

Walden University

College of Management and Technology

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Walden University
2021

Abstract

Business Strategies for Small Business Success in Obtaining Federal Defense Contracts

by

Christina K. Firth

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

August 2021

Abstract

The U.S. Department of Defense (DOD) has one of the largest federal agency budgets for small business set-asides; yet, billions of dollars remain unawarded each fiscal year. Despite the multitude of Congressional programs for small businesses, small business leaders' engagement with the programs and receipt of successful awards remains low. Grounded in agency theory, the purpose of this qualitative multiple case study was to explore strategies five small business owners operating in the southeastern U.S. use to secure and conduct DOD procurement contracts. Data were collected through semistructured interviews, business websites, and archival data. Through thematic analysis, four themes emerged: knowledge, resources, performance, and sustainability. A key recommendation is for small business leaders to use their local Procurement Technical Assistance Center and Small Business Association office as primary expert resources. The implications for positive social change are the potential to increase small business sustainability, which can lead to lower unemployment and an increase in community investment.

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Dedication

I dedicate this study to my friends and family. Their support and encouragement fueled my efforts to continue the long journey of sacrifice and cross the finish line to success. I also dedicate this study to fierce women past, present, and future.

Acknowledgments

I am humbled by the effort and dedication of my chair and committee members, whose feedback and support made this journey possible.

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Section 1: Foundation of the Study

Small businesses are significant contributors to the U.S. economy (Lanahan, 2016; Schilling et al., 2017; U.S. Small Business Administration [SBA], 2017; Withey, 2011) and are the most encouraged source of contracting for the U.S. Department of Defense (DOD; 2015; Schilling et al., 2017). Private businesses and government agencies encourage small business participation to mitigate economic concerns and promote innovation (Lanahan, 2016; Ribeiro-Soriano, 2017). Despite the driving force of small businesses in the U.S. economy, the small business failure rates remain close to 50% in the first 5 years of operation (SBA, Office of Advocacy, 2017). This disparity of small businesses as the linchpin of the U.S. economy versus the high failure rate of small businesses has become a phenomenon.

Background of the Problem

Exploring and understanding how some small business leaders successfully navigate the federal procurement process through organizational knowledge, dynamic learning, and the implementation of business strategies could significantly increase revenue streams to support growth and sustainability for new and existing small businesses. The DOD has one of the largest budgets compared to other U.S. federal agencies for set-asides for small businesses; yet, billions of dollars remain unawarded to small businesses each fiscal year (Federal Procurement Data Systems, 2019). While Congress promulgated laws to encourage small business participation in federal procurement, most agencies struggle to meet annual small business set-aside goals (Flynn & Davis, 2016). Despite the multitude of Congressional programs enacted for small

businesses, small business leaders do not seem to capitalize on the plethora of dollars available to them through federal procurement, and more specifically, the billions of dollars available to small businesses to contract with the DOD.

Problem Statement

Small businesses contribute significantly to the U.S. economy (SBA, 2017), and the DOD utilizes small businesses as the most encouraged source of contracting (Schilling et al., 2017). Despite DOD set-asides for small businesses and annual goals, the small business failure rates remain close to 50% in the first 5 years (SBA, Office of Advocacy, 2017). DOD leaders prescribe yearly objectives to award almost 25% of prime contracting and 35% of subcontracting to small businesses (DOD, Office of Small Business Programs, 2017), setting aside billions of dollars to award contracts to small businesses (DOD, 2017). The general business problem was that some small business leaders fail to secure and conduct government contracts. The specific business problem was that some small business leaders lack strategies to secure and conduct DOD procurement contracts successfully.

Purpose Statement

The purpose of this qualitative multiple case study was to explore strategies small business leaders use to secure and conduct DOD procurement contracts successfully. The target population consisted of five small business leaders in the southeast United States with successful experience in securing and conducting DOD procurement contracts. The implications for positive social change include the potential improvement of business survival rates, employee and customer retention, and sustainability for local communities.

Deller and Conroy (2017) postulated that communities with long-term sustainability plans for small businesses experience lower unemployment and improved household income rates than communities that do not invest in long-term small business sustainability plans.

DOD contracts are a potential source of revenue for small businesses, providing stable income and increased job opportunities for local communities (SBA, 2012). Most small businesses invest in local and state communities (Pollack, 2017), providing a source of potential, positive social impact. The investments may range from supporting other local businesses, not-for-profits, or the local schools and providing internship opportunities. Small businesses may achieve sustainability by securing DOD contracts, allowing the small businesses to make tangible or intangible investments in their local communities.

Nature of the Study

I used the qualitative method in this study. Researchers seeking to understand a specific phenomenon use the qualitative method to find answers to research questions through participant interviews and observing the behaviors, literature, and business elements of the research problem in a real-time setting (Merriam & Tisdell, 2016; Saunders et al., 2015). Therefore, the qualitative method was well-suited to explore the business strategies small business leaders use to successfully secure and conduct DOD procurement contracts. I considered quantitative and mixed-method research approaches but determined they were not appropriate to exploring the research problem. Quantitative researchers seek to validate or expand on existing theory as it relates to a phenomenon

through statistical analysis and the measurement of variables and is, therefore, not suitable to explore the real-time lived experiences of the participants through discussion and observation (Harkiolakis, 2017). Researchers use the mixed method to conduct research studies using both qualitative and quantitative methods. The elements of quantitative analysis included in mixed method research were not necessary to explore the phenomenon of small business practices to secure and conduct government contracts; therefore, the qualitative approach was the most appropriate approach.

I used a multiple case study design for this study. Researchers use a multiple case study design to explore participants' experiences through multiple cases (Merriam & Tisdell, 2016). The multiple case study design is suitable when the researcher needs to compare themes that evolve in more than one organization, providing greater validity and reliability (Saunders et al., 2015). I considered ethnography and phenomenology as possible designs with applicability to this study. In an ethnography, the researcher studies culture and society through cultural immersion, requiring significant time and resources (Merriam & Tisdell, 2016; Saunders et al., 2015). I did not select the ethnographic design because my focus was not to study a culture and/or society. In the phenomenological design, the researcher focuses on the participants' lived experiences to understand their perspectives and meanings and gain insights (Saunders et al., 2015). I did not select the phenomenological design for this study because I was not focused on studying the personal meanings of participants' lived experiences. A multiple case study design was more germane to this study's focus on the exploration of phenomena.

Qualitative Research Question

What strategies do small business leaders use to secure and conduct DOD procurement contracts successfully?

Interview Questions

1. What strategies have you used to secure DOD procurement contracts successfully?
2. What business strategies did you find most effective to conduct DOD procurement contracts?
3. How did you develop strategies to gain a competitive advantage to secure DOD procurement contracts?
4. What strategies did you find most effective to mitigate challenges to secure DOD procurement contracts successfully?
5. What strategies did you find most effective to mitigate challenges to conduct DOD procurement contracts successfully?
6. What resources, internal or external, have you used to secure DOD procurement contracts?
7. What, if anything, did you alter in your strategy if you did not initially secure a DOD procurement contract?
8. What, if anything, did you alter in your strategy if you did not initially successfully conduct a DOD procurement contract?
9. What else, if anything, also contributed to your success in securing and conducting DOD procurement contracts that we did not discuss?

Conceptual Framework

I chose the principal-agent theory, also known as agency theory, as the conceptual framework for this study. While both Ross (1973) and Mitnick (1973) introduced agency theories in the early 1970s, Mitnick's principal-agent theory has a broader application for a variety of business relationships (Delves & Patrick, 2010; Eisenhardt, 1989). Mitnick described agency theory as two parties involved in either consensual or nonconsensual agreement and where the acts of the agent contribute to the principal's goals. Researchers typically agree that federal procurement is based on transactional-based contracting (Eisenhardt, 1989; Keulemans & Van de Walle, 2017). In this study, I focused on the consensual agreement of the principal and agent through a contract. Agency theory provides a unique framework through which to view the relationship between the government (i.e., the principal) and small businesses (i.e., the agent) due to the contractual agency relationship and various potentially conflicting objectives and behaviors of the principal's goals and policing and the agent's goals as described herein. I, therefore, selected agency theory to provide a useful lens through which to explore strategies small business leaders use to successfully secure and conduct DOD procurement contracts.

Operational Definitions

Contracting entity: Any federal agency within the DOD or outside of the DOD, as long as the agency has defined contracting authority within its established charters or bylaws (U.S. General Services Administration, 2018b, 2019d).

Defense Federal Acquisition Regulation Supplement (DFARS): A supplement to the Federal Acquisition Regulations that provide additional contracting requirements and guidance to DOD agencies (U.S. General Services Administration, 2018a, 2018b).

DOD: This department includes the U.S. Armed Services and other defense agencies (U.S. General Services Administration, 2018b, 2019a).

Executive agency: This group includes the DOD, Department of the Army, Department of the Navy, and Department of the Air Force (U.S. General Services Administration, 2018b, 2018d).

Federal Acquisition Regulations System (FAR): This system contains information about the federal contracting and procurement process, including applications, contract clauses, prescriptions, definitions, and guidance for federal contracting agencies and contractors (U.S. General Services Administration, 2019b).

Office of Small and Disadvantaged Business Utilization: A specific division of the DOD that supports and is a reference source for small businesses (U.S. General Service Administration, 2018d, 2019c).

Small business concern: A small business, and any of its subsidiaries, that meets the requirements of small business as defined by size or revenue (or both) requires issued by the SBA and as defined by its supplies or service code in the North American Classification System (NAICS). Most small businesses are defined as having 500 or fewer employees (U.S. General Service Administration, 2018d, 2019i).

System for Award Management (SAMS): The government database for all businesses to register pertinent information with the federal government. Registration is

required for all businesses, large or small, that wish to do business with any federal contracting agency businesses (U.S. General Service Administration, 2018d).

Assumptions, Limitations, and Delimitations

I used a multiple case study explorative design, which provided the premise for the assumptions, limitations, scope, and delimitations of this study. A researcher should identify the basic premises of their research to strengthen its foundation and augment their scope of inquiry and results (Marshall & Rossman, 2016). A researcher must exercise objectivity while conducting their literature review and data collection, maintaining a critical lens to avoid incorporating other researchers' assumptions into their study (Fry et al., 2017). By identifying my research design as a multiple case study, I established the premise for the study and further strengthened the research by identifying assumptions, limitations, and delimitations.

Assumptions

Researchers define assumptions as inchoate truths that are intrinsic to the conduct of the study (Rossman & Rallis, 2017). Four underlying assumptions directed my research. First, I assumed that small business owners want to succeed. Small business leaders have access to various programs and initiatives to provide support for small business success in DOD procurement. Part of my initial assumption of small business leaders wanting to succeed included the premise that small business leaders consider DOD procurement as a viable option to generate revenue.

Second, I assumed that the DOD and its procurement officers and other officials are motivated, encouraged, and desirous regarding awarding contracts to small

businesses. Each year, the DOD and the SBA establish small business contract and subcontract goals for awards. For the DOD, the goals are typically 22% of the overall defense appropriations budget for prime contracting to small businesses and 33% of awards to small business subcontractors (DOD, Office of Small Business Programs, 2018). I reviewed the DOD goals and awards dating back to 2011, and the data indicated successive years where the DOD did not meet annual goals for small business awards (see Federal Procurement Data Systems, 2019). Despite the goal setting, DOD leadership has struggled to reach the small business award goals since 2011.

Third, I assumed that small business leaders could verbalize their business acumen and speak knowledgeably about the complexity of the procurement process. In Loader's (2007) study, the participants were small- and medium-sized businesses that participated in federal procurement processes. The participants responded that they had difficulties competing with other companies due to problems of scale, quality, and not fully understanding the complexity of the federal procurement process (Loader, 2007).

Lastly, I assumed that small business leaders were telling the truth while participating in the interviews for this study. As a qualitative researcher, I must base this assumption on the fact that people's lived experiences are framed by their individual experiences and the lens through which those experiences are viewed (see Rossman & Rallis, 2017). Qualitative researchers who utilize an interpretivist perspective must be mindful that the variety of experiences of their participants provide the researcher with different focal points in which to conduct research; acknowledging that there is no absolute truth is critical during the researcher's project (Rossman & Rallis, 2017). By

clearly establishing and recognizing the assumptions in this study, I conducted my research with an understanding of these assumptions while also defining them for my readers.

Limitations

As a researcher, I articulated, for myself and my readers, the limitations of this study. Regardless of method and design, researchers must acknowledge the limitations of each study (Marshall & Rossman, 2017). By disclosing the study's limitations, the researcher practices transparency, awareness, and trustworthiness (Marshall & Rossman, 2017). Researchers define the limitations of a study as the restrictions that set parameters for the study's strength and validity (Denscombe, 2013; Ellis & Levy, 2019). By delineating the potential limitations of my study, I established trustworthiness and provided the reader with possible weaknesses in the research.

In my study, I was limited by voluntary participants who could withdraw at any time. Furthermore, I chose not to explore small business leaders that fail to obtain DOD contracts. Deller and Conroy (2017) posited that business leaders often gain the most knowledge from failures and can further their success later. While not necessarily a weakness, there may be potential for other researchers to expand on my research. Additionally, my study was limited by geographic region. Other small business leaders in different geographic areas may not have the same experience with DOD procurement. As a researcher, I was also limited and bound by the chosen research design. I selected a multiple case study to provide a thicker, richer saturation of participant experiences (see Merriam & Tisdell, 2016). The study results were also limited by participants' unique

experiences, along with my observations as the researcher and primary data collector.

Future researchers may find applicability in other areas pertinent to the general phenomenon or other fields of study.

Delimitations

The delimitations are the research study parameters and identify what the study does not explore (Rossman & Rallis, 2017). As the researcher, I focused my research on small business leaders' lack of strategies to successfully participate in DOD procurement efforts given the amount of funding set aside for awarding contracts to small businesses as the primary contractor or subcontractor. Through the exploration of small business leaders who successfully secure DOD contracts, I investigated strategies that small business leaders can implement into their business plans to avoid failure. I did not explore the perspectives of small business leaders who were ultimately never able to secure any DOD contract or subcontract.

For my study, I included five small businesses that meet the small business definition in the FAR or DFARS, the SBA, and/or further delineated by the NAICS codes. I did not provide any preference as to the type of procurement for small business (i.e., service or other than service) or the type of small business, such as veteran owned, women owned, or 8(a) designation, other than the general small business requirement of 500 or fewer employees. Federal agencies and countries with small business legislation similar to the United States (e.g., Canada, Australia, the United Kingdom, etc.) were also sources of information and data collection.

Significance of the Study

Small businesses are significant contributors to the U.S. economy; yet, the failure rates for small businesses remain exceedingly high (SBA, 2012). In 2016, the DOD allocated over \$250 billion for small business awards, yet awarded approximately \$57 billion (U.S. Federal Procurement Data System, 2016). Small businesses left roughly \$200 billion unused. By exploring small business success in DOD procurement, the findings of this study could assist small businesses and the DOD reduce the small business failure rates and achieve DOD's small business award goals. Additionally, the results of this study could contribute toward realizing small businesses' success in securing and conducting procurement contracts. Survival past the first few years with DOD contracts may decrease small business failure rates and job loss in local communities. Furthermore, the DOD might meet its annual small business award goals, driving innovation and reducing procurement costs through increased small business competition (U.S. General Service Administration, 2018e, 2019h). While small businesses have high failure rates, an avenue for financial sustainment may include seeking out procurement contracts with the DOD. The DOD has billions of dollars set aside for small business participation, but each year some of those funds are not utilized, opening the door for small businesses to capitalize on potential DOD awards.

The study results may have implications for positive social change because small businesses are a primary driver of national and local economies. Almost 70% of all small businesses invest resources in their local and state communities (Pollack, 2017). Furthermore, the results of the study could provide successful strategies for small

business leaders to participate in defense procurement, which fosters competition, cost-savings, and innovations with concomitant benefits to U.S. taxpayers (Flynn & Davis, 2016). Identifying small business success strategies in DOD procurement may facilitate small business sustainability, investment in communities, and increased participation in DOD procurement.

A Review of the Professional and Academic Literature

Introduction

Through conducting a review of the professional and academic literature, the researcher establishes the foundation for their study based on extant, peer-reviewed sources (Merriam & Tisdell, 2016; Rossman & Rallis, 2017). The researcher may also discover that a dearth of peer review resources exists, indicating a gap in extant literature that also serves to establish a need for the study (Leite et al., 2019; Montuori, 2005). According to Merriam and Tisdell (2016), a gap in the research does not indicate the research problem is not valuable because some research always exists on a topic but instead that the researcher may need to broaden their review. The researcher cannot ignore the analysis of existing research, even if the volume is minuscule, because the research problem may provide an invaluable contribution (Leite et al., 2019; Merriam & Tisdell, 2016; Montuori, 2005). The concept of the scarcity of peer-reviewed resources is an important topic, mainly when small businesses and defense contracting are concerned. While a plethora of peer-reviewed articles exist that were published more than 5 years ago, fewer current, peer-reviewed resources were available within the 5-year mark. My

research indicated that most of the more recent research was relegated to exploration by researchers within the military university systems.

The purpose of this literature review was to conduct an in-depth and broad analysis of existing literature related to my research problem; review existing theories, methods, and research results; and establish the grounds for the current research study contributing to the knowledge base. Secondly, the intent was to analyze and synthesize the literature and provide my audience with a critical examination of research related to the research problem. Merriam and Tisdell (2016) posited that the researcher's critical review of professional literature was one of the essential components of a research study.

The research question for this study was: What strategies do small business leaders use to secure and conduct DOD procurement contracts successfully? In my review of the professional literature, I identified a gap in the recent research studies related to my research question. While the topic of federal procurement is well saturated, the issue of strategies used by small business leaders to secure and conduct DOD procurement contracts was limited. Montuori (2005) opined that identifying a gap in existing research may support the need for a new conversation about the problem through a different conceptual lens. In this vein of thought, I researched many potential theories to use as my conceptual framework. Ultimately, I chose Mitnick's (1973) principal-agent theory, also known as agency theory, as the conceptual framework for the study. While both Ross (1973) and Mitnick introduced agency theories in the early 1970s, Mitnick's principal-agent theory has a broader application for a variety of business relationships (Delves & Patrick, 2010; Eisenhardt, 1989). Barney's (1991) resource-based theory and

the further expanded knowledge-based theory (Barney, 1991; Conner, 1991) serve as supplements to the conceptual framework.

My review of the literature also includes peer-reviewed articles, government resources, and articles related to the sustainability and management of small businesses and the participation of small businesses in federal procurement contracts. While my primary focus was reviewing and assessing peer-reviewed journal articles, I also scoured federal websites for additional resource material. I collected full-length, peer-reviewed articles; government research, statistics, and articles; and some non-peer reviewed material. I collected most of the content for my literature review from the following databases accessed through the Walden University Library: (a) ABI/INFORM Collection; (b) Academic Search Complete; (c) Business Market Research Collection; (d) Business Source Complete; (e) Emerald Insight; (f) Sage Journals; and (g) Google Scholar. I also searched the (a) the SBA website; (b) the FAR; (c) the DFARS; and (d) other government databases and websites.

I initiated my search for relevant literature by implementing standard digital search strategies and search terms based on the research question, conceptual framework, and complimenting topics. I queried using the following terms: *agency theory, defense contracts, defense procurement, federal procurement contracts, knowledge-based theory, principal-agent theory, resource-based theory, small business management, small business sustainability, and small business survivability*. The literature review is comprised of 147 references. The breakdown of the total references is delineated as follows: 146 (99%) are peer-reviewed articles or government resourced and 106 (72%) of

the references were published within the last 5 years (i.e., 2016 or later) from the expected completion date of this study. Furthermore, the total study contains 231 references. The breakdown of these references is as follows: (a) 191 are peer reviewed; (b) 38 are government; and (c) two are other sources. Of the total number of references, 158 were published within 5 years of my anticipated completion of the study in 2021 and approval by Walden University's chief academic officer.

I have organized the literature review into six primary category topics: (a) background of the law related to defense contracting; (b) the conceptual framework and supporting framework theories of principal-agent theory, resource-based theory, and knowledge-based theory; (c) a brief discussion of an alternative gaming theory; (d) business failures and existing management strategies in the literature specifically related to small businesses; (e) myths regarding barriers to entry in defense contracting; and (f) DOD programs and resources for small businesses. In the first category, I examine the vast collection of promulgated laws surround defense contracting. Discussing the background of law was critical to understanding the research problem, but it is also equally important to the reader to understand the enormity of the laws that a small business leader entering defense procurement must be aware.

Background

Small businesses are significant contributors to the U.S. economy (Lanahan, 2016; Schilling et al., 2017; SBA, 2017; Withey, 2011) and are the most encouraged source of contracting for the DOD (DOD, 2015; Schilling et al., 2017). Private businesses and government agencies encourage small business participation to mitigate economic

concerns and promote innovation (Lanahan, 2016; Ribeiro-Soriano, 2017). The DOD prescribes yearly objectives to award or set aside almost 25% of prime contracting and 35% of subcontracting for small businesses and various disadvantaged small businesses (DOD, Office of Small Business Programs, 2017). In 2018, the DOD (2017) planned to award close to \$640 billion, setting aside \$160 billion for contracts to award to the small business directly or through subcontracting plans. Exploring and understanding how some small business leaders successfully navigate the federal procurement process through organizational knowledge, dynamic learning, and the implementation of business strategies could significantly increase revenue streams to support the growth and sustainability of new and existing small businesses.

Researchers mostly agree that the idea of both federal and nongovernment organizations procurement is based on transactional-based contracting (Eisenhardt, 1989; Keulemans & Van de Walle, 2017; Vitasek, 2016). Vitasek (2016) argued that procurement dates back as far as 1776, founded, in part, by Smith, a professor at Glasgow University who developed the invisible hand theory. Over the years, congressional efforts have further defined and refined the federal procurement process by promulgating restrictions, directives, policy, and law. The FAR provides guidance and rules for most federal executive agencies to procure goods and services (U.S. General Service Administration, 2019e). The DOD also supplements the FAR with additional direction for DOD procurement in the Defense Acquisition Regulations Supplement, known as the DFARS. Both the FAR and DFARS provide a system of regulations applicable to DOD procurement efforts.

While Congress promulgated laws to encourage small business participation in federal procurement, most agencies struggle to meet annual, small business set-aside goals (Flynn & Davis, 2016; Williamson, 2016). Congress enacted the Federal Acquisition Streamlining Act (FASA) of 1994 to streamline federal procurements (Moye, 2016). FASA provided for more commercial purchasing; increased the limit for small purchases; and incorporated the Truth in Negotiations Act, which requires the specific certifications of cost and pricing data for procurements greater than \$2,000,000 (U.S. General Services Administration, 2019h), incorporated additional rules related to procurement protests, and implemented regulations pertaining to small businesses and small socioeconomic businesses (Moye, 2016). A large portion of FASA related to commerciality designations and commercial purchases are incorporated into FAR, Part 12 (Moye, 2016). Commerciality designations and commercial purchases have higher thresholds requiring cost and pricing data and adherence to cost accounting standards (U.S. General Service Administration, 2019e, 2019h). Further, micropurchase thresholds are expanded when purchasing such supplies or services is deemed critical for U.S. defense or to subvert a threat to the United States (U.S. General Service Administration, 2019e, 2019f). The added flexibility provides small and large businesses opportunities to access more copious amounts of revenue without being subject to stringent cost accounting standards and certification of cost and pricing data.

The Better Buying Power (BBP) is a DOD mandate that has materialized through three phases. BBP 1.0 focused on improving the DOD's buying power, productivity, and use of taxpayer funds while administering more economical and developed weapons

programs and services to the warfighter (Defense Acquisition University, 2017). BBP 2.0 focused on seven key areas: affordable programs, cost control, incentivize productivity and innovation, reduce bureaucracy, promote competition, improve tradecraft, and improve the professionalism of the acquisition workforce (The Under Secretary of Defense, 2012). DOD leaders intended for BBP 3.0 to foster better relationships with industry professionals by reducing the barriers to contracting with the agency (Blank, 2019; Lohier & Falcone, 2015a). DOD leadership also desired to streamline agency procedures, address burdensome requirements, and increase innovation efforts between the DOD and private industry. DOD leadership detailed additional goals of improved technical performance and cost efficiencies as well as developing new defense products and programs (Dougherty, 2017; Romanczuk, 2017). Harvey (2019) opined that despite these streamlining efforts, not enough had been done to reduce the excessive costs small businesses incur during the bidding process. Still, reducing barriers to procurement efforts and increasing competition and innovation are essential factors that improve the overall functionality of DOD procurement and foster increased participation by small businesses.

One problem, however, was that BBP 3.0 did not provide specifics regarding reducing barriers to commerciality determinations (Lohier & Falcone, 2015a). The DOD continues to issue class deviations, explicitly trying to eliminate *of-a-type* commerciality determinations (Lohier & Falcone, 2015a, 2015b). Even before FASA, many private industry firms refused to do business with the DOD because of the burdensome regulations, onerous disclosures, and lengthy processes (Lohier & Falcone, 2015a,

2015b). The recent efforts by the DOD to eliminate the of-a-type commerciality determinations have reinvigorated private industry push-back (Lohier & Falcone, 2015a, 2015b). There are arguments both for and against the elimination of the of-a-type classification. For small businesses, however, the elimination may be particularly detrimental. Commerciality determinations paired with firm-fixed-price contracts or firm-fixed-price contracts with an economic adjustment, subject to limited exceptions, omit the need for businesses to provide cost and pricing data (U.S. General Service Administration, 2019e, 2019h). The omission of the requirement for cost and pricing data is essential for prime contractors, subcontractors, and small businesses, whether the small business is a prime contractor or subcontractor. Without the classification, small businesses are subject to cost and accounting standards, which differ from commercial accounting practices (Lohier & Falcone, 2015a). Cost and accounting standards require firms to utilize business systems that track funds to each contract through estimating, earned value management, material management, accounting and billing, purchasing, and property management (Lohier & Falcone, 2015a). Many small businesses may not have sophisticated accounting systems or the staff to manage them, eliminating the small business as a responsible vendor. The FAR defines a responsible vendor and associated policies and procedures, including debarment and other practices that provide for eligibility and ineligibility (U.S. General Service Administration, 2019d). General requirements for a responsible vendor are as follows: (a) financial efficacy to perform the contract; (b) meet required delivery schedules; (c) meet past performance requirements (though a business will not be ineligible for no past performance history); (d) meet

integrity and ethics requirements; (e) have sufficient organizational knowledge and skills (including accounting, quality, safety, and operational skills) to provide the necessary service or product; (f) or have the ability to secure the knowledge and systems required to meet the contractual obligation (U.S. General Service Administration, 2019d).

Additionally, for small businesses, the small business owner must have Certificates of Competency and Determinations of Responsibility before the DOD agency awards a contract (U.S. General Service Administration, 2019d). While the requirements to be considered a responsible vendor seem excessive, such requirements may seem particularly burdensome for the small business owner.

The participation of small businesses in public procurement is a social goal with multiple purposes: sustainability, small business growth, electronic procurement efforts, and increased competition (Loader, 2007; Williamson, 2016; Williamson, 2020). Despite these efforts, the overarching objective to procure goods and services for public efforts at the best value often supersedes most small business participation efforts (Ancarani et al., 2019; Loader, 2007). Globally, public procurement shares the common theme of best value, where cost and quality are primary objectives for procurement efforts (Ancarani et al., 2019; Loader, 2007). For small business leaders, collaboration is a strategy for cost reduction and economies of scale (Ancarani et al., 2019; Loader, 2007). Further, some agencies use different procurement strategies, which is inefficient for procuring non-unique items that all agencies used (Ancarani et al., 2019; Loader, 2007). Not all agencies and procurement professionals agree that small business policies are beneficial to small businesses or the agency (Ancarani et al., 2019; Loader, 2007). The precept is that small

business-friendly policies encourage competition, reduce costs, increase small business responses, foster adaptability, innovativeness, quality, and knowledge (Ancarani et al., 2019; Loader, 2007). All of Loader's (2007) respondents accepted adaptability and improved response for small businesses, but several objected to reduced cost and quality issues. Moreover, many of the respondents believed that small businesses could not compete on economies of scale and quality, lacked knowledge about procurement processes, and submitted non-responsive proposals (Loader, 2007). Surprisingly, some procurement professionals refuse to acknowledge that barriers exist in procurement for small and medium-sized enterprises, known as SMEs (Loader, 2007), indicating a disparity in agency culture with procurement regulations and policies.

FASA was critical for small business participation in procurement. FASA required that all purchases over \$2,500 (micropurchasing threshold), but under the simplified acquisition threshold, would be set aside for small business (U.S. General Services Administration, 2019f; U.S. Department of Labor, 2018). In 2018, Congress introduced and passed the National Defense Authorization Act for Fiscal Year 2018, which increased the micro-purchase threshold and simplified acquisition thresholds to \$10,000 and \$250,000, respectively, ultimately increasing contract values available to small businesses within the streamlined and less laborious procurement process.

The section of FASA that provided for the total set-aside for small business was significant for small business, establishing a specified dollar amount or percentage guaranteed for small business procurement participation. Contracting officers were urged to utilize simplified acquisition procedures as defined in FAR Part 13 but also allowed to

use procedures in FAR Part 14, Sealed Bidding, and FAR Part, Contract by Negotiation, for procurements where possible (U.S. Department of Labor, 2018; U.S. General Services Administration, 2019f, 2019g, 2019h). However, for women owned small businesses, legislators enacted an economic restriction that prevented both women-owned small businesses and agencies from actualizing parity with other small businesses and disadvantaged small businesses (Herrington, 2016) in DOD contracting. Congress finally incorporated a sole source allowance for economically disadvantaged women owned small businesses and women owned small businesses in the National Defense Authorization Act for the Fiscal Year 2015 (Herrington, 2016). Some adversaries to the small business program efforts claim the programs are converse to the primary objective of federal procurement of cost efficiency (Herrington, 2016). Joshi et al. (2018) argued that these small business programs provide workforce diversity, which is just as critical in driving better outcomes.

The SBA advocates for small business participation and set-asides for defense procurement efforts outside the United States (Malone, 2015). Considerable discussions were conducted by SBA and DOD leadership and Congressional leaders to increase the small business set-asides, but regulations and the FAR have conflicting provisions (Malone, 2015). FAR Part 19 provides for set-asides in the continental United States, U.S. territories, and specific outlying areas (U.S. General Service Administration, 2019i; Mallone, 2015). Outside of those specified areas, however, small business set-asides do not apply unless the agency and the SBA concur that the small business set-aside would adhere to any of the four critical elements in the best interest of preserving maximum

operational capacity, national defense and wartime efforts, equal ratios for services, supplies, and construction for small businesses, along with a balanced rate of government property sales to small businesses (Mallone, 2015). Cravero (2017) argued that set-asides are a valuable tool to create linkages between government policies, as evidenced in the United States, Canada, and European Union, to create socially responsible public procurement such as equal pay, environmental safety, world trade, and small business. Critics of set-asides postulated that set-asides create inconsistencies in awards such as fraud, misrepresentation, and faulty verification processes for set-aside qualifying businesses (Cravero, 2017). Other critics argue that the small business certification process is fraught with misuse and fraud (Layman, 2016). Despite limitations and criticism of incongruency in public procurement set-asides, set-asides for small businesses and economically disadvantaged small businesses increase opportunities for small business participation in DOD procurements and improve the sustainability potential for small businesses.

There are various socioeconomic and financing programs available to small businesses, which foster participation in federal and DOD contracting. The primary programs revolve around small business designation and initial participation in procurement. The 8(a) small business program is for those small business owners deemed socially and economically disadvantaged (Fontana, 2014; SBA, 2019). Additionally, the business owner can only participate in the program one time, have a personal net worth under \$250,000, have a minimum of 51% ownership in the business that is applying for 8(a) status, be involved in daily operations, and demonstrate the ability of the business to

perform a federal contract effectively and proficiently (Fontana, 2014; SBA, 2019). The small business owner must apply for certification to the 8(a) program, create a profile in SAM, and participate in annual government reviews (Fontana, 2014; SBA, 2019). A business owner can participate in the program for up to 9 years, at which time the business owner should have a sustainable business through federal contracting to which they can build towards other nongovernment business development (Fontana, 2014; SBA, 2019). The concept of developing business for nongovernment work may be essential. The DOD fiscal budget is often dependent on the political atmosphere during each presidential administration and wartime issues, making diversification a critical tool for sustainability for small businesses (Zullo & Liu, 2017). These initial qualifications and development tools in the 8(a) program are building blocks for sustainability and growth, as well as potential partnerships with larger businesses.

During these 9 years, the small business owner can also participate in the 8(a) Mentor-Protégé Program (MPP), which is monitored and by the SBA (Fontana, 2014; Huston; 2020; SBA, 2019). The MPP is designed to allow small business owners to collaborate with other business owners to create a platform for sustainability, receive technical and financial advice, and guidance on financing and overall business management (Fontana, 2014; Huston, 2020; SBA, 2019). The mentor and mentee are also allowed to form a joint venture partnership to secure government contracts (Fontana, 2014; Huston, 2020; SBA, 2019). The various platforms of the 8(a) program are designed to encourage small business owners to participate in federal contracts, but with the guidance and support of the SBA and the MPP.

Other small business programs involve specific minority ownership or geographic location of the business and its workers. These designations are women-owned small businesses, economically disadvantaged women-owned small businesses, service-disabled veteran-owned small businesses, and HUBZone small businesses. The certification for the categories requires the company to be small, with the small business owner receiving the designation owning 51%, participating in the daily operations, and be a U.S. citizen (SBA, 2019). Each designation carries specific requirements such as women-owned, proving an economic disadvantage, being a disabled veteran, or having a business in a socioeconomically deprived area (SBA, 2019). Further, a small business could apply for more than one designation, which may increase the chances of a small business owner winning a set-aside or developing a partnership with a larger company as part of the small business development plan.

Conceptual Framework

The primary conceptual framework for my study is Mitnick's (1973) principal-agent theory.

Principal-agent theory. The principal-agent theory has a strong basis in describing the relationships between two parties in business and management. Ross and Mitnick are both founders of agency theory originating in the early 1970s on agency theory. However, Mitnick's (1973) principal-agent theory has a broader application for various business relationships (Baker, 2019; Delves & Patrick, 2010; Eisenhardt, 1989). Eisenhardt (1989) defined agency theory as the relationship between principal and agent as one of conflict as the goals and objectives of each party are misaligned for favorable or

win-win outcomes. Researchers mostly agree that federal procurement is based on transactional-based contracting (Eisenhardt, 1989; Foss & Klein, 2016; Keulemans & Van de Walle, 2017; Maurer, 2019; Solheim-Kile et al., 2019). Transactional-based contracting involves the agency theory, in this study, with the government as the principal and the contractors (small business) as the agent. The opposing objectives are the cost for the principal and profit and reward for the agent. Specifically, in the DOD, the objectives are cost and supporting the warfighter mission (Zsidisin et al., 2019). However, for the agent, Cohee et al. (2018) argued that fair and reasonable pricing and competitive bidding practices require extensive work for defense contractors due to the potential ramifications of the DOD auditing agency, essentially driving costs higher. These contradictory objectives require the principal to offer an incentive to the agent to complete the tasks outlined in the contractual relationship (Baker, 2019; Boučková, 2015; Chrisdu-Budnik & Przedańska, 2015; Foss & Klein, 2016; Hendry, 2002, 2005; Kauppi & van Raaij, 2015; Scott et al., 2018; Snippet et al., 2015). These opposing objectives are problematic in the resultant contractual relationship.

Agency theory is an antagonistic relationship between the parties where information and competencies, such as knowledge and strategy, are critical to navigating the relationship (Baker, 2019; Eisenhardt, 1989; Selviaridis & Wynstra, 2015). However, agency theory is also collaborative, as the parties attempt to reach a beneficial outcome (Eisenhardt, 1989; Selviaridis & Wynstra, 2015) and mitigate risk (Uvet et al., 2019). This antagonistic yet collaborative partnership requires each party to find a contractual solution that provides performance with acceptable risk.

In my study, I focused on the consensual agreement of the principal and agent through a contract. Mitnick (1973) described agency theory as two parties involved in either consensual or nonconsensual agreement, and where the acts of the agent contribute to the principal's goals. An agent will have two sets of goals: self-interest or self-goals, which involve benefit to self and other-goals or other-interests, including benefit to the principal (Baker, 2019; Boučková, 2015; Chrisdu-Budnik & Przedańska, 2015; Hendry, 2002, 2005; Kauppi & van Raaij, 2015; Mitnick, 1973; Scott et al., 2018; Snippert et al., 2015). Other-goals may consist of situations where the parties ascribe to a mutual, contractual agreement by the parties to use as the parameters and guides for performance, incentive, and reciprocity, known as a contractual agency (Boučková, 2015; Chrisdu-Budnik & Przedańska, 2015; Hendry, 2002, 2005; Kauppi & van Raaij, 2015; Mitnick, 1973; Scott et al., 2018; Snippert et al., 2015). Mitnick developed a typology of principals, which included the government and public as a systemic class of referent principal entities. Both principals and agents may be people, institutions, organizations, or even ideology (Mitnick, 1973). Mitnick found that agent behavior could be self-specified, other-specified, or a mix of the two types. An agent that is self-specified directs his actions towards self-benefit, whereas an agent who is other-specified directs his efforts towards benefiting the principal (Mitnick, 1973). Mitnick opined that the relationship between the contractual parties becomes one of authority (principal) and fiduciary (agent), thus creating fiduciary normality for the agent. The agent has a position of trust, acting on behalf of or benefiting the principal, without a disproportionate amount of self-benefit, but not excluding self-benefit (Boučková, 2015; Chrisdu-Budnik &

Przedńska, 2015; Hendry, 2002, 2005; Kauppi & van Raaij, 2015; Mitnick, 1973; Scott et al., 2018; Snippert et al., 2015). Hendry (2002, 2005) opined that the construct of agency theory created a confluence of perfect competence and bounded rationality, which is unrealistic. Imperfect competency and ambiguous contractual specifications often hinder the relationship of principal and agent, yet the parties endeavor to be honest (Chrisdu-Budnik & Przedńska, 2015; Hendry, 2002; Hendry, 2005; Kauppi & van Raaij, 2015; Scott et al., 2018; Snippert et al., 2015). Both the principal and agent must seek to find the balance in levels of self-benefit.

The principal-agent relationship is not without problems, particularly in a bounded reality. Principals and agents experience limits on information, communication, strategic behavior, information distortion, resource issues, and deviant behavior. The principal faces problems of motivating the agent to adhere to his objectives through financial incentives, resource incentives, and information (Boučková, 2015; Chrisdu-Budnik & Przedńska, 2015; Hendry, 2002, 2005; Jensen & Meckling, 1976; Kauppi & van Raaij, 2015; Mitnick, 1973; Scott et al., 2018; Schmidt & Wagner, 2019; Snippert et al., 2015). The agent faces problems related to choosing behaviors that accomplish a balance of self-goals and other-goals (Mitnick, 1973). Further, the principal must decide whether to incorporate policing (compliance and surveillance) systems and incentive measures at his cost or the agent's cost, known as self-policing (Boučková, 2015; Chrisdu-Budnik & Przedńska, 2015; Hendry, 2002, 2005; Jensen & Meckling, 1976; Kauppi & van Raaij, 2015; Mitnick, 1973; Scott et al., 2018; Snippert et al., 2015). The principal must also determine if negative incentives will be enacted such as sanctions to

curb deviant behaviors (Boučková, 2015; Chrisdu-Budnik & Przedańska, 2015; Hendry, 2002, 2005; Jensen & Meckling, 1976; Kauppi & van Raaij, 2015; Mitnick, 1973; Scott et al., 2018; Snippert et al., 2015). Foss and Klein (2015) suggested that basic performance-reward concepts provided the best motivation for contractual successes.

Additional problems faced by the principal and agent relationship are adverse selection, moral hazard, and the inability to verify hidden information and actions. Source selection can be hindered by incomplete knowledge, meaning that one party holds more knowledge or misleads the other party about his knowledge, whether that knowledge relates to the contractual requirements, products, or services (Baker, 2019, Chrisdu-Budnik & Przedańska, 2015; Hartman et al., 2020; Hendry, 2002, 2005; Kauppi & van Raaij, 2015; Scott et al., 2018; Solheim-Kile et al., 2019; Snippert et al., 2015; Vendrell-Herrero, 2021). The concept of adverse selection can also lead to what is known as maverick buying, where procurement agents on both sides of the supply chain do not adhere to procurement processes and regulations (Kauppi & van Raaij, 2015; Scott et al., 2018). This discordant break in protocol also creates a misalignment of objectives in the principal-agent relationship, where one party leverages their goals over the other party's objectives (Kauppi & van Raaij, 2015; Scott et al., 2018). The leveraging of self-interest becomes a moral hazard, where the parties are no longer aligned in outcomes (Baker, 2019; Boučková, 2015; Chrisdu-Budnik & Przedańska, 2015; Diwei Lv et al., 2020; Hendry, 2002, 2005; Jensen & Meckling, 1976; Kauppi & van Raaij, 2015; Scott et al., 2018; Snippert et al., 2015, Vendrell-Herrero, 2021). Hidden knowledge and hidden actions are the third problem mentioned, where one party has more knowledge or pursues

actions (such as maverick buying) that are leveraged in self-interest (Boučková, 2015; Chrisdu-Budnik & Przedańska, 2015; Diwei Lv et al., 2020, Hendry, 2002, 2005; Jensen & Meckling, 1976; Kauppi & van Raaij, 2015; Scott et al., 2018; Snippert et al., 2015, Vendrell-Herrero, 2021). All three problems require additional actions by the parties to monitor contractual performance and create incentives for more performance or behavior-based compliance.

Monitoring and incentives related to contractual performance or behaviors can be a cost to both parties that require the use of external and internal resources. The principal typically performs monitoring activities to ensure performance, such as site visits, audits, and performance measures (Chrisdu-Budnik & Przedańska, 2015; Hendry, 2002, 2005; Jensen & Meckling, 1976; Kauppi & van Raaij, 2015; Mitnick, 1973; Scott et al., 2018; Snippert et al., 2015). Contractual incentives can be reward-based or punitive-based, where excellent performance results in a reward and noncompliance results in sanctions (Chrisdu-Budnik & Przedańska, 2015; Hendry, 2002, 2005; Kauppi & van Raaij, 2015; Scott et al., 2018; Snippert et al., 2015). Monitoring and contractual incentives require extensive resources and costs for both principal and agent, impugning the overall cost and profit but necessary for contract compliance.

Agency theory applies to my study as the DOD seeks small business contractors that can perform at the best value continuum, where cost and other than cost factors are part of the procurement selection (U.S. General Service Administration, 2019h). Mitnick's (1973) agency theory provides a unique framework to view the relationship between the government (principal) and small business leaders (agents) due to the

contractual agency relationship and various conflicting objectives and behaviors of the principal's goals as well as the agent's goals as described herein. Zullo and Lin (2017) opined that agency theory is specifically applicable to DOD contracting due to the specialized military requirements and assimilation between principal and agent.

Examining successful business strategies used by small business leaders to successfully secure and conduct DOD procurement contracts through the lens of the principal-agent theory is relevant to the current struggles by small business leaders and the DOD contracting environment to forge beneficial relationships and positive contractual outcomes.

Supporting Frameworks

I selected Barney's (1991) resource-based view (RBV) and knowledge-based theory (see Barney, 1991; Conner, 1991) as supporting frameworks for my study as much of defense and federal contracting has moved to performance-based contracting methods. Defense contracting is, essentially, a supply chain-based system that focuses on agents providing supplies and services to the DOD. This concept of service-based contracting has weaknesses in uniting contractual and performance motivations with collaborative relationships (Selviaridis & Wynstra, 2015). The two supporting frameworks provided a unique lens in which to view small business strategies that overcome challenges in performance-based and service-based contracting, as well as difficulties in supply chain management.

Resource-based theory. Barney (1991) determined that resource-based theory, also known as the resource-based view, is the perspective of firms' competitive

advantages. However, Barney theorized that not all firms have the same resources across the spectrum but may have similar access to resources or resources in general. Whether small, large, mature, or young, firms do not have the same resources, nor do they deploy or prioritize those resources the same way (Chang et al., 2016). Thus, RBV is based on a firm's resources and the firm's ability to utilize those resources for competitive advantage and sustained competitive advantage (Barney, 1991; Carter et al., 2017; D'Oria et al., 2021; Flynn, 2017). In RBV, a firm's resources are expansive, embracing internal and external resources, as well as tangible and intangible resources such as assets, knowledge, processes, procedures that are controlled by a firm (Barney, 1991; Carter et al., 2017; Flynn, 2017; Sánchez-Rodríguez, 2019). Martinez et al. (2019) postulated that not only must a firm utilize all of its resources, but the firm must continue to expand those resources to ensure a sustained, competitive advantage. Barney divided the firm's resources into human capital resources, physical capital resources, and organizational capital resources. Whether researchers take a linear view or a holistic view of RBV, a firm's resources are critical to sustaining success.

Human capital resources are defined as the skill set an organization has internally, including but not limited to, the experience, education, knowledge, and competency of its employees and management team (Barney, 1991; Hadi, 2017). Researchers define physical capital resources as technology, equipment, inventory, and location (Barney, 1991; Hadi, 2017). Researchers define organizational capital resources as processes, systems, protocols, and external relationships (Barney, 1991; Hadi, 2017). Diversity in a firm's resources, both internal and external, are critical to a firm's ability to adapt and

succeed (Chang et al., 2016; Hadi, 2017; Sánchez-Rodríguez, 2019). Small firms that are diverse in human capital, physical capital, and organizational capital may be better equipped to succeed than their less diverse counterparts.

Firms often define specific resources and their implementation as temporary strategies and more permanent strategies, allowing expansion and growth (Nason & Wiklund, 2018; Perunović et al., 2016). Firms that incorporate adaptation and flexibility in their resources often encourage a more organic culture that is collaborative and more accepting of risk (Bag et al., 2018). This organic culture is particularly relevant to firms that require the integration of robust supply chain networks (Bag et al., 2018; Chang et al., 2016, Perunović et al., 2016; Zatta et al., 2018). A firm's ability to collaborate with its supply chain and leverage its strengths in its supply chain may increase its innovative platforms and sustain its competitive advantage (Bag et al., 2018; Chang et al., 2016, Perunović et al., 2016; Zatta et al., 2018). A firm's ability to integrate and collaborate with its supply chain increases its ability to mitigate cost, provide on-time deliveries, and improve processes (Bag et al., 2018; Chang et al., 2016, Perunović et al., 2016). These factors are essential to winning, performing, and sustaining contracts (Perunović et al., 2016). DOD procurement officers evaluate contract cost and performance in source selection (Dougherty, 2017). Therefore, both internally and externally, a firm's prowess to integrate and collaborate with its supply chain may be crucial to successful DOD contracting.

Some researchers criticized RBV as limiting and narrow (Chang et al., 2017; Lanivich, 2015; Wang & Wang, 2017). Lanivich (2015) criticized RBV as limiting and

explained that each business owner had his or her process of interpreting, improving, and administering the firm's resources, which is often not accounted for in RBV. Wang and Wang (2017) also examined RBV and stated that RBV was too narrow in its practical application and postulated that a more modulated theory was required to create flexibility for dynamic and in-flux periods versus periods of stability for firms regardless of a firm's maturity. Chang et al. (2017) supported RBV but contended that even firms with resources do not implement those resources consistently and have different priorities in strategies. Despite these criticisms, RBV remains salient as a framework for this study.

Knowledge-based theory. The knowledge-based theory of the firm (KBV), is an expanded view of RBV, with a focus on a firm's unique access to and use of knowledge as the critical resource for achieving and sustaining a competitive advantage (Alonso et al., 2019; Barney, 1991; Calvo-Mora et al., 2016; Ceptureanu; 2016; Grant, 1995; Wynn, & Jones, 2019). A firm's composition of knowledge includes intellectual property, proprietary information and processes, and management and staff competencies and experience (Alonso et al., 2019; Ceptureanu; 2016; Laihonen et al., 2015; Lee et al., 2016; Maldonado-Guzmán et al., 2016; Martinez et al., 2019). Specifically, a firm's knowledge falls into two categories of tacit knowledge and explicit knowledge.

Researchers describe tacit knowledge as what people know, which makes extrapolation difficult, and describe explicit knowledge as what can be attained or how a firm utilizes process, procedures, and information, which is easily communicated (Alonso et al., 2019; Grant, 1996; Valentim et al., 2016). A firm's ability to balance and apply explicit and tacit knowledge, while developing and integrating new knowledge is critical to sustaining

a competitive advantage (Alonso et al., 2019; Grant, 1996; Laihonen et al., 2015; Laihonen & Mäntylä, 2018; Valentim et al., 2016; Wynn, & Jones, 2019). Blank (2019) opined that a firm's ability to harness its competitive advantage of knowledge and influence in defense contracting was critical before DOD procurement officers issued the solicitation. Businesses that aid the DOD in shaping the requirements have a definitive advantage in determining competitive bids and success in winning those procurements (Blank, 2019). KBV is a holistic view of how a firm utilizes and develops knowledge as a critical, sustaining resource.

Firms may determine gaps in their tacit and explicit knowledge. Valentim et al. (2016) opined that small and medium-sized firms often have difficulties in scalability and competing due to a lack of knowledge resources. Firms can also be at risk for not realizing the lack of or overestimating internal capabilities (Foss & Jensen, 2019). Firms can acquire knowledge through outsourcing, subcontracting, developing supplier relationships, buying another company, or collaborating with industry leaders (Alonso et al., 2019; Grant, 1996; Laihonen et al., 2015; Laihonen & Mäntylä, 2018; Valentim et al., 2016). Small business leaders must continuously work towards increasing the firm's absorptive capacity and exploring and exploiting knowledge resources (Alonso et al., 2019; Laihonen et al., 2015; Laihonen & Mäntylä, 2018; Valentim et al., 2016). McCue et al. (2018) opined that procurement professionals must constantly be aware of the vast body of knowledge required to navigate procurement efforts. Acquiring, integrating, and applying knowledge is, therefore, critical to sustainability.

Once a firm has acquired knowledge, it must then disperse the knowledge through the organization, converting the knowledge into production or service efficiencies and growing internal capabilities (Alonso et al., 2019; Grant, 1996; Laihonen et al., 2015; Laihonen & Mäntylä, 2018; Valentim et al., 2016). Firms experience difficulties in converting knowledge, particularly tacit knowledge, and increasing their capacity to accumulate knowledge (Alonso et al., 2019; Grant, 1996). A firm must align its knowledge base with its industry or target market (Grant, 1996; Valentim et al., 2016). Preston et al. (2017) found that buyer-supplier relationships that shared knowledge experienced enhanced performance and a more in-depth understanding of the market and customers. The inability of a firm to achieve efficiency in acquiring, converting, and applying knowledge, fails to explore and exploit the internal and external knowledge resources (Grant, 1996, Jeon et al., 2016; Khvatova & Block, 2017; Valentim et al., 2016). A firm must efficiently accumulate and distribute knowledge to maintain and grow its core competencies.

Gaming theory. Gaming theory is an alternative framework that I did not select for this study due to the statistical and mathematical lens, but I will briefly discuss the theory. Some researchers found relevance in using gaming theory as a lens through which to view contractual relationships and strategic decision-making (Ashgarizadeh & Murthy, 2000; Pour et al., 2016; Sato & Sunaguchi, 2017). Gaming theory provides a basis for the intricacies, incentives, and strategies related to decision-making (Pour et al., 2016; Sato & Sunaguchi, 2017; Shubik, 1972). Through the utilization of a mathematical matrix, one can establish baselines or goals and manage risks through analysis (Ruhl & Salzman,

2011, 2020; Sato & Sunaguchi, 2017; Shubik, 1972). The fundamental tenets of gaming theory involve evaluating and exploring the opposing circumstances and associated risks to determine possible outcomes (Ruhl & Salzman, 2011, 2020; Sato & Sunaguchi, 2017; Shubik, 1972). In procurement efforts, types of contracts, and the related results related to incentives and products or services, gaming theory can delineate those outcomes in the mathematical matrix (Ashgarizadeh & Murthy, 2000; Pour et al., 2016). Further, depending on the variables in the matrix, gaming theory may provide assistance where competitive bidding is part of the source selection or specific incentives (fees) are involved (Ashgarizadeh & Murthy, 2000; Pour et al., 2016). Gaming theory is based on a mathematical matrix for calculating outcomes and strategies related to the decision process but ultimately was not deemed appropriate for this qualitative case study.

Defining Business Failure

Before discussing some of the business success strategies in the literature, I reviewed definitions of business failure in the extant literature. Globally, small business owners failed to sustain their businesses, with failure rates as high as 50%-90% (Boso et al., 2019; Bushe, 2019; Karabag, 2019). Researchers describe business failure as differing from a voluntary exit or closure of the business, such as retirement, selling, or merging and exiting (Boso et al., 2019; Bushe, 2019; Cope, 2011; Frota Vasconcellos Dias & Martens, 2019). Further, some researchers defined failure as deterministic due to external forces, or voluntaristic, which is a result of internal effects (Amankwah-Amoah, 2019; Bushe, 2019; Frota Vasconcellos Dias & Martens, 2019; Karabag, 2019). Deterministic factors affecting business failure would be economy, regulations, industry innovations, or

change in administrations or regimes (Amankwah-Amoah, 2019; Bushe, 2019; Frota Vasconcellos Dias & Martens, 2019; Karabag, 2019). Voluntaristic factors affecting business failure would be internal events in a firm, such as bad management decisions, lack of capital, lack of resources, lack of core competencies (Amankwah-Amoah, 2019; Bushe, 2019; Frota Vasconcellos Dias & Martens, 2019; Karabag, 2019). Whether deterministic or voluntaristic, business failure should not include the voluntary closure or exiting of a business.

Small Business Success Strategies

Researchers are of multiple opinions regarding strategies for small business success and sustainment. However, there were several recurring strategies throughout the literature. Building collaborative partnerships and alliances is a dominant strategy in the literature (Cucculelli & Bettinelli, 2015; Ferrary, 2015; Mamavi et al., 2015; Lumpkin et al., 2010; Parnell et al., 2012; Runyan & Covin, 2019; Taneja et al., 2016). While small businesses have less access to resources, most small companies react more quickly to market fluctuations and are adaptative and flexible (Lumpkin et al., 2010; Parnell et al., 2012). Cucculelli and Bettinelli (2015) concurred with the extant research about small businesses having more flexibility and adaptability but argued that flexibility and adaptability are factors towards success when small businesses utilize these factors with internal business models and the use of intangible assets such as marketing, advertising, branding, and internal investments in research and development. Other researchers posited that the flexibility and adaptability of small businesses allow small businesses to capture niche markets and low-cost opportunities in broader markets (Lumpkin et al.,

2010; Parnell et al., 2012). Lumpkin et al. (2010) postulated that small business leaders should focus on smaller geographic and industrial footprints while creating strong alliances in those footprints. Milshina and Vishnevkiy (2018) expanded on the concept of geographic and industrial footprints and proffered that small businesses should engage in cluster strategies with their niche markets and strategic partners by collaborating with government agencies, universities, and other companies. Small businesses that engage in knowledge management and innovative approaches such as building human capital (Ferrary, 2015), supply change management and lean practices (Naoum & Egbu, 2016), and information technology (Li et al., 2016; Milshina & Vishnevkiy, 2018) experience higher levels of sustainability and growth.

Myths and Barriers to Entry in DOD Procurement

Barriers to entry into procurement have not altered in more than 20 years, nor have the solutions to those barriers (McKevitt & Davis, 2015). Some researchers opined that there are primary barriers such as risk-averse agencies (Loska & Higa, 2019; McKevitt & Davis, 2015), burdensome processes (McKevitt & Davis, 2015; Schilling et al., 2017, Westman et al., 2021; Withey, 2005), and lack of small business knowledge, capability, and competencies (OMB, 2014; McKevitt & Davis, 2015). Other researchers argued that complex designs and specifications, as well as high labor costs in the United States, are barriers to small business participation and sustainability of such involvement (Caskey, 2015; Schilling et al., 2017) or the fractured and complicated structure of the DOD (Mahoney, 2017; Schilling et al., 2017). While some solutions such as consortium

bidding, set-asides, and simplified acquisition thresholds and procedures exist for small business participation, there is still a lack of successful small business participation.

Batista et al. (2017) argued that outcome-based contracts addressed the challenge of products involving highly technical and advanced systems such as those for defense. Outcome-based contracts focus more on cost efficiency and outcomes (product and cost) versus product and service outputs for a fixed fee. Defense weapons systems often involve assemblies of various components, creating a contextual array of individual components that are regularly exposed to a variety of extremes related to weather and hours of use (Batista et al., 2017; Caskey 2015). Carroll (2015) argued the opposite, that linear contracts were best for situations where the principal and agent are focused on risk-averse positions. Non-linear contracts are based on linear contract theory, despite any production guarantees (Carroll, 2015). There is a direct relationship between the principal and agent, where both parties seek the highest payoff (Carroll, 2015). This discrepancy between scholars regarding the best contract type for DOD procurement further demonstrates the need for small business leaders to ensure that their firms have internal competencies of DOD procurement contracts, whether such contracts involve manufacturing or services.

The Office of Management and Budget [OMB] (2014), addressed the lack of knowledge of the federal acquisition force as an impediment to collaboration and innovation, particularly as a barrier to small business. The complex nature of federal procurement creates barriers to innovation and small business participation (OMB, 2014). The OMB stressed the need to simplify protracted processes and complicated regulations

while increasing the demand for better online options for small businesses to search for procurement opportunities. Gholz (2014) protested that while the DOD's requirements for products and services are complex, government-specific, and not commercially marketable, the burden also lies on the organization to develop knowledge of the DOD's needs, jargon, policies, politics, and weapon system objectives to be successful in defense procurement. Gholz effectively related the key principles of the strategy diamond with DOD procurement and small businesses successful participation in DOD contracting as: understand the DOD market niche, differentiate the product or service, but align with DOD requirements and objectives; understand the defense market and drivers, determine partnerships and networking to become a known quantity through subcontracting with prime defense contractors or venture partnerships and understand the cost of doing business with the government. Following this knowledge pattern strategy, Gholz opined that an astute organization could successfully break through barriers and navigate the complexity of DOD procurement. While not specific to DOD procurement, Barnett (2016) discussed the disenfranchisement of organizations concerning knowledge management. Barnett argued that academia should partially carry the burden for the lack of knowledge management in organizations. Research has typically focused on statistical and theoretical irrelevance instead of providing succinct knowledge management strategies for organizational practice (Barnett, 2016), leaving businesses stranded when seeking answers to implementing successful strategies.

The OMB issued a series of three memoranda in 2011, 2012, and 2017 to address a plethora of myths after engaging in discussions, surveys, and focus groups with

government procurement professionals and industry professionals. The OMB (2011, 2012, 2017) categorized the myths into three distinct categories of communication: communication between the government employees and industry, misconceptions about interactions between government employees and industry, and effective debriefings. The purpose of the memoranda was to break down barriers that block effective communication, foster vendor feedback, and promote awareness (OMB, 2011, 2012, 2017). A complete iteration of all 22 myths is beyond the scope of this study. Instead, I will discuss myths specific to this study's critical elements: communications related to the possible prohibition of future participation in solicitations, fear of discussions resulting in protests, marketing directly to government contracting professionals, and preparation and content of debriefings as having no value for participation.

Government contract professionals and offers were concerned about conflicts of interest for pre-solicitation conversations and the prohibition of future participation in solicitations (OMB, 2011). The OMB (2011) stressed that the FAR only requires that all offerors receive equal access to any information arising from meetings or discourse so that vendors do not have an advantage over other vendors. Further, the OMB discredited fears related to communication inciting protests, claiming that information exchanges reduce protests. The OMB also cautioned against any excuses for time constraints related to debriefings after receiving vendor proposals. Informative discourse, mainly where complexity and changes to requirements occur, enhances technical solutions and contract performance.

When vendors communicate capabilities or add government contracting professionals to email lists, vendors create unnecessary and burdensome chains of communication that often do not reach appropriate personnel (OMB, 2012). The Federal Business Opportunities (FBO) website (www.fbo.gov) provides a platform for vendors and government employees to access communication plans, requests for sources, and synopses of current solicitations. Further, vendors should bring appropriate personnel during technical meetings, which does not include business development employees (OMB, 2012). Productive meetings require preparation from both parties, which includes reviewing pertinent agency information, technical requirements, and requirements information (OMB, 2012).

The third memo focused on the preparation and content of debriefings as having no value for participation (OMB, 2017). Feedback during debriefings is a collaborative exchange of information between the government and vendors (OMB, 2017). Many believe that vendors do not use the feedback provided during such meetings, but the OMB (2017) stated that this belief is not valid, as proven by industry feedback. Debriefings offer the exchange of information, mitigating confusion and decreasing the probability of protest. Insight into government decisions on source selection and proposal strengths and weaknesses is critical to vendor understanding and improvement (OMB, 2017). Firms should request post-selection debriefings after losing an award to determine the strengths and weaknesses in their proposals and how to improve their next bid.

Further, there is a misconception that government professionals should only provide minimal feedback during Federal Supply Schedule or simplified acquisition

procurements (OMB, 2017). The OMB (2017) discredited this myth, urging procurement professionals that effective debriefing enables the government to glean valuable information and garner goodwill. The FAR provides for debriefing in both situations described herein and does not prevent contracting professionals from providing meaningful feedback (OMB, 2017). There is also a myth that debriefings are not required for a contract awardee (OMB, 2017). The OMB challenged this myth, stating that ensuring an understanding of the requirements and post-award administrative process benefits all parties.

Small Business Resources for DOD Contracting

Small business leaders can seek free advice for DOD contracting at their local Procurement Technical Assistance Center (PTAC) that is hosted through joint efforts (typically universities) and certified federal contracting specialists (Procurement Technical Assistance Center [PTAC] Alabama, 2018) or at their local SBA office (SBA, 2018a, 2018b). The PTAC specialists offer advice and assistance from procurement readiness to post-award contract management and business system issues, as well as matching services and events (PTAC Alabama, 2018). PTAC and SBA leaders advise that small business leaders who desire to win federal procurement awards should join as clients or members (PTAC Alabama, 2018; SBA, 2018b). Second, small business leaders must register with in SAM (PTAC Alabama, 2018; SBA, 2018b). All agencies require a business to register in SAM for contract award consideration.

Additionally, small business leaders must get a Data Universal Numbering Systems (DUNS) number from Dun & Bradstreet (PTAC Alabama, 2018; SBA, 2018b).

All small business leaders must determine the appropriate business service or supply codes that represent their products or supplies in various agency systems. Small business leaders can find their codes in the NAICS code, Product Service Code, Federal Supply Code, or Standard Industrial Classification (PTAC Alabama, 2018; SBA, 2018b). Small business leaders need to determine their appropriate codes that align with their products or services. These codes are critical for leaders and agencies to identify procurement efforts that align with small business services or supplies (PTAC Alabama, 2018; SBA, 2018b). Another essential element is for small business leaders to determine if their business qualifies for the SBA 8(a) small business development or one of the other specialized certifications such as HUBZone or other designations (PTAC Alabama, 2018; SBA, 2018b). The 8(a) program qualifications changed in 2020 (SBA, 2020), along with the opportunity to add one additional year to a firm's participation due to the COVID-19 pandemic in 2020 (SBA, 2021). The requirements for small business leaders to participate in DOD contracting are extensive. Still, the DOD, SBA, and PTACs provide many resources to aid small business leaders in navigating the process.

Agencies must use one of the two primary websites to post procurement efforts over \$25,000 on either Defense Logistics Agency Internet Bid Board System (DIBBS) or the FBO website (PTAC Alabama, 2018; SBA, 2018b). Small business leaders must also enhance their knowledge of the FAR and DFARS to understand the federal and DOD regulations governing federal and defense contracting (PTAC Alabama, 2018; SBA, 2018b). Additional opportunities, such as a small business subcontracting with a more prominent prime contractor or large prime contractors offering mentor-protégé programs

or licensing arrangements, can be found at the DOD's Office of Small Business Programs (PTAC Alabama, 2018; SBA, 2018b). Additionally, the SBA maintains the Dynamic Small Business Search database for agencies to source small businesses for procurement contracts (SBA, 2018b). Regardless of complexities, burdens, and potential barriers, small business leaders can utilize their local PTAC and SBA offices as knowledge and technical resources to navigate the DOD procurement process.

For small business leaders interested in research and development (R&D), federal research funds are available primarily in two programs known as the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs. The SBIR and STTR programs are federally funded, with funds appropriated by Congress (Canaria et al., 2019; Joshi et al., 2018; Lanahan, 2016; Sun et al., 2021). Researchers describe STTR and SBIR programs as programs supported by Congress for 11 federal agencies, including the DOD, to advance small business participation in R&D sciences and technologies (Canaria et al., 2019; Joshi et al., 2018; Lanahan, 2016; Onken, Aragon, et al., 2019; Onken, Miklos, et al., 2019; Smith, 2018). This support is critical for small business R&D firms, as it helps these firms survive the phenomenon called the valley of death, which researchers define as the lack of financing for these small R&D firms to succeed commercially (Belz et al., 2019; Canaria et al., 2019; Joshi et al., 2018). State-funded programs also exist that supplement STTR and SBIR, further developing small business success (Lanahan, 2016). SBIR and STTR provide essential funding and development programs for small businesses interested in research and development.

While SBIR and STTR share the same model for small business R&D, the goal for SBIR participants is to qualify for three phases, ending in a commercially developed product (Canaria et al., 2019; Joshi et al., 2018; Lanahan, 2016). The STTR program is structured to pair small R&D firms with U.S. research institutions for collaborating advancement of R&D technology in a variety of disciplines (Canaria et al., 2019; Joshi et al., 2018). Collaboration with U.S. research institutions provides extensive access to funding for small businesses. In 2018, U.S. research institutions were awarded approximately \$21 billion for various defense research (Calafut et al., 2021). The SBIR and STTR programs provide instruction and collaboration to small firms for proof of concept and market viability, in addition to funding (Canaria et al., 2019; Joshi et al., 2018). The DOD also created the Rapid Innovation Fund for small businesses to engage with the DOD with new technologies that can be easily inserted into defense programs and efforts (DOD Research & Engineering Enterprise, 2021), which becomes increasingly important as the DOD and four other U.S. federal agencies began investing approximately \$500M in manufacturing innovation in 2015 (Daudt & Willcox, 2018). The critical importance of these programs is the support provided to small firms to develop market and financial knowledge and bridge a gap in funding. The SBIR and STTR programs encourage and create small firm sustainability while advancing research and development in science and technology. The Rapid Innovation Fund provides for small businesses to promote early technologies that align with defense programs.

In past years the STTR and SBIR programs were authorized periodically. In 2016, Congress initiated a bill that would make both programs permanent, and the DOD SBIR

and STTR programs were made permanent in the National Defense Authorization Act for Fiscal Year 2017 (Senate, 2016). The DOD is the agency with the most massive budget for both programs, contributing more than \$1 billion annually (DOD Office of Small Business Programs, 2019; Lanahan, 2016). The grants and awards are highly competitive, with the requirements for participation similar to small business participation in federal procurement (DOD Office of Small Business Programs, 2019; Lanahan, 2016).

Approximately 11 federal agencies participate and fund SBIR and STTR programs where competition for acceptance is fierce, yet the financial and operational rewards are significant.

Participants in either program have a primary requirement of being a small business with less than 500 employees (DOD Office of Small Business Programs, 2019; Joshi et al., 2018). After the primary requirement, the requirements for each program differ. SBIR requires the participants to be a for-profit firm headquartered in the United States and for 51% of the ownership to be controlled by a U.S. citizen or a legal U.S. permanent resident (DOD Office of Small Business Programs, 2019; Joshi et al., 2018). SBIR requires the primary researcher to be employed by the small business and execute 66% of the research in Phase 1 and 50% in Phase II (DOD Office of Small Business Programs, 2019; Joshi et al., 2018). In STTR, the participants must have a partnership agreement with a U.S. research institution, manage the funding and execute 40% of the research (DOD Office of Small Business Programs, 2019; Joshi et al., 2018). While participation in SBIR and STTR is highly competitive with stringent requirements, both

programs afford small R&D firms a path to funding, expert collaboration and resources, and sustainability.

Transition and Summary

The background of the problem, problem statement, purpose statement, nature of the study, the research question, interview questions, and conceptual framework are elements comprising Section 1. Additionally, Section 1 included operational definitions, assumptions, limitations, delimitations, and significance of this study. Lastly, Section 1 covered the review of professional and academic literature.

In the literature review, I covered six critical areas relevant to the study. I examined the exhaustive collection of promulgated laws surround defense contracting, which is vital to understanding my research problem and equally important to the reader to understand the enormity of the statutes regarding small businesses and defense procurement. I discussed my primary conceptual framework and two supporting frameworks, as well as examined an alternative framework. I discussed small business failure in the literature and reviewed the literature on small business management success strategies. I analyzed and discussed various myths of barriers to entry for small business leaders into defense procurement. Lastly, I examined and analyzed a variety of DOD programs, assistance, and resources that exist for small business leaders interested in defense contracting.

An examination of the professional and academic literature evidenced that the rules, regulations, and processes associated with winning and sustaining DOD procurement contracts can be onerous and burdensome. For many decades neither the

problems nor solutions have changed. Additionally, a plethora of myths and barriers to entry are debunked and explained. While failure and success for small businesses are variable, there are strategies and resources available to small businesses to implement and utilize.

Section 2 of this study includes the following elements: (a) a restatement of the purpose; (b) the role of the researcher; (c) the participants; (d) research method and design; and (e) population and sampling. Section 2 includes discussing ethical research and the collection, organization, and techniques for data collection. Lastly, Section 2 covers the reliability and validity of the study.

In Section 3, I present my findings, including a repeat of the overarching research question, theme identification, and analysis. I discuss how my results corresponded or detracted from the existing literature and other peer review studies. I analyze and discuss how my findings are linked to my conceptual framework and supporting frameworks, and potential alternative explanations. I discuss how my findings aligned with or disputed extant literature and peer review studies. Further, I discuss the applicability of my results concerning the professional practice of business. I also discuss implications for social change and recommendations for action and future research. Lastly, Section 3 includes my reflections regarding my research project.

Section 2: The Project

As the primary researcher and data collection instrument, I interviewed five business leaders who successfully navigated the maze of FAR and DFARs regulations to secure and conduct DOD procurement contracts and whose businesses remained viable past the 5-year mark. I incorporated reliability and validity research standards to minimize bias and enhance the credibility of the study. I adhered to the ethical standards for research to uphold the privacy of the participants and the data collected.

Purpose Statement

The purpose of this qualitative multiple case study was to explore strategies small business leaders use to secure and conduct DOD procurement contracts successfully. The target population consisted of at least five small business leaders in the southeast United States with successful experience securing and conducting DOD procurement contracts. The implications for positive social change included the potential improvement of business survival rates, employee and customer retention, and sustainability for local communities. Deller and Conroy (2017) postulated that communities with long-term sustainability plans for small businesses experience lower unemployment and improved household income rates than communities that do not invest in long-term small business sustainability plans. DOD contracts are a potential source of revenue for small businesses, providing steady income and increased job opportunities for local communities (SBA, 2012). Small businesses may achieve sustainability through securing DOD contracts, potentially decreasing small business failure rates and job loss for local

communities. Most small businesses invest in local and state communities, providing a potential, positive social impact as a result of this study (see Pollack, 2017).

Each researcher has a unique role in any research method, but in qualitative research, the researcher is a learner, a research designer, an observer, and the primary data collector (Marshall & Rossman, 2017; Merriam & Tisdell, 2016). Unlike quantitative research, where the researcher has minimal-to-zero contact with the participants, a qualitative researcher has direct contact with participants (Marshall & Rossman, 2017; Merriam & Tisdell, 2016). The researcher is not just a tool for the research process but also an active participant who establishes close relationships with the participants (Alley, 2018). Without such active participation, the researcher cannot explore and glean an insightful understanding of participants' rich experiences (Alley, 2018). A qualitative researcher's role is multifaceted and includes active engagement with participants. The researcher's purpose and active involvement provide them with a rich and thick environment to explore, observe, and examine their participants in a real-time context.

Role of the Researcher

As a researcher, I was guided by the stringent requirements of Walden University's Institutional Review Board (Walden IRB) to maintain ethical standards of practice. Alley (2018) described the primary tenets of ethical research as procedural, practical, and relational ethics. Following procedural ethics protocol means the researcher must clearly explain the study and the participants' right to abstain from the study, describe confidentiality protocols, protect participants' privacy, and identify and mitigate

risks (Alley, 2018; Marshall & Rossman, 2017). Practical ethics involves the researcher maintaining mindful awareness of participants' distress, mainly when exploring emotional topics (Alley, 2018; Marshall & Rossman, 2017; Merriam & Tisdell, 2016). Relational ethics are applicable when the researcher must understand the duty of care for their participants, remaining aware and responsible for their actions and behavior (Alley, 2018). Many researchers refer to relational ethics as beneficence, where the researcher does not harm the participants (Marshall & Rossman, 2017). Using an interview protocol provided me with a guide and checklist to ensure that I covered the questions equally with each participant (see Appendix). Following established procedural and practical ethics in this study provided me with a guide of stringent standards to protect the participants' confidentiality and privacy as well as abate risks.

Self-reflection is an essential component of the researcher's role (Alley, 2018; Marshall & Rossman, 2017; Merriam & Tisdell, 2016). By keeping a reflexive journal throughout the study, a researcher can capture their thoughts, potential biases, and actions as well as those of their participants and their understanding of the interaction and interplay between researcher and participants, including ethical issues that may arise (Alley, 2018; Marshall & Rossman, 2017). Reflexivity is not about discrediting an individual's research but providing the researcher and reader with a path of understanding on how the researcher examined the interactions and how they may have been influenced in their observations (Merriam & Tisdell, 2016). One of my roles as a researcher is practicing self-reflexivity through journaling, note keeping, and field notes. Self-

reflexivity helped me identify potential biases and ethical issues while deepening my understanding of the research and participants.

The researcher also designs their study and must justify their decision-making process for the research design (Merriam & Tisdell, 2016). In this study, I defined the population and my strategy for sampling, identified how I collected data, and provided justification for those decisions based on expert and peer review recommendations. Through the explicit and thorough definition of their proposed research, a researcher justifies their decision by their examination of expert and peer review specifications (Marshall & Rossman, 2017; Merriam & Tisdell, 2016; Yin, 2018). Further, a researcher must safeguard data collection protocols, privacy, and findings and substantiate their adherence to ethical research and confidentiality (Marshall & Rossman, 2017; Merriam & Tisdell, 2016). Through a clear explanation of their design and decision process and providing justification based on extant peer review research, the researcher demonstrates their understanding of their role as a researcher.

I have been a solitary business practitioner but did not seek out contracts with the DOD. I have also held a position with a federal agency that practices DOD procurement. Additionally, I have also worked for a large defense contractor. These positions provided me with limited insider knowledge of small businesses and DOD procurement practices. It is imperative that a researcher explain insider knowledge and how it may influence their perspective (Merriam & Tisdell, 2016). My limited insider knowledge provided a unique understanding of the complexities and challenges in DOD procurement. Disclosure of my insider knowledge was crucial to creating an open interaction with my

potential participants. While not typical of most insider knowledge, such as socioeconomic, religious, or sexual preference, participants may have found my insider knowledge threatening from a power perspective. Insider knowledge for the researcher can be beneficial and detrimental simultaneously, depending on the interactions of power between the researcher and the participants, but disclosure to the participants is vital in trust-building (Greene, 2014; Merriam & Tisdell, 2016). My focus as a researcher was exploring assumptions versus collaborating those assumptions with the participants (see Merriam & Tisdell, 2016). Disclosure of my insider knowledge was critical to fostering collaborative participation from my potential participants; however, my limited insider knowledge may have alleviated any sense of unease in my potential participants.

The Belmont Report provides specific rules regarding human research participants in the United States and outlines three critical ethical research principles: respect, beneficence, and justice (National Commission for the Protection of Human Subjects of Biomedical and Behavior Research, 1974). As a researcher, I have a duty to adhere to and practice these rules of ethical behavior and treatment of participants.

Participants

For this qualitative multiple case study, the target population was a minimum of five small business owners with less than 500 employees who have secured a DOD procurement contract in the last 5 years and are located in the Southeast. Gaining and maintaining access to research participants is challenging for most researchers (Amundsen et al., 2017; Høyland et al., 2015). A researcher must gain access to participants through gatekeepers (Amundsen et al., 2017; Høyland et al., 2015).

Gatekeepers can block or restrict researcher access by placing limitations such as access to key personnel, limiting the time spent in the organization or with leadership, or determining that participation is no longer desired (Amundsen et al., 2017). However, there are strategies for overcoming these obstacles. Researchers may utilize a more informal approach through social networking or existing relationships where the researcher may gain a more amenable introduction to a gatekeeper by capitalizing on the social network (Amundsen et al., 2017). Furthermore, a researcher may use their status as an insider or outsider and their understanding of social and organizational relationships to gain access to participants (Siwale, 2015). Monahan and Fisher (2015) postulated that researchers might gain access to gatekeepers and participants using emails, phone calls, and impromptu site visits if the researcher clearly outlines their need for access and remains persistent.

I solicited participants using a combination of the methods previously mentioned: social networking, insider/outsider knowledge, and cold calling. First, I utilized the DOD procurement websites, such as SAM, FBO, and DIBBS, as a resource. I used the archival records on the websites above to help confirm that potential participants met the criteria for the study. Through SAM, which is open to the public, contact information for potential participants were accessed as the first level of gatekeeper. Additionally, I engaged in social networking relationships to obtain introductions to potential participants and local SBA offices. By using existing social networking relationships, a researcher can gain access to participants as such relationships already have a level of trust and professionalism (Amundsen et al., 2017). Once I established points of contact, I

capitalized on existing social networking relationships and archival records to solicit participant participation through emails, telephone calls, letters of introduction, and personal introductions. Cold calling without an introduction was also used.

A researcher must also establish a working relationship with their participants. Building trust with gatekeepers and participants is also crucial to the foundation of the relationship (Amundsen et al., 2017; Høyland et al., 2015). A researcher may build initial trust through social networking introductions (Amundsen et al., 2017; Høyland et al., 2015). A researcher can build trust with their participants by clearly defining their role as researcher, allowing amicable and idle conversation, and implementing their knowledge from their insider/outsider status (Amundsen et al., 2017; Høyland et al., 2015; Siwale, 2015). I endeavored to build trust with gatekeepers and participants through social networking, clearly defining my role as researcher, allowing time for personable interaction, and capitalizing on my insider/outsider knowledge.

Research Method and Design

Research Method

The three primary research methods are quantitative, qualitative, and mixed-method, and each method utilizes different tools and perspectives to study a phenomenon (Onwuegbuzie & Leech, 2005). After evaluating each method, I selected the qualitative research method with a multiple case study design as the most applicable based on the nature of this study. Through the qualitative method, researchers explore themes, paradigms, or phenomena that require a more profound understanding (Jonsen et al., 2017; Saunders et al., 2015). Using the qualitative method, the researcher may discover

answers to real-world problems (Rossman & Rallis, 2017). Unlike quantitative research, qualitative research provides the researcher with a flexible and adaptable method to explore lived experiences (Rossman & Rallis, 2017), which is particularly important when researching the social science aspect of business phenomena.

The qualitative method provides the researcher with the opportunity to observe and explore in a natural setting versus the more rigid constructs of the quantitative method (Rossman & Rallis, 2017). Further, the qualitative method allows the researcher to utilize multiple methods of inquiry to explore the phenomenon (Marshall & Rossman, 2016; Rossman & Rallis, 2017). The qualitative method allows the researcher to approach a phenomenon holistically, using the experience of its participants, reviewing documents, and observing (Marshall & Rossman, 2016; Rossman & Rallis, 2017). Through multiple methods of inquiry, the researcher collects rich data and achieves a more in-depth understanding of the participants' experiences and the phenomenon (Constantinou et al., 2017). By explaining and justifying the research method and design, I selected the research method that provided a holistic approach and allowed for the collection of rich data to explain the phenomenon and support the research.

Quantitative research incorporates a more controlled research setting where the researcher seeks to validate or expand on existing theory as it relates to a phenomenon through statistical analysis and the measurement of numeric variables (Harkiolakis, 2017). Furthermore, quantitative research focuses on hypotheses and statistical analysis to examine variables frozen in a specific time (Harkiolakis, 2017) and does not explore the real-time lived experience of the participants through discussion and observation.

Other theorists have supported the use of the qualitative method because researchers observe the human element in action and garner a more in-depth understanding of meaning, decision making, and experience of the research participants versus the dry and narrow focus of statistical relationship strength as in the quantitative framework (Merriam & Tisdell, 2016; Saunders et al., 2015). The nature of this study was not to examine specific relationships of variables at a fixed point in time, so I did not select the quantitative method.

Researchers using the mixed method incorporate both quantitative and qualitative methods as the research method. Onwuegbuzie and Leech (2005) argued that mixed-method research provides a comprehensive examination and exploration of phenomena because the researcher combines both qualitative and quantitative methods. I did not select the mixed-method approach because it did not align with the nature or purpose of this study, nor did I seek to combine the two research methods.

Research Design

The research design is essential as it denotes the focal point of the study (e.g., societies, cultures, language, and art) and the processes to achieve a successful study (Marshall & Rossman, 2016; Rossman & Rallis, 2017). I selected a multiple case study design for my study. The case study design allows the researcher to observe the business phenomenon in a closed system, also known as a bounded system (Merriam & Tisdell, 2016; Yin, 2018). Identifying the unit of analysis is critical in meeting qualitative research requirements in a bounded system (Merriam & Tisdell, 2016; Yin, 2018). The multiple case study design provides a broader, interpretative value to the research

community, mitigating arguments related to the validity of the qualitative method and its results (Merriam & Tisdell, 2016). Using the multiple case study design allows the researcher to flow between several layers of logic: deductive, inductive, and abductive (Saunders et al., 2015). Whether using theory to guide the research (deductive) or exploring the case study to determine new or modified theory (inductive/abductive), the multiple case study provides rich saturation (Saunders et al., 2015). The multiple case study design allows the researcher to compare themes that evolve in more than one organization and support the study's validity (Saunders et al., 2015). My research explored the *how* and *why* questions, required no control over participant behavior, and explored contemporary events, which are elements of a case study, according to Yin (2018). The multiple case study design provides the potential for replication or contrast and further strengthens the analysis and validity when two or more case studies are presented in the results (Yin, 2018). I selected the multiple case study design for my study to observe the business phenomenon in a bounded system and provided the potential for other researchers to replicate my results. Replication reinforces the potential analysis and validity of my research.

I reviewed ethnography and phenomenology designs for applicability to the nature of my study. Ethnography primarily involves the researcher studying culture and society by immersing themselves in the culture or environment being studied (Merriam & Tisdell, 2016; Saunders et al., 2015). Culture is the primary focal part of the ethnographical design and requires a significant amount of time for immersion (Marshall & Rossman, 2016; Merriam & Tisdell, 2016; Rossman & Rallis, 2017). The time and

resources required for ethnography were outside the parameters available to me, and the focus of this study was not related to a cultural aspect. Phenomenology explores the individual lived experience, and the researcher focuses on shared expressions of self among the participants (Marshall & Rossman, 2016; Rossman & Rallis, 2017). Exploring the personal meanings of each participants' life was not the focus of my study; hence, I did not select it as the research design.

Data saturation is the term used when the researcher has collected enough information in qualitative research where no new themes emerge and where themes are repeated (Constantinou et al., 2017). Data saturation embodies all four quality research elements: credibility, transferability, dependability, and confirmability (Constantinou et al., 2017). Yin (2018) opined that the researcher should incorporate more than one data source to reach saturation. In this study, I utilized interviews, archival resources, and the participants' websites as my data sources. Yin further postulated that data triangulation was necessary to produce quality research in case studies, as case studies are meant to reflect real-world situations with converging lines of inquiry. The triangulation of data in this study incorporated interviews, reviewing archival resources, and member checking.

Population and Sampling

Researchers should use their research question and research purpose to select their population of participants (Marshall & Rossman, 2016; Rossman & Rallis, 2017). My criteria for selecting participants were that the participants should (a) own a small business in the Southeast; (b) have secured a DOD procurement contract in the last 5 years; (c) be at least 18 years of age; and (d) have fewer than 500 employees. Selecting

participants with knowledge and experience relevant to the research question is imperative to collecting relevant data (Asiamah et al., 2017; Fusch et al., 2017). I selected the participants through a non-probability sampling method known as purposive or purposeful sampling.

Researchers consider purposive or purposeful sampling as analogous sampling methods (Gentles et al., 2015; Kalu, 2019). In purposive sampling, researchers must identify the participants and linkage to the study and define the characteristics of the proposed participants (Gentles et al., 2015; Kalu, 2019). Researchers using purposeful or purposive sampling can select participants that can provide rich data in case studies, resulting in a profound understanding of the phenomenon being studied (Gentles et al., 2015). In this section, I clearly define my target population and the participants' relevant characteristics as well as the linkage to my study to meet the requirements of purposive sampling.

Small business leaders who wish to do business with the federal government and the DOD must have a DUNS number and must have an active registration with SAM that is updated annually with specific FAR and DFARs certifications (SBA, 2018b). Federal and DOD agencies utilize the FBO and DIBBS websites to solicit bids for procurement contracts and announce awards (Federal Business Opportunities, 2018; Defense Logistics Agency Internet Bid Board System, 2018). I confirmed that the participants meet the criteria by examining SAM's registrations, SBA certifications, and FBO and DIBBS websites.

Researchers can build an open and trusting rapport with their participants through the use of a comfortable interview setting and how they conduct the interview (Oplatka, 2018). The researcher should create an interview setting that is safe and comfortable as well as respectful to encourage open dialogue (Oplatka, 2018). To facilitate such an environment, I intended to conduct my interviews onsite at the participant's location or via phone or Skype, whichever was most convenient for the participant. Ensuring my preparedness for each interview also garners respect and fosters a professional setting (Oplatka, 2018). Careful listening and preparation can aid the researcher in providing a calm and comfortable environment for the interviewees, allowing for a more open dialogue that generates rich data (Oplatka, 2018). Interviewing participants at their offices or via Skype while in their offices, provides a safe and familiar environment for the participants, allowing me to build a natural and professional rapport with the participants.

Selecting a sample size is somewhat of an arguable point in qualitative inquiry, meaning there is no absolute sample size requirement. Qualitative researchers typically have smaller sample sizes compared to quantitative studies (Asiamah et al., 2017). Qualitative research experts argue that the quality or richness of the data is more important than the size or thickness of the data (Asiamah et al., 2017; Fusch et al., 2017). Research experts define the ideal qualitative sample as one that incorporates the purpose of the study, rich data, and supports the research question (Marshall & Rossman, 2016; Rossman & Rallis, 2017). The ideal sample criteria are also similar to the ideal site or setting criteria, though site access and building participant relationships based on trust are

additional elements for site criteria (Marshall & Rossman, 2016). These ideal samples and site criteria serve as guides for the researcher to establish a robust study, though they are often challenging to achieve (Marshall & Rossman, 2016). Based on literature guidance, I selected a sample size of five small business leaders.

Qualitative research does not incorporate statistical methods of sampling. The researcher seeks a population that is holistically representative of the research question to gain participants with relevant experience and proficiency to answer the research question (Fusch et al., 2017). The general population separates a researcher's target population due to the particular attributes necessary to contribute to the research (Asiamah et al., 2017). I clearly defined my target population and the participants' essential attributes and my sampling method to best contribute to my research.

For my multiple case study, I utilized semistructured, in-depth interviews. I reviewed archival resources and participants' websites to achieve a rich description of business strategies small business leaders use to secure and sustain DOD contracts. Yin (2018) asserted that researchers with a minimum of two to three case studies might achieve replication, while researchers with four to six case studies may achieve replication of one or more theories. Yin opined that multiple case studies follow analogous logic, meaning that the researcher must be judicious in selecting cases that may provide similar or contrasting results. In this vein, I sought data saturation across the cases. A researcher achieves data saturation when no new themes or patterns emerge, providing rigor in the study (Constantinou et al., 2017; Fusch et al., 2017). Sample size, argued Fusch et al. (2017), does not ensure saturation, so the researcher must carefully

select the sample with the goal of saturation and replication in mind. Data saturation can be achieved by triangulating the data through interviews, document review, and member checking (Fusch et al., 2017). I used the described triangulation to ensure data saturation in my study.

Ethical Research

A researcher's ethical practice is the bedrock of every research project. A researcher must ensure that their moral compass adheres to rigorous ethical standards, including decision-making in the research design, participant interactions, and all researcher actions (Marshall & Rossman, 2016; Rossman & Rallis, 2017). While many branches of ethical theory exist, the *Belmont Report* (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979) established three essential elements of ethical practice for researchers: (a) justice; (b) beneficence; and (c) respect for persons. The concept of ethical justice incorporates multiple aspects of what is fair, what is equal, and what is unduly burdensome (Marshall & Rossman, 2016; Rossman & Rallis, 2017). Ethical beneficence incorporates the basic tenet of the researcher doing no harm, meaning the researcher should abate as much harm as possible while augmenting the benefits (Marshall & Rossman, 2016; Rossman & Rallis, 2017). Ethical respect for persons means the researcher should treat her participants as separate and individual persons, taking special care with any individuals of diminished capacity (Marshall & Rossman, 2016; Rossman & Rallis, 2017). In addition to adhering to the pillars above of ethical research, I applied to Walden IRB for approval to conduct my study. The Walden IRB approval number for my study is 06-17-20-0725468.

Most university international review boards have established criteria for approval that typically follow six basic ethical concepts: (a) minimal risk; (b) acceptable risk/benefit ratio; (c) fair selection of participants; (d) participants' verified consent in writing; (e) all data are secured; and (f) confidentiality (Rossman & Rallis, 2017; Yin, 2018). I conformed to the above criteria, received IRB approval, and moved forward with engaging with potential participants.

Following the ethical standards delineated in the *Belmont Report* (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979), I selected participants fairly, adhered to privacy and confidentiality protocols, and ensured informed consent and awareness of the study's intent by the participants. Researcher care is required for the participants and the data collected and reported (Othman & Abdul Hamid, 2018; Yin, 2018). Researchers must ensure their participants' privacy, anonymity, and confidentiality, and the data provided (Othman & Abdul Hamid, 2018; Yin, 2018). By following established ethical standards, I adhered to the tenets of researcher care.

Participants received informed consent letters that thoroughly explained the study and confidentiality, eligibility criteria, the purpose of my study, confidentiality protocols, and data security measures. In the informed consent letter, I advised the participants that monetary incentives were not available to participants. Defining incentives or lack thereof is important, as vulnerable populations, such as prisoners or others, may believe their participation is required by silent mandate or may even increase personal risk (National Commission for the Protection of Human Subjects of Biomedical and

Behavioral Research, 1979). I explained to the participants that they could withdraw from the study at any time, either verbally or by email. Participant withdrawal must be clearly explained and handled with the utmost ethical care as part of the researcher-participant trust, even when the participant's withdrawal requires the researcher to delete participant data from the study (Othman & Abdul Hamid, 2018). I ensured participant confidentiality by assigning unidentifiable numbers and pseudonyms such as Participant 1, Participant 2, etc. In the informed consent letter, I explained that all data would be securely stored for 5 years. Secure storage consists of all audio recordings, consent forms, and other identifying information being locked in a secure lock box or safe for the 5 years. The researcher must ensure that their participants' privacy and confidentiality are protected (U.S. Department of Health and Human Services, 2018). Lastly, my doctoral study includes my Walden IRB approval number. By following these standards and protocols, I ensured ethical practice and care for my participants and research.

Data Collection Instruments

In qualitative research, the researcher is the central data collection instrument (Nutov, 2017). As such, the researcher must be cognizant of a variety of data collection methods and researcher and participant fatigue (Rimando et al., 2015). Yin (2018) established four principles of data collection: (a) multiple sources; (b) documentation such as a database or collection; (c) chain of evidence; and (d) exercising caution when utilizing social media. Using multiple sources for data collection allows the researcher to triangulate her data, creating a convergence of evidence (Yin, 2018). This systematic approach to qualitative data collection involves observation, interviews, and reviewing

materials (Marshall & Rossman, 2016; Rossman & Rallis, 2017). Yin postulated that the researcher's findings in case studies must be evidenced by more than one source of data collection defined as interviews (open, semistructured, or surveys), focus groups, archival records, documents, and observations. In my study, I conducted in-depth, semistructured interviews, observations, utilized archival records where available and applicable, and reviewed participants' corporate websites.

As the primary data collector, I utilized a digital recorder to record each interview to ensure that I document and capture all participants' responses. I started each interview with a synopsis of the study's purpose and confidentiality. I printed a copy of my interview questions to utilize as a guide and keep the discussion focused and on track. I used my established interview protocol containing the interview questions (see Appendix). Interview question guides are critical for the researcher to ensure continuity of the interview with the research purpose while still allowing for open discussion (Rimando et al., 2015). I informed each participant of the intent to record the interviews. However, if consent to record was not given, I intended to rely on listening and taking notes with pen and paper. Each interview was transcribed for later analysis, and a summary of the transcribed interview was provided to the participant for member checking. Member checking is an essential aspect of participant validation and offers the participants a chance to review and affirm their statements during the interview (Rossman & Rallis, 2017). I reviewed, analyzed, and documented archival records where applicable and added them to my data collection repository or database. I checked, analyzed, and

documented the participants' corporate websites and added them to the data collection repository.

Data Collection Technique

There are multiple techniques for qualitative data collection, such as observation, site visits, interviews, documents, and archival data collection (Merriam & Tisdell, 2016; Rossman & Rallis, 2017; Yin, 2018). In this study, I conducted in-depth, semistructured interviews; implemented observation and jotting, reviewed participant websites and documentation, and reviewed applicable, archival data. The use of multiple sources for data collection provides the researcher with numerous data sources to collect and confirm data and provides for methodological triangulation, creating a convergence of evidence (Cronin, 2014; Fusch & Ness, 2015; Merriam & Tisdell, 2016; Yin, 2018). Applying a systematic data collection technique involving multiple sources allows the researcher to collect and examine data from various perspectives and ensure validity and rigor (Fusch & Ness, 2015; Merriam & Tisdell, 2016; Yin, 2018). When researchers establish validity and rigor in their studies, they affirm the trustworthiness of their results and the overall research project.

I digitally recorded the participants' interviews, took field notes or jottings, and recorded observations and interview reflections for each interview. Interviews are a critical technique for researchers to collect rich and thick data (Merriam & Tisdell, 2016; Rossman & Rallis, 2017; Yin, 2018). While some researchers may prefer to avoid the intrusiveness of a recording device, recording devices provide an accurate collection of data that can later be transcribed while freeing the researcher to employ observations and

observe physical and verbal cues more acutely (Yin, 2018). Further, audio recordings allow for transcription, coding, analysis, and member checking, which are all critical elements of data analysis and rigor (Merriam & Tisdell, 2016; Rossman & Rallis, 2017; Yin, 2018). I used a digital recording to more accurately document the interview and provide adherence to critical elements of data analysis and rigor.

While face-to-face onsite interviews are often the preferred method of interviewing due to observation of physical and verbal cues as well as establishing personal rapport and comfort in familiar surroundings, some researchers opined that using platforms such as Skype are equally valuable as an alternative over telephonic means (Quartioli et al.; Seitz, 2015). Skype also provides the researcher with the limited ability to observe physical and verbal cues while allowing both researcher and participant to remain in comfortable surroundings (Quartioli et al., 2017; Rossman & Rallis, 2017; Seitz, 2015). By establishing an alternative interview method, researchers provide additional opportunities for participants to engage in the study in an environment that is more comfortable and accommodating.

Skype is an alternative option when face-to-face interviews cannot be utilized due to time and travel constraints. Researchers can mitigate some of the challenges to using Skype, such as participant familiarity with the program and connectivity, by checking with the participants before use (Quartioli et al., 2017; Rossman & Rallis, 2017; Seitz, 2015). Internet disruption or bandwidth issues can disrupt the flow of the interview (Quartioli et al., 2017; Rossman & Rallis, 2017; Seitz, 2015). Additionally, visual and verbal cues can be limited (Quartioli et al., 2017; Rossman & Rallis, 2017; Seitz, 2015).

As an independent researcher engaging in qualitative research, I desired to maximize my observations of the participants as holistically as possible.

Due to the pandemic, face-to-face interviews were not considered essential and were conducted telephonically. Internet bandwidth and security/firewall issues with the participants' systems negated my ability to use a video conferencing platform, so I conducted the interviews by telephone. I digitally recorded the five interviews and completed a verbatim transcription of the interviews in a Microsoft Word file.

Despite the challenges of using Skype for interviews, in-person interviews can also prove challenging. Participant willingness and openness may change during the interview, or the researcher and participant may engage in a power struggle (Merriam & Tisdell, 2016; Yin, 2018). Moreover, the skill and personality of the researcher may be in question (Merriam & Tisdell, 2016). Regardless of these obstacles, most researchers agree that the interview is one of the best methods for data collection (Merriam & Tisdell, 2016; Rossman & Rallis, 2017; Yin, 2018). During the interview, it was important for me to establish and facilitate a collaborative environment to ensure my participants that I am engaged and listening to them while still maintaining the role of the researcher to collect data. Using an interview protocol as a tool to manage the interview direction and collection of data supported my research efforts.

I used an interview protocol in the study (see Appendix). Establishing an interview protocol is recommended for researchers as it provides a guide for the process and a checklist for the researcher to ensure all pertinent issues are covered (Merriam & Tisdell, 2016; Rossman & Rallis, 2017). My interview protocol included an introduction,

review of a consent form, establishing the start and end of the audio recording, interview questions, probing and follow-up questions, information on member checking and transcript review, confirming contact information, and conclusion. Interview protocols serve as a guide for the researcher to ensure continuity of the data collection while remaining flexible for open dialogue, probing questions, and follow-up questions (Rimando et al., 2015). By establishing an interview protocol and adhering to the protocol during my data collection, I provided continuity and consistency while collecting data.

My interview protocol provided for a discussion on member checking. Member checking offers the researcher and participant an avenue to ensure the validity of data collection (Merriam & Tisdell, 2016; Rossman & Rallis, 2017). While some researchers opined that member checking involves having participants review researcher findings, Morse (2015) opined that member checking is less feasible as participants do not have access to all data. However, many experts argued that researchers using member checking provides validity to the study (Leung, 2015; Lincoln & Guba, 1985; Merriam & Tisdell, 2016). I utilized member checking in my research to ensure the validity of the data I collected.

For document review, I reviewed participants' corporate websites and corporate documents. I reviewed archival records, such as government sites, geographical maps, census data, and other public use information as means of data collection and data affirmation. For corporate documents or public documents, experts cautioned the researcher to remember that such data is often written for different purposes and

audiences (Merriam & Tisdell, 2016; Rossman & Rallis, 2017; Yin, 2018). Document review and archival records are excellent sources of information, but researchers may not be provided unobstructed access, and relevant information may be difficult to find (Merriam & Tisdell, 2016; Rossman & Rallis, 2017; Yin, 2018). This study included the review of a variety of corporate documents on the participants' websites, the websites themselves, and archival records. My primary focus was to collect data through internet sources that are publicly available to avoid access issues. I reassured participants that all information is confidential and discussed how the information is relevant to my data collection to resolve any anxiety around unobstructed or partial access.

Data Organization Technique

Data organization is critical to a research project, particularly qualitative research, where the researcher can collect massive amounts of data (Merriam & Tisdell, 2016; Rossman & Rallis, 2017; Yin, 2018). Manual organization and the use of hardware and software techniques are options for data organization. I used both methods for organizing the data. The manual organization consisted of printing, labeling, organizing relevant peer review sources, and collecting hard copy data. The manual organization is time-consuming and intensive (Merriam & Tisdell, 2016). Once organized, documents were digitized or downloaded to my computer, where I created folders to organize and archive downloaded materials and scanned documents. I established a computerized folder for each participant with a pseudonym identifier to protect participant identities. I organized transcribed interviews and digital recordings in each folder, along with corporate documents, correspondence, and archival records. I digitized, dated, and organized field

notes and reflexive journal entries. I coded data with source information such as the participant identifier, data type, date, and time collected. Organizing data through labeling and categorizing provides continuity, confidentiality, and a virtual database for the study (Merriam & Tisdell, 2016; Rossman & Rallis, 2017; Yin, 2018). Cataloging and labeling my data enabled me to access data efficiently for analysis while also providing a primary collection and storage method.

Many researchers laud the use of computer-assisted qualitative data analysis software (CAQDAS) for the organization of data (Houghton et al., 2016; Merriam & Tisdell, 2016; Rademaker et al., 2012; Rossman & Rallis, 2017; Wickham & Woods, 2005; Yin, 2018). Scanning documents, interview transcription, and other data resources into CAQDAS provide an efficient and accessible platform for data organization (Houghton et al., 2016; Rademaker et al., 2012; Wickham & Woods, 2005). For this study, I used the Dedoose platform as a tool for data organization and will maintain a record of all raw data for 5 years in secured storage as required by Walden University. CAQDAS platforms provide a myriad of advantages for the qualitative researcher, though there can be some additional time needed to learn how to appropriately use the software and its functions (Rademaker et al., 2012; Wickham & Woods, 2005). Utilizing Dedoose in this study aided the analysis and organization of my data and provided a unique platform to incorporate different modes of data collected.

Data Analysis

The qualitative researcher must immerse themselves in the data (Belotto, 2018; Marshall & Rossman, 2016; Merriam & Tisdell, 2016; Rossman & Rallis, 2017). Though

many scholars opine on how to conduct data analysis, there are some basic tenets to observe: (a) review the research purpose; (b) review and re-review the data; (c) collect and review the data concurrently; (d) observe and reflect throughout the process; (e) code the data; and (f) reiterate the process as themes emerge and refine the data (Belotto, 2018; Marshall & Rossman, 2016; Merriam & Tisdell, 2016; Rossman & Rallis, 2017; Yin, 2018). This type of analysis has also been called constant comparative analysis, meaning the researcher is continuously comparing and analyzing the data as its collected, analyzed, and reviewed (Belotto, 2018; Merriam & Tisdell, 2016). Through constant comparative analysis, I identified emerging patterns and could identify areas that needed additional inquiry through follow-up questions with participants or self-reflection.

Interview transcripts, documents, participants' websites, archival records, field notes, and journal entries were collected, digitized, organized, scanned, and coded. This type of open coding is an initial step in the analysis (Belotto, 2018; Cho & Lee, 2014; Merriam & Tisdell, 2016). Once I developed the codes, I uploaded the data and the codes into Dedoose. CAQDAS applications, like NVivo or Dedoose, are tools for the qualitative research to store, manage, code, and interact with the data (Belotto, 2018; Cho & Lee, 2014; Merriam & Tisdell, 2016; Yin, 2018). Saldaña (2016) postulated that researchers could explore data through multiple coding options with CAQDAS applications, allowing the researcher to employ visual coding identifiers such as colors and clusters. The researcher can analyze the frequency of results, emerging themes, combine sets of codes to determine new patterns, create a visual representation of the data, and sequencing to more fully understand the data (Belotto, 2018; Cho & Lee, 2014;

Merriam & Tisdell, 2016; Rademaker et al., 2012; Saldaña, 2016; Wickham & Woods, 2005; Yin, 2018). This type of comprehensive analysis strengthened rigor in the study (Merriam & Tisdell, 2016) and assisted my axial coding. After open coding is performed, the researcher explores the codes, categories, and emerging themes for reassessment and refinement, sometimes referred to as axial coding (Belotto, 2018; Cho & Lee, 2014; Merriam & Tisdell, 2016; Saldaña, 2016). I proceeded with axial coding after completing open coding.

Further, for this study, utilizing two types of coding, open and axial coding, aided my analysis of the data within each case and across multiple cases (Merriam & Tisdell, 2016; Saldaña, 2016). I analyzed the data for manifest and latent themes. Saldaña (2016) noted the importance of scrutinizing the data for manifest (discernable in the physical coding) and latent (more observable in the life experience or contemplation) themes as part of the analysis for identifying emergent themes. One of the challenges for researchers studying multiple case studies is managing and analyzing a large amount of data, and CAQDAS can provide immense support for the researcher (Merriam & Tisdell, 2016; Yin, 2018). Pattern analysis or thematic analysis is where the researcher looks and identifies emerging themes and patterns in the data (Marshall & Rossman, 2016; Merriam & Tisdell, 2016; Rossman & Rallis, 2017; Yin, 2018). I also utilized manual review and Dedoose to engage in thematic analysis.

Through thematic analysis and constant comparative analysis, I assimilated, categorized, analyzed, and denuded the data with the literature and my conceptual framework to extrapolate inferences and themes. Thematic analysis is a method of

analysis that allows the researcher to explore and scrutinize data for patterns in the collected data (Belotto, 2018; Marshall & Rossman, 2016; Merriam & Tisdell, 2016; Rossman & Rallis, 2017; Yin, 2018). Exploring rival explanations is critical to providing rigor and validity to the study (Belotto, 2018; Yin, 2018). I reviewed alternative explanations for any resulting themes and patterns in my study to ensure rigor and validity. My review also involved examining new studies published after concluding my research that supported or provided a rival explanation of emerging themes.

Reliability and Validity

Reliability

Reliability is defined in multiple ways by scholars. Primarily, reliability is considered the trustworthiness of the study (Marshall & Rossman, 2016; Merriam & Tisdell, 2016) and that the research results can be produced with analogous results utilizing the same procedures (Gaikwad, 2017; Marshall & Rossman, 2016; Merriam & Tisdell, 2016; Yin, 2018). Rigorously recording decisions, data collection, protocol use, and data analysis are methods for the researcher to establish reliability (Gaikwad, 2017; Leung, 2015; Yin, 2018). Consistency in data collection and analysis is also critical to establishing reliability (Lincoln & Guba, 1985; Merriam & Tisdell, 2016; Spiers et al., 2018). To ensure reliability in this study, I developed interview questions to serve as a consistent guide for questions I asked the participants. Additionally, I developed an interview protocol (see Appendix) to ensure I followed congruent procedures for data collection and analysis during each interview.

While reliability and dependability are often used interchangeably by scholars, the researcher needs to establish that the data collection and results are trustworthy. Standard methods for a researcher to corroborate dependability are member checking, audit trails, and reflexivity (Korstjens & Moser, 2018; Lub, 2015; Merriam & Tisdell, 2016). To demonstrate dependability in my study, I recorded each interview to capture all dialogue as well as jotting notes and observations. Once I transcribed the interviews, I provided a summary of the interview transcript to the participants to review and to ensure that I accurately captured their experiences. There were no participant objections or clarifications to my initial interpretations of the interview data. I practiced reflexivity by recording my thoughts and observations in a field journal throughout the data collection and analysis stage. Organizing data and documenting decision processes and data analysis provides a transparent audit trail (Korstjens & Moser, 2018). Organizing my collected data in a data repository, along with my field journal, provides a transparent audit trail for my research. By incorporating member checking, audit trails, and reflexivity into my research, I established the dependability of my collected data, data analysis, and results.

Validity

Validity, as with reliability, is a term argued by scholars (Merriam & Tisdell, 2016). Most researchers define validity as the germaneness of data collection methods, the data collected, and the analysis utilized by the researcher (Leung, 2015; Merriam & Tisdell, 2016). Lincoln and Guba (1985) and Lub (2015) opined that validity was synonymous with the genuineness of the data collected and the researcher's analysis.

Spiers et al. (2018) developed the idea of validity further, stating that the researcher must constantly compare and analyze the data while refining her research contemporaneously with data collection. The concepts of credibility, transferability, confirmability and data saturation are critical components of validity (Constantinou et al., 2017; Lincoln & Guba, 1985; Lub, 2015; Merriam & Tisdale, 2016). I address each of these terms below, along with how I ensured adherence.

Scholars define credibility as the research being credible through the lens of the participants as well as if the research is trustworthy (Korstjens & Moser, 2018; Lincoln & Guba, 1985; Lub, 2015; Merriam & Tisdale, 2016; Schwandt et al., 2007). Researchers can evidence credibility through prolonged observation, persistent observation, triangulation, peer debriefing, negative case analysis, and member checks (Constantinou et al., 2017; Korstjens & Moser, 2018; Lub, 2015; Schwandt et al., 2007). I employed persistent observation, method triangulation (interviews, participants' websites and documents, and archival documents), and member checks to adhere to the credibility standard.

Transferability is a term specific to qualitative inquiry, as qualitative research cannot be generalized to a population due to the lack of statistical data or replicated exactly (Marshall & Rossman, 2016; Merriam & Tisdell, 2016). However, the researcher must contribute thick and rich data for the research to be applicable and useable by other researchers (Gaikwad, 2018; Lincoln & Guba, 1985; Merriam & Tisdell, 2016; Schwandt et al., 2007). Researchers can achieve transferability through rich and thick data, including the participants' experiences, the environment, and purposive sampling

(Korstjens & Moser, 2018; Merriam & Tisdell, 2016). I included rich and thick data by digitally recording my interviews, taking field notes to accurately reflect my participants' experiences and the environment, and using purposive sampling to select my participants.

Confirmability is the researcher's ability to remain objective in their data collection and analysis so that another researcher could confirm the results (Korstjens & Moser, 2018; Lincoln & Guba, 1985; Marshall & Rossman, 2016; Merriam & Tisdell, 2016). A researcher can ensure confirmability through reflexive journaling, triangulation, and providing transparency through an audit trail (Constantinou et al., 2017; Korstjens & Moser, 2018; Lincoln & Guba, 1985). I provided confirmability by the meticulous recording of my observations and the potential bias of my interpretations in my field journal. I used methodological triangulation by conducting interviews, examining corporate documents, participants' websites, and examining archival data.

Data saturation is one of the most fundamental elements for a researcher to assert validity in qualitative studies (Marshall & Rossman, 2016; Merriam & Tisdell, 2016). A researcher must continue to collect data until no new themes or information emerges (Constantinou et al., 2017; Marshall & Rossman, 2016; Merriam & Tisdell, 2016). Fusch and Ness (2015) opined that while there are many methods to achieve data saturation, a researcher can establish validity and reliability through triangulation. Triangulation is also crucial as it creates a convergence of data from multiple sources (Fusch & Ness, 2015; Merriam & Tisdell, 2016; Yin, 2018). Constantinou et al. (2017) concurred with Fusch and Ness' study but also concluded that employing constant and comparative theme analysis also aided researchers in reaching saturation. In this study, I utilized

methodological triangulation through conducting interviews, reviewing and analyzing corporate documents and participants' websites, and analyzing archival data. I used constant and comparative thematic analysis to ensure emerging categories and themes from my coded data reached saturation.

Transition and Summary

In Section 2, I restated the purpose statement to open the discussion of the study. Section 2 also included a discussion of the role of the researcher, participants, the research method, the research design, and population and sampling. In Section 2, I also detailed and explained the tenets of ethical research and the data collection instruments, data collection techniques, data organization, and data analysis. Lastly, I discussed the requirements of reliability and validity in the study. In Section 3, I detail the research results, discuss the linkage to the literature and frameworks, discuss the application of the findings to professional practice, and how the findings might improve small business success strategies to secure and conduct DOD procurement contracts successfully. Lastly, I discuss the implications for social change, provide recommendations for future research, discuss my personal experience and reflection through the duration of my study, and provide concluding remarks about the study.

Section 3: Application to Professional Practice and Implication for Change

The purpose of this qualitative multiple case study was to explore strategies small business leaders use to secure and conduct DOD procurement contracts successfully. The data were collected in interviews with five small business owners or executives whose firms participate in DOD contracting. Additional data came from the review of company websites, documentation, and archival data. The findings show four strategies that small business leaders use to secure and conduct DOD procurement contracts successfully.

The four major emergent themes were: knowledge, performance, resources, and sustainability. Knowledge was evidenced by multiple interwoven layers for success from the participants' experiences, where knowing processes, regulations, their firms' capabilities, potential partners, and the market were all strategies for success. Participants used contract performance as a strategy that contributed to the firm's reputation. Resource strategy was evidenced by participants explaining the significance of utilizing all available resources to improve business performance, business capabilities, and competitive advantage. Lastly, the participants conveyed that the sustainability strategy was the culmination of planning for the other strategies. I found the results of the study amalgamated all three theories comprising the conceptual framework (i.e., agency theory, RBV, and KBV) and linked to the research question.

After presenting the findings, I continue Section 3 with an elucidation of the application of my findings to professional practice and the potential for positive social change. In this discussion, I examine the study's results and limitations as the basis for

forming recommendations for small business strategies in DOD procurement and future research. I end Section 3 with my reflections and conclusions about the study.

Presentation of the Findings

The overarching research question for this study was: What strategies do small business leaders use to secure and conduct DOD procurement contracts successfully? In this section, I discuss the participant pool, the analysis conducted, and the findings of the study as well as present the four emergent strategy themes and supporting evidence. Lastly, I discuss the analysis of the findings and the linkage to the extant literature and the conceptual and supporting frameworks as well as how the emergent themes answer the research question.

Participant Pool

I solicited 19 potential participants for this study. Five participants consented to and participated in the interview process and study. The consenting participants consisted of five small business leaders that met the participant criteria. P1 was the sole owner of an engineering firm that identified as a woman-owned, HUBZone business. P1 had applied to the Small Business 8(a) program, but the status was still pending at the time of the interview. P2 was a small business owner identifying as an 8(a) program participant with a tribal affiliation. P2's business was a manufacturing company that produced specific products for the DOD in the aerospace industry. P4 was a small business executive whose firm identified as woman owned and provided quality engineering services and the distribution of obsolete parts to the DOD. P5 was a small business executive whose firm was woman owned and provided specialized packaging services to

the DOD. P6 was a small business owner that identified as woman owned and provided a very specialized product to DOD agencies as well as installation of the product on military bases and DOD agency offices. All participants completed the interview process as scheduled. Through an examination of archival records, I verified each participant's firm and each firm's status as a small business participating in DOD contracts, thereby meeting the requirements of the study. Table 1 contains a summary of the general characteristics of the participants.

Table 1

Study Participant Information

Company Identifier	Small Business Type	Product or Service	SAMs Registration	SBA Certification	Quality Certification	Under 500 employees	Exist 5 years
P1	Woman-owned HUBZone 8(a) pending	Service	Yes	Yes	Yes	Yes	Yes
P2	8(a), tribal	Product	Yes	Yes	Yes	Yes	Yes
P4	Woman owned	Service	Yes	Yes	Yes	Yes	Yes
P5	Woman owned	Both	Yes	Yes	Yes	Yes	Yes
P6	Woman owned	Both	Yes	Yes	Yes	Yes	Yes

Emergent Themes

I discuss each emergent theme and any confirming or disconfirming relationship with my conceptual and supporting frameworks in the following subsections. I also

discuss linkage to the extant literature and any relevant new studies. In Table 2, the theme frequency is listed as it occurred in the data collected.

Table 2

Emergent Themes

Emergent Themes	Frequency in Data
Knowledge	86
Resources	67
Performance	99
Sustainability	191

Theme 1: Knowledge

All five participants expressed the importance of knowledge as a strategy for winning and sustaining DOD contracts. The elements of knowledge in the data were (a) know your customer; (b) know your market; (c) know your business capabilities; (d) know the FAR, DFARs, and DOD accounting and performance requirements; (e) known barriers to DOD contracting; (f) know your bidding strategy; and (g) know your competitive advantages. According to all five participants, the fundamental basis for winning and sustaining DOD contracts is knowing your capabilities and creating the narrative for your customers and small business liaisons how your business capabilities match a need for the customers.

P1 explained that “Before you go to a [DOD] matchmaking event, know who you want to talk to and not just here’s who I am.” P1 planned in advance of matchmaking events, deciding which DOD small business liaisons or prime contractors she wanted to talk to that aligned with an upcoming bid or contract award to match her business

capabilities with the customer need. P5 stated that once you finally break through the initial discussions after winning the contract, your audience expands to your customers' procurement agents, engineers, and quality departments. P5 explained further, "We listen, and then we try to find other things to manufacture that can also supply them." P2 continued, "You add something to your capability statement, you send that in, and then they give you those opportunities of looking at other products to procure."

P4 described the imperative nature of knowing the customer and their concerns, "What we did is we understood their biggest concern with dealing with a company like ours [and] addressed their fear point." P4 continued to explain that they addressed the fear point "by building confidence, meeting requirements, and developing a documented test process." P1, P4, and P5 conducted due diligence on their customers and potential awards, then held meetings to address customer concerns and needs while further demonstrating evidence of their businesses' capabilities.

The data I collected from participant interviews, websites, and other archival information indicated the integral nature of knowledge to win and sustain DOD contracts. All five participants discussed their SAMs registration as the first step necessary for participating in DOD contracts and the imperative nature of completing the SAMs registration as part of the small business strategy. The SAMs registration is a requirement for participating in DOD contracts and where businesses define their NAICs codes for products and services and define their organization's size. For small businesses, the SAMs registration defines the small business type (e.g., women owned, tribal, veteran owned, etc.), which can be critical for award set-asides. P6 stated, "the best way to go

about that [strategy] is using the SAMs website and registering your NAICs code and type of small business.” P1 and P2 echoed similar statements as the initial strategy but added that this is where small businesses define their “niche markets.” P1 discussed not only SAMs but all DOD documentation from responding to requests for quotes to government-required accounting practices that “everything has to be exactly right,” so she “pretty much know[s] the FAR inside and out.” The participants vividly described the foundational imperative of knowledge of the basic requirements for securing DOD contracts.

Understanding and establishing the appropriate legal structure and accounting structuring for a business is often knowledge that small business owners may not have and may require engaging with an expert. Both P1 and P2 stressed the importance of setting up the business correctly at the beginning, from legal structure and accounting to processes and procedures. P1 stated, “Nobody wants to spend the money up front to set up the business correctly [for DOD procurement].” P2 continued to explain, “But if you spend the money up front, pay an accountant whose thoroughly knowledgeable in government accounting to define your accounting procedures, you will save yourself a whole lot of money down the road.” P2 took the initial steps further, stating that small business leaders should hire a good attorney, a good accountant, and utilize PTAC or the SBA for training at the forefront of establishing the business. P2 continued, saying, “There are all different types of things that you’ve got to understand and got to do to make sure that your company is on a good foundation to go forward: legal structure, accounting, and a good banking relationship.” In DOD contracting, understanding the

FAR requirements for government cost accounting and the effects of legal business structures is an essential distinction for knowledge that is crucial to overall success. In DOD contracting, all businesses require specific certifications, but small businesses have another requirement for small business class designation. A failure to correctly self-certify and maintain the appropriate cost accounting and business systems could result in penalties during an audit. All five participants also noted the importance of knowing about and obtaining the quality certifications necessary for certain aspects of DOD contracts, particularly for aerospace, engineering, packaging, and manufacturing.

Small business leaders should also understand the significance and potential consequences for knowledge related to structuring for growth and scalability of the business. P1, P2, P4, and P5 all agreed that small businesses should structure themselves as if they were scalable to a large business, even if that was not the goal. There was only one participant, P6, whose goal was never to scale the business but to remain small. P6 admitted that this was a glaring mistake when it came time to exit the business as “It’s hard for people to look at us and purchase our company, knowing that the two people that keep the business going and the doors open are the two people who want to leave.” The knowledge concept of growth and scalability are tenets of small business adaptability and flexibility. Business leaders must have knowledge of structuring their businesses to adapt and flex for growth, even if that is not the primary goal.

Theme 2: Resources

It is paramount for small business owners to understand their firms’ explicit and tacit knowledge and resources to position themselves to win and sustain DOD contracts.

P1, P2, P4, and P5 all discussed using experts to grow their firm's knowledge, build relationships, and collaborate with mentors and prime contractors as part of their success strategies. Both P1 and P2 contacted their local PTAC for advice and classes to grow their knowledge base. P2 discussed the importance of using the local PTAC as a resource because the PTAC centers are "pretty much retired government contracts people... and will guide [you] through the government bureaucracy of doing work for them [DOD] and explain the federal acquisition regulations." P5 encouraged the use of PTACs and their events but stressed the importance that small business leaders still have to do the work to win the contract: "I've learned that they're [PTAC] a great asset for any company, but you know, they're not going to do your job for you. They're going to help you and guide you to where you need to go." P5 further explained that the onus is on the small business leader to take it further, "But then it's going to be up to you ...to be able to explain your product line and be able to prove who you are." The participants conveyed the importance of using PTACs as a resource and the integral nature of implementing the knowledge internally and capitalizing on that knowledge as part of their competitive strategy to win and sustain DOD contracts.

Knowledge of the 8(a) small business program is not strictly necessary. It is a program for small businesses to gain knowledge and feedback, particularly in DOD contracting, and perfect the service or product during the 9-year program (Fontana, 2014; SBA, 2019). P1 and P2 are engaged in the 8(a) small business program but did not elaborate on the knowledge gained in the program. Instead, P1 and P2 discussed their knowledge that the 8(a) program should be used as a strategy to win DOD awards as

prime or subcontractors due to the set-asides for 8(a) program participants. P2 explained, “So I’m so glad that we are able to utilize the 8(a) program, but the 8(a) program is a 9-year program where in the sixth year you’ve got to start going out and competing.” P2 also explained that the knowledge and support from the SBA and DOD during the length of the program was essential because the DOD agencies work with you to be successful. The essential guidance and feedback from the DOD agencies to 8(a) program participants provides them with developmental, marketing, and business support to reach financial success. This unique access to insider knowledge and small business set-asides could be the difference between success and failure during those initial years when most small businesses fail.

Small businesses in DOD contracting are also encouraged to seek mentoring and partner relationships with larger prime contractors. P4 and P5 discussed hiring previous prime contractor employees as consultants or asking their prime contractors, like Raytheon or Boeing, to help them expand their internal processes and knowledge to win more contracts. P4 hired a previous prime contractor employee to provide advice on how to improve their quality processes. P5 reached out to their prime contractor for help passing a quality test, explaining, “I asked for help, and he came in over a weekend, and we spent the entire time reviewing our process.” P1 reached out to friends and mentors who had expert knowledge in DOD contracting and said, “I was advised to ask for help when I needed it, and I did. You have to have mentors and advisors; then you have to pass it forward to others.”

Seeking external knowledge from larger, successful prime contractors and experts provides small business leaders with knowledge resources that they may not have but need to be successful in DOD contracting. The relationship is collaborative and beneficial to both parties. Large DOD prime contractors achieve small business partnership goals for larger contacts, whereas small business leaders gain knowledge and performance experience.

Theme 3: Performance

Performance is a critical component of DOD contracts. All of the participants discussed what they considered important elements of performance: quality of product or service, on-time deliveries, relationships with the prime contractor or the DOD agency, collaboration, win-win performance outcomes, implementing processes to act like a big company, being proactive, and being a problem-solver for the customer. All participants stressed that performance includes creating and maintaining an excellent reputation of quality and loyalty in the industry through successful performance. The DOD includes past performance as an evaluation category on contract bids. Past performance is measured by tangible elements such as on-time deliveries, quality of product or service, and contract management. Poor performance may require surveillance by a DOD agency. Consistent poor performance may prohibit a small business from winning future DOD contract awards. Intangible performance elements are building relationships with the DOD agencies. Elements of performance, through the participants' experiences, are critical strategies for success.

Supporting the warfighter, though service or product, requires higher standards of quality versus a commercial business. The U.S. federal government and DOD dedicate an entire section in their regulations to quality in FAR 46 and DFARs 246. P4 discussed at length that his company built its entire brand around quality. P4 stated, “We understood that the DOD, as well as their prime contractors, were focused primarily on quality and the fear of counterfeit material getting into military equipment.” P4 explained how the company made it a competitive advantage, “We took advantage of that and became one of the first companies to actually receive the SAE AS6081 counterfeit mitigation for electronic components.” Four of the participants provided products and services and discussed the importance of quality ratings such as ISO 9001 and AS 9120. P4 discussed how his company expanded quality a step further by addressing another issue for the DOD, which was obsolete components. “We were aware that there was a tremendous amount of obsolete material being used in all military equipment, so [we] started testing under the SAE AS6081 [quality] certification.” P4’s company created its own niche market based on quality certifications for safe, traceable original obsolete components. P5 elaborated on the industry and quality certifications, “We found that having certified ISO, certified women-owned, and registered ITARs are like three requirements that most of the primes really want to see to be able to do business with you.” P6 found that the quality of the product and service and meeting the product specifications made her company selected most often on competitive bids. P5 described that “quality, with all of the primes [contractors], is important, and they are there to help you.” Additionally, a

review of all participant websites evidenced references to various certifications for quality and industry standards.

The participants also identified collaboration, problem-solving, proactive, on-time deliveries, and win-win performance elements. P1 provided several examples of collaborating with customers to improve performance, whether it was employee-related or problem-solving. “It is really mitigating. It’s proactive versus reactive. You can solve a problem, or you can prevent it, and I prefer to prevent it,” stated P1. P1 elaborated further regarding a challenging situation with a customer, “We had to read between the lines. It wasn’t, you know, sometimes what they say is not really what they need. It took as a while to figure out the problem in that instance.” P2 ruminated on how he had to forge partnerships when he started his company because he did not have any past performance for his bid evaluations: “I had a lot of experience and knowledge; however, that does not equate to past performance.” P2 explained further, “We collaborated with the DOD and other DOD prime contractors to utilize teaming agreements and joint ventures, and it was a win-win.” The collaboration and win-win discussed by P2 was key to his success by gaining a performance history through leveraging relationships, and it aided the DOD and prime contractors to meet small business utilization objectives. P2 also believed it was important for companies to understand that relationships are an essential part of the collaboration, “The government contracts people know that you really bent over backward for them... You’ve had a best effort in trying to do the right thing, and they will work with you.” The act of collaboration and building relationships enhance and improve overall performance. The participants attacked this element in multiple ways.

Proactive engagement may be forward-looking and prevent or mitigate future problems or customer needs for small business performance. The customer and partnership relationship is strengthened through this type of active mitigation and problem-solving and builds a strong company brand, if successful. Collaboration involves exchanging ideas, solutions, and open communication, critical for small business performance history for the DOD.

Another element of performance success, expressed by P1 and P2, was asking for post-award briefings when they lost a bid. P1 talked about losing bids because of mistakes on the forms. “We have lost some bids because of mistakes we made. In government contracting, everything has to be exactly right, and it costs thousands of dollars to prepare a proposal for a DOD prime contract.” P2 discussed the importance of aligning the proposal with the bid requirements and ensuring expenses and profit were covered. “And so, you lose it [the contract] ... You don’t want to win it at \$40,000 and lose money. You can’t stay in business like that. When you have a good proposal... a good plan, and you lose it on price.” The critical nature of requesting a post award debriefing is for the losing bidder to determine with the DOD agency or prime contractor the proposal's weaknesses and strengths and correct those mistakes in the future.

Theme 4: Sustainability

Sustainability was a theme that resonated through the participants’ experiences. P1 and P2 stressed the importance of structuring the small business to mimic a large business. P1 stated, “I would say it was the fact that I had processes, even when I didn’t need processes. Even when I was a company of one person, I had a process for

everything as if I were a large business.” P1 explained her thought process, “And I said, okay, if I have 200 people working for me, who’s going to do what I’m doing right now?” P1 expounded further about assigning processes, roles, responsibilities, and titles. P1 strongly believed in structuring the company like a large business, even when it was just her: “So when I had to do it, I followed that written process, but I was writing it for that future person to perform it.” P2’s experience was similar to P1’s experience. P2, however, was able to leverage the multilayered structure of the tribal nation so that he could structure his business model like a large business, but then outsource to other tribal management structures since he qualified under the DOD’s native tribal small business element. P2 said, “Basically, you start out as a little company, but you build your infrastructure or platform to act like a big company down the road.” P1 also mentioned that small businesses should “act like you’re larger than you are because otherwise, you’re not going to be able to grow. You’re going to have to change your processes every time you grow.” The participants expressed a variety of sustainability strategies based on their experiences.

As discussed in the knowledge and resource themes, the participants expressed the critical strategies of using internal and external resources and tacit and implicit knowledge. P1, P2, P4, and P6 also discussed the need to reinvest in the company through profits, building relationships, and corporate branding. P1 said that her relationships and corporate brands of excellence and integrity were essential to her sustainability. “I create a culture of care, excellence, and integrity...you have to adapt and be flexible...but building relationships in the industry is essential in this industry.”

P2 also echoed the same essential element of relationships for sustainability but added, “You have to have a short-term plan and a long-term plan. You have to know that your administrative side can scale to support your manufacturing.” P2 explained that financial planning was also important, “You have to set money aside for things you need to do...for 1 year, 2 years, or 5 years.” P4 and P5 strongly believed in establishing brands of quality, engineering, and packaging excellence. P4 and P5 discussed how it was critical to establish capabilities and brand to qualify for the DOD and prime contractors’ Approved Supplier List or Approved Vendor List known as the ASL or AVL. P5 stated, “You become an asset...you are a vital part of those prime contractor relationships...you become their expert.” P4 credited their sustainability to getting in early in their niche market and on the DOD and prime contractors AVL. P4 stated, “We knew getting in early was critical. Being an approved supplier with DOD contractors, well, once you are on the list...establish a good relationship...it’s very hard to get off the list and for other vendors to get on.” P2 stressed the importance of getting on a prime contractor’s AVL as a competitive advantage, “It’s very hard for them [competitors] to unseat you.” P4 also believed, like P1, that it takes years to build relationships with some customers before that customer invites you to bid on a proposal. P4 stated that his company’s approach was multilayered: “It’s approaching all different levels of people at the company, whether it is the engineers or buyers. We go to trade shows like defense trade shows and try to meet as many people as we can.” P4 explained the importance of leveraging those relationships as well, “We try and use relationships...and we certainly utilize, you know, name dropping all the other defense contractors...we’re in with Lockheed and Boeing defense

and how come you don't have us?" Though varied, the participants expressed the critical strategies of using internal and external resources and tacit and implicit knowledge.

The participants had different but interconnecting sustainment strategies. Some participants relied heavily on structuring their small companies like big companies at the beginning for scalability. Other participants stressed more importance on branding. Four out of five participants planned for investment in the company, whether through human capital or physical capital. All of the participants discussed relationship building or networking as crucial to growth and sustainability.

Evaluation of Findings

In the subsections below, I present my evaluation and findings categorized for each emergent theme in my study. In each subsection, I provide an evaluation of my findings, supported by the extant literature. I also discuss how each theme answers the research question and links to the supporting framework.

Theme 1: Knowledge

Knowledge and strategy are elements of agency theory that researchers opined as vital to navigating the relationship involved in procurement (Eisenhardt, 1989; Selviaridis & Wynstra, 2015). Organizations, however, deploy resources in a variety of ways, depending on what is available (Chang et al., 2016). According to all five participants, the fundamental basis for winning and sustaining DOD contracts is knowing your capabilities and creating the narrative for your customers and small business liaisons on how your business capabilities match a need for the customers. The participants' lived

experiences regarding establishing the infrastructure as a big business are supported by the extant literature for KBV and RBV.

Through the lens of agency theory, the participants are seeking win-win outcomes. The parties attempt to reach beneficial outcomes through contractual solutions (Eisenhardt, 1989; Selviaridis & Wynstra, 2015). Further, the participants utilized explicit and tacit knowledge for a competitive advantage. Explicit and tacit knowledge provides a competitive advantage (Alonso et al., 2019; Grant, 1996; Laihonon et al., 2015; Laihonon & Mäntylä, 2018; Valentim et al., 2016), thereby engaging in KBV. Small and medium-sized firms often have difficulties in scalability (Valentim et al., 2016) and in converting knowledge and increasing the capacity of knowledge (Alonso et al., 2019; Grant, 1996). The participants, through lived experiences, demonstrated that knowledge utilization, scalability, and implementation challenges were present. However, the participants were consistent that collaboration and seeking win-win outcomes were factors in their success to win and perform DOD procurement contracts.

The linkage to RBV and KBV was prevalent in various ways. The participants utilized resources such as knowledge, processes, and procedures to be competitive. Firms utilize and control their tangible and intangible resources and must exploit those resources into a competitive advantage (Barney, 1991; Carter et al., 2017; Flynn, 2017; Martinez et al., 2019). KBV focuses on a firm's unique access and use of knowledge to achieve and sustain a competitive advantage (Alonso et al., 2019; Barney, 1991; Calvo-Mora et al., 2016; Ceptureanu, 2016; Grant, 1995). The medley of the participants' use of

both frameworks of resources and knowledge is evidenced by their experiences and success in winning and performing DOD procurement contracts.

Lastly, the participants all mentioned the importance of the SAM's registration and its accurate completion. While this may sound like a simple registration, the current version of the SAMs User's Guide for civilian use is 205 pages long (System for Award Management, 2020). Deploying all three frameworks of agency theory, KBV, and RBV, small firms must efficiently accumulate and distribute knowledge as a strategy to maintain and grow their core competencies, collaborate with the DOD and prime contractors, and adhere to the DOD process and requirements.

Theme 2: Resources

The use of explicit and tacit knowledge is a resource tenet of KBV, RBV, and an element of reciprocity and collaboration in agency theory. The participants recognized gaps in their knowledge and sought the help of experts, mentors, prime contractor relationships, and business colleagues. Recognizing a need for access to and an ability to use knowledge as a resource and a competitive advantage is crucial to small business sustainability (Alonso et al., 2019; Barney, 1991; Calvo-Mora et al., 2016). Four of the participants also acknowledged the need for continuing education for themselves and their employees. Identifying gaps in these two types of knowledge is critical to a firm's ability to scale and compete (Valentim et al., 2016). The participants increased their firms' absorptive knowledge capacity by engaging available resources and exploited external knowledge resources. A firm's ability to collaborate with its supply chain and leverage internal strengths increases its chances of sustainability, innovation, and

competitive advantage (Bag et al., 2018; Chang et al., 2016; Perunović et al., 2016). The participants, through their experiences, demonstrated reciprocity (knowledge and resource sharing), resources of knowledge, processes, and limitations, which are all elements of agency theory, KBV, and RBV.

Theme 3: Performance

Elements of performance as described by the participants align with agency theory, KBV, and RBV. In agency theory, performance criteria are almost always a part of the DOD selection process for bids, and performance is surveilled during contract performance (Chrisdu-Budnik & Przdańska, 2015; Hendry, 2002; Scott et al., 2018; Snippet et al., 2015). Performance excellence results in awards, and non-performance results in sanctions (Chrisdu-Budnik & Przdańska, 2015; Hendry, 2002, 2005; Kauppi & van Raaij, 2015; Scott et al., 2018; Snippet et al., 2015). RBV includes performance-based aspects in utilizing human capital resources, physical capital resources, and organizational capital resources (Barney, 1991). The participants' lived experiences demonstrate the use of all three types of these resources as part of their strategies for performance. The participants' use of relationships, certifications, technology, processes, flexibility, and adaptation through mitigation and problem-solving are examples of the elements of RBV. These examples support KBV as well. The collaboration between the parties evidences a sharing of knowledge and an alignment of knowledge enhanced performance (Preston et al., 2017). The participants' lived experience of successful performance is a synthesis of performance found in agency theory, RBV, and KBV.

Theme 4: Sustainability

The participants' sustainability strategies are evidenced across agency theory, RBV, and KBV. Researchers describe agency theory as antagonistic but collaborative (Eisenhardt, 1989; Selviaridis & Wystra, 2015). The participants describe the need for profitability as part of sustainment and describe the collaborative and win-win nature of performance and relationships to reach end goals for the DOD and prime contractors. Other-goals, in agency theory, are described by researchers as using the contractual vehicle as a guide for performance, incentive, and reciprocity (Boučková, 2015; Chrisdu-Budnik & Przedańska, 2015; Hendry, 2002, 2005; Kauppi & van Raaij, 2015; Mitnick, 1973; Scott et al., 2018; Snippert et al., 2015). In agency theory, the parties must seek the balance in levels of self-benefit.

The participants also link their sustainability to elements of RBV and KBV through leveraging and expanding human, physical, and organizational capital resources as well as tacit and explicit knowledge. The participants in this study relied on structure, process, knowledge, relationships, and branding, which comingle the elements of RBV and KBV. Firms that adapt and collaborate their resources encourage organic culture growth (Bag et al., 2018). When business leaders leverage relationships across the entire supply chain, they boost their platforms and sustain their competitive advantage (Bag et al., 2018; Chang et al., 2016; Perunović et al., 2016). Firms that acquire knowledge through outsourcing subcontracting, developing supplier relationships or collaborating with industry leaders (Alonso et al., 2019; Grant, 1996; Laihonen et al., 2015; Laihonen & Mäntylä, 2018; Valentim et al., 2016). Small business leaders must continuously work

towards increasing absorptive capacity and exploiting knowledge resources (Alonso et al., 2019; Grant, 1996; Laihonon et al., 2015; Laihonon & Mäntylä, 2018; Valentim et al., 2016). Acquiring, integrating, and applying knowledge is, therefore, critical to sustainability. Small business leaders must focus on their niche markets and opportunities in broader markets (Lumpkin et al., 2010; Parnell et al., 2012) and create strong alliances (Lumpkin et al., 2010). For the study's participants, sustainment was a strategy to win and perform DOD contracts and consisted of a myriad of elements from agency theory, RBV, and KBV.

The participants also discussed having a diverse business platform as a strategy. Platform diversity evolved as an organic, recurrent theme during the closing of each interview. The data collection of this study occurred during the COVID-19 global pandemic. The participants discussed that DOD contracting during the pandemic and the 2008 global financial crises was a staunch factor in the sustainability of their businesses during these events. Each participant had both commercial and DOD business platforms. Zullo and Lin (2017) stressed the criticality of small businesses making diversification a tool for sustainability. All participants agreed that the DOD element of their business platform was the sustaining platform for both global crises.

Application to Professional Practice

The results of this study provide small business leaders with business strategies to win and sustain DOD procurement contracts successfully. Small businesses are the economic engines of the United States (SBA, 2017) and the most encouraged source of DOD procurement contracts (Schilling et al., 2017). Despite these facts, the failure rate of

small businesses remains at almost a 50% failure rate in the first 5 years (SBA, 2017), and the DOD struggles annually to meet each small business set-aside category (DOD Office of Small Business Programs, 2017). The themes that emerged in this study were knowledge, resources, performance, and sustainability. While limited to small business leaders in the southeast United States with successful experience in securing and conducting DOD procurement contracts, these strategies may serve as a guide for other small business leaders that desire to win DOD procurement contracts. Further, each participant in this study achieved sustainment past the 5-year mark.

The four major themes and findings of this study are directly applicable to professional practices. The use of knowledge as a strategy is evidenced by the participants' lived experiences and the extant literature. Knowledge and strategy are elements of agency theory that researchers opined as vital to navigating the relationship involved in procurement (Eisenhardt, 1989; Selviaridis & Wynstra, 2015). According to all five participants, the fundamental basis for winning and sustaining DOD contracts is knowing your capabilities and creating the narrative for your customers and small business liaisons as to how business capabilities match a need for the customers. Through the lens of agency theory, the participants are seeking win-win outcomes. The parties attempt to reach beneficial outcomes through contractual solutions (Eisenhardt, 1989; Selviaridis & Wynstra, 2015). Further, the participants utilized explicit and tacit knowledge for a competitive advantage, engaging in KBV. The participants, through lived experiences, demonstrated that knowledge utilization, scalability, and

implementation challenges were present. However, the participants were consistent that collaboration and seeking win-win outcomes were factors in their success.

Firms utilize and control their tangible and intangible resources and must exploit those resources into a competitive advantage (Barney, 1991; Carter et al., 2017; Flynn, 2017; Martinez et al., 2019). KBV focuses on a firm's unique access and use of knowledge to achieve and sustain a competitive advantage (Alonso et al., 2019; Barney, 1991; Calvo-Mora et al., 2016; Ceptureanu, 2016; Grant, 1995). The participants expressed the need for external and internal knowledge resources to win and perform DOD contracts through learning and collaboration and through processes and structures that adapt and flex as the business grows. Small business leaders need to address knowledge gaps to sustain their competitive advantage. There is no end to growing knowledge and resource capabilities for a small business leader. It is a dynamic, evolving path forward to remain competitive and successful in defense contracting and performance. Their lived experiences and success evidence the heterogeneity of the participants' use of both frameworks of resources and knowledge.

The use of explicit and tacit knowledge is a resource tenet of KBV. Identifying gaps in these two types of knowledge is critical to a firm's ability to scale and compete (Valentim et al., 2016). The participants recognized gaps in their knowledge and sought the help of experts, mentors, and business colleagues. Four out of the five participants acknowledged the need for continuing education for themselves and their employees. The participants, through their experiences, demonstrated reciprocity (knowledge and

resource sharing), resources of knowledge, processes, and limitations, which are all elements of agency theory, KBV, and RBV.

The participants concurred that performance was a key strategy to their success. In agency theory, performance criteria are almost always a part of the DOD selection process for bids, and performance is surveilled during contract performance (Chrisdu-Budnik & Przdańska, 2015; Hendry, 2002; Scott et al., 2018; Snippert et al., 2015). Performance excellence results in awards, and nonperformance results in sanctions (Chrisdu-Budnik & Przdańska, 2015; Hendry, 2002, 2005; Kauppi & van Raaij, 2015; Scott et al., 2018; Snippert et al., 2015). RBV includes performance-based aspects in the utilization of human capital resources, physical capital resources, and organizational capital resources (Barney, 1991). The participants' lived experiences demonstrate the use of all three types of these resources as part of their strategies for performance. The participants' use of relationships, certifications, technology, processes, flexibility, and adaptation through mitigation and problem solving are examples of the elements of RBV. These examples support KBV as well. The participants' lived experience of successful performance is a synthesis of performance found in agency theory, RBV, and KBV.

The participants' sustainability strategies are evidenced across agency theory, RBV, and KBV. Researchers describe agency theory as antagonistic, but collaborative (Eisenhardt, 1989; Selviaridis & Wystra, 2015). The participants describe the need for profitability as part of sustainment and describe the collaborative and win-win nature of performance and relationships to reach end goals for the DOD and prime contractors. Other-goals, in agency theory, are characterized by researchers as using the contractual

vehicle as a guide for performance, incentive, and reciprocity (Boučková, 2015; Chrisdu-Budnik & Przedańska, 2015; Hendry, 2002, 2005; Kauppi & van Raaij, 2015; Mitnick, 1973; Scott et al., 2018; Snippert et al., 2015). In agency theory, the parties must seek the balance in levels of self-benefit.

Sustainability was the fourth emerging theme and strategy for success. The participants link their sustainability to elements of RBV and KBV through leveraging and expanding human, physical, and organizational capital resources as well as tacit and explicit knowledge. The participants in this study relied on structure, process, knowledge, relationships, and branding, which comingle the elements of RBV and KBV. Firms that adapt and collaborate their resources encourage organic culture growth (Bag et al., 2018). When business leaders leverage relationships across the entire supply chain, they boost their platforms and sustain their competitive advantage (Bag et al., 2018; Chang et al., 2016; Perunović et al., 2016). Firms that acquire knowledge through outsourcing, subcontracting, developing supplier relationships or collaborating with industry leaders (Alonso et al., 2019; Grant, 1996; Laihonen et al., 2015; Laihonen & Mäntylä, 2018; Valentim et al., 2016). Acquiring, integrating, and applying knowledge is, therefore, critical to sustainability. For the participants in this study, sustainability success consisted of a myriad of elements from agency theory, RBV, and KBV.

The four emergent themes of knowledge, resources, performance, and sustainment were critical to the participants' success. Therefore, these four fundamental themes of success for the five participants of this study are consequential and support the professional practice. The use of these four themes as utilized by five small business

leaders to secure and conduct DOD contracts successfully represents strategies for other small business leaders to win and perform DOD contracts successfully.

Implications for Social Change

Small businesses are significant contributors to the economy; yet, the failure rates for small businesses remain exceedingly high (SBA, 2012). Despite DOD allocations of billions of dollars each year for small business set-asides, roughly \$200 billion remain unused each fiscal year (U.S. Federal Procurement Data System, 2016-2019). The results of this study evidenced four critical strategies for small business leaders to win and sustain DOD contracts, providing a potential route for sustainability past the 5-year mark. The results of this study may encourage more small business leaders to participate in DOD contracting, furthering the small business set-aside objectives and competition objectives for the DOD and providing a path to financial sustainment for small business leaders. With more small businesses surviving and growing, community economies may also experience positive change as almost 70% of all small businesses invest locally (Pollack, 2017) and support their communities (Runyan & Covin, 2019). The small business success strategies that emerged in this study may facilitate small business sustainability, investment in communities, and increased small business participation in DOD procurement.

Recommendation for Action

Small business leaders must be open to exploring business strategies that other small business leaders have implemented successfully to increase small business sustainability. As evidenced in this study, knowledge, resources, performance, and

sustainability were strategies used by the participants to be successful in winning and performing DOD procurement contracts. Therefore, small business leaders may find these strategies applicable to their businesses. I recommend that small business leaders contact their local PTAC agency to use as a primary resource in setting up the structure for their business platforms, hire experts such as attorneys and certified public accountants experienced in DOD contracting to establish the appropriate legal and government accounting frameworks. I also recommend that small business owners attend matchmaking events and SBA events specific to DOD contracts to develop industry relationships. Lastly, small business leaders should meet with their local SBA representatives to discuss the 8a small business program requirements and other possible mentor and protégé business arrangements with large defense contractors.

Recommendations for Further Research

The purpose of this qualitative multiple case study was to explore strategies small business leaders use to secure and conduct DOD procurement contracts and to contribute to the solution of the business problem of small business leaders lacking strategies to secure and conduct DOD procurement contracts. Due to the limitations of this study and a significant gap in the extant literature specifically relating to small business success in DOD procurement, further research is needed. I recommend that longitudinal research be conducted as small business leaders begin their DOD procurement contracting journeys to document successful strategies and challenges. I also recommend that a broader study with fewer geographical limitations be conducted to provide a study with national, geographic coverage of small business success strategies in DOD contracting. The

participants in this study were focused on relating their lived experiences related to success and not challenges or failures. Some small businesses may face challenges in securing and performing DOD contracts that are not addressed by the emerging themes in this study. Because of this, I would lastly recommend that a study be conducted on small business leader failures to win and perform DOD contracts.

Reflections

I conducted the data collection of my study during the unprecedented global pandemic of the coronavirus called COVID-19. The pandemic created a unique set of challenges for my participants and for me as an independent researcher. Before soliciting participants, the IRB encouraged conducting interviews by web tools such as Skype and Zoom. Additionally, neither the IRB, my participants, or I could have anticipated the many barriers that would occur during a pandemic.

Technical issues challenged my first interview as my participant, and I had difficulties accessing the meeting tool, Google Meets. We also tried Zoom. What neither of us had expected were the high volumes of usage on the internet for these tools since the large majority of Americans were working remotely during the pandemic. Further, due to security requirements mandated by the DOD, many of my participants had firewall challenges where only specific web tools were allowed, and every participant's firewall was designed to accept a different web-based meeting tool. As I had already experienced this bandwidth and firewall issue in my work for a defense contractor, I quickly executed a Plan B to conduct interviews via telephone.

During my interviews, I was also challenged with how some participants understood the questions or struggled to answer. I exercised knowledge from past and current experience and the tools learned as a researcher interviewer in my doctoral studies to gently probe, encourage, and paraphrase to elicit my participants' responses. It was interesting to note that once participants became more comfortable, the early rigidity of their interactions became more flexible and warmed as they answered questions and recounted their experiences.

Another challenge I encountered was scheduling the interviews. The pandemic played a part in creating a lack of time for some participants. Several participants who consented to the interviews, could not find the time to participate due to the volume of work they were experiencing and the impact of COVID-19 on their employees. As my participants were small business owners fulfilling contracts for the DOD, each small business owner was part of the defense industrial base and part of the essential workforce. The pandemic was a topic that was discussed during every participant interview. The topic arose organically in my first interview. As part of the research process and my constant comparison and thematic analysis began after the first interview, the topic was important enough to include at the end of each subsequent interview. Participants were candid and reflective about the pandemic. All of the participants mentioned that being part of the defense industrial base during the pandemic maintained the volume of work as part of their diversification in their customer bases. With each interview, it became apparent that the participants correlated their sustainability during a crisis period to having a diverse customer base.

Earlier in the study, I noted that my professional experience included working for the DOD, a private defense company, and having a small consulting business of my own. I noted that my experience could create some potential bias for me. As an independent researcher, I had to carefully set aside any presumed opinions from my experience or research and approach each interview with an open mind. As I was drawn into each participant's experience, I found it easy to set aside any preconceptions. However, one of the benefits of being a partial insider was my knowledge of the defense industry, the FAR, and the DFARS. After concluding each interview, I spent a few minutes with each participant. Each participant commented on my knowledge of the defense industry and how it made it easier for them to talk about their experience without providing basic explanations of how things work in the defense industry. Thus, while a researcher can have a personal bias, it does not erase their knowledge of a topic or industry and may aid in drawing out rich and thick data from their participants.

My doctoral journal has been challenging, illuminating, and sometimes just daunting. There were periods of elation of reaching each milestone, and there were times of abject exhaustion with the process, the research, and balancing the pandemic and a chaotic political era. Additionally, I erroneously hypothesized that the qualitative methodology would be more straightforward and manageable than other methods. I am sure that is a mistake every novice researcher makes, regardless of their choice in research methods. I was utterly unprepared for the grueling work of open and axial coding of all five interviews. I also grossly underestimated the amount of time involved in the coding and constant comparison method. Each interview transcript required

comparison with archival data, corporate data, and the literature. As each interview concluded, I compared it with the previous interview for emerging themes and data. Earning a doctorate is not just a journey of core classes and completing research; it is a personal exploration of one's perseverance, fortitude, and sheer determination to conquer every barrier.

I gained an appreciation for researchers and every small business leader in the DOD industry that must overcome barriers to entry and meet daily challenges of workload, personnel, and resources while still being deliberate in planning sustainability, performance, adaptability, and partnerships, and reputations. The literature evidenced that small businesses are the workhorses of the U.S. economy. In my reflections, I found that not only are these small business leaders the backbone of the U.S. economy, but their experiences were also full of personal sacrifices and inspiration. Lastly, while it was not my intention to recruit participants of women-owned businesses, the resulting participant pool was overwhelmingly women owned. I hope to explore future research opportunities with women owned small businesses in the DOD industry.

Conclusion

Small businesses are significant contributors to the economy and competition and innovation in DOD procurement. The failure rates for small businesses remain high and participation in DOD procurement remains low. This study found four emergent themes for small business leaders' success in securing and conducting DOD procurement contracts: knowledge, resources, performance, and sustainment. One finding of this study, due to the COVID-19 pandemic, led to an organic discussion by the participants

about the importance of a diverse business platform to include government contracting and commercial contracting to survive global market crises. DOD leaders and prime contract leaders may also benefit from this study by learning about strategies used by their small business partners to navigate challenges and find the path to sustainability so that they may better serve their small business partnerships. The results of this study may also contribute to positive social change for local and national economies if more small businesses have access to research that promotes strategies for success and sustainability beyond the 5-year mark. Lastly, the results of this study may encourage more small business participation in DOD procurement and may facilitate small business sustainability, which may promote investment in local communities.

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Appendix: Interview Protocol

- I. Introduction to participants and identifying self as a Walden University DBA doctoral candidate.
- II. Presentation of consent form with review of consent form with participants. Explain confidentiality and protection of identity, results of interview, and address any questions or consternation of participants.
- III. Explain the necessity of digital recording and notetaking during the interview to appropriately record the content of the interview.
- IV. Engage the digital recorder and begin live interview.
- V. Announce participants with coded identification, date, and time of interview.
- VI. Begin interview with first interview question, and follow the interview questions in chronological order, allowing for flexibility of open dialogue.
- VII. Take observational notes during interview.
- VIII. Ask probing questions to gather thick data and ask follow-up questions where clarification is needed.
- IX. Conclude the interview and exchange contact information for any clarification or follow up questions.
- X. Explain transcription and member-checking of the transcript when the transcript is complete.
- XI. Convey gratitude for participation.
- XII. Disengage the digital recorder to end the interview.

- XIII. Send or meet with participants to provide transcript of interview, explain member-checking, and request completion of member checking by a specific date.

Interview Questions

1. What strategies have you used to secure DOD procurement contracts successfully?
2. What business strategies did you find most effective to conduct DOD procurement contracts?
3. How did you develop strategies to gain a competitive advantage to secure DOD procurement contracts?
4. What strategies did you find most effective to mitigate challenges to secure DOD procurement contracts successfully?
5. What strategies did you find most effective to mitigate challenges to conduct DOD procurement contracts successfully?
6. What resources, internal or external, have you used to secure DOD procurement contracts?
7. What, if anything, did you alter in your strategy if you did not initially secure a DOD procurement contract?
8. What, if anything, did you alter in your strategy if you did not initially successfully conduct a DOD procurement contract?
9. What else, if anything, also contributed to your success in securing and conducting DOD procurement contracts that we did not discuss?

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