity in national security.

From the perspective of the private industry, sole source procurements are the easiest pathway to working with the federal government using the traditional acquisition process. If the procurement is for commercial goods or services, the process is similar to private industry practices, thus there is a reduction in administrative and cost burden to the contractor (Bastola et al., 2015). The federal government has a few requirements that are FAR mandated in these procurements, but they mirror many state laws and can be tailorable to fit common private practices. If the sole source is for something other than commercial goods or services, the process mirrors that of competitive or semi-competitive procurement in terms of administrative and cost burdens (Kim, Roberts, & Brown, 2016). This means that private sector companies that are not set up to work with the government before the sole source request may still not be able to work with the government. Finally, given the selective criteria of sole source procurements, private sector companies cannot rely on them as a sustainable business model (Bastola et al., 2015). The need for their goods or services could disappear instantly if a new or comparable good or service is developed, the need for their goods or services goes away, or any other reason arises that makes that private company no longer needed arises.

OT acquisitions. While originally designed to counteract the heavy administrative constraints of the traditional acquisition process, the OT acquisition process has yet to be a mainstream form of acquisition by the federal government. As stated by Schwartz and Peters (2019), less than one percent of all federal procurements are performed using the OT acquisition

process despite the numerous benefits of this process when compared to the traditional acquisition process. This dismal use of the OT acquisition process, despite the perceived benefits of using it, prompted heads of agencies and even Congress to take action to address the reasons they believed were behind the non-usage (Lopes, 2018; Pub. L. No. 115-91, 2017; Schwartz & Peters, 2019). As a result of the actions taken, the DoD released the "Other Transactions Guide for Prototype Projects" in 2017 and the revised "Other Transaction Guide" in 2018. Each of these guides found that contrary to the litany of bureaucratic problems found within the traditional acquisition process, the OT acquisition process was found to suffer from many problems that were solved by using the traditional acquisition process. While the documents did address these problems on a high level, it was widely agreed upon that simply identifying the problems at a generalized level would result in the problems being solved (Kendall, 2019).

Level of knowledge. As highlighted in both the "Other Transactions Guide for Prototype Projects" (2017) and the "Other Transaction Guide" (2018), the overall lack of knowledge is the primary driver in the government's problems concerning the OT acquisition process. Although OT authority has been granted to multiple federal agencies and has been utilized in some capacity or another for over 60 years, the federal government has never developed the level of training, educational resources, and other avenues for gaining knowledge that is provided for the traditional acquisition process (Smith et al., 2002). As a result of this lack training and access to resources, government contracting officers and their respective program managers rarely consider the use of the OT acquisition process even when a situation arises when it is the best acquisition option ("Other Transaction Guide," 2018; Schwartz & Peters, 2019).

The lack of knowledge by the government on the usage of the OT acquisition process has also resulted in a lack of knowledge in the private sector as well. The private industry has long

relied on previous government employees to join their ranks following the end of their government service to help shape their strategy and policies (Su & Bozeman, 2009). Given the lack of previous training and use of the OT acquisition process within the government, there is an absence of knowledge of how to use them in the private industry. Additionally, the lack of resources available to the private sector concerning the OT acquisition process is amplified in the private sector. Unlike, the government who created and can shape the direction of the OT acquisition process through updated policies and regulations, the private sector is left to the mercy of the government to release guidance, training, and direction concerning the OT acquisition process (Lopes, 2018). Currently, outside the "Other Transaction Guide" (2018), there is very little direction of guidance for the private sector to shape their strategy in using OTs.

Contractual formatting. As described in the “Other Transaction Guide” (2018), a major issue concerning the OT acquisition process is the way the contracts are structured. This guide mandates that government only accomplish three goals during the OT acquisition process – identify the type of OT being used, evaluate price reasonableness, and identify any follow-on work to the OT. While these are the only requirements, the guide also makes many suggested areas that government contracting officials consider such as payment terms, IP rights, government property, and other terms normally found in FAR-based contracting. While the guide encourages government employees to best use terms, formatting, and conditions found in private sector contracting, it also suggests that the government employees use the FAR and DFARS to help fill in any gaps of knowledge.

This conflicting information, along with the non-FAR and DFAR requirements required for contracting with the government, has been problematic for the government and the private

sector. As shown by Manley (2018), this guidance has resulted in government attempting to model the OT acquisition process similarly to the traditional acquisition process. This negates many of the benefits of the OT acquisition process being lost and the process becoming more burdensome and confusing than the traditional acquisition process. This also deters the private sector from pursuing this route of acquisition as none of the benefits are realized from investing in learning and utilizing the OT acquisition process (Lopes, 2018). As pointed out by Kendall (2019), the "Other Transaction Guide" (2018) is a good start in establishing the use of OTs but needs significant updates before it leads to the effective utilization of them.

Consortia. A third major issue brought on by the introduction of the OT acquisition process is the use of consortia to administer OTs. As shown in the "Other Transaction Guide" (2018), consortia are more challenging for the private industry for the government. From the perspective of the government, they simply award the OT to the consortium like awarding a prime contract using the traditional acquisition process (Vadiee & Garland, 2018). The consortium then acts as the prime contractor and awards subcontracts under their terms and conditions that incorporate a combination of the government requirement along with the consortium's terms and conditions. This makes the consortium, not the subcontractor, liable to the government for any deficiencies in delivering the requirements of the OT (Manley, 2018).

The use of consortia differs significantly from the traditional acquisition process from the view of the private sector. Private sector companies that wish to patriciate in OTs must join privately owned consortia to gain access to them in some cases (Schwartz & Peters, 2019). This usually requires the private companies to pay a fee to have access to the OTs they want to work with. Additionally, in the traditional acquisition process, private sector companies work directly with the government and their employees; whereas when using the OT acquisition process the

consortium serves as a liaison between the two parties (Lopes, 2018). This eliminates many of the avenues that private sector companies' use when normally working with the government to achieve a strong level of communication and future work opportunities.

Summary. There is a large body literature that provides a strong outline of the problems that plague the acquisition process at every level. Problems found within the general acquisition framework are applied across industries and sectors. To solve these problems, changes must be addressed at a theoretical level that results in changes in the way that the acquisition process is executed. Within the acquisition framework of the federal government, additional acquisition problems are introduced due to their constraints and regulations controlling their acquisition process. Given that transparency, maintaining public trust, and other factors impede the need to be cost-effective, the federal acquisition process has self-imposed limitations. These limitations combined with the regulations, size, and complexity of the federal government make the acquisition process highly inefficient for all the branches of the federal government when compared to the private sector. Finally, the problems within the acquisition process are compounded by the unique issues found within the specific methods used by the government to conduct procurement. The government currently has a widely used and well-defined traditional method, but it is costly to use and discourages the private industry from working with the government. An up and coming OT acquisition process remove the administrative and costly burdens associated with the traditional acquisition process, but it not well-known to the government or private sector. Overall, a certain a degree of problems can be expected in defense acquisitions based on the general and government-specific problems that exist in the acquisition process but the acquisition process chosen by the DoD will add or eliminate certain problems from the acquisition process.

Acquisition critical success factors. As shown by Hunter et al. (2015), the success or failure of an acquisition process is not a random event in which some entities get lucky and others do not. Every acquisition process is a project that is developed and tailored to a specific entity's need. Given this, just like every project, there are certain critical success factors (CSFs) that must be accomplished to make the project successful. While some projects, even those industry, require unique CSFs, there is a large number of CSFs that are needed in some capacity across all projects. This means that understanding these core CSFs at a broader view is important and needed before they can be understood in the environment in which they are being applied.

Given that the DoD runs projects that are complex and expand the globe, it is not surprising they have the largest acquisition chain in the United States (Khajavi et al., 2018). The DoD's acquisition system can be seen in many ways has an enormous program with multiple projects underneath it that must be successful for the process to run smoothly. The DoD's acquisition process is not excluded from the need of CSFs, but some of the unique requirements of the DoD's acquisition process make some CSFs more important than what is found in other industries (Rodriguez-Segura, Ortiz-Marcos, Romero, & Tafur-Segura, 2016). As stated by Brubaker et al. (2018), the DoD has many key performance indicators that closely resemble many of CSFs found within the private sector. Depending on which procurement method the DoD decides to use during acquisition will impact the CSFs that become more important at that given time. Among some of the common CSFs found within the DoD are internal processes, project management, training, competencies, and communication (Lopes, 2018; Rodriguez-Segura et al., 2016; Stevens, 2016). This section will discuss these CSFs respective of their general application and their specific application to DoD procurements.

Internal processes. An entity's internal processes are best defined as the system of processes that combine to allow an organization to operate. These processes are vital to an entity as they control the flow of work within the entity and could impact the entity's effectiveness in working with external entities (Da Silva, Junqueira, Santos Filho, & Miyagi, 2016). Given the vast differences in the goals, information, and mission of entities across sectors and industries, the internal processes that could be considered CSFs will change with each entity. Discussing each internal process that could qualify as a CSF in every situation would fall outside the scope of this literature review. For this reason, this section will be limited to discussing the most prevalent internal process within the government and contractor's acquisition systems and processes – market research (Brubaker et al., 2018; Hunter et al., 2015; Rodriguez-Segura et al., 2016).

The ability of the federal government to conduct market research on possible contractors is at the forefront of assisting the government in meeting the mission to maintain public trust by spending taxpayer money efficiently. This CSF begins by having an organizational structure and processes in place to collect information to use for market research. As shown by Hunter et al. (2015), the federal government, particularly the DoD, has a set structure that allows for data to be collected but lacks some processes that make accessing and using that data an effective process. For this reason, all DoD acquisition methods could suffer from the inability to properly perform market research or the have lacked proper oversight in the source selection phase.

Using the traditional acquisition process, the DoD has a clear process and instruction for conducting market research. As shown in Part 10 of the Federal Acquisition Regulation (2019), market research is an area of the acquisition process that must be accomplished before the procurement phase and should be initiated when the need first arises for a good or service. This

section of the FAR goes on to detail the process the government must undergo in determining the reasoning behind the procurement, techniques used for conducting research, and the appropriate response to certain conclusions. Overall, this section of the FAR can determine whether a potential supplier even knows of the existence of DoD need for a good or service.

Despite the procurement method the government chooses based on the market research performed, one tool the government can use to assess potential suppliers is the CPARS. As explained by Brubaker et al. (2018), the CPARS allows the government to analyze a potential supplier's past performance on other government contracts. This allows the government to make an informed decision on whether to use the same supplier on future efforts. While this is only one tool that the government has at its disposal, it is often a powerful one that impacts a potential supplier's business opportunities with the government (Dixon et al., 2015). For this reason, government suppliers take extreme precautions to ensure their past performance is recorded fairly and accurately in the CPARS.

From the contractor's perspective, market research plays an equally important role when it comes to working or potentially working with the government. Given the high level of competition within government contracting, private sector companies must be able to conduct their market research to be successful in assessing and bidding on government work. While FedBizOpps.gov serves as an open portal to accessing most government contracts, it does not display information on competitors. This means that private sector companies must rely on their internal information gathering, past awards, and other sources to gain information on possible competitors before deciding on whether to bid on certain opportunities.

Project management. While often considered the framework in which CSFs are within, how an entity manages a project as a whole can be CSF within itself (Gomes & Romão, 2016).

As stated by the researchers, projects must be designed and managed in a way that meets certain criteria, such as cost, time, quality, or any other variable that is deemed important to entity undertaking the project. With these objectives identified, the entity must then place actions behind the plan that facilitate the successful completion of the objectives. Additionally, the project management design and execution will determine the sustainability of the project as a whole and can impact the ability to successfully achieve other CSFs in the project (Banihashemi, Hosseini, Golizadeh, & Sankaran, 2017). Given the broadness of project management as a CSF, it can be applied in some manner or another to any project within any industry or sector.

Project management has been identified as a major CSF for the DoD acquisition system. The DoD has long suffered from poor program management of its acquisition system as shown by the multiple problems it has suffered within its acquisition system (Lewis, 2005). As shown by Chang and Modigliani (2015), many of the program management failures can be attributed to the structure and requirements of the DoD as a whole. This means that these problems can be corrected but must be addressed through a major shift in the way that the DoD thinks about their acquisition strategy and design. As previously discussed, this process would be slow, if ever accomplished, given the multi-layered structure of the federal government (Schwartz et al., 2016).

Project management is equally important to the DoD on the individual acquisition process and procurement method used by the government. As shown by Hunter et al. (2015), there is a major focus on ensuring that the DoD performs acquisitions effectively and efficiently by analyzing the individual components of the project management function. Areas such as strong contract management knowledge, project execution, and tracking, and other areas that work in tandem to create the overall project management plan were shown to be instrumental in

these acquisitions being successful. However, this CSF appears to only be studied under the traditional FAR-based acquisition process as there is no literature directly correlating strong project management to successful OT procurement. However, poor program management is a contributing factor to the inefficient application of the OT acquisition process (Lopes, 2018).

From a contractor perspective, project management becomes a focal point for successful project completion of the project once it has begun. Companies are entrusted with government resources throughout the life of a contract and the government expects them to use these resources in a manner that is consistent with maintaining public trust (Lalive et al., 2017). Private companies that perform work under federally awarded contracts have the incentive to manage projects effectively and efficiently. Research and government regulation shows that private entities are rated on their performance throughout and at the end of their contracts (Brubaker et al., 2018; Dixon et al., 2015; "Federal Acquisition Regulation," 2019). Companies that perform poorly on these ratings could be less competitive on future work with the government or could be completely disqualified from doing work with the government in the future. For this reason, project management is a key CSF for the private industries that do business with the government.

Training and education programs. One CSF that appears to be relevant across all industries and sectors is training and education (Netland, 2016). Training and education encompass everything from teaching employees to use a system or process to simply give them the tools to perform their jobs effectively (Safdari, Ghazisaeidi, & Jebraeily, 2015). Without training and education, employees would be left to resolve problems that had previously been solved, could make mistakes that cost the entity time, money, or reputation, or any number of preventable adverse actions. Additionally, they would not grow with the entity or ever be able to provide increased value to the entity's operations (Costantino, Di Gravio, & Nonino, 2015). This

CSF appears to cover such a large magnitude of areas that without it, companies would simply not be able to function in any capacity.

Within the construct of the federal government, training and education appear to be known as a CSF that is needed to be successful. Research indicates that the federal government believes that a minimum baselines requirement for training and education is needed to simply operate given its size and complexity (Crawford & Sherman, 2018). This baseline training and education encompass areas that the government believes are important despite the function in which branch or agency operates. Core areas, such as security, information systems, ethics, and training provided to all federal employees. Additionally, the federal government realizes the need for specialized training depending on the mission and objective of each agency and branch. According to Kroll and Moynihan (2015), specialized training and education are needed to ensure that proper succession planning is carried out within the agency or branch. This could consist of training on specialized systems, procedures, or policies that the agency or branch is required to be familiar with to meet their objectives and goals.

Training and education are highly regarded in the DoD acquisition system but is utilized in some areas more than others. Training and education are highly touted and regarded when it comes to the traditional acquisition process. As shown by Smith et al. (2002), the government invests time and money to ensure that government workers are training and educated on the processes, policies, and regulations associated the traditional acquisition process. The government even has a university, Defense Acquisition University (DAU), set up to teach up and coming contracting professionals how to properly utilize a FAR-based approach (Layton, 2007). Given the abundance of training and education provided to the government workers, it is not surprising that the private sector is also well-trained and educated on the FAR-based acquisition

process. Aside from the private sector recruiting former government employees, there are entire industries dedicated to reading, learning, and advising private companies on the strict and rigid regulations outlined in the FAR, DFARS, and other supplemental regulations (Cohee, Barrows, & Handfield, 2019). Between these two events and the open availability of current FAR and DFARS revisions, the private sector can adequately train and educate their workforce on the government's traditional acquisition process.

As shown in "The Other Transaction Guide" (2018), training and education have also been identified as CSF within the OT acquisition process. The guide specifically points out the lack of training and education has resulted in the OT acquisition process not being used to its full potential. Additionally, the guide provides some training and education aimed towards government contracting officers to help fill the gap. As shown by Lopes (2018), the private sector also believes that training and education is a CSF for the OT acquisition process. The private sector has been working with the government to develop a more comprehensive understanding of the process and how it can be utilized. Given these actions are recent, there is no literature available to show the outcome of these efforts.

Communication. Communication is a common CSF that is mentioned in a large amount of research about identifying and utilizing CSFs. As shown by Maqbool and Sudong (2018), a large majority of modern projects in most sectors involve more than one stakeholder and the ability to communicate effectively and productively is key to these projects being completed successfully. While the benefits of effective communication can result in a project being completed on schedule or within the cost, the impact of poor communication can be costly and time-consuming (Pinto & Slevin, 1987). These negative results are often seen immediately and can be fixed by simply improving communication among the shareholders. Finally, while other

CSFs can operate as independent factors, effective communication can impact the effectiveness of meeting these CSFs within a project.

Within the government framework, communication is seen as CSF at almost every junction of the project management cycle. As shown by Penn, Loya, and Gilbert (2015), communication is valued by the government due to the way it causes for internal processes to move more freely, even with the existence of the multi-layered bureaucracy that exists. The impact of strong communication his highlighted in the government's acquisition process. Research shows that when government contracting officers and program managers communicate effectively, the government is more likely to better maintain visibility of government contracts (Ortega, 2018). As seen with government surveillance plans, contracting officers and program managers are likely to catch contractors that are not performing adequately on their contracts if they communicate their findings to one another. This could result in corrective action being taken quicker to correct the underperformance, resulting in the government saving time and money.

Given the DoD is the largest government acquisition unit, effective communication is a key CSF despite the contracting vehicle being used (Rendon & Winn, 2017). From an internal perspective, this is due to the need to acquire critical and innovative technologies that program managers need in the timeframe they need it in. Effective communication has been shown to reduce the risk of these goods and services not being acquired in the time required (Garfin et al., 2017). From an external perspective, the government relies on the private industry to provide the needed goods or services and maintaining an open line of communication with them makes this more viable. When DoD can convey what goods and services they are seeking and the conditions under which they are seeking them, private sector companies can provide them.

As shown in the "Federal Acquisition Regulation" (2019), effective communication with the private industry is better defined using the traditional procurement method as deadlines are easily identified and types of communication are clearly outlined. Private sector companies that have built their business around serving the government can plan around using certain language or response times and build a business model around these plans (Lemaire, 2017). This is due to the FAR not quickly changing and when changes are made, it is available for public viewing almost immediately. As seen with the lack of regulation, education, and training, these policies do not exist in the OT acquisition process. Given the loose design of the OT acquisition process, they could, but this has yet to be realized in practice.

Summary. Many critical success factors can be used throughout the project management lifecycle. While certain CSFs may unique to some projects, there are some CSFs that appear to apply to a broad range of projects, including those projects undertaken by the federal government. Additionally, while most projects may need core CSFs to be successful, the application of these CSFs could change within the context of the project being performed. The unique structure of the federal government and their acquisition framework is a prime example of the way core CSFs need to be adapted to fit specific industry and problem. The federal government must be able to gather and share information internally in an effective manner so that the needs of the government can quickly be released to private industry. Additionally, the private sector must be able to easily gather government released information and know their standing with the government so that they can make business choices in deciding if and when to work with the federal government. Project management is just as important as CSF as it is the framework in which CSFs are applied. Both the government and the private sector have a responsibility to manage government projects using a style that meets both parties' needs and

goals. Training and education are shown to be important to every project in every industry for the same reason, if entities are not aware of how to do something and cannot train their employees on how to do it, they will not be successful. Finally, communication was identified as the most important CSF out of all of them. All the other CSFs are useful only if they can be communicated within and outside of the entity or project in which they are being used. Within the government acquisition context, the government and private sector must open and maintain an open line of communication that is effective, reliable, and productive. Overall, both the government and the private sector have acknowledged, and in some cases, made strides to ensure these CSFs are implemented. However; both parties also acknowledge that some areas of CSF implementation are lacking and must be improved to ensure that the government acquisition system runs effectively and efficiently.

Summary of the literature review. This literature review covered three primary themes that were exhaustively discussed based on the research that is currently available. The first theme discussed in this literature review was the similarities and differences associated with multiple general procurement methods within acquisition systems and government acquisition systems. From a broad perspective, there are three major classes in which procurement can fall under. Each one of these procurement styles is best designed to procure goods and services within a specified environment. Within the perspective of the government acquisition system, each of these procurement methods is used but only in the framework of the government's acquisition systems. Under the traditional acquisition system, all three procurement types are utilized within the confines of the government's defined ways of using them. The traditional acquisition system is a rigid and highly regulated acquisition system that is costly for the private sector to utilize, thus it has caused the private sector to reduce or quit doing business with the government. In

stark contrast, the OT acquisition system allows the government to use any procurement method without regulatory oversight and reduces the barriers to use for the private sector but is largely unknown to the government and the private sector.

The second theme discussed in this literature review are the common problems that exist in acquisition and procurement. At their roots, modern acquisition systems have four major problems that are found throughout sectors and industries. As the acquisition system becomes more developed by an entity, like the government, these problems are compounded by additional, unique requirements to help meet these entities' goals. Within the government framework, additional problems caused by bureaucracy, transparency, and the need to maintain public trust, have resulted in all their procurement methods facing cascading problems. While the traditional method appears to embrace the bureaucracy of the DoD, it is a slow and inefficient process in the modern environment. The OT acquisition process eliminates the bureaucracy of procurement but is not well known by private sectors or the government. Additionally, it has not been widely used and introduces a third party to the acquisition process. Overall, acquisition systems and procurements will always have problems, but the government and DoD add additional layers of problems which impacts the acquisition method used, but each acquisition process has its unique advantages and disadvantages.

The third theme discussed in this literature review is the CSFs needed to be successful in project or program management. Concerning project management as a field of study and the government as a single entity, there is an unlimited number of factors that could be needed for a project to be successful. Within the DoD framework of their acquisition systems, only a select few of the numerous CSFs were identified as required to be successful. Each one of the identified CSFs was put into the two contexts of the DoD’s two primary acquisition systems. The

traditional acquisition system appeared to have plenty of supporting data to show the specificities of why the CSFs were identified and needed to be successful. Within the OT acquisition system, most research focused on the impact of not having traditional CSFs present within the system and the possible ways including these CSFs could improve the OT acquisition system. Given the vast differences between the two acquisition processes, there is little evidence to suggest that the same CSFs would be needed for the two acquisition processes.

Transition and Summary of Section 1

The foundation established in this section is essential in transitioning to the actual research performance phase. This section of the research has defined and established the current state of the DoD's acquisition process and the role that both the DoD and their contractors play in that process. Additionally, this section has clearly identified the purpose of this research to explore the impact of the proliferation of OTs in DoD acquisitions on the contractors that traditionally do work with the DoD. Using a qualitative case study, this research seeks to answer the research questions presented in this research by collecting and analyzing data from a traditional DoD contractor under the scope of the presented conceptual framework. The established assumptions, limitations, and delimitations of this research will allow the research to be performed under a pre-defined environment. With these boundaries established, the published findings of this research are expected to reduce gaps of knowledge in the overall supply chain field and DoD acquisition process, while also being presented in a manner that is consistent with a Christian worldview. With this guidance and foundation established in this section, the next section will draw upon this foundation to conduct the actual research to address the research questions within this research.

Section 2: The Project

This section will discuss the design and methodology of this study. The purpose of this research was to understand the way that traditional DoD contractors perceive the use of age and the proliferation of OTs for DoD acquisitions. Understanding this perception may lead to changes in the way the DoD communicates changes in policies and direction concerning OT usages to their traditional supplier base. The researcher further believes that accomplishing this will create a more constructive acquisition environment for both the DoD and their traditional contractors as the DoD continues their migration to a more traditional/OT balanced acquisition plan.

To begin understanding this phenomenon this section will discuss the role that the researcher had in putting this research together. It will then transition into discussing the procedures concerning the participants involved in the research. A detailed discussion of the research method and design will justify the use of a qualitative case study for this research. Additionally, this section will discuss the population and sampling, data collection, and data analysis involved in this research. Reliability and validity of this research will be discussed in this section.

Purpose Statement

The purpose of this qualitative case study is to understand the way traditional contractors perceive OTs and the use of consortia to administrator them. The way OTs are utilized and administered by the DoD are only half the equation to the acquisition process. The level of understanding that the traditional contractors have of this acquisition method will determine the overall effectiveness of the entire process. Given that the DoD is the one initiating this acquisition process, it assumed they already have a firm understanding of the best ways to

implement and administrator it. Therefore, further research is not imperative to ensure that the DoD supply chain is being managed effectively. This does not mean that the traditional contractors that are familiar with the supplying the DoD are as familiar with the process.

Unlike the traditional DoD contractors were not trained and prepared for the OT acquisition method (Tobin et al., 2016). This leaves a wide area of research that could wield potentially useful information in developing a framework for ensuring that the DoD and traditional contractors are sharing the same preparation in using OTs and consortia. The purpose of this research will be accomplished by analyzing contractors in their natural environment while they attempt to navigate the OT acquisition process. This will yield the necessary information to find ways to unite both sides of the DoD supply chain and create an effective acquisition process.

Role of the Researcher

The role of the researcher is an important aspect of any scientific research. Although this role will vary given the design and methodology of the research being performed, there are some key areas of research in which the researcher will have a role. While this researcher had many roles in throughout the performance of this research, some of the key roles that the researcher had in this study was that of an active participant, recruiting participants, gathering information, and mitigating researcher bias. This section will discuss how each of these roles were accomplished using a framework founded in scientific literature.

As stated by Fink (2000), the researcher in a qualitative study, such as this one, must be an active participant in the research being conducted and account for aspects of human existence that are not seen in quantitative research. This is due to the underlying belief of qualitative research that the researcher is uniquely qualified as a human being to understand and study the complexity of other human beings. The role of this researcher began as an active participant due

to their background in the private sector working for various DoD contractors, working with both the traditional and OT acquisition process. During the time of this study, the researcher was employed as a program manager at a traditional DoD contractor that was providing support for OT management to a DoD customer. Previously, the researcher was employed as a contracts manager at the traditional DoD contractor which became the focus of this research. Additionally, the researcher was the President of the National Contracts Management Association's (NCMA) Leatherstocking Chapter at the time of this study. Given these previous experiences, the researcher understands many of nuisances of working as a DoD traditional contractor that may fall outside any written policy or regulation. This real-world experience allows the researcher to study and understand DoD traditional contractors from a perspective that may not be achieved by someone simply studying what is written or recorded. The combination of active contributions to field and understanding of the environment being studied allowed the researcher the ability to holistically evaluate the interactions with the participants of this research.

Another important role that researchers play in qualitative studies is ensuring that an adequate participant pool is ethically recruited for the study (Hamilton & Bowers, 2006). In this study, the researcher decided to focus on recruiting participants from a previous small traditional DoD contractor. This decision was based on the researcher's relationship with the company, accessibility to useful information, ease in contacting knowledgeable people within the company, and the company's prior interest in participating in a future study if one was designed. However, before the potential participants were contacted in regards to this study, the research had to ensure that there was a benefit to the study being performed and that only a minimal risk existed to the participants. The researcher ensured this ethical check was accomplished through the IRB approval process before contacting any participants concerning this study. Overall, the researcher

in this study was responsible for recruiting participants but had to utilize the proper ethical avenues beforehand to ensure that no harm came to participants and to establish a benefit from performing the study.

The role of the researcher does not end by simply having a relevant insight into the field of study and ethically recruiting participants. The researcher must also gather data for their study. As described by Fink (2000), data collection can be done through multiple avenues, including analyzing achieved data and conducting interviews; both methods are employed in this study. The researcher first reviewed achieved data to determine the knowledge base and decision-making process of the participants on past workings with the government. As stated by Gill, Stewart, Treasure, and Chadwick (2008), the researcher should use the interviews "to explore the views, experiences, beliefs, and motivations of the individual." Interviews helped fill in the gaps missing from prior literature and the researcher attempted to gain this added data during the interview with the participants. The researcher then synthesized data from the two sources within the conceptual framework developed from existing literature to produce findings and results within the context of the study.

Finally, the role of the researcher was to ensure that the results and findings from the study were presented in a manner so that other researchers could test study. To accomplish this, the researcher must ensure that they take precautions that prevent them from influencing participants or presenting findings from the overtly biased lens (Ponterotto, 2005). Given that the likely participants of this research were individuals that the researcher had previously worked with and were in fields the researcher contributed to, the researcher placed safeguards in the research to ensure that participants were not influenced and the results and findings were not produced in a biased way.

The researcher chose to use Hewitt's (2007) findings as a framework for developing a mitigation plan for influencing participants and reducing bias in this study. As such, the researcher explained to the participants that the researcher was acting entirely in the capacity of a researcher for the study and that this study did not affect any professional relationships that the researcher and participants may have had. The researcher also briefed the participants that providing honest and truthful answers best served the growing the body of knowledge, even if they were critical of the researcher's prior contributions to the field. To mitigate bias in presenting the findings of this study, the researcher acknowledged that their contracting background may have biased them to view the findings from a contractual perspective. Additionally, the researcher acknowledged that their previous contributions to the understanding of the OT acquisition process and their desire for this to have a positive impact on the understanding of this process by traditional DoD contractors. Given these acknowledgments, the researcher attempted to view the findings from a non-biased perspective, but overall acknowledged that some level of subjectivity existed in these findings.

Participants

Establishing procedures for gaining access, establishing a relationship, and ensuring that ethical protections are in place for the participants were at the forefront of the researcher's priorities for this study. As stated by Carey, McKechnie, and McKenzie (2001), gaining access to participants for research goes beyond following procedures found in research methods and researchers must rely on their personal, social, and professional commonalities to gain and maintain a participator's trust and cooperation. In this study, the researcher relied heavily on their professional contacts to find the appropriate participants. Using prior insight, the researcher identified participants within the study-focused organization that has expressed interest in

participating in future research concerning the OT acquisition process. Given this, a case study, contacting participants must be done through the organization and proper permissions must be granted from the organization before speaking or contacting the participants. Once the proper approvals were awarded by Liberty University and the IRB process was complete, the researcher reached out and began contacting possible participants for this study.

Although the researcher previously worked with many of the participants of this study in a professional capacity, a new relationship was built in an academic capacity. To accomplish this, the researcher respected the participation, was cognizant of their real-world lives, maintained flexibility, and had the time to invest in developing the new relationship (Carey et al., 2001). To begin building the relationship, the researcher set boundaries that separated the researcher's personal and professional relationships with the participants from the academic one. This allowed the researcher to devote time to specifically building and academic relationship with the participants free from other topics that could have detracted from the research. The researcher ensured not to discuss the interviews or study outside the academic boundaries that were set, including meeting times and dates. Doing so allowed the researcher to avoid any conflict or potential conflict of interest that could have materialized from prior relationships with the participants.

As shown by Lopes (2018), ethical measures must be taken in studies similar to this one to protect the participants. The first ethical measure in this study was approved by Liberty University and the IRB before conducting research. This process ensured that the study was designed in a way that protected the participants by identifying and mitigating any risks before contacting the participants. As a further layer of protection, the researcher also ensured the participants provided written informed consent before the interviews. A template provided by

Liberty University was used to document informed consent. The participants were briefed about the purpose of the study and the impact their participation had on the study before providing informed consent. This allowed the participants to make a truly informed decision about participating in this study.

The researcher also took steps to protect the identity of the participants throughout this study. This process began by ensuring that all personal identifying information (PII) was collected and stored in a secured location. For this study, that secure location was the researcher's personal computer. The computer itself is password protected and traveled with the researcher everywhere when it was not at the researcher's primary home. Additionally, the files about the participants, interviews, and contact information were stored in a password-protected folder within the personal computer. This extra layer of protection ensured that even if the researcher's computer was compromised, the participant's information was still secure.

Research Method and Design

Choosing the right research method and design is instrumental to properly addressing the research questions for a study. Given there were multiple research methods and designs to choose from, each method and design had to be explored before a decision could be made on which one to use to answer these research questions. After much research and deliberation, the researcher decided on using a qualitative case study to answer the research questions. The researcher had to analyze many complex factors related to the research questions, conceptual framework, and literature review before coming to this decision. This section will explain why a qualitative case study was chosen for this study.

Discussion of method. The qualitative method was chosen for this study for three primary reasons. First, the qualitative method is appropriate for developing new or raw data in

the absence of previous research (Pope et al., 2000). As shown by Lopes (2018), there has been very little research performed concerning the DoD's use of OTs. This means there is an abundance of data that is missing from the body of knowledge concerning the DoD's usage of the OT acquisition process. The researcher sought previously unexplored data on the way traditional DoD contractors perceived the OT acquisition process, rather than test a theory based on previously gathered data. Based on the need to create new data rather than analyze prior data, the qualitative method was first thought to be the best method for this study.

Additionally, this method allows for research to be gathered and utilized from the natural environment of the research subject (Antwi & Hamza, 2015). The researcher believed that studying the perception of traditional DoD contractors can only be done in the environment in which they operate. This was due in part to the researcher's experience working for multiple traditional DoD contractors, thus having insight into the way traditional DoD contractors operate as a private sector company reliant on the public sector. The researcher had an understanding that decisions, actions, and understandings of these contractors go beyond the written rules and regulations that exist in the industry. For this reason, the researcher strengthened their belief that the qualitative method should be used.

Finally, above all else, the method allows for the study to be performed under a subjective, broad lens (Antwi & Hamza, 2015). Given the researcher's experience as a traditional DoD contractor, they know that perceptions and decisions are not based on a single or quantifiable factor in most cases. As such, when the researcher collected and analyzed data from this research, the researchers need the flexibility to base their conclusions and recommendations using the same context in which the data were collected. This need to analyze the data within the

context in which they were collected, along with the previously mentioned needs of this research, finalized the researcher's decision to use the qualitative method.

Discussion of design. The case study design was chosen for this study. The case study design revolves around studying a single phenomenon, group, or event at an in-depth level to understand the underlying foundation of the case study subject (Flyvbjerg, 2006). This study is centralized on focusing on the perceptions of traditional DoD contractors related to the DoD OT acquisition process. This is a very specific phenomenon that may or may not have connections to a broader academic realm, but the researcher has no evidence at this time to make that assumption. As such, this study sought to deeply explore the topic using a single subject to determine whether the existence of underlying principles can be related to the broader academic field or whether new research needs to be conducted to completely understand these perceptions.

The case study design also collects data through interviews and company archived information to answer the research questions (Meyer, 2001). To answer the research questions related to this perception, this study performed in-depth interviews with a small number of traditional DoD employees and a government official. The interviews with the traditional DoD employees sought to gain insight into their experiences, thoughts, emotions, and other aspects that combine to form their overall perception of the DoD's OT acquisition process. Interviewing the government official allowed the study to gain insight into the perception that the government was attempting to form in the private sector. The interview process for data collection method assists in choosing the case study design.

Since the researcher can be an active participant in this design, the reduction or elimination of bias is essential when using the case study design (Pannucci & Wilkins, 2010). Bias can be mitigated in this design through the use of standardization of interviews, clear

parameter definitions, and careful research design. The researcher used standardized interview formats and questions while leaving enough room in the framework to adequately ask follow-up questions as needed to fully answer the research questions. As previously stated, the researcher also ensured those clear parameters were outlined that separated the researcher's academic role from their personal and professional relationship with the participants. With all of these considerations in place, the case study design was a fit for this study.

Summary of research method and design. The qualitative case study was perfectly suited for this study based on the researcher's questions, conceptual framework, and past literature in the academic area. As shown in this section, the qualitative method allows the research to fully explore the perceptions of traditional DoD contractors in their natural environment using the researcher's subjectivity from personal experience although there is an absence of existing literature. The case study design using a purely qualitative was chosen due to the researcher's in-depth focus on the single phenomena using interviews, while still acting as an active participant in the research. Based on these factors, the qualitative case study was the only choice of research method and design that the researcher could use to optimally answer the research questions presented.

Population and Sampling

The population and sampling of participants is an essential and important part of studies since it is "rarely practical, efficient, or ethical to study whole populations" (Marshall, 1996, p. 522). For this reason, researchers must select participants from their target population to answer their research questions. While this holds for both quantitative and qualitative research designs, the methods used to obtain representative samples from the appropriate populations will differ significantly. Due to the qualitative design's goal of understanding the complex combination of

human, social, and environmental factors, researchers must carefully assess which populations are available to answer the specific research questions within their study and choose a sampling method that will allow the researcher to obtain an optimal sampling size. This section will discuss the ways that the researcher identified the population and method used to sample the population to answer the research questions for this study.

Discussion of population. The population of a study possesses common criteria that are specified within the framework developed by the researcher. To define the population of this study, the research questions were analyzed and the criteria was established. First, this research specifically applied to private-sector contractors. This eliminated a large number of entities that existed in the public sectors from the population. Second, this research focused primarily on those private sector contractors that traditionally performed work for the DoD. This meant that private sectors that primarily operated in the commercial environment, with other federal agencies, or did not do business with the government would be excluded from the population. Finally, this study sought to understand the perspective of these private-sector government contractors of the OT acquisition process. This meant that traditional DoD contractors that had not worked with the OT acquisition process were eliminated from the population. Given the scope and framework of this research, the overall population was defined as any private sector DoD contractor that had performed work under both the DoD's traditional and OT acquisition process.

Discussion of sampling. While identifying the population was based on set criteria, researchers had multiple options for gathering their sample. For this study, the researcher chose their sample using the convenience method. As described by Marshall (1996), convenience sampling is often used by researchers that lack financial backing for their research and have

limited access to their populations. The researcher chose this method based on the available population, financial resources, and various restrictions placed on the researcher, such as non-disclosure agreements (NDAs) and the avoidance of conflicts of interest (COIs). Additionally, Marshall (1996) stated that this is the least desired method as it provides the least likely randomization and may not sufficiently represent the population. The research attempted to mitigate these risks by making the correct assumptions and placing the appropriate limitations of this research.

Once the researcher identified the potential sample for this research, the researcher had to ensure that the sample size was adequate for the study. Given the researcher's chosen research method and design, along with the chosen sampling method, the researcher will have six participants for this study. As stated by Marshall, Cardon, Poddar, and Fontenot (2013, p. 13), researchers can accomplish this in qualitative studies by comparing their sample size to the recommendations of other scholars or "act on precedent by citing sample sizes used in studies with similar research problems and designs." Using the recommendations of other scholars, the researcher determined that between six participants were suitable for in-depth qualitative research as long as the interviews were meaningful and provided enough information to answers the researcher questions (Malterud, Siersma, & Guassora, 2016; Russell & Gregory, 2003). Additionally, the researcher analyzed research performed by Lopes (2018), which was much larger in scope and only used 20 participants, to determine the 6-person sample size was adequate for this study. Overall, the researcher's dual approach to verifying the six participants was adequate for a study helped ensure it was defensible.

After identifying the sample size, the researcher established criteria for participants for this study based on the research design and method, along with the accessibility to the sample

pool. From a research design and method perspective, the researcher focused on quality over quantity when sourcing participants. The researcher needed participants that could provide in-depth responses to the interview questions, while also having an insight to the studied phenomenon of the study (Flyvbjerg, 2006; Meyer, 2001). For this reason, the research sought participants that had direct involvement in bidding, negotiating, winning, and reporting traditional and OT acquisitions. The researcher sought this primarily from the perspective of the traditional DoD contractors but also wanted to gain some insight to from the government to determine whether the government's meaning was being captured by the private sector.

Finally, the researcher sought to ensure that the characteristics sought in the sample were relevant to the study. The researcher ensured the majority of the participants worked for the same traditional DoD contractor on the same traditional and OT acquisitions. This allowed the researcher to gain the perspective of different roles within the acquisition process, such as contracting, security, and executives. The researcher also sought out a participant from the government to provide a baseline of the perception they are trying to give to traditional DoD contractors about the OT acquisition process. Once the researcher identified an initial list of possible participants for the study, the researcher then evaluated their time, financial, and other constraints that would affect the researcher’s ability to access the participants (Marshall, 1996). Overall, the sample size and criteria were determined to be adequate to conduct this study in a defensible manner.

Summary of population and sampling. The researcher acknowledges that it would be impractical and possibly unethical to attempt to collect data from the identified population of this study. As such, the researcher took steps to ensure that the correct population was identified, so that a sample could be taken to optimally represent the population. Once the population was

properly framed, the researcher ensured that the appropriate sample size and criteria were established using prior research recommendations and studies. Finally, the researcher ensured that the right characteristics were present in the sample chosen so that the sample would be relevant to the study and provide insight to the established population. Overall, the researcher believed that the correct population was being studied with an appropriate sample for this study.

Data Collection

Data collection was the first step in actually contributing to filling the identified knowledge gaps in the researcher's field of study. As such, the researcher ensured that the data were collected in a way that followed the strict rigor required to become acceptable to the scientific community. To accomplish this, the researcher understood all the components of data collection, such as the instruments that were used to collect the data, the way that the research reliably used those instruments, and the way the data were organized and stored once they were collected. This section will describe the way the researcher for this study accomplished these requirements to collect data for this study.

Instruments. The first step a researcher must take in collecting data for their study is being able to identify the instruments they will use. For this study, the researcher identified two instruments that were used to collect data – the researcher and the Interview Guide (Appendix B). As discussed by Pannucci and Wilkins (2010), the researcher is an active participant in qualitative case studies and their experiences, knowledge, and education will impact the way they subjectively guide data collection and organization. The researcher in this study conducted one-on-one interviews with participants known to the researcher. Additionally, the researcher was not only an active participant in the data being collected, but had a role in creating some of the data indirectly through their work in the field and the participants. The data were collected

via interviews. As such, the researcher must be able to balance their subjectivity of the analysis the objectivity of the data collected. If the researcher fails to properly exercise their subjectivity to the data, the study could become biased and not defensible when scrutinized (Ponterotto, 2005; Yin, 2009).

The second instrument used to collect data for this study was the Interview Guide (Appendix B). Ranging from strictly formatted to relatively loose in structure, interview guides are designed to ensure that the researcher follows the same thematic approach during each interview (Qu & Dumay, 2011). Interview guides help in dividing the interview up into major themes and assist the researcher in steering the conversations with the participants to areas of interest to the study. Using this framework, the interview guide used for this research was divided into three major themes to correspond to each of the three research questions and elements of the conceptual framework for this study. The first theme focused on the understanding of the OT acquisition process in comparison to that of the FAR-based acquisition process by traditional DoD contractors. The second theme focused on the common issues perceived by these contractors using the OT acquisition process. Finally, the third theme related to the ways that traditional DoD contractors perceived the ways to be successful in using the OT acquisition process. Each of these themes were explored using a loose, but an organized interview.

The researcher structured this interview guide to allow for the flexibility to explore each of the themes by listing out major and follow-up questions that were used as the interview progressed. As discussed by Kici and Westhoff (2004), literature is abundant on how to develop interview guides, but there is no agreed-upon structure that is considered the standard. As such, the researcher had to analyze prior research from their field and determine which interview

guides were effective in collecting adequate data. To start, when used with the semi-structured interview method, such as the one used in this study, interview guides allow the researcher to probe the participant to gain a more comprehensive answer to their questions (Qu & Dumay, 2011). While there is no way of knowing each question the researcher asked following each response, the interview guide helped the researcher ask follow-up questions that were in line with the study's purpose.

Although there is not a standardized format for formatting the interview guide, the researcher built an interview guide based on that of prior research in the area. Under the first theme, the researcher began the research interview by asking question 1.a "Are there any areas in the OT acquisition process that you are unsure whether they are the same or different than the FAR-based acquisition process?" This helped the researcher establish a baseline of the participants' understanding of the FAR and OT acquisition processes. The way the participant answered this question guided the follow-on questions on the similarities and differences among the two acquisition processes and how these impacted the perception of the participant.

In the second theme, the researcher sought to gain a broad understanding of the participant's understanding of consortia. By first asking, How well do you understand the design, purpose, and operation of consortia concerning DoD OTs?, the researcher sought to gain a baseline understanding of the participant's knowledge of consortia. The researcher then moved on to more specific questions, such as understanding how many consortia the participant knows about and what pros and cons the participants perceive consortia as having. The researcher finally sought to find the perception that the participants had on communication by asking, How is interacting with a consortium different that interacting with the government functional and

operational members?, before asking what changes the participant would make to the consortium framework.

The third theme explored is the critical success factors (CSFs) that participants feel are needed to be successful in using the OT acquisition process. While the researcher expected many of the answers to reflect the same CSFs used in the traditional acquisition process, this theme also allowed the researcher to ensure that previous interview questions were answered honestly by the participants. The researcher began this section by gaining the knowledge baseline of the participants by seeking to understand if they have reviewed and understood the available literature on the two acquisition processes. After asking about communication success factors, the researcher ended the interview by asking, What additional factors would make you more likely to be a success in acquiring and managing OTs?. This allowed the researcher to assess the participant's outlook on performing successful OT acquisition processes.

Data collection techniques. Data were collected through two primary sources for this study – prior literature and participant interviews. As suggested by Snyder (2012), the researcher gathered and analyzed prior literature before following up with participant interviews when using a qualitative research design. Doing this allowed the researcher to formulate research questions based on the data collected through the prior literature to gain a more holistic understanding of the phenomenon being studied. By following this guidance, the researcher properly gathered and assessed the information from prior research and used it to answer the study's research questions.

The primary source of data for this study came from participant interviews. Data are most often collected through participant interviews using a semi-structured method when using a qualitative research design (Creswell, 2014; McNabb, 2008). This allowed the researcher to allow the participants to fully express their opinions outside of a rigid, formalized process while

simultaneously giving the researcher leeway to explore areas of interest within the scope of the research questions. This will also provide the researcher with an opportunity to learn more about the data discovered from reviewing prior research (Yin, 2009). The researcher can lead the interviewees in the direction of the discovered data or shape new questions around the data that may have been previously unknown to the researcher. Finally, the researcher must ensure that the interviews are long and in-depth enough to gather all the required information to adequately answer the research questions (Malterud et al., 2016).

The researcher began the semi-structured interviews by first gaining informed consent from each of the participants and receiving IRB approval to conduct the interviews. Once informed consent and IRB approvals were gained, the researcher scheduled a mutually acceptable time and place to conduct the interviews with each of the participants. Once the researcher and participants were at the interview site, the researcher made an introduction and reiterated the scope of the interview and the process of the interview. The researcher then began asking the interview questions using the semi-structured interview process. Using the framework from the sampling development, the interviews needed to be very in-depth given the small participant pool and should range from 60 to 90 minutes (Malterud et al., 2016; Russell & Gregory, 2003). While the researcher did not enforce any hard time constraints on the interviews, the researcher used the interview times, in part, to assess whether the interviews were properly conducted and the answers provided were adequate to answer the research questions.

The researcher also used field notes to add clarity to their thoughts during the interviews. As described by Lopes (2018), field notes are useful when conducting interviews concerning OT data collection. These notes were taken during the interviews so that the researcher could write their thoughts or reminders during the interview. These notes also helped the researcher put their

subjectivity into perspective while the interview was being collected and was not captured on the interview recording. The researcher transcribed these notes when the transcripts from the interview were transcribed to ensure that all records were properly recorded and were auditable if needed.

Data organization techniques. As data were collected, researchers had a way to properly organize and store the data so that they could be used to answer the study's research questions. For this study, the researcher evaluated multiple methods for organizing data as they were created, but ultimately chose to use research logs. As stated by Creswell and Miller (2000), research logs can be effectively used to track the rigor of the research and provide an avenue for the study to be audited properly. The research logs used for this study, found in Appendix C, were the same developed and published by the University of Manitoba (2019) for students at their school to perform research. The researcher did not help develop nor did the researcher take credit for any part of their development. They were found on the university's open-source resources. This style of research log was used due to their structuring of information that allowed the researcher to relate literature, researcher notes, and interview statements to themes as they emerged throughout the study. These logs allowed the researcher to have a quick reference to each theme and made appropriate updates as they happened.

From the time research was generated from the participants, the researcher took every reasonable step possible to protect this information. The researcher also took steps to protect the identity of the participants throughout this study. This process began by ensuring that all personal identifying information (PII) was collected and stored in a secured location. Data collected during interviews were placed into a locked bag before leaving the interview site. Once the researcher arrived home, the collected information was placed in the researcher's office,

which also had a lock on the cabinets and door leading to the office. During and after transcription, the data were locked up back in the office cabinets after the researcher concluded transcribing for the session.

Uploaded transcripts, interview notes, and researcher notes were kept on the researcher's personal computer. The researcher's personal computer had biometric password protection, up-to-date antivirus and malware, kept with the researcher throughout the day and stored in a locked office at night. Additionally, the files about the participants, interviews, and contact information were stored in a password-protected folder within the personal computer. This extra layer of protection ensured that even if the researcher's computer was compromised, the participant's information was still secure. Once files were downloaded from the researcher's emails, those files were deleted to prevent accidental exposure. Overall, these steps should ensure that the PII of the participants was adequately protected throughout this study.

Summary of data collection. Data collection using a qualitative case study approach differs from methods and designs, but the same core elements of data collection must be identified, defined, and defended. This researcher identified the two instruments that were used in this study – the researcher and the interview guide. Once the instruments were properly identified, the researcher defined the ways that the instruments were used to collect data by implementing structured interviews in ways that met the rigor of the scientific community. Finally, the researcher defended how the collected data were organized and stored using research approved methods. In conclusion, the researcher was confident that data were collected, organized, and stored by properly utilizing the appropriate instruments for this study.

Data Analysis

While qualitative researchers could simply present the raw collected data, this does not result in the research presenting the information in a way that is usable by the reader. As such, the researcher must be able to present the data after analyzing it in a scientifically acceptable manner. The ability for researchers to analyze the data collected is important in all research, but it "is the most difficult and most crucial aspect of qualitative research" (Basalt, 2003, p. 1). Unlike quantitative research, in which data can be numerically evaluated, qualitative research relies on the researcher's ability to subjectively identify themes that appear as the research progresses. As stated by Basalt (2003), the use of coding can help a researcher achieve the proper organization and analysis of their raw research. This section will discuss how coding will be used by the researcher in this study.

Coding process. The combination of participant interviews, prior literature, and research logs contributed data to this study. While research logs and prior literature are important contributors to data, participant interviews provided a significant portion of the data collected for this study. The verbatim transcripts of the participant interviews were not, in their raw form, capable of answering the research questions within this study; thus, the researcher had to use an established method to place the data into a usable format. This format has to separate the data into categories that aligned with the pre-established conceptual framework so that it could answer the research questions within the study. As stated by Basalt (2003), this separation of raw data into usable material can be completed by constructing a coding scheme. As discussed by the researcher, a coding scheme can be developer by separating data by key words, phrases, or entire sentences. As such, this researcher decided to base their coding scheme on the conceptual

framework, literature review, and interview questions previously established throughout this study.

Simply deciding which information to base the coding scheme is not enough to develop a coding scheme. The development of the coding scheme begins by reviewing prior literature on coding development. As discussed by Campbell, Quincy, Osserman, and Pedersen (2013), when researchers use the semi-structured interview method they should use a standardized unit of text to develop their coding scheme to reduce coding errors. Additionally, the researchers state this method is best utilized when there is a single knowledgeable coder performing the transcription. As both of these criteria apply to this study, the researcher standardized the unit of coding for this study using primarily predetermined themes but also provided enough flexibility to allow emerging themes to be discovered. These codes were established to capture the meaning of the core content collected through the interviews, field notes, and prior research and can found in Appendix D (Elliott, 2018).

Predetermined, or deductive, coding schemes are developed from a combination of experience, prior literature, and theoretical frameworks (Stuckey, 2015). The researcher first used their intimate knowledge of DoD OTs and experience working for multiple traditional contractors to draft predetermined codes and sub-codes. These codes were simply the researcher's best guess of which codes would be needed throughout the data collection process to properly analyze the collected data. As literature was collected and reviewed, the coding scheme was continually updated to account for prior coding schemes and established peer-reviewed findings. This drastically changed some areas of the draft coding scheme, while also solidifying some of the original coding schemes. Finally, the researcher used the conceptual framework previously established in this study to finalize the coding scheme shown in Appendix D.

To ensure that the predetermined coding scheme is reproducible and defensible, the researcher documented the factors that were used to create the coding scheme. As shown in Appendix E, these factors provide the framework for establishing the predetermined coding scheme used for this study. It can be seen that there are no particular keywords or phrases that were used in the development of this coding scheme, but rather a standardized approach using experience, literature and the established conceptual framework (Campbell et al., 2013). The reason for not using any particular word or phrase was to ensure that the meaning of the data was to capture the meaning of the responses and data rather than the plain text (Elliott, 2018). This approach allows the themes to be clearly defined, but also allows the researcher to use their subjectivity in identifying themes.

Although most of the themes are expected to fall under the predetermined coding scheme, there is a possibility that unexpected themes would emerge as data were analyzed. As shown by Lopes (2018), research concerning OTs has many gaps and many emergent themes appear during studies on the subject. With this knowledge, this researcher wanted to ensure there was an avenue to capture these themes if they did emerge. For this reason, after the data were coded using the predetermined coding scheme, the researcher re-analyzed the data that did not fit into the predetermined coding scheme for new themes. If new themes were discovered, the researcher updated their coding scheme to show the emerging themes.

Summary of data analysis. Effectively analyzing data is the most difficult portion of conducting qualitative research due to the subjective nature of the research method. However, this difficulty does not excuse the researcher from analyzing the data in a manner not consistent with the strict rigor required in the scientific community. Due to this requirement, this researcher used a combination of predetermined and emerging coding schemes to ensure that the data were

analyzed in a standardized and replicable manner. The coding scheme designed by the researcher utilized the researcher's knowledge and prior literature to create a framework for analyzing all data collected throughout this study to transform the raw data into presentable and defendable findings and recommendations.

Reliability and Validity

While the researcher of this study spent most of the time gathering resources and constructing a framework for collecting and analyzing data, the researcher also wanted to ensure their research was reliable and valid. Rooted in quantitative research, common reliability and validity methods must be redefined to meet the needs of qualitative research (Golafshani, 2003). Once redefined, these quality measuring concepts help ensure that the study is reproducible by future researchers by establishing consistency and accuracy. This section will discuss how these concepts were used to ensure that this study can withstand academic and professional scrutiny.

Reliability. The reliability of a study in research refers to the ability to reproduce the study's environment and raw data results. In quantitative research, reliability can be easily identified and tested against the data collected and the mathematical analysis of that data. The same does not hold for the reliability of qualitative studies, such as this one, due to the lack of quantifiable data and processes. As described by Leung (2015, p. 3), defining relatability in a qualitative paradigm is challenging and there is a "margin of variability" that is tolerated in the results. This margin of variability exists due to the subjectivity provided by the researcher when analyzing the data and presenting the findings.

As stated by Leung (2015, p. 4), there are five approaches for increasing reliability in the study - refutational analysis, constant data comparison, comprehensive data use, inclusive of the deviant case and use of tables. In this study, the use of refutational analysis and constant data

comparison was used to increase reliability. The refutational analysis was conducted based on the existence of prior literature which could contradict information collected from the participants and prior research findings. This analysis attempted to provide counter-arguments to why there is or is not the existence of certain data that have been previously stated in other studies. Additionally, constant data comparison was used to identify emerging themes as they develop throughout the study. Although this study used predetermined coding, flexibility was added to this study to identify new emerging themes as they were discovered. This allowed the researcher to contribute new information to the field of study if it exists.

In addition to approaches used to enhance the reliability of this study, the researcher's interview guide also provided a strong point for enhancing the reliability of this study. As stated by Cohen and Crabtree (2006), interview guides improve reliability by allowing future studies to replicate a study by using the same framework for data collection. While not every question or detail can be replicated in a semi-structured interview, such as the one performed for this study, future researchers can recreate the major themes of discussions in future studies. This allowed these researchers to determine whether the same major themes emerged under similar conditions while still accounting for the variances in participants and researcher subjectivity.

Validity. The validity of a study in research refers to the level of appropriateness of the processes, methods, and tools used throughout the study (Leung, 2015). This level of appropriateness is assessed during every aspect of the study including, but not limited to, the study's approach to answering the research question, choice of methodology and design, ways of data collection and analysis, and the presentation of the findings within the context of the study. Each one of these levels of validity build upon each other, such as the research paradigm determine the sampling method and data analysis, but also was impacted by the humanistic

impact during qualitative research. While these levels of appropriateness can vary in qualitative research due to the subjectivity of the researcher, there are established standards that are used to determine the validity of a study. Saturation and triangulation were two measures of validity used in this study and are discussed in this section.

Data saturation, or burnout, refers to the point within the study that no new information is discovered. If the researcher is not confident that they have reached data saturation, they must continue to collect data or assess the scope of their study to ensure that it is narrow enough (Wray, Markovic, & Manderson, 2007). Determining the saturation point for this study was difficult given that there were relatively few studies conducted on the area of interest. Although the researcher developed a coding scheme based on prior research and personal experience, the emerging of new themes is possible. These new themes could vastly exceed the predetermined coding scheme that was developed and require the researcher to perform interviews above the expected amount. As a precaution, the researcher requested and was approved for a maximum number of 20 participants in their IRB review that exceeded the expected six participants needed. This provided a sufficient buffer for the researcher if data saturation was not met during the initial data collection interviews.

Triangulation, or collecting data using more than one method, can be used to significantly increase the validity of qualitative research (Leung, 2015; Wray et al., 2007). Triangulation was performed in this study based on a variety of collected data points. First, the interviews produced raw data for comparison. Once this analysis was completed, the data were compared to the themes identified in past studies such as Lopes (2018) and the DoD Other Transaction Guide (2018). This assisted the researcher in verifying or refuting existing or newly identified themes discovered in the study.

Summary of reliability and validity. Having a study that has strong reliability and validity ensures that it is reproducible and appropriate for the subject of the research being performed. As such, this researcher took steps to identify and implement ways that enhanced this study's reliability and validity. To enhance the reliability of this study, the researcher used two techniques identified in prior research that exposes counter-arguments to collected data and confirm the context of the results of the study. Additionally, the researcher created an interview guide that can be used as a roadmap to recreate the major themes researched in this study. To ensure this study had validity, the researcher relied primarily on two well-known validity enhancing tools – saturation and triangulation. Data saturation allowed this study to keep going until no new themes were discovered while triangulation ensured that the data collected were validated against other data sets. Overall, these steps help ensure the study has strong reliability and validity when tested by future researchers.

Transition and Summary of Section 2

The study design and methodology established in this section was essential in transitioning to the actual research performance phase. This section of the study defined the role of the researcher and the participants involved in this study. Additionally, this section provided ample defense to the reasoning behind selecting the appropriate research method and design that were used in this study. Once the design and method of the research were defined, the population and sampling criteria for the identified population were described. This provided the researcher with ample framework to set up a pathway for collecting and analyzing the data for this study. As such, the researcher described the tools that were used to collect data, the process for collecting data, and the manner in which the data were organized. The researcher then built upon this data collection process by detailing the coding scheme that was used to analyze the data.

Finally, the researcher identified the steps that were taken to ensure this study had strong reliability and validity metrics. All of these steps were needed to place the findings and recommendations found in the next section into the proper context.

Section 3: Application to Professional Practice and Implications for Change

This is the final section of this study and serves to tie the previous two sections to the data collected throughout this research undertaking. This section will discuss the findings of this research, along with the researcher's analysis and conclusions derived from the data. A general overview of the study that was conducted will first be provided to frame the data collected and analyzed within the context of this research. The results of the collected data will be presented, along with the researcher's analysis of the data. The researcher will then present the applications of their collected and analyzed data to business processes. Actions to be taken and areas for future research will then be presented based on the presented data and analysis. The research will finish this section by providing their final reflections of the study before ending this study by posting a summary of their findings and conclusions.

Overview of the Study

This study was completed to explore the perceptions of traditional DoD contractors towards the DoD's Other Transaction acquisition process and migration towards consortiums for contract administration in a manner that was credible, reliable, and reproducible. The researcher collected and synthesized the interview information with available literature to make final conclusions pertaining to traditional contractors' perceptions towards the DoD's usage of the OT acquisition process. After coming to these conclusions, the researcher outlined areas where the conclusions could be practically applied to improve business processes. Additionally, the conclusions were then used to determine areas that could be researched further to continue the progression in filling knowledge gaps within the DoD's acquisition field. The findings of this study will hopefully be used in assisting the DoD in shaping future public policy concerning the

release of Other Transaction guidance and assisting traditional DoD contractors in developing future policies for working with the DoD using OT acquisitions.

While originally designed to interview six participants, the researcher decided that after five, very in-depth, interviews there was enough evidence to completely answer the researcher questions presented in this study. While this small number of participants would not normally be sufficient to represent a population, a combination of mitigating factors and the population size allowed the researcher to determine data saturation. First, the researcher analyzed the current body of literature related to OTs being used in the DoD. After determining that a small body of literature existed the researcher then analyzed the content of that literature. One comparable study (Lopes 2018), was discovered in which five participants were used in two case studies to determine the government's perception of OT usage. This study, combined with the perceptions provided by Manley (2018), Vadiee and Garland (2018), and Schwartz and Peters (2019), allowed the researcher to justify saturation based on prior research. In addition, once the researcher analyzed the participant's responses, there were no themes that could not be explained using the researcher's conceptual framework, literature review, or prior literature. With all factors considered, the researcher believes the study meets the criteria for being saturated and triangulated to a standard that is scientifically acceptable.

Presentation of the Findings

General. To reach the findings in this study, the researcher solicited interviews from 40 active employees currently working for traditional contractors on active DoD OTs. Of those 40 solicited, five participants were determined to be eligible and willing to participate in this study. Those employees provided answers to the interview questions provided in Appendix B. Their

answers were then evaluated against current literature, the conceptual framework for this study, and Appendix E to produce major findings that answer the following three research questions:

1. How well do traditional DoD contractors understand the similarities and differences in OT and traditional DoD acquisition processes?
2. What common issues are traditional DoD contractors facing during the proliferation of DoD OT acquisitions using consortia?
3. What are the critical success factors (CSF) that traditional DoD contractors must accomplish to be successful in OT acquisitions?

Research question 1 sought to gain an insight into the knowledge that traditional contractors have of the DoD's OT acquisition process. The significant findings for interview questions 1.a – 1.f lead to the researcher concluding the following three significant findings for research question 1. First, traditional contractors are overall well-equipped to handle the paradigm change in the DoD's acquisition strategy from traditional to OT. Second, traditional contractors and the government are adequately preparing traditional contracting personnel for the DoD's OT acquisition process. Finally, traditional contractors believe a two-tiered system exists between them and non-traditional contractors in the DoD's OT acquisition process largely due to the cost-sharing and accounting requirements.

Research question 2 sought to understand some of the common issues that traditional contractors have when working through consortia to administer the DoD's OT acquisition process. The significant findings for interview questions 2.a – 2.e led to the researcher concluding the following four significant findings for research question 2. First, traditional contractors believe that communication is lacking between the DoD, consortia, and themselves. Second, traditional contractors have a mixed perception of the use of consortia due to some

misconceptions concerning the role and purpose of consortia the DoD's OT acquisition process. Third, traditional contractors believe overall do not express any major issues that would completely hinder their company from working with the DoD through consortia under the OT acquisition process.

Research question 3 sought to understand some of the critical success factors that traditional contractors believe they need to successfully navigate the DoD OT acquisition process and operating with consortia. The significant findings for interview questions 3.a – 3.e led to the researcher concluding the following four significant findings for research question 2. First, traditional contractors believe they have strong knowledge of the FAR, DFARs, and the DoD Other Transaction Guide. Second, Traditional contractors are benefitting from training programs and the inclusion of multiple staff members in discussions concerning the DoD OT acquisition process. Third, traditional contractors believe that communication with the DoD, consortia, and other involved parties is the most important factor for success. Finally, traditional contractors benefit from hiring prior government and private people that have experience with and are familiar with the DoD OT acquisition process.

This study presented answers to three research questions pertaining to the perception that traditional contractors have towards an acquisition method being employed by the DoD. While this study could be viewed on its face as addressing a small facet of a large, complex supply chain that the DoD maintains, it could also be viewed as solving another piece of a very large puzzle pertaining to the supply chain field. This study synthesized a large body of literature and contributed some more data to help fill in some of the existing gaps in knowledge. Overall, this research will allow future research to continue in this field while hopefully improving the practical and academic standing of the supply chain field.

Qualitative data analysis. This section will present the data collected for this study, along with the researcher's analysis of that data. This section will begin by presenting each major theme, the interview questions, and the participant interview answers to answer that research question. Participant quotes were used to bolster the presented information and affirm the generalizations made about the data. While presenting the data collected during participant interviews, the researcher will present an analysis of the data collected using the factors and sub-factors outlined in Appendix E. The researcher will then address the triangulation of each research question and theme using the conceptual framework and prior literature. Finally, the researcher will address data saturation at the end of each sub-factor.

OT similarity and differences. This theme explored OT factors that contribute to the existence of similarities between OT and FAR-based acquisitions that can be attributed to the DoD's OT Guide (2018), such as costing and pricing, the use of competition, or other recommended or required similarities and differences. To address this theme, four sub-themes will be explored in this section. The information for this section will be derived from the participant interviews, researcher analysis, and prior literature, which will then be compared to the conceptual framework. The participant interview information for this question was generated using the interview questions related to research question 1: How well do traditional DoD contractors understand the similarities and differences in OT and traditional DoD acquisition processes? To answer this research question, the following participant interview questions were used.

a. Are there any areas in the OT acquisition process that you are unsure of whether they are the same or different than the FAR-based acquisition process?

b. Can you describe the similarities between traditional and OT acquisition processes you have seen?
c. Can you describe the differences between traditional and OT acquisition processes you have seen?
d. What differences or similarities do you like or dislike and why?
e. How do these differences and similarities impact your perception of the OT acquisition process?
f. What similarities and differences would you like to see between the two acquisition processes that you have not seen?

DoD organizational similarities and differences. This sub-theme will cover factors that can be attributed to the DoD leading to actual similarities and differences between the acquisition processes, such as the use of the DoD OT Guide (2018) to design OTs. Using Appendix D, the following answers were provided by the five participants that were coded to this theme:

- Five of five (100%) stated that they knew that the FAR and/or DFARS did not apply to the DoD's OT acquisition process
- Four of five (80%) stated that other procurement laws and regulations did not apply to the DoD's OT acquisition process aside from the FAR and/or DFARS
- Four of five (80%) expressed that they did not know of any areas that they were unsure whether the DoD's OT acquisition was similar to or different from the FAR-based acquisition process
- Four of five (80%) stated they were aware of the cost-sharing or nontraditional contractor requirement

- Three of five (60%) attributed their confidence to prior work experience as DoD employees

All the participants (5 of 5) directly indicated that they were aware that the DoD's OT acquisition process operated outside of the FAR and DFARS. Aside from this unanimous agreement, four of five participants indicated that other procurement laws and regulations also did not apply to the DoD's OT acquisition process. Additionally, four out of five participants stated that they did not know of any areas between the two acquisition processes that they were unsure about. Based on these provided answers, it would appear that the government's release of the DoD OT Guide (2018) and previously released Other Transactions Guide for Prototype Projects (2017) was credited, in part by the participants understanding, with one participant stating that:

> When working with the OTA process, you have much more to think about than just the FAR not applying. It is not just the FAR that is excluded from OTAs. There are is quite an extensive list of laws that do not apply. Off the top of my head the DFARS, TINA, CICA, and Bayh-Dole are all excluded, but there are many more.

Another participant directly referenced the DoD's released guides by stating:

> Before the DoD released their guide, we did not really know much about the process outside of what our legal department sent us. I really believe that it helped clarify areas that people just did not have the answers to.

In triangulating the data, the majority of the participants were able to successfully identify that traditional contracting regulations did not apply to the OT process. The data collected for this portion subsection appears to shows that, despite making up only 1% of all DoD spending (Berrios, 2006), the government is ensuring that their traditional contractor base is

well educated on the OT acquisition process. This supports that the government is accomplishing its goal of expanding the program under the NDAA FY 18, which mandates that the DoD create a preference for using the OT acquisition process (Pub. L. No. 115-91, 2017). Traditional contractors are successfully using government-provided material to strengthen their knowledge base, thus allowing them to be more engaged in the OT acquisition process. This portion of data also supports the notion that traditional contractors are confident of their knowledge moving forward with the DoD's OT acquisition process based on the information provided by the government (Lopes, 2018).

The majority of the participants (3 of 5) had previous experience working with the contracting departments of the DoD. These same participants credited their background with the government for knowing information about the DoD's OT acquisition process relating to the DoD's cost-sharing or nontraditional contractor requirement. Additionally, this group of participants, in addition to a participant that did not indicate a government background, were able to cite a specific statute related to cost-sharing and non-traditional contractors. These participants successfully referenced the DoD's Other Transaction Guide (2018) and subsequent underlying statutes in explaining their understanding, with one participant stating:

> As a traditional contractor, there is a cost-sharing provision in 2371b OTAs that we must carefully consider before pursuing these efforts. If we do not have non-traditional contractors who can significantly contribute, we are on the hook for that cost-share.

Triangulation of data shows that the private sector is benefiting from the recruitment of prior government employees. As previously stated by Smith et al. (2002), the government invests time and money to ensure that government workers are training and educated on the processes, policies, and regulations associated with the traditional acquisition process. There are special

schools that government contracting employees attend to ensure they are knowledgeable of the government acquisition process (Layton, 2007). By recruiting these employees, traditional contractors can hone their focus on navigating the DoD's OT acquisition process. Based on the collected data from this stud, this strategy appears to be paying off for traditional contractors.

Given the majority agreeance on the answers provided for this sub-factor and the absence of any new themes, the researcher determined this sub-factor to be well saturated. While coding this factor, the researcher compared the answer given to prior research and his knowledge of the field in general. Overall, the researcher believes the government will continue to play a strong role in providing information to the traditional contracting community concerning their use of the OT acquisition process.

Contractor OT known similarities and differences. Using Appendix D, the following answers were provided by the five participants that were coded to this theme:

- Four of five (80%) acknowledged that they favored the ability to write their terms and conditions with the government
- Four of five (80%) expressed that they did not know of any areas that they were unsure whether the DoD's OT acquisition was similar to or different from the FAR-based acquisition process
- Three of five (60%) attributed their confidence in knowing the similarities and differences to company training or similar company investment of resources
- Three of five (60%) attributed their knowledge, in part, to their membership and participation in professional organizations
- Three of five (60%) stated accounting system requirements were different between the acquisition processes

The majority of participants (4 of 5) stated they enjoyed the flexibility of writing their terms and conditions in the OT acquisition process. One participant stated: “The biggest difference I can think of is that with OTAs, you basically sit down with the government and write your T&Cs on a blank sheet of paper.”

Additionally, four out of five participants stated that they did not know of any areas between the two acquisition processes that they were unsure about. Based on these provided answers, it would appear that traditional contractors are preparing their contracting professionals to handle the DoD’s acquisition process, in conjunction with the government’s contribution.

The majority of participants (3 of 5) stated their confidence and understanding of the DoD’s acquisition process could be attributed to their company holding training on the subject. As previously stated, one participant stated their legal department sent training and briefings to their acquisition team. Another participant stated that “We have mandatory training every month and Other Transactions has come up multiple times.” The majority of participants (3 of 5) also stated they learned from professional organizations they were part of that their employer paid for. The National Contracts Management Association (NCMA) was mentioned by all three participants as providing knowledge to knowing similarities and differences. Finally, the majority of participants stated that accounting systems could be different under the traditional and OT acquisition process. One participant stated: “We are on two different fields with nontraditional contractors when it comes to cost-sharing. We have to use our approved accounting system to account for our one-third, while they can use QuickBooks.”

To triangulate this data, the researcher started with the DoD Other Transaction Guide (2018). While the guide does not direct traditional contractors any training advice for their employees, it does provide an avenue for training employees. It appears that traditional

contractors are ensuring their employees know the guide and underlying statutes due to internal training put on by their companies. Aside from the private sector recruiting former government employees, there are entire industries dedicated to reading, learning, and advising private companies (Cohee et al., 2019). It would appear that traditional contractors are leveraging these resources to get more proficient at training and reading their workforce. Given the level of knowledge and confidence of these employees, it would further appear that this investment is paying off for these traditional contractors. As in the previous sub-factor, the researcher believes saturation was reached on this sub-factor based on the absence of emerging themes and themes different than previously predicted.

Contractor OT Unknown Similarities and differences. This sub-factors explores factors that can be attributed to contractors not knowing or realizing similarities between the acquisition processes. While primarily gathered from literature reviews, this section incorporates some participant responses.

- Three of five (60%) made comments associated with needing to join consortia to have full access to the DoD's OT acquisition process
- Four of five (60%) stated they would like to see the DoD OT acquisition process move at a similar speed to commercial contracting
- Two of five (40%) stated that competition, pricing, and costing, and source selection was completed in the same in both acquisition processes

A slight majority (3 of 5) participants stated they were required to join a consortium to access federal DoD awards. One participant stated:

> As a government contractor, I am interested in drumming up more business, in order for me to be considered for an OTA I have to put my fish in the pond where the DoD is

fishing, right? So I have to pay to be a member of a consortium that serves my interest in order to get the chance to compete for an OTA that government awards to the consortia.

When looking at the DoD Other Transaction Guide (2018, p. 39) stated "Each construct has its advantages and issues, and each situation may dictate a different approach. Ideally, the Government should allow the performers to determine the best way to organize their teams." While there is no requirement for consortia to be used in the DoD OT acquisition process, it is an option that the DoD utilizes. As stated by Lopes (2018), this pathway allows the DoD to agree with the team of contractors and mirrors how private industry conducts business. As such, it does not appear that the DoD is likely to end this practice in the foreseeable future.

A slight minority of participants (2 of 5) stated that similar information was being requested of them when comparing the DoD's traditional acquisition process to the OT acquisition process. Additionally, a slight majority (3 of 5) participants stated that they felt that DoD's OT acquisition process moved a similar speed. A single participant had concerns about how protests and disputes were handled under the OT acquisition process. One participant summed up their perception of the DoD mirroring the traditional acquisition process when using the OT acquisition process by stating: "The DoD stops just short of writing a FAR-based contract when it comes to Other Transactions. It is still expected that there will be market research, source selection, and many of the other requirements seen in traditional procurements."

Concerning protests and disputes, one participant stated:

> It seems like every few months some court or agency rules that they do not have jurisdiction over protest or disputes. Even more confusing is that some court or agency will rule the can hear a protest and not a dispute and vice versa…someone should just establish some ground rules on this.

To triangulate this data point, the researcher first looked to the DoD's Other Transaction Guide (2018). As stated in the guide, CICA does not apply to the OT acquisition process, but by statute, the DoD must use competition to the maximum extent possible. Additionally, the DoD must confirm price reasonableness when evaluating OT bids. While there this no official rules for performing these tasks, the guide does provide ample evidence that the acquisition team may use traditional procurement strategies and tactics when attempting to gather this information. The guide also states that some OT acquisitions may take as much or more time to execute than traditional procurements due to the main factors associated with negotiating the best deal for the government. Given this information, these participants are correct on both counts in which their perception is that the OT acquisition process is similar to the traditional acquisition process. The participants that did not identify these areas may not have had the same experience, thus this could explain why did not mention these areas.

While more individual variances could take place under the DoD's OT acquisition process, no themes mentioned in this sub-factor was outside of the scope of what the DoD has already expressed could happen. Likewise, more participants would likely have produced more variability on an individual basis based on the OTs acquisitions they have been subjected to. Additionally, none of the participants mentioned any theme that was not already contemplated. Given the overall variability in individual changes to the OT acquisition process and the majority agreeance on the rest of this sub-factor, the researcher believes that saturation was reached on this sub-factor.

OT similarities and differences impact on perception. This sub-factor will explore factors that cause traditional DoD contractors to perceive similarities, actual or not, between the acquisition processes. The five participants' responses were:

- Four of five (80%) stated that they directly interacted with the buying authority under the DoD's traditional and OT acquisition processes
- Three of five (60%) stated they disliked the cost-sharing provision for traditional contractors
- Three of five (60%) stated they unfavorably viewed the long timeline for writing and awarding OTs
- Three of five (60%) stated they would alter the DoD's OT acquisition process to make it fair amongst traditional and nontraditional contractors
- Two of five (60%) stated they did not like the guidance provided by DoD concerning the OT acquisition process
- One of five (20%) spoke in detail about the differences in the way protests and disputes were addressed differently under each acquisition process

The majority of the participants (4 of 5) stated that they were still communicating with the government buying authority in the DoD's OT acquisition process. One participant stated: "Although we primarily work through consortia, we spend more time talking to our customer than the consortium."

Another participant echoed this sentiment by stating: "They [Traditional and OT acquisition process] both require you to talk to the government customer."

In triangulating this data, the researcher examined whether this conversion among the government and the final customer was by design. When issuing an OT award directly to industry, this communication would be a requirement of the award. This is due to their being no intermediary between the customer and traditional contractors. This would also meet the government's mission of collaborating with traditional contractors as outlined in the DoD Other

Transaction Guide (2018). When sub-awards are issued through a consortium, it does not appear to change the dynamic of conversation between the end customer and the government. While each consortium is different, the guide states "Each construct has its advantages and issues, and each situation may dictate a different approach. Ideally, the Government should allow the performers to determine the best way to organize their teams" (p. 39). With this in mind, it appears that the existence of consortia is not meant to hinder dialogue between the government and individual party performing the work. Therefore, it appears that this element of perception is correct and will most likely continue in the future.

In another majority (3 of 5) participants viewed the cost-sharing provision negatively, with the same number of participants viewing the OT acquisition process unfair to traditional contractors. This sentiment was repeated multiple times throughout this section of questioning by participants. The participants were unclear on why this provision exists at the same time that the government is actively pursuing their technology or other offerings. This appeared to be the most contentious point of this sub-factor and had the greatest impact on the participants' perception of the OT acquisition process.

Unfortunately for participants, the cost-sharing provision is founded in the statute 2371b for prototype and follow-on production OTA awards (Vadiee & Garland, 2018). While there are exceptions to the cost-sharing provision, traditional contractors may not be able to meet these exceptions depending on the circumstances. In these cases, traditional contractors may not be able to competitively bid on the OT. Traditional contractors appear to have a valid case for claiming this requirement is unfair based on the evolution of the cost-sharing requirement. While non-government contractors may benefit from the exemption, so do defense contractors if they are classified as a small business. According to the DoD Other Transaction Guide (2018, p. 34),

"Section 812 of the FY15 NDAA broadens the scope and exempts small business from cost-sharing requirement." While it is feasible that the cost-sharing requirement could be lifted by Congress, there is no evidence to suggest this will happen yet.

In determining saturation for this section, it was once again determined that no participants introduced any themes not contemplated by the DoD Other Transaction Guide (2018). While two of five participants were not happy about the guidance that the DoD released concerning the OT acquisition process, this was due to individual problems faced during their personal experience working with the OT acquisition process. One participant's dissatisfaction was related to the use of consortia, while the other was related to protests and disputes. Based on the current literature, it was determined that the DoD would not be the appropriate body to release guidance on either of these complaints, given they are outside the scope of the DoD's jurisdiction. With all of this considered, the researcher determined this subfactor was adequately saturated.

OT similarity and differences in summary. After a thorough analysis, the research made three conclusions related to this theme. First, the majority of traditional contractors are as confident in their knowledge of the DoD's OT acquisition process as they are in the FAR-based acquisition process. This is based on the number of correct identifications of similarities and differences related to those presented in the available literature and official guidance. Second, while unhappy with some of the differences, traditional contractors are knowledgeable of the major similarities and differences between the DoD's OT and FAR-based acquisition processes. While the majority of similarities and differences are known, there are some key differences between the two acquisition processes that were not expressed by participant interviews. Third, traditional contractors overall enjoy the flexibility associated with the DoD's OT acquisition

process, but believe the cost-sharing requirement can be prohibitive to participation because it creates a two-tiered system for participants. Based on the manner in which the DoD Other Transactions Guide (2018) is written, there are no new or emerging themes that were discovered during this section. Overall, prior assertions that traditional contractors are knowledgeable about the DoD OT acquisitions appear to be well supported by the data presented in this theme. Based on all the gathered evidence, this section justifies the researcher's first layer of the conceptual framework for this study and is well supported by prior literature.

Common issues in OT acquisitions. This theme will explore OT factors that contribute to the existence of problems and issues when using consortia during the execution of the OT acquisition process, which can include organizational, knowledge, and perceptions of consortia. To address this theme, four sub-themes will be explored in this section. The information for this section will be derived from the participant interviews, researcher analysis, and prior literature, which will then be compared to the conceptual framework through triangulation. The participant interview information for this question was generated using the interview questions related to research question 2: What common issues are traditional DoD contractors facing during the proliferation of DoD OT acquisitions using consortia? The participants answered the following interview questions to provide data for this section.

a. How well do you understand the design, purpose, and operation of consortia in relation to DoD OTs?
    i. What, if anything, would help you know more about the purpose, design, and operations of DoD consortia?
b. Why do consortia exist to facilitate DoD OTs?

i. What, if any, are the pros and cons, to having a consortium facilitate a DoD OT versus directly awarding them to the contractors?

c. Can you tell me how many consortia exist that facilitate DoD OTs?

i. Besides the consortium(s) you currently work with, can you name any other active consortia?

ii. Are DoD consortia required to be awarded a DoD OT?

d. How is interacting with a consortium different that interacting with the government's functional and operational members?

i. Do you consider these differences positive or negative?

ii. Please explain why?

Organizational. This sub-factor will analyze factors that can be attributed to DoD or traditional contractor organizational decisions or design that contribute to issues existing when using consortia during the execution of the OT acquisition process. The five participants answered the interview questions to provide the following information:

- Four of five (80%) of participants stated that company policies hindered commutation with consortia
- Four of five (80%) stated their company had or was in process of developing a plan for working with consortia
- Three of five (60%) of participants felt that their company did not communicate well with consortia
- Three of five (60%) of participants made some mention of having company resources available if they needed more information on consortia

- Two of five (40%) of participants felt that their company did not fully understand the role of consortia in the DoD's OT process

A slight minority (2 of 5) participants felt that their company did not fully understand the role of consortia in the DoD's OT acquisition process. This was expressed in a multitude of ways including statements such as "Consortia award Other Transactions" or "Our company is looking to get our customer to go through a consortium to get an award." This appears to show that while traditional contractors understand the overall concept of consortia, they are confused about the need and purpose of them.

While these comments are not surprising given that Fried (1989) already identified that the traditional industry struggles with the idea of consortia, it does show a problem with organizations not correcting these misconceptions. The DoD Other Transaction Guide (2018) clearly states that consortia are not required to have an OT awarded to the recipient. Yet one participant appeared to express that OTs were awarded by consortia, while another seemed to state that their company believed driving an OT to the consortium was the right plan of action. The statement concerning OTs being awarded by consortia is incorrect on its entirety due to OTs only being awarded by an Agreements Officer, which is a government agent. The statement concerning OTs needing to driven to consortia is not backed by any literature, statute, or guidance. These statements appear to back Fried's (1989) findings and even though 30 years have passed since his publications, it appears that traditional contractors still have some common misconceptions concerning the DoD's OT acquisition process.

Two areas related to communication were brought up in this theme. First, three of five (60%) participants did not believe they had good communication with consortia. This was, in part, explained by four of five (80%) of participants stating their company policies hindered

communication with consortia. This poor and hindered communication was expressed in different ways. One participant described a centralized approach to consortia management has a hindrance and cause of poor communication by stating:

> Although we are managing the actual award, we do not actually communicate with consortia. We have a PMO that handles communication and memberships with consortia. When the PM has a question or needs clarification, this just adds another layer to communication without adding value.

Another participant who manages contracts stated: "I do not communicate with consortia, I believe our business development team does that."

Based on prior literature, a lack of communication in major, complex projects is one of the most common issues amongst various parties (Maqbool & Sudong, 2018). Part of adapting this communication pattern involves being able with administrators of the DoD's OT acquisition process, in this case, consortia. While traditional contractors are investing resources to improve their ability to process the OT acquisition process, it does not appear that they have established a strong infrastructure to manage communication with consortia, which are a vital part of the current OT acquisition process. Given that the government is one of the largest, most complex entities in the business world, organizations that are unable to adapt their communication to meet the government's needs will continue to suffer (Rendon & Winn, 2017).

Given that four of five (80%) stated their company had or was in process of developing a plan for working with consortia shows that traditional contractors are actively trying to improve their current understanding of consortia and the DoD's OT acquisition process. As stated by Quarshie et al. (2016), building up infrastructure and investing resources in change is one of the best ways to maintain a sustainable business. The ways these traditional contractors are building

their infrastructure varies though. This was expressed in a multitude of ways by the participants with one participant mentioning in a passive sense by stating: “I am actually working on a PowerPoint deck this week describing the specialties of various consortia that we work with.”

To a more active participant stating:

> Our business sector has recently formed a task force to come up with the best practices to answer this very question. The truth is, as a business unit, we don't have a strong strategy in place for handling Other Transactions…. Hopefully, over the next few months, we can change that.

This theme, tied in with three of five participants stating their company had resources available to learn more about consortia showed that traditional contractors are on the right path in effectively understanding the DoD’s OT acquisition process and the need for consortia in that process. While it is possible some individuals within traditional contractors still do not have a firm understanding of this process, this does not mean the company as a whole lacks this understanding. As shown in the communication part of this theme, some traditional contractors have central points of contact with consortia outside of their contracting departments. When combined with Lopes (2018), who already states that traditional contractors understand the DoD’s OT acquisition process better than ever, it appears to provide adequate evidence of saturation of this sub-topic.

Acquisition processes. This sub-factor will analyze factors that can be attributed to similarities or differences between the OT and FAR-based acquisition processes that contribute to issues existing when using the OT acquisition process. The five participants answered the interview questions to provide the following information:

- Five of five (100%) of participants could not accurately state how many consortia currently existed that served the DoD in administering OT awards
- Five of five (100%) of participants stated they knew where they could find more information about what consortia existed, but how they sought to find more information varied significantly
- Three of five (60%) of participants stated that communication with their government customers was negatively impacted by consortia agreements.

Five of five (100%) percent of participants were unable to accurately state how many consortia currently existed that served the DoD in administering OT awards. Answers varied, with one participant stating, "…there used to be only one, but it seems like every year more and more pop up." Another participant stated that they knew of the seven their business unit worked with. Yet, another participant stated, "I believe there are 23 [consortium], but there could be more."

While the researcher can identify over 30 consortia, the researcher is unable to state the exact number of consortia currently working with the DoD to administer OT awards (AiDA, 2020). This inability to identify the exact number of consortia and lack of available tracking for each new consortium appears to be problematic for both the DoD and private industry. The research by both Weinig (2019) and Monaco (2018) established the need for the DoD's OT acquisition process to obtain critical technologies. When the private industry does not know where to look to find out the needs of the government, this creates a barrier for the government. As shown by this subfactor, the researcher discovered that traditional contractors simply are not aware of all the areas to look for future opportunities to engage with DoD. The researcher further addresses this subfactor in their recommended actions section of this research.

While all the participants were unable to state exactly how many consortia existed, all of them did state they knew where they could gain more information concerning consortium they were not working with or knew of. As in the previous subfactor, three of five (60%) participants stated they had access to company resources to learn more about consortia, including identifying ones they are not aware of. Four of five (80%) participants stated they were members of professional organizations, such as the National Contract Management Association (NCMA) and were able to learn more consortia through their association to their professional affiliation. Two of five (40%) of participants stated they could simply "google it" if they needed more information concerning consortia. One participant stated:

> Our company has an intranet where we can access material if we need it. However, with the many experienced employees that we have here, we can usually just ask someone about a specific area of interest. In this case, if we wanted to know which consortia existed, I would go to our Bus Dev team and I bet they would know.

Another participant highlighted google by stating: "We only need to know the ones we are working with, but if I needed to learn more, I bet I could just google it."

As previously stated in this study, research by Quarshie et al. (2016) showed that companies building up infrastructure and investing resources in change is one the best ways to maintain a sustainable business. While the majority of the participants stated they knew of company resources they could turn to, some participants indicated that they either did not have company resources or, at the very least, did not know about company resources that existed that could help them understand the DoD's use of consortia. While not originally considered as part of the researcher's conceptual framework or literature review, the reliance on professional organization affiliations appears to be beneficial in solving knowledge-based problems for

traditional contractors. A review of the NCMAHQ website shows a large number of resources and an online community board. While this resource could be utilized to answer questions concerning consortia, it is not governed or monitored by a government or traditional contractor. This could lead to misinformation flowing, which would hopefully be mitigated by the large membership monitoring the community chat section.

Three of five (60%) of participants stated that they believed their communication with their government customer was negatively impacted by using consortia. One participant stated:

> We have to ensure that our agreement [speaking about a consortium PLA] allows us to communicate with our customers directly. Since I do not speak directly to them [speaking about consortia], I need to wait on a response from our team that handles those agreements before speaking to our customer…It just adds a layer to the process.

While traditional contractors have a negative perception of the communication between them and their DoD customers when using consortia, some of the problems appear to be by design. As stated by Vadiee and Garland (2018), consortia act similarly to a prime contractor under a traditional acquisition and that could limit the communication directly between the DoD and sub-awardees. The DoD is paying consortia to act as a liaison between the parties and allowing sub-awardees unfettered access to the DoD customer would defeat this purpose (Lopes, 2018). While each consortium is allowed to set up their own rules about communication to their customer base, they most likely work with their DoD customers to determine which communication plan is most effective and pass that communication plan down to each sub-awardee.

Overall, there was one sub-theme that emerged during this subfactor that the researcher did not anticipate when they developed their conceptual framework. The use of NCMA and other

professional organizations in gaining a stronger understanding of consortia was a popular method mentioned throughout this theme. The researcher believes given its strong presence in this subfactor, future research should consider it when developing their framework and literature review. Given that there is an abundance of significant evidence to support the findings of this sub-section, the researcher considered this subfactor saturated, except for the new emerging theme relating to the role of professional organizations enhancing knowledge of the DoD's OT acquisition process and the use of consortia to administer OT awards.

Non-acquisition processes. This sub-factor will analyze factors that cannot be attributed to differences between the OT and FAR-based acquisition processes that contribute to issues existing when using consortia during the execution of the OT acquisition process. The researcher did not discover any non-acquisition processes that contributed to common issues for traditional contractors when working with the DoD's OT acquisition process. Based on the literature review performed, the researcher expected that the participants would indicate areas, such as company culture, infrastructure, or other processes related to non-acquisition functions as possible areas causing issues in using the DoD's OT acquisition process. The results of the interviews were void of any non-acquisition processes, but even when areas such infrastructure were mentioned they were done so in a positive light, rather than an issue causing one. For this reason, the researcher was unable to reach any conclusions for this sub-factor based on evidence gathered during the interview process. Based on the findings of this section, the researcher recommended this area for future research in their research.

Perception of consortium. This sub-factor will analyze factors that cause traditional DoD contractors to perceive issues, existing or not when using consortia during the execution of the

OT acquisition process. The five participants answered the interview questions to provide the following information:

- Five of five (100%) of participants stated that consortia were not required for the DoD to award an OT
- Three of five (60%) of participants stated that consortia served a positive purpose in the DoD's acquisition process
- Two of five (40%) of participants saw consortia existing to make money

All of the participants for this study stated that they knew that consortia were not required to award an OT. In describing this, the participants expressed a multitude of ways they acquired this knowledge. Some of the participants stated they had direct to awards from the government for OTs, some stated they knew this information from prior work experience in the government, some cited the DoD Other Transaction Guide (2018), and some had a combination of events that led to this knowledge. The establishment of this factor showed a mix of emotions, which made it important for this study. One participant had a logical approach and stated:

> No…the DoD does not have to use a consortium, but if you think about it, using one is often an easier way for the government to award a large dollar one. The consortium does the negotiating with the government and the government sponsors the consortium.

Another participant had a more negative outlook:

> They do not have to use them, but they do anyways. These little one and two man shops are made up of people that are well connected to the government, you know retired higher-ups that are simply getting a piece of the pie.

All participants were correct in assuming that consortia were not required for the DoD to award an OT. According to the DoD Other Transaction Guide (2018), consortia are one of the

many avenues available to the DoD in executing their OT acquisition process. The DoD alone decides on how the OT acquisition process will be carried out for each specific acquisition. While all the participants were correct in identifying that consortia are not needed, it was clear that there were some misconceptions about the role that consortia play in the DoD's OT acquisition process.

Three of five (60%) of participants view the overall involvement of consortia in the DoD's OT acquisition process as a positive service, while two of five (40%) saw them only existing to make money without adding value to the acquisition process. One of the participants who saw consortia as a positive aspect of the DoD's OT acquisition process stated: "Consortia allow the DoD to award large agreements to a neutral party who can then distribute to multiple sub awardees without endorsing a private company…to me, this helps the DoD maintain a perception of fairness to their suppliers."

One of the participants who saw it negatively stated described it simply as "higher-ups that are simply getting a piece of the pie."

While this subfactor appears to be split on the perception, there is no clear evidence that either side is wrong. The use of consortia can help the DoD mitigate risk and the perception of favoritism to a company, but they could also be abused by certain individuals. This is the same stance currently being taken by the government as they seek to more closely monitor OT awards. As shown in the NDAA FY 2020 mandates that more information than ever be disclosed to congress about who is awarding them and who they are awarded to (Williams, 2019). The government is concerned that the DoD's OT acquisition process could be abused by someone. This is not to suggest that this has taken place, but the perception of it does exist in both the private and public arenas. Overall, it would appear there is enough evidence to state this

subfactor is saturated although two different perceptions are indicated as it aligns with the current environment involving the DoD's OT acquisition process.

Common issues summary. Traditional contractors appear to have one major problem with consortia. Communication between the DoD, consortia, and traditional contractors does not seem to be effective according to traditional contractors. Additionally, some traditional contractors have some misconceptions about consortia. These misconceptions about consortia appear to be driving the negative sentiment some traditional contractors have about consortia. While the DoD Other Transaction Guide (2018) does a good job of stating that consortia could be used, it does not describe what DoD consortia would operate like or be structured like. This primarily leaves people that are unfamiliar with consortia in a DoD environment to develop their own opinion about their existence. Overall, the researcher did not discover any major problems that would impact traditional contractors from working the DoD.

Critical success factors in OT acquisitions. This theme will explore factors that are critical to the success of traditional contractors in effectively understanding and utilizing the OT acquisition process. To address this theme, three sub-themes will be explored in this section. The information for this section will be derived from the participant interviews, researcher analysis, and prior literature, which will then be compared to the conceptual framework through triangulation. The participant interview information for this question was generated using the interview questions related to research question 3: What are the critical success factors (CSF) that traditional DoD contractors must accomplish to be successful in OT acquisitions? To generate data for this section, participants answered the following interview questions:

a. How would you describe your level of knowledge of the FAR, DFARS, and 2018 DoD OT Guide?

b. How did the company use its past successes in FAR-based acquisitions to be successful in OT acquisitions?
c. How does communication with the government and end customers under the OT acquisition process compare with that of the traditional acquisition process?
d. What factors played a significant role in acquiring and executing the OT your company had/has?
e. What additional factors would make you more likely to be successful in acquiring and managing OTs?

Knowledge CSF. The subfactor will analyze factors associated with the knowledge that traditional contractors have about the OT acquisition process, including consortia, which are vital to success. The five participants provided the following responses to the interview questions:

- Five of five (100%) of participants stated they had a strong knowledge of the FAR and DFARS
- Four of five (80%) of participants stated they had a strong knowledge of the DoD Other Transaction Guide (2018)
- Four of five (80%) of participants stated that organizational led training would or has increased their knowledge of the DoD OT acquisition process
- Three of five (60%) of participants stated that self-study contributed to their knowledge of the DoD OT acquisition process
- Two of five (40%) of participants contributed their knowledge to passive learning

All of the participants stated that they believed a strong knowledge of the FAR and DFARS, while four of five (80%) of the participants stated they had a strong knowledge of the DoD Other Transaction Guide (2018). One participant expressed their belief in their knowledge

by stating: “I feel that I know the common parts of the FAR pretty good, but the truth is that it is all online nowadays. If you need to reference something, you can just look it up.”

Another participant stated: “I feel pretty comfortable discussing government acquisitions…I have been doing this for over 30 years, there is not much that surprises me anymore.”

Despite not having the same level of resources to learn about the FAR, DFARS, and DoD Other Transaction Guide (2018) that federal employees have access to, traditional contractors have a very high confidence in their ability to operate in the DoD’s OT acquisition process (Smith et al., 2002). While this confidence is not correlated to actual knowledge or evidence of knowledge, it at least shows that traditional contractors believe in themselves to properly navigate the DoD’s OT acquisition process. This confidence is simply the starting building block of assessing whether traditional contractors feel they are able to be successful in the OT process.

In addition, the majority of participants showing a high level of confidence in their knowledge of defense acquisition processes, four of five (80%) of the participants stated that organizational training contributed to their knowledge of consortia and DoD OT acquisition processes. One participant described their best practices book as related to training by stating: “Our company has a best practices book for OTAs…While it doesn’t address everything, it does provide us a roadmap on how to tailor our processes when working with an OTA.”

One participant stated the following as an additional factor that would make them more successful in understanding and executing the DoD OT acquisition process: “I think we need more training on OTAs. Every month we receive training related to FAR-based contracts, but there is hardly anything on OTAs.”

Organizational training did or could contribute to a traditional contractor's knowledge in a variety of ways. Some participants contributed their knowledge to organizational training received while employed by the United States Government. This was not surprising given that research shows that the government has an established program specifically geared towards acquisition processes used by the government (Layton, 2007). While the DoD Other Transaction Guide (2018) stated that this training has not been perfected, it does show that it is impactful to the DoD OT acquisition process. The majority of the participants also stated that their company has training that has or could contribute to their knowledge of the DoD OT acquisition process. While most participants did not elaborate on the specifics of their individual training, they did indicate a mix of internally developed and externally developed training programs. This is also not surprising given that research shows there are many third-parties that provide niche training to both the public and private sector to supplement their own internal training (Cohee et al., 2019). Organizational training, despite where the training is given and by what organization the training is offered, appears to be an important CSF that can assist traditional contractors in understanding and gaining knowledge about the DoD's OT acquisition process.

In the final section of this sub-factor, three of five (60%) of participants stated their knowledge about the DoD OT acquisition process came from self-study. Concerning self-learning in the OT acquisition process, one participant stated: "Companies aren't going to teach you every little nuance, you have to put in some time actually reading this stuff yourself."

While traditional contractors could not mandate self-study, they could encourage it by providing employees incentives to self-study, such as the dedicated time during the workday. However, it would be hard to quantify the impact of allowing this self-study time. Unlike FAR-based agreements that have certification programs associated with an individual's knowledge of

the subject matter, such as the Certified Federal Contracts Manager (CFCM) certification offered by NCMA, there is no certification of Other Transactions. Therefore, traditional contractors would have to find another way to quantify whether allowing self-study was increasing productivity or knowledge of the DoD OT acquisition process.

Finally, two of five (40%) stated their knowledge came from passive learning. These two participants stated that being involved in meetings and other activities concerning the OT acquisition process was helpful in learning more as it provided them opportunities to ask questions and get involved in opportunities they would not normally be involved in. While this was not originally expressed in the literature review and conceptual framework, it does fall in line with the knowledge gained from simply performing the core functions of the job with traditional contractors. Traditional contractors could leverage this technique for knowledge by implementing cross-functional training, but this sub-factor appears to minor application with some benefits.

After a thorough review of the participants' responses, the research believes that this sub-factor is both well triangulated and saturated. As shown by Lopes (2018), the sample size for participants for this topic was appropriate given the area of study. This, combined with the supporting research bolsters the responses provided by the participants. Although two of the participant minor themes were not well supported by literature, the main themes were well established. The two minority themes are well explained in the context of this study, self-study is outside the control of traditional contractors without a quantifiable goal, while passive learning appears to be more of individual preference for learning. Overall, the researcher believes with, all things considered, this CSF sub-factor is both saturated and triangulated.

Communication CSF. This sub factor will analyze factors associated with the communication between traditional contractors, the DoD, and consortia which are vital to success. The five participants provided the following responses to the interview questions

- Five of five (100%) of participants stated that effective communication was an important success factor related to the DoD OT acquisition process
- Five of five (100%) of participants stated that internal communication was important
- Four of five (80%) of participants stated that communication with their government customer was important
- Three of five (60%) of participants stated that communication with their consortia was important
- Three of five (60%) of participants stated that maintaining a strong network of traditional and non-traditional contractors was important

All the participants stated that effective communication was an important critical success factor. Additionally, all the participants stated internal communication was important to be successful in the DoD acquisition process. This was expressed in a multitude of ways, with some participants stated that the whole team should be involved from the moment their business development team identifies a viable OT to ensuring that valuable information is being flown down in a manner that is adequate for teams to begin working on proper bidding, negotiations, and execution. One participant highlighted this well by stating:

> One thing that could be done better is the way information flows during the OTA process. In a FAR-based agreement, we a defined process that takes the opportunity from a proposal to award in a very standardized fashion. With these OTAs, there is like a two week turnaround time on some of them and the whole process seems very rushed.

In this case, the participant was describing their approach to assessing opportunities using the Shipley capture. There biggest complaint was that gated-reviews were taking place on condensed schedules and the participant believed that key pieces of information were being looked over in an effort to get their proposal out on time. Aside from the Shipley capture method suggesting communication is a key to successful opportunities, Maqbool and Sudong (2018) stated that modern projects involve multiple internal stakeholders and the ability to communicate effectively and productively is an essential part of seeing these projects through. Additional research states that ineffective internal communication can cause project price, schedule, and scope to slip over the course of the project, which ends up negatively impacting the organization (Pinto & Slevin, 1987). Overall, the participants' answer to this sub-factor is greatly supported by research.

Four of five (80%) of the participants stated that communication with their government customers was important in the DoD OT acquisition process. This answer was consistent with the four of five (80%) participants which stated that their company policies hindered communication with their government customers when working through consortia from theme two. According to the DoD Other Transaction Guide (2018), the DoD is seeking to work with traditional and non-traditional organizations in the same way that they would in a commercial environment and enhanced communication is one of those goals. This would make effective communication with the government is a critical success factor when using the OT acquisition process. If external factors, such as consortia, are hindering that, traditional contractors should let their government customers know. If internal policies and procedures from the traditional contractor are hindering that communication, those policies and procedures should be changed to adapt to the needs of communication in the OT acquisition process.

Four of five (60%) of the participants stated that communication with consortia was important when working under the DoD OT acquisition process. One participant stated:

> One thing companies have to stop doing is treating consortia differently from any other prime contractor. They are prime contractors and the government has awarded them the OTA. We have processes in place for work with prime awardees and we should follow those processes when working with consortia.

This participant appeared bothered that their company was not utilizing their established procedures to work with consortia and expressed that they felt their company was inconsistently working with each consortium. As previously stated in this study, awarding the OT to the consortium is like awarding a prime contract using the traditional acquisition process (Vadiee & Garland, 2018). The consortium then acts as the prime contractor and awards subcontracts under their terms and conditions that incorporate a combination of the DoD requirement along with the consortium's terms and conditions. This makes the consortium, not the subcontractor, liable to the DoD for any deficiencies in delivering the requirements of the OT (Manley, 2018). This also means that traditional contractors must be able to work with consortia, in the same manner, they would a prime contractor in the FAR-based award to best serve the DoD. Using all the information available to them, if the DoD chooses to use consortia as one of their many options to award an OT, it is critical that traditional contractors be able to work with consortia to best serve the DoD.

Finally, three of five (60%) of participants stated that maintaining a strong network of traditional and non-traditional contractors was a critical success factor concerning communication throughout the OT acquisition process. One participant stated:

> One thing we do as part of our best practices for OTAs is to maintain a qualified non-traditional contractors list. This allows us to ensure that we can quickly bid on an OTA without being responsible for one-third of the cost.

The reason cited for this need was to avoid the cost-sharing provision outlined in the DoD Other Transaction Guide (2018) and the statute governing prototype OTs. While this cost-sharing provision appears to encourage traditional contractors to bring non-traditional contractors to the OT acquisition process, it does not appear to impact the ability of traditional contractors to actually bid or be competitive for OT awards. While the cost of not having non-traditional contractors significantly contributes could be high for traditional contractors, this is something that would only impact the traditional contractor given that the requirement is the same as all parties seeking to bid OT work in cases when the cost-sharing provision is included. Overall, it does not appear that maintaining or having this network would be deemed critical to success, but it could be used as a best practice. Overall, communication sub factors appear to align with current literature and participant responses, thus this subfactor is deemed saturated by the researcher.

Prior experience CSF. This subfactor will analyze factors associated with prior experience that traditional contractors have in working with FAR-based contracts, the DoD, and OT acquisitions that are vital to success. The five participants provided the following information from the interview questions.

- Four of five (80%) of participants stated working on multiple OTs or with multiple consortia contributed to being successful as a traditional contractor in DoD OT acquisition process

- Three of five (60%) of participants stated that prior work in the government contributed to being successful as a traditional contractor in DoD OT acquisition process
- Three of five (60%) of participants stated that working for a separate traditional contractor at some point in their career contributed to being successful as a traditional contractor in DoD OT acquisition process

Four of five (80%) of participants stated working on multiple OTs or with multiple consortia contributed to being successful as a traditional contractor in the DoD OT acquisition process. One participant stated:

> Our company has a database that has all the different consortia we are members of in it. We have master agreements with their terms and conditions and are able to compare them to one another internally. This allows leverage to negotiate individual T&Cs based on specific issues that we may take issue with.

Another participant shared a similar sentiment by stating: "Although each OTA supposedly starts from a blank page, what we are seeing is that many of them contain similar terms and conditions, especially ones that are generated and released by the same buying authorities."

The participants in this theme appear to be describing the guidance found within the DoD Other Transaction Guide (2018), which states that while many of the same regulations that apply to FAR-based procurements do not apply to OTs, the government may defer to the FAR in issues that are not negotiated or that they are not familiar with. As shown in Lopes (2018), the DoD knows the FAR is restrictive to use, but it is the standard default for many of the contracting authorities when they do not know what else to do. While it appears that understanding this

aspect of the DoD OT acquisition process is important, it should not be considered critical to the success of OT acquisitions. As also stated in multiple kinds of literature, the option to mimic past OTs or use the FAR to supplement terms and conditions is at the sole discretion of the DoD (DoD Other Transaction Guide, 2018; Lopes, 2018; Manley, 2018). During any particular OT, the DoD could choose to and would have no obligation to follow past precedence. As such, traditional contractors should continue to treat OTs as individual agreements, rather than expect they mirror prior awards.

Three of five (60%) of participants stated that prior work in the government contributed to being successful as a traditional contractor in the DoD OT acquisition process. As previously explored in this study, previous government employees have attributed their knowledge and skills concerning the DoD OT acquisition process to their previous employment with the government (Layton, 2007). Additionally, prior DoD employees are more likely to gain insight into the inter DoD workings concerning the OT acquisition process that could be advantageous to traditional contractors (Smith et al., 2002). While this could promote the recruitment and hiring of DoD employees, it should be noted that this should not be considered critical to the success of traditional contractors in bidding and winning OTs. Regardless of the acquisition process used by the DoD is to promote transparency, maintain public trust, and promote competition to the maximum extent possible (Maser et al., 2010). Whether in perception or reality, hiring previous DoD employees should not impact the ability for traditional contractors to participate in the OT acquisition process as this would run in the counter direction of the overall mission of the government.

Three of five (60%) of participants stated that working for a separate traditional contractor at some point in their career contributed to being successful as a traditional contractor

in the DoD OT acquisition process. This is not surprising given the number of resources traditional contractors are investing in bettering their employees and infrastructure to work with the DoD OT acquisition process. While the cross-pollination of employees is a natural occurrence in the Defense industry, employees are often bound by non-disclosure agreements (NDAs) that legally bind departing employees from using knowledge, processes, or other proprietary information in their new jobs. While this study does not look at whether or not employees abide by these NDAs, the researcher could not deem recruiting employees with previous experience with other traditional contractors critical to the success of the DoD OT acquisition process. If traditional companies attempted this strategy, it could reflect poorly on the company and, if anything, hurt their ability to work with the DoD.

In analyzing this subfactor for triangulation and saturation, this subfactor was unique in that the majority of the subfactor findings were not critical success factors. While the best practice of on the job training and involved was identified, given that the DoD's OT acquisition process does not follow a standardized format this could not be considered a CSF. Recruiting employees from the government and other traditional contractors both showed some signs of improving knowledge, but traditional contractors should not recruit these employees for the sole purpose of competitive advantage in the DoD OT acquisition process. With these two subfactor themes deemed not CSFs, the researcher believes this subfactor is well saturated and triangulated.

Critical success factor summary. As suspected, there are two major critical success factors that traditional contractors believe are essential to being a success in the DoD OT acquisition process – training and communication. Traditional contractors must utilize a variety of training opportunities that can or could assist them in becoming more efficient at working

with the DoD and consortia under the OT acquisition process. The types of training used could come from internal resources or external parties that specialize in the OT acquisition process. Traditional contractors must also be able to effectively communicate with internal and external stakeholders to be successful in the DoD OT acquisition process. While traditional contractors acknowledge these needs, it does not appear they have completely mastered carrying out these CSFs, but it does appear they are investing resources to improve them in the future.

Applications to Professional Practice

This research was performed primarily to fill in knowledge gaps and add to a growing body of knowledge in the supply chain field. While this research has accomplished this goal, it can also be used to create a practical application to the professional field being studied. The findings of the study are significant in the knowledge they added to the supply chain field, particularly the DoD acquisition field, but they also have widespread applications to improve business practices. As data were collected through interviews and combined with publically available information and prior research, these improvements were revealed both in general business practices and in a narrow scope of traditional contractors. Overall, four major business improvement applications came to light in this study, including one biblically founded improvement. This section will discuss these applications and the way these applications apply directly and indirectly to the field of DoD acquisition.

Embrace a systematic approach to change management. The first professional application this study showed is the importance of investing and embracing change management in the business world. As shown in multiple points of literature, the complex relationship between the DoD and the private sector is slow to change, but when it has changed the shifts are major (Lopes, 2018; Manley, 2018; Mathis, 2018). The DoD first maintained leverage over the

private industry by supplying them with R&D funds. The private industry, growing tired of strict DoD requirements for doing business, invested in their own R&D. This caused the DoD to adopt a new procurement technique (OTA), that had less stringent requirements so the DoD could continue their relationship with the private industry. The DoD's OTA worked well for developing relationships with non-traditional DoD contractors, but traditional contractors had built an infrastructure designed to work under the regulated FAR system. Traditional contractors are now at the point where they must change again to maintain an open business relationship with the DoD (illustrated in Figure 3).

Figure 3. OTA change management for DoD and private industry.

While these changes involve the complete re-working of how both the DoD and private industry think about acquisition, the core response is still change management. As stated by Todnem (2005, p. 369), "successful management of change is crucial to any organization in order to survive and succeed in the present highly competitive and continuously evolving business environment." While the need to adapt to change is uncontested in literature, organizations must have a plan to successfully adopt change. As stated by Burnes and Jackson

(2011), 70% of the time change initiatives fail to be implemented successfully. This shows that managing change is much more difficult than simply acknowledging the need for change, organizations must strategically plan out the change they want to make. Simply put, all organizations, including the government, must acknowledge the need for change, create a plan to change, and successfully follow through with that plan to adapt to shifting market forces to remain viable and competitive in the business environment.

Develop adaptive communication strategies. The second professional application this study showed is the importance of ensuring a proper communication plan in the evolving business environment. As the only theme to show up across all three research questions of this study, communication appeared to be the most important factor for traditional contractors working with the DoD's OT acquisition process. Before the DoD embraced the OT acquisition process, there was a very simple, structured form of communication (shown in Figure 4). After the DoD adopted the OT acquisition process, many different and unique players entered the market. This caused the communication channel to become much more complex. As shown in Figure 5, the adaptation of a new communication plan has not yet been completely achieved under the DoD OT acquisition process by traditional contractors.

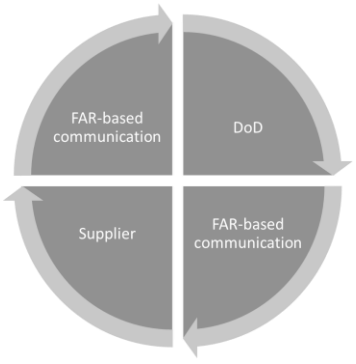

Figure 4. FAR-based communication plan.

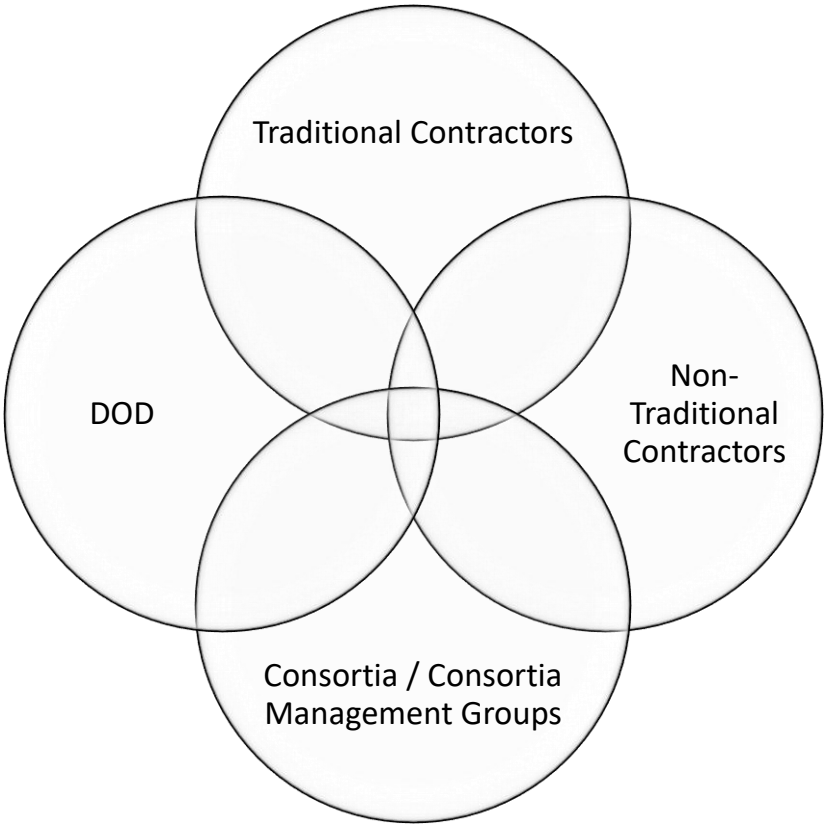

Figure 5. OTA communication plan.

Just like traditional contractors must adapt their communication plan to adapt to the DoD's OT acquisition process, so must any organization to remain competitive in the business world. As stated by Murphy and Sashi (2018), the way in which a business communicates with external parties can have a profound impact on that business. The researchers show that organizations that want to be successful in communication with external parties should provide rational and reciprocal feedback during the communication process. This means that in order for communication to be successful in interactions, organizations must listen to the external party and provide responses that are thoughtful and productive. Not responding to external organizations or responding in a manner that is not meaningful could negatively impact the organization.

Communication is not limited to successfully communicating during external interactions. While traditional contractors seek to successfully communicate with outside parties during the OT acquisition process, they also seek to communicate the changes internally as well. As stated by Zerfass and Viertmann (2017), successful internal communication helps motivate employees, prevent the crisis, and understand the views of stakeholders. Communicating successfully internally helps organizations remain united in their approach to change and ensures that the organization is able to communicate effectively externally. Only by ensuring successful external and internal communication, can an organization maintain its reputation and image in the business world while adapting to change.

Incorporate comprehensive employee training programs. The third professional application this study showed is the importance of conducting proper training in the evolving business environment. Showing up in two of the themes, training is essential for both the DoD and traditional contractors to continue to be successful in working together in the OT acquisition process. As shown by Lopes (2018), the DoD training is focused primarily on ensuring that DoD employees understand the OT acquisition process from the government's perspective; while traditional contractors are training to help their internal people align with the DoD's OT acquisition from the business perspective. Without this targeted and specific training, neither party would be able to effectively create a fast and agile acquisition process, which would defeat the purpose of using the OT acquisition process.

While the training described in this research is limited to a very small portion of a single acquisition process, ensuring effective training is conducted is a core business need. Training is something that any organization in any industry or sector must do to remain competitive in the evolving business world (Netland, 2016). While training can come in a variety of forms, such as

company-sponsored, outside consultants, and OJT, it also encompasses almost everything in an organization, such as operations, processes, and business strategy (Safdari et al., 2015). Organizations that do not conduct training with their employees are setting up their organization to operate in a non-standardized manner across every function of the business. This could create problems for organizations when they are trying to execute cross-functional operations, interact with outside parties, and any other action the organization may want to execute outside of a vacuum. Overall, organizations must ensure they are conducting regular, standardized training to ensure that employees grow and add value to the organization to create a long-term, viable, and sustainable strategy in a competitive market (Costantino et al., 2015).

Enhance business practices with biblical principles. While the previous business practice applications are standard across the business world, the need for biblical principles can also be seen as impacting the perception that traditional contractors have of the DoD's OT acquisition process. As revealed in the second theme of this study, some traditional contractors did not see a need for consortia, with some participants stating they only exist to make money. Additionally, research shows that the United States Government also believes that the DoD OT acquisition process could be used by unethical or greedy individuals and have taken steps to curtail the possibility of abuse as seen in the NDAA FY 2020 (Williams, 2019). If Biblical principles existed in the DoD OT acquisition process, these solutions would not be needed because the negative perceptions and questionable activities would not be supported by evidence.

When looking at the business world as a whole, one does not have to look far before finding examples of unethical and greed. As seen in the cases of Enron, Waste Management, and Wells Fargo, unethical behavior was driven by greed and brought some of the most powerful companies in the United States to either collapse or very near collapse. Using the Bible as a

reference, these events are predicted in 1 Timothy 6:8 “Those who want to get rich fall into temptation and a trap and into many foolish and harmful desires that plunge people into ruin and destruction” (NIV). These events could be prevented in the future if organizations simply commit to the Lord anything they do as stated in Proverbs 16:3. An example of this working out for an organization is Chick-fil-A. Although the company faces extreme backlash for holding steadfast in their commitment to the Lord, they continue to grow in all aspects of their business. Any organization would ultimately benefit from taking this stand, but the researcher believes that only a few will.

Summary. While this research was designed to fill in knowledge gaps in the supply chain field, it has also produced some practical examples of critical business practices. Applying strong change management principles to an organization can assist them in adapting to a new or changing business environment by changing certain aspects of the organizations' processes or strategy development. Having strong internal and external communication helps organizations build their reputation and brand while ensuring that all stakeholders have a voice in the organization. The third business practice explored in this study was training. Training will help ensure that internal stakeholders of an organization are all working towards the same goal using the tools and techniques that the organization has deemed essential. Finally, the inclusion of biblical principles can assist organizations in maintaining strong public trust, while operating in an ethical manner. Overall, improving any one of these business practices can assist an organization to achieve and maintain sustainability in the business world, while improving all of them could very well give an organization a strong competitive advantage.

Recommendations for Action

While the primary purpose of this research was to fill in missing knowledge gaps by producing new data for the supply chain field, it also produced some calls to action. As described by Hemsley-Brown and Sharp (2003), research has long been used to successfully fulfill the need for creating and refining current applications in practical and academic settings. While the scope of this research was limited to the viewpoint of traditional contractors, there are three actions that the DoD can take and two actions that traditional contractors can take to improve the perception that traditional contractors have of the DoD's OT acquisition process.

Increased collaboration between public and private sectors. The first, and most obvious, call for action derived from this study stemmed from communication issues that companies suffer from when working with the government. Based on the interviews it was clear that traditional contractors understood the differences and similarities between DoD FAR-based acquisitions and OT acquisitions, but they failed to grasp the original purpose of the OT acquisition process. This is not surprising given the way the DoD Other Transactions Guide (2018) was written or how the OT acquisition process has been used. The DoD OT acquisition process was originally designed to reach non-traditional contractors, but the DoD has awarded the majority of OT dollars to traditional contractors (Lopes, 2018; Maucione, 2018). In light of the differences in the DoD's stated intended use of the OT acquisition process and their actual usage of the process; DoD contractors are rightfully confused about the intent of the OT acquisition process. As such, the DoD should clarify their stance on the OT acquisition process to include a more friendly stance towards traditional DoD contractors if they intend to continue to use traditional contractors in the capacity they have previously used them. This would clarification could entice more competition and better serve both the public and private markets.

Congressional action to level the playing field. The second action recommendation derived from this study would be for Congress to remove or edit the cost-sharing requirement for traditional contractors under the OT acquisition process. While the cost-sharing requirement appears written into the DoD Other Transactions Guide (2018) to encourage traditional contractors to bring non-traditional contractors to the DoD supplier pool; it has had the unintended consequences of negatively impacting the perception that traditional contractors have of the OT acquisition process. As discovered during the interview process and verified by using the DoD Other Transaction Guide (2018), traditional contractors correctly believe that the cost-sharing requirement creates a two-tiered system both in the OT bidding and award process. During large OTs (>$100M), traditional contractors were deterred from attempting to bid because the one-third cost-sharing requirement would be prohibitive. Even when cost-sharing was required for all bidders, traditional contractors were still deterred from bidding due to the way cost-sharing was calculated. As expressed during the interviews, traditional contractors are required to calculate costs in a way that complies with DCMA and DCAA, while non-traditional contractors had more flexibility in the way they accounted for costs. This allows for non-traditional contractors to achieve their cost-sharing requirements much more favorably than traditional contractors. Overall, based on the relevant literature and traditional contractor perspective, the cost-sharing requirements seem to decrease competition and deter traditional contractors from participating in the DoD OT acquisition process. The DoD would be better off eliminating, or at the very least, changing this requirement to create a more competitive playing field between traditional and non-traditional contractors.

Same approach, different processes. The third call for action that stems from this study is the need for traditional contractors to standardize their approach to approaching the OT

acquisition process. All the interviewees described a different approach their company or business unit took to managing consortia memberships, communications, and handling OTs in general. This led to the participants having a different view on varying aspects of the DoD's OT acquisition process. While the roles and responsibilities of certain jobs will change from company to company, from the researcher's personal experience these changes are normally minor in terms of actual job duties. Within the handling of the OT acquisition process, there was no continuity in which job titles were communicating with the consortia, handling negotiations, tracking memberships, or designing the overall strategy for pursuing these opportunities. Given this is still an acquisition process from a traditional DoD contractor perspective, these contractors would be best served by aligning their OT acquisition processes with their traditional acquisition processes. This way, as professionals move across the company or industry, they are prepared to handle acquisition processes that are presented to them instead of completely learning a new role.

Keeping track of consortia. The fourth call of action that could be accomplished based on this study is the tracking of consortia by both the private and public sectors. As shown in the research findings, traditional contractors simply do not know how many consortia exist. Given that traditional contractors are actively seeking to partner with the government, the fact that none of the participants could cite how many consortia exist to administer the DoD's OT acquisition process does not bode well for the DoD or the private sector. While it would be ideal for the DoD to create and maintain a list of consortia they work with, traditional contractors can also accomplish this in the absence of an official list. By tracking this information and disseminating it down to their employees, traditional contractors can increase their visibility in the DoD's OT acquisition process. If either party accomplished this, it would lead to increased visibility for the

OT acquisition process and help both traditional contractors and the DoD meet their objectives when working with the OT acquisition process.

Summary. The researcher believes that accomplishing any one of these actions would significantly improve the perception of the DoD's OT acquisition process by traditional contractors. While the researcher believes that any one of these actions could be accomplished, the researcher also knows the hurdles that these actions would have to overcome to be accomplished. Given the public and private sector scrutiny, the DoD is facing over their deployment of the OT acquisition process, taking a stance that is more friendly towards traditional contractors, whether in a simple acknowledgment of the need of traditional contractors or a reduction or elimination to cost-sharing, could undermine the original purpose of the OT acquisition process. This could ultimately lead to the DoD's OT acquisition process becoming more regulated, which would hurt both public and private interests. Likewise, traditional contractors would likely want to keep their OT acquisition strategy closely held secrets. Standardizing the process could cause traditional contractors to lose a competitive advantage in a relatively new market; so protecting their secrets is something traditional contractors' value greatly. Overall, the researcher believes these actions could be accomplished but it expresses a realistic view that their accomplishment will take many years to make any movement in a complex and slow-moving environment of DoD acquisition.

Recommendations for Further Research

As shown by Stirman et al. (2012), the findings and conclusions of prior research and the way in which they were derived will impact future research. While the researcher believes this study will advance the field of supply chain management, specifically within the field of DoD acquisition, this should not be the end of progression for this field or topic. While the researcher

does not know which paths of future research will be taken based on this study, the researcher has identified areas they believe could be researched in the future based on this study. This section will identify three areas based on this study that future researchers should consider for future research topics.

Understanding the role of consortia. The first future research recommendation was recommended by one of the participants in this study and is in-depth research into the consortia that the DoD utilizes to administer their OT awards. While the DoD Other Transaction Guide (2018) mentions the use of consortia for administering OT awards, it is phrased as one of the many tools available to the DoD. This minimization of the use of consortia is not consistent with the actual utilization of consortia in which the majority of OT awards go through (GovWin, 2018). At the very least, future research could focus on determining whether the DoD utilizes consortia propionate to other avenues for awarding OTs.

In addition to the usage of consortia, future research could focus on the perception of consortia involved in the DoD's acquisition process. This research illustrates the perception of consortia from the traditional contractors that normally work with the DoD. Research by Lopes (2018), presents the need for the DoD's OT acquisition process from the government's perspective. This leaves the perception of the consortia relatively unknown. The possible deviation in perceived and actual usage rates of consortia, in conjunction with the lack of consortia perspective, presents an opportunity for future research to analyze all DoD OT awards and determine whether or not consortia are indeed a major tool for DoD awards and their effectiveness in the DoD's acquisition process. This appears to be a major missing link in the DoD's OT acquisition process that has enough available data to thoroughly investigate.

A deeper understanding of traditional contractors. The second area of future research that may be valuable to progressing this field is the underlying why behind the actual perception of traditional contractors conducting work under the DoD's OT acquisition process. This study focused on the actual perception of traditional contractors rather than focusing on why they had the perception. Understanding the reasons behind the perception could allow future researchers to make recommendations that could change their perception towards the DoD's OT acquisition process or consortia in general or on a particular issue. This line of research would be particularly helpful in identifying any non-acquisition related factors that would impact their perception. Although the researcher believed that these factors would be revealed in this study, the researcher was unable to discover these factors, despite the literature suggesting they would be present. Overall, this research would be beneficial to the DoD, traditional contractors, and consortia alike.

Impact of professional organizations to public procurement. The third area of future research that may be considered is the role of professional organizations have on connecting traditional contractors and the DoD's OT acquisition process. As revealed during the second research question's exploration of the common issues traditional contractors have with consortia under the DoD's OT acquisition process, professional organizations, such as NCMA and PMP could have a significant impact on bridging the communication and knowledge gaps that exist. These organizations serve as an intermediary between organizations as membership is not dependent on employment to a certain sector or industry. While research already suggests that these organizations could have a beneficial impact in multiple business areas (Greenwood, Suddaby, & Hinings, 2002), it has not been tested or researchers concerning the DoD's OT acquisition process. The findings of this future research could help shape investment into these

professional organizations and enhance the relationship between the public and private industries.

Summary. These suggestions for future research are only based on the researcher's view of the DoD's OT acquisition process. Since the researcher has a limited view of a large, complex process with multiple moving and changing processes, this list of suggestions should not be considered exhaustive. Researchers with different experiences with the DoD's OT acquisition process may have an entirely different outlook on the future of research into this area. Given the wide area of unexplored subjects within the DoD's supply chain and acquisition process, there are many different areas in which future research could be beneficial. By using this the study as a starting point, research into the DoD's OT acquisition could help provide beneficial information to both the public and private sectors.

Reflections

Completing this study has required a significant investment by the researcher to ensure that every portion of this study was completed in a manner that will help advance the supply chain field. Throughout this experience, the researcher has dedicated a significant portion of their life over the last year and a half to this study. They have met new people, impacted their lives, and had their own life impacted in the process. After finalizing the last paragraph of the conclusion, the researcher took some time to reflect back on their experience and will write about those reflections in this section.

At the outset of this study, the researcher believed they had a strong understanding of the DoD's OT acquisition process. While they were excited to perform the research, they did not expect that any new or emerging information would be populated as a result of this study. This preconceived notion was quickly put to rest. At every step of the study, the researcher was

challenged more by new ideas and subjects discovered by reading and analyzing prior literature. While the researcher still maintains a certain level of bias based on their own personal experiences, they believe that they can mitigate their own biases by considering the many different viewpoints learned about through prior literature.

While prior literature strongly influenced the researcher, the researcher also possibly influenced the participants of this study. For the potential participants that were not interested in participating in this study, they at least know that someone is interested in advancing the field of study. For the participants of the study, they were challenged with questions in a way that made them think about the subject field beyond a superficial manner. The participants were challenged to disclose their true feelings towards the changing acquisition landscape and as a result, became part of the change. It is believed that their participation in this study will impact the way they view the DoD's OT acquisition process moving forward.

In the same way that the researcher believes they could have impacted the participants, the participants impacted the researcher. Throughout this study, the researcher was blessed to meet some of the most passionate and dedicated in the Defense acquisition field. They shared a perspective that was developed over years of working in the industry and were based on their individual experiences. Given they were able to speak freely, without the chance of being identified, they expressed some of their deepest feelings towards the process. The researcher could never look at the field the same away after connecting with these individuals and will ensure to use their perspective when looking at the field going forward.

Summary and Study Conclusions

This study provided answers to three primary research questions that help explain the perception that traditional DoD contractors have concerning the DoD's utilization of the OT

acquisition process and the use of consortia to carry out this utilization. The point of this study was to build on a relatively small body of knowledge and advance the field of DoD acquisition processes to ensure that traditional contractors, the DoD's largest supplier, continue to have a positive perspective concerning DoD acquisition processes. The recommendations for action, which are based on the findings of this study accomplish this stated goal. To perform this study, the researcher used a flexible approach to ensure that the study was able to adapt based on the information gathered from the participant. Given the researcher's prior personal and professional experiences, the researcher tried their best to ensure their biases did not impact this study.

Using a qualitative approach, this study provided a flexible platform to gather and disseminate information and explore various progression pathways to gaining a better understanding that traditional DoD contractors have towards the DoD's OT acquisition process. The conceptual framework for this study was established using prior literature so that the research could be conducted within a defined boundary. This study used a two-step approach by initiating interviews using a qualitative approach and then ensuring saturation and triangulation using prior research. Using this approach, the researcher hopes that the results of this study will strengthen the previously presented body of knowledge, while also preparing researchers for filling in future gaps in knowledge within this field.

The core findings of this research indicate that traditional contractors are knowledgeable and confident of their knowledge concerning the DoD's OT acquisition process as it is currently presented. While having a strong understanding of this process, traditional contractors do not believe the current policies pertaining to cost-sharing and accounting standards found within the DoD's OT acquisition process create a fair competitive environment. While traditional contractors understand the DoD's acquisition process, they struggle to firmly understand the

inclusion of consortia into the process and have yet to fully adapt to their inclusion into the process. While some positive attributes of including consortia were identified, traditional contractors believe the OT awards could be awarded and administered by a traditional DoD contractor. Finally, improving the perception of traditional contractors of the DoD's OT acquisition process relies primarily on improving communication between the DoD, consortia, and traditional contracting industry. While traditional contractors can take small steps, such as increasing internal training, engaging the DoD directly would have the greatest impact on perception improvements.

As the DoD acquisition process continues to evolve, it will take an extended effort from both the government and private industry to ensure a successful relationship is maintained. The DoD must ensure that they are directing policies that fair to all the parties that would like to supply their needs. Likewise, traditional contractors must understand the full scope of the reasons behind the DoD's decision-making process towards acquisition. This can only be accomplished by establishing and maintaining strong communication channels and extensive training. Additionally, research into this matter should not stop with this study. Researchers must become engaged and continue to advance this field of study so that progress is continuous. Only when all of these things are done can there be a guarantee that the DoD and traditional contractors will be able to work in complete unison to serve and protect the United States.

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Appendix A: A Review of the Professional and Academic Literature Outline

I. Introduction
II. Acquisition processes
    A. Procurement Methods
        1. Competitive
        2. Semi – Competitive
        3. Sole Source
    B. Government Acquisitions
        1. Acquisition contractual structures.
        2. Governing regulation.
        3. Common terms and conditions.
        4. Administrative burden.
        5. Costing, pricing, and fee structure.
        6. Preferred acquisition methodology.
    C. Summary.
III. Problems in acquisition
    A. General acquisition problems.
    B. Government acquisitions.
        1. Infrastructure
        2. Resource optimization.
        3. Employee, supplier, and customer management
        4. Sustainability
    C. Traditional acquisitions.
        1. Competitive
        2. Semi-Competitive
        3. Sole Source
    D. OT acquisitions.
        1. Level of knowledge.
        2. Contractual formatting.
        3. Consortia.
    E. Summary.
III. Acquisition critical success factors.
    A. Internal processes.
        1. Market research.
        2. Information sharing.
    B. Project management.
    C. Training programs.
    E. Communication.
    F. Summary.
V. Summary of the literature review.

Appendix B: Interview Guide

DATE:

INTERVIEW LOCATION:

INTERVIEWER:

PARTICIPANT:

INTRODUCTION

I appreciate your participation today so that I can gain a better understanding of the perceptions that DoD contractors have of the Other Transaction acquisition process. During this interview, I will ask you about 20 questions that will divided among 3 major classification areas. These 3 classification areas are tied directly to the three research questions this study is seeking to answer. Please remember that your personal identifying information will be kept anonymous and will not be published as part of this study; so you are allowed to answer these questions without fear of exposure. As such, there are no correct or incorrect answers to these questions. Your answers will be used, in part, to answer the research questions posed in this study. This interview will be voice recorded. You will be provided a transcript of the interview so that you can verify your responses prior to them being used in this study. While your answers will be used in this study, the voice recording nor the transcript will be published. This interview is expected to last between 60 and 90 minutes, but you are free to stop the interview at any time for any reason, including to take a break. At the conclusion of the interview, you will be given a chance to ask any questions or make any comments that you feel will add clarity to your answers.

DO YOU HAVE ANY QUESTIONS BEFORE THE INTERVIEW BEGINS?

4. **How well do traditional DoD contractors understand the similarities and differences in OT and traditional DoD acquisition processes?**
    a. Are there any areas in the OT acquisition process that you are unsure whether they are the same or different than the FAR-based acquisition process?
    b. Can you describe the similarities between traditional and OT acquisition processes you have seen?
    c. Can you describe the differences between traditional and OT acquisition processes you have seen?
    d. What differences or similarities do you like or dislike and why?
    e. How do these differences and similarities impact your perception of the OT acquisition process?
    f. What similarities and differences would like to see between the two acquisition processes that you have not seen?
5. **What common issues are traditional DoD contractors facing during the proliferation of DoD OT acquisitions using consortia?**
    a. How well do you understand the design, purpose, and operation of consortia in relation to DoD OTs?
        i. What, if anything, would help you know more about the purpose, design, and operations of DoD consortia?
    b. Why do consortia exist to facilitate DoD OTs?
        i. What, if any, are the pros and cons, to having a consortium facilitate a DoD OT versus directly awarding them to the contractors?
    c. Can you tell me how many consortia exist that facilitate DoD OTs?

i. Besides the consortium(s) you currently work with, can you name any other active consortia?

ii. Are DoD consortia required to be awarded a DoD OT?

d. How is interacting with a consortium different that interacting with the government functional and operational members?

i. Do you consider these differences positive or negative?

1. Please explain why?

e. What, if anything, would change about the current consortium you are part of?

6. What are the critical success factors (CSF) that traditional DoD contractors must accomplish to be successful in OT acquisitions?

a. How would you describe your level of knowledge of the FAR, DFARS, and 2018 DoD OT Guide?

b. How did the company use its past successes in FAR-based acquisitions to be successful in OT acquisitions?

c. How does communication with the government and end customer under the OT acquisition process compare with that of the traditional acquisition process?

d. What factors played a significant role in acquiring and executing the OT your company had/has?

e. What additional factors would make you more likely to be success in acquiring and managing OTs?

DO YOU HAVE ANY FINAL QUESTIONS OR COMMENTS?

Thank you for participating in this interview. As previously stated, I will transcribe and present this interview to you so that you may check it for accuracy. Once you have reviewed the transcript, please return it in a timely manner so that I may use your answers in this study.

Appendix C: Research Log

Research Log

Predetermined or Emerging Theme:

1. Related Literature

2. Interview Quotes or Thoughts

3. Other Data Sources

4. Researcher Thoughts or Notes

5. Why it's important

Appendix D: Predetermined Coding Scheme

1. OT SIMILARITIES vs. FAR-BASED ACQUISITIONS
    a. Organizational Similarities
    b. OT Known Similarities
    c. OT Unknown Similarities
    d. OT Similarities Impact on Perception
2. OT DIFFERENCES vs. FAR-BASED ACQUISITIONS
    a. Organization Differences
    b. OT Known Differences
    c. OT Unknown Differences
    d. OT Differences Impact on Perception
3. COMMON ISSUES IN OT ACQUISITIONS
    a. Organizational
    b. Acquisition Processes
    c. Non-Acquisition Processes
    d. Perception of consortia
4. CRITICAL SUCCESS FACTORS IN OT ACQUISITIONS
    a. Knowledge
    b. Communication
    c. Prior Experience

Appendix E: Predetermined Coding Scheme Factors and Sub-factors

1. OT SIMILARITIES FACTORS– OT factors that contribute to the existence of similarities between OT and FAR-based acquisitions that can be attributed to the DoD's OT Guide (2018), such as costing and pricing, the use of competition, or other recommended or required similarities.
    a. DoD - Organizational Similarities Subfactors – Factors that can be attributed to the DoD leading to actual similarities between the acquisition processes, such as the use of DoD OT Guide (2018) to design OTs.
    b. Contractor OT Known Similarities Subfactors – Factors that can be attributed to contractors knowing similarities between the acquisition processes.
    c. Contractor OT Unknown Similarities Subfactors –Factors that can be attributed to contractors not knowing or realizing similarities between the acquisition processes. Primarily gathered from literature reviews.
    d. OT Similarities Impact on Perception Subfactors - Factors that cause traditional DoD contractors to perceive similarities, actual or not, between the acquisition processes.
2. OT DIFFERENCES FACTORS - OT factors that contribute to the existence of differences between OT and FAR-based acquisitions that can be attributed to the DoD's OT Guide (2018), organizational decision-making, or other factors.
    a. DoD - Organizational Differences Subfactors – Factors that can be attributed to the DoD leading to actual differences between the acquisition processes, such as the use of DoD OT Guide (2018) to design OTs.
    b. Contractor OT Known Differences Subfactors – Factors that can be attributed to contractors knowing differences between the acquisition processes.
    c. Contractor OT Unknown Differences Subfactors –Factors that can be attributed to contractors not knowing or realizing differences between the acquisition processes. Primarily gathered from literature reviews.
    d. OT Differences Impact on Perception Subfactors - Factors that cause traditional DoD contractors to perceive differences, actual or not, between the acquisition processes.
3. COMMON ISSUES IN OT ACQUISITIONS FACTORS - Factors that contribute to the existence of problems and issues when using consortia during the execution of the OT

acquisition process, which can include organizational, knowledge, and perceptions of consortia.

   a. Organizational Subfactors - Factors that can be attributed to DoD or traditional contractor organizational decisions or design that contribute to issues existing when using consortia during the execution of the OT acquisition process.
   b. Acquisition Processes Subfactors - Factors that can be attributed to similarities or differences between the OT and FAR-based acquisition processes that contribute to issues existing when using the OT acquisition process.
   c. Non-Acquisition Processes Subfactors - Factors that cannot be attributed to differences between the OT and FAR-based acquisition processes that contribute to issues existing when using consortia during the execution of the OT acquisition process.
   d. Perception of Consortium Subfactors - Factors that cause traditional DoD contractors to perceive issues, existing or not, when using consortia during the execution of the OT acquisition process.

4. CRITICAL SUCCESS FACTORS IN OT ACQUISITIONS FACTORS - Factors that are critical to the success of traditional contractors in effectively understanding and utilizing the OT acquisition process, including the use of consortia.
   a. Knowledge Subfactors – Factors associated with the knowledge that traditional contractors have about the OT acquisition process, including consortia, which are vital to success.
   b. Communication Subfactors - Factors associated with the communication between traditional contractors, the DoD, and consortia which are vital to success.
   c. Prior Experience Subfactors – Factors associated with prior experience that traditional contractors have in working with FAR-based contracts, the DoD, and OT acquisitions that are vital to success.

Appendix F: IRB Exemption

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

December 12, 2019

Justin Scott Parker
IRB Exemption 4065.121219: Understanding Other Transactions: A DoD Contractor's Perspective

Dear Justin Scott Parker,

The Liberty University Institutional Review Board has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under exemption category 46.101(b)(2), which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:101(b):

> (2) Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met:
>
> > (iii) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).

Please note that this exemption only applies to your current research application, and any changes to your protocol must be reported to the Liberty IRB for verification of continued exemption status. You may report these changes by submitting a change in protocol form or a new application to the IRB and referencing the above IRB Exemption number.

If you have any questions about this exemption or need assistance in determining whether possible changes to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,

Grace Baker

G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
Research Ethics Office

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Appendix G: Stamped Consent Form

The Liberty University Institutional Review Board has approved this document for use from 12/12/2019 to --
Protocol # 4065.121219

CONSENT FORM

Understanding Other Transactions: A DoD Contractor's Perspective

Justin Parker
Liberty University
School of Business

You are invited to be in a research study on the perceptions of traditional DoD contractors concerning the DoD's use of Other Transactions. You were selected as a possible participant because you are 18 years of age or older and you are a person employed by an organization that relies on FAR-based DoD contracts as their primary business model. Additionally, your organization or you as a person employed by an organization have experience performing work under a DoD OT acquisition. Please read this form and ask any questions you may have before agreeing to be in the study.

Justin Parker, a doctoral candidate in the School of Business at Liberty University, is conducting this study.

Background Information: The purpose of this study is to explore the perceptions of traditional Department of Defense contractors towards the DoD's Other Transaction acquisition process and migration towards consortiums for contract administration. This study will accomplish this objective analyzing three major constructs - Similarities and differences in traditional and OT acquisition processes, problems in OT acquisitions, and factors critical for success when using OT acquisition. Data collected directly from participants operating in this environment will help confirm or refute prior research, while also identifying new themes in these constructs.

Procedures: If you agree to be in this study, I would ask you to do the following things:

1. Complete a one-on-one recorded interview with the researcher that will last approximately 60-90 minutes.
2. Review your transcribed interview to ensure that interview answers are accurate and reflective of your views. This will take approximately 60-75 minutes.

Risks: The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

Benefits: Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include assisting the DoD in shaping future public policy concerning the release of Other Transaction guidance. Additionally, it could assist traditional DoD contractors in developing future policies for working with the DoD using OT acquisitions. Overall, this could create a mutual benefit for the public and private sectors.

Compensation: Participants will not be compensated for participating in this study.

The Liberty University Institutional Review Board has approved this document for use from 12/12/2019 to --
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Confidentiality: The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records. I may share the data I collect from you for use in future research studies or with other researchers; if I share the data that I collect about you, I will remove any information that could identify you, if applicable, before I share the data.

Participants and organizations will be coded to conceal identities. To ensure your privacy is protected, you will be allowed to dictate the setting of the interview. Given the topic of this interview and sensitivity of the matter, your place of employment, using a conference room or other secure location is recommended, but not required. Additionally, your participation will not be disclosed to any of your co-workers if the interview is at the participant's place of employment.
Interviews will be audio recorded and transcribed. Any physical documents collected or printed will transported by the researcher from the acquiring location to the researcher's office. The office remains locked and the documents will be stored in a locked drawer within the office. Recordings and electronic data will be stored on a password locked computer in password-protected folder for three years and then erased. Physical documents will be cross-shredded at the end of 3 years. Only the researcher will have access to these recordings and documents.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

How to Withdraw from the Study: If you choose to withdraw from the study, please contact the researcher at the email address/phone number included in the next paragraph. Should you choose to withdraw, data collected from you, will be destroyed immediately and will not be included in this study.

Contacts and Questions: The researcher conducting this study is Justin Scott Parker. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact him [redacted] You may also contact the researcher's faculty chair,

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Please notify the researcher if you would like a copy of this information for your records.

The Liberty University Institutional Review Board has approved this document for use from 12/12/2019 to --
Protocol # 4065.121219

Statement of Consent: I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

☐ The researcher has my permission to audio-record me as part of my participation in this study.

Signature of Participant Date

Signature of Investigator Date