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Etta Waugh

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Walden University
2017

Abstract

Improving Contract Management by the Government Contracting Officers' Representatives

by

Etta Waugh

MBA, University of Maryland University College, 2004

BS, Hampton University, 1971

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Management

Walden University

June 2017

Abstract

Leaders in the Federal Government of the United States have a problem ensuring the contract management resources used to administer and monitor contracts meet organizational performance goals. Contracting officer's representatives (CORs) are members of the acquisition workforce responsible for contract management. This study explored the ways in which resource-based strategies can improve the quality of CORs' performance in contract management by exploring an organizational framework based on strategic management approaches. Interview data were collected from 41 CORs from the 10 Federal Government agencies that represented 85% of the fiscal year 2014 expenditures. These CORs had all managed contracts with successful outcomes. Data analysis utilizing descriptive and magnitude coding resulted in several findings: (a) a recognition of the influence the COR's environment has on the contract outcomes, (b) an understanding of the CORs' processes within the various organizational structures, and (c) the importance of organizational support for the COR. These findings resulted in elements of a potential resource-based management model framework that link the identified attributes of the CORs' resource management to organizational performance. The social contribution from this emergent framework is the recognition of the CORs' value in ensuring optimal contract driven organizational performance. Positive social change can result from Federal Government leaders' use of this resource-based framework to improve the quality of management of CORs' functions and processes. This framework and its implication for the acquisition workforce may facilitate superior performance and enhance organizational capital.

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Dedication

I dedicate this adventure to my husband, Charles Waugh. For every experience, God has given and every person He has brought into my life, I am most grateful for you, God's gift to me. I know that God is preparing an even greater future for us that only He can see.

Acknowledgments

I wish to thank my Heavenly Father for allowing me to complete this journey. His plans for me are still a mystery, but I believe in Proverbs 3:5: “In all your ways acknowledge Him, and He shall direct your paths.”

I am indebted to many people who provided encouragement, special assistance, or inspiration throughout this journey. Special thanks to the participants in this study for allowing me to share their experiences. I am forever grateful to the leadership at the Federal Acquisition Institute, the Acquisition Career Manager members of the Contracting Officer’s Representative Functional Advisory Board and the contracting officer representatives across the Federal Government that contributed to the successful completion of this dissertation. I am especially appreciative of my current employer and co-workers at the Defense Acquisition University and others at the Department of Defense for their support. Words are inadequate to express my appreciation to my Church family for their assistance and for allowing me to be “missing in action” over the past few months.

In addition, I thank my family, husband Charles, daughter Natasha, grandchildren Kaylin, Bryce and Amaya, sister Mildred, brother Dan, niece Elena, and cousins Perry and Conni for encouragement and patience when I vented my frustrations. I would also like to thank Dr. Carol Wells, my committee chairperson, and Dr. Craig Barton, my committee member for the motivation to complete this journey.

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction to the Study

The President of the United States of America and leaders in the executive branch of the Federal Government have a problem effectively managing the contract management resources used to administer and monitor contracts with state and local governments, for-profit and not-for-profit organizations, universities, and people. From the historical information in this study, it appears that improving the competencies of the acquisition workforce is the government's current approach to addressing the quality of its contract management. Contracting officer's representatives (CORs) are the segment of the acquisition workforce responsible for providing technical direction to the contracting officer by supporting the administration and management of a contractor's performance during the contract life cycle. Currently, the government uses a competency-based management approach to ensure that contract management capabilities consistently exist to perform contract administration and performance management functions (Federal Acquisition Institute, 2003). The competency-based management approach is the integration of human resource planning and business planning to enable the competencies of human resources to achieve the business objectives (Federal Acquisition Institute, 2003). Federal agencies expend scarce resources for training and developing the acquisition workforce in critical competency areas to meet standards essential to fulfilling agency missions. Data in the March 2013 United States General Accountability Office (GAO) report, show that half of the Federal Government agencies do not have sufficient evidence of the benefits of their training investment on the agency's performance (GAO, 2013).

The resource-based theory is another potential approach to solving the contract management quality problem in the Federal Government. In this approach, managing the organization's tangible and intangible resources, such as the contracting officer's representatives' competencies, time and organizational support, may help the government achieve better organizational performance. Information in this study fills a significant knowledge gap on the potential efficacy of the resource-based approach on federal organizations that demonstrate an alignment of the contracting officer's representatives' contract management resources to the outcome of the contract. One of the resources I investigated in this study was the contracting officer's representatives' time commitment to performing contract management activities. Other resource dynamics that I explored include the level of organizational support provided for the contracting officer's representative function and evidence of the contracting officer's representatives' contract management competencies. I examined the possible experiences of contracting officer's representatives using the resource-based theory approach to managing three of the contract management resources (i.e., organizational support, time, and competencies) in this study. I also examined the dynamic capabilities approach for the development of a contract management framework that promotes the adaptation of an organization's capabilities for a changing environment. Findings from the exploration of these comprehensive approaches to resource management promote the use of an organizational excellence framework for management of the contracting officer's representatives' resources. The exploration also gave contracting officer's representatives an opportunity to provide input on successful approaches to managing federal contract management resources.

Background of the Study

Information in the literature reflects the theoretical relationship between the contract management resources and performance. Several researchers have investigated the individual contract management resources used by contracting officer's representatives, such as time, organizational support, and competencies. No evidence exists showing a combination of these individual resources into a comprehensive management framework. In resource-based theory, the value and efficacy of the organization's resources are achievable when appropriately managed (Lee & Whitford, 2013). An assumption existed in the literature on federal contract management that the role of the contracting officer's representative is essential to effective contract management and ultimately to the outcomes of the contract. Aside from the competency-based management approach, the findings from the literature left key questions unanswered about interrelationships between time, organizational support and competencies, and management of these contracting officer's representative's resources.

The management of dynamic resources is as important to achieving the organization's mission as possessing the capability to manage. Königová and Fejfar (2012) asserted that one of the key factors of organizational success is the achievement of managerial competencies along with efficient management of resources. Teece et al. (1997) further asserted that competitive advantage is achievable by coupling the management of the organization's capabilities with its renewed competencies based on the changing business environment. These assertions were important in this contracting officer's representative study with competencies serving as one of the COR's resources used to achieve successful contract performance and outcomes. Even with the theoretical

link between competencies and goals, no indication existed of the relationship of contracting officer's representative's competencies and the achievement of program mandates in an evolving organizational environment prior to the study. Results from the current study fill the knowledge gap regarding the integration of the contracting officer's representative's competencies in organizational performance.

The contracting officer's representative's appointment has implications for the organizational support provided and the perceptions and concerns of contracting officer's representatives about their well-being. Kurtessis et al. (2015) identified the antecedents of perceived organizational support (POS) as leadership, human resource practices, employee/organization context, working conditions, and the consequences of perceived organizational support, including employee performance and well-being. According to organizational support theory, when employees perceive that organizations care about their well-being or they receive benefits from their organizations, they are more likely to exhibit behaviors that affect work-related outcomes positively.

No standard exists for measuring the time commitment needed for the contracting officer's representatives to perform their contract management function effectively. According to Alvi, Abbasi, and Haider (2014), employee engagement, such as work performance and customer satisfaction, is a predictor of outcomes. Factors such as the employee's availability, experience and seniority level are the basis for the appointment of a contracting officer's representative (McPhie, 2005). Other primary job responsibilities may overtake the contracting officer's representative's function in terms of time commitment, which means that the amount of effort that contracting officer's representatives commit to contract management activities remains dependent on the

agency and specifically delegated job responsibilities. Employee engagement was another facet of the COR's perceived organizational support I considered in this study. Studying the time spent on CORs' functions and the timing of CORs' appointments for successful contracts contributes to the knowledge of the effective management of contract management resources.

Despite the known success of the resource-based theory in providing a competitive advantage to private organizations, knowledge about its efficacy in achieving success in a public organization's performance is minimal (Szymaniec-Mlicka, 2014). Researchers who focused on the experiences of the resource-based strategic management theory on competitive advantage in private and public management include Madhok, Li, and Priem (2010) and Lee and Whitford (2013). Szymaniec-Mlicka (2014) summarized several studies in a literature review of the resource-based theory in the strategic management of public organizations. I have included in this study specific examples of the efficacy of the resource-based theory to improve resources used in federal contract management to fill a knowledge gap and demonstrate its potential in the Federal Government.

In this study, I examined the management of resources in contracts that have achieved successful outcomes. Success factors identified by study participants from the Federal Government departments served as the definitions of success. Using the critical success factors defined by study participants has limited complications due to the diversity of opinions on critical success factors such as those constructed by Rendon (2008) in an assessment of the contract management maturity model. After conducting

the assessment of the contract management maturity model, Rendon (2010) conducted a survey-based research study on contract management critical success factors to explain the similarities between the responses and project management and contract management literature. Information in the results of Rendon's research indicates a potential for improving organizational success by using critical success factors such as those for project management. Project management experts such as Kusljic and Marenjak (2013) focused on project success, and Mir and Pinnington (2014) explored the link between project management performance and project success. The identification of varying success factors from project management literature assisted me in determining successful contract management practices, which may result in promoting operational excellence.

The literature included examples of how the individual contract management resources used by contracting officer's representatives link to project success or mission accomplishment. I examined these identified contract management resources to determine their efficacy in practice. Information in the literature did not reflect if the resource-based theory offers a solution to the contract management dilemma faced by the Federal Government. The result of this study provides a possible solution to the resource management problems in federal contract management. Significant dollar savings in performance, time and quality of federal contracts are possible. These savings are achievable by improved competitiveness when employing the resource-based theory by organizations.

Problem Statement

Managing Federal Government contracting more effectively is one of the high-risk areas identified in the U.S. Government Accountability Office's (GAO, 2015) *Report*

to Congressional Committees (p. 395). The general problem is a continuing need to improve the management of resources for federal contract management by the central figure in contract management, the contracting officer's representative (COR). CORs serve a critical role in assuring contractors meet performance requirements and adhere to the terms and conditions of the contract. The specific problem cited in the U.S. Merit Systems Protection Board report (McPhie, 2005) was the quality of management of CORs' contract management resources. The purpose of this qualitative case study was to improve contract management by exploring an organizational framework based on strategic management approaches. The contract management organizational excellence framework to manage the contracting officer's representatives' resources that I explored in this qualitative case study is based on a dynamic capabilities approach and resource-based theory and can solve the quality management process problem.

Purpose of the Study

The purpose of this qualitative case study was to explore how using an organizational framework based on proven strategic management approaches to manage the contracting officer's representatives' resources can solve the quality management process problem. My focus in this study was on an acquisition workforce member, the contracting officer's representative and exploring an organizational excellence framework to improve the acquisition workforce's efficacy in the management of federal contracts.

The resource-based theory is a widely known strategic management theory for managing resources to achieve positive outcomes (Barney, Ketchen & Wright, 2011). From the historical research for this study, it appears that no studies exist that give insight

into the organizational dynamics that influence the COR's resources on contract performance and outcomes. This study includes in-depth interviews of 41 contracting officer's representatives from 10 Federal Government agencies with the fiscal year 2014 contract dollar expenditure of $377,235,328,293.15.

In this study, I explored an organizational framework based on a proven strategic management theory, the resource-based theory. Little information exists about the organizational dynamics for the management of COR's resources in federal contracts that have achieved successful performance and outcomes. I developed multiple case studies using the resource-based theory as a theoretical basis to explore successful organizations' uses of the COR's resources in contract management.

Research Questions

The focus of the study was on one overarching question and three subquestions. The research objective was to explore how using resource-based strategies may improve the contracting officer's representative's efficacy in contract management. The guiding question was as follows: How did the management of key organizational resources of the contracting officer's representative influence the organization's performance? According to Woodside (2002), the purpose of an exploratory case study is to gain insight on the basis of a phenomenon to facilitate a developing model or theory. This study involved an exploration of the nature of the successful outcomes from each of the cases using a resource-based strategic management lens. My concentration in this study was on exploring the effective management of COR's resources, such as time, competencies, and organizational support, and the impact of those resources on the acquisition workforce's performance outcomes. The three subquestions were as follows:

1. How did the resources employed by contracting officer's representatives to manage contracts influence effective contract outcomes?
2. What is the nature of the process expectations that affect the COR's actions and facilitate outcome-based effectiveness?
3. How are the COR's activities on assigned contracts perceived and reported to show the workforce's effectiveness?

Conceptual Framework

The underlying concept for this study was the resource-based view that has reached maturity as a theory (Barney, Ketchen, & Wright, 2011). The resource-based view is a strategic management theory whereby the use of the firm's tangible and intangible resources help it achieve better organizational performance. In the resource-based theory, the organization's unique resources are the only factors capable of developing performance differences that last and reflect in developing a strategy. Achieving successful outcomes is possible by appropriate management of the resources along with the technical and intuitive skills of the individual team members as well as the team. Viewing the management of the COR's resources through the lens of the resource-based theory was useful in this study to gain an understanding of the influence of these resources on contract success and effective contract management practices. Information from this study fills a knowledge gap by using the resource-based theory in the public sector, which may assist in the development of additional resource management strategies in federal contract management.

Another key concept for this study was the dynamic capability approach. According to Teece, Pisano, & Shuen (1997), dynamic organizational capabilities are the

adaptation of the organizations' competencies to address the requirements of a changing environment. The dynamic capabilities approach attempts to provide a framework that combines knowledge and enables its use in a manner that responds to fluctuations in the business environment (Teece, Pisano & Shuen, 1997). According to Teece, et al (1997), an important element in achieving competitive advantage is the ability to be flexible and responsive to new market conditions. Recent research efforts have shifted the focus from developing specific competencies to renewing competencies in response to changes in the business environments. According to Soloway (2014), the current rigid, rules-based training and development strategy is an obstacle to preparing the acquisition workforce for critical thinking and innovation. This study fills a knowledge gap through the consideration of the dynamic capabilities approach in the development of an operational excellence contract management framework for CORs' resource management.

Key concepts presented in Table 1 include the organizational resources examined and applied in this study.

Table 1

Key Concepts

Key concepts	Principal contributor(s)	Theoretical origin	Key insight(s)
Dynamic capabilities	Teece, Pisano, & Shuen, 1997	Dynamic capabilities and strategic management	Strategic management theory on the ability of the organization to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments.

(Table continues)

Key concepts	Principal contributor(s)	Theoretical origin	Key insight(s)
Effects of organizational resources on public agency performance	Lee & Whitford, 2012	Resource-based theory	Strategic management theory on the impact of resources on competitive advantage in public management
Core competencies	Kavitha, Vasugi, & Murugadoss, 2010	Employee core competencies	Relationship of core competencies to organization's success
Behavioral response to Perceived Organizational Support (perceived organizational support)	Kurtessis et al., 2015	Perceived organizational support	Relationship of perceived organizational support and results

The conceptual framework that grounds this study has three areas that constitute the interaction of COR's resources in the federal sector (see Figure 1).

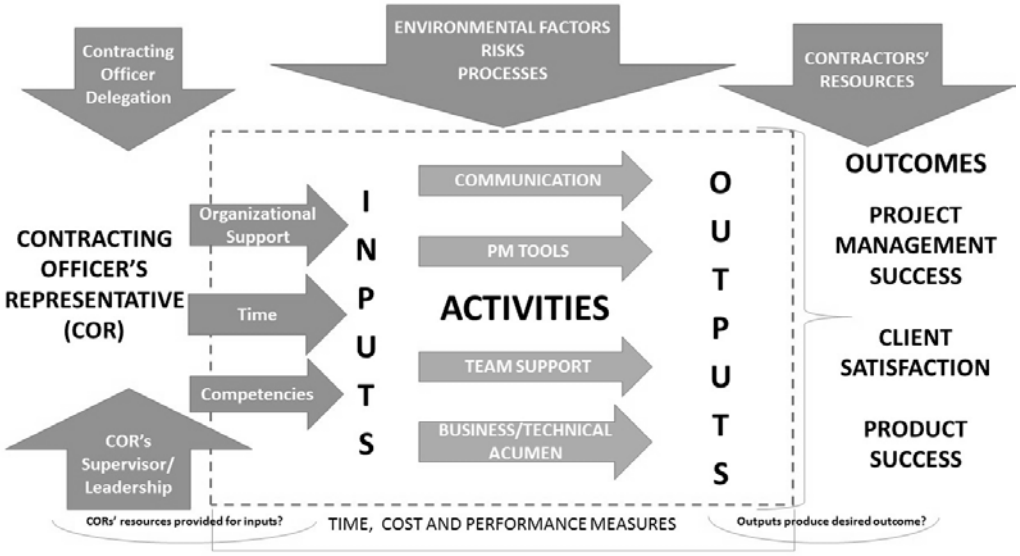

Figure 1. Conceptual framework. Cost Risk and Uncertainties: Cost Risk and Uncertainties: Toward a Conceptual Cost Contingency Estimation Model," by J. Buertey, 2014, *International Journal of Construction Engineering and Management*, *3*(5), 145. Reprinted with permission in Appendix H.

The left side of Figure 1 depicts the COR as the link between the contracting office and the COR's supervisor or leadership. Both the timing of the delegation by the contracting officer and the nomination by the COR's supervisor/leadership contribute to the CORs' resources or inputs on the activities. This case study includes descriptions of the context in which contracting officer's representatives function, such as contracting officer's delegation and the COR's alignment with the contracting officer and project/program management office. I examined this segment of the framework in response to the research question on the nature of the expectations that affect the COR's actions. The three arrows represent the COR's resources that serve as inputs: organizational support, time, and competencies.

I explored the resources serving as inputs to the CORs' activities by examining the responses that participants gave to the research question on how the COR's contract management resources influence contract outcomes. Another area affecting the COR's resources and his or her activities are the environmental factors, risks, and processes unique to each contract. I explored the environmental factors, risks, and processes by examining the responses that participants gave to the research question on perceptions and measurement of the COR's activities. Activities include processes such as communication and knowledge in technical or business areas. I also explored these activities by examining the responses that participants gave to the research question on perceptions and measurement of the COR's activities. The right side of Figure 1 depicts the COR's outputs, including the meaning of the contractors' resources on the contract outcomes. My research in this area involved examining the responses that participants

gave to the question on the COR's contract management activity reporting. I used a comprehensive framework to explore the characteristics of the three COR inputs, the COR's activities, and the structure of the organization that can lead to successful contract outcomes from the resource-based theory perspective.

Nature of the Study

I used a qualitative research method for this study. The qualitative research method allowed me to share the research responsibilities for the study with the participants. Participation in this study gave the contracting officer's representative (COR) members of the acquisition workforce an opportunity to express their views on the effective use of contract management resources. A qualitative strategy allowed me to examine and describe the environment experienced by contracting officer's representatives using a "discovery-oriented approach" rather than a linear and unidirectional process. The qualitative strategy consists of naturalistic inquiry, qualitative data collection, and content analysis (Patton, 2015). A naturalistic inquiry of selected acquisition team members facilitated an understanding of the contract management practices and processes that contracting officer's representatives use on successful projects. This multiple embedded case study includes an aggregation of their stories of success. I derived the data on successful contract programs from qualitative research interviews. An explanatory and causal case study resulted from content analysis of the qualitative data based on identified patterns and characteristics of the contracting officer's representatives that participated in this study. The results involved a literal replication of the propositions of this narrative study in each of the three contracting officer's representative certification levels across six Federal Government agencies.

According to Mason (2002), qualitative research focuses on an understanding of the complexity, detail, and context of data. The following propositions align with the first research subquestion for the study: How did the CORs' resources employed to manage contracts influence contract outcomes?

1. The COR's competencies facilitate contract administration and performance management.
2. The COR's time commitment and involvement influence the success of the contract.
3. Contract success is affected by the organizational support of the COR's role in contract administration and performance management.

Findings from this qualitative case study encourage consideration of the resource-based theory in conjunction with the dynamic capabilities approach and competency-based theory to address the federal contract management problem. The findings and conclusions from the cross-case synthesis illustrate successful quality management of the COR's resources and its impact on contract outcomes. I used a cross-case synthesis approach to explore the diverse disciplines that support the systems change efforts sought by this narrative study. According to K. Lee and Chavis (2012), cross-case study methodology is effective as a comprehensive approach to improving community and systems change efforts. I used this case analysis strategy to demonstrate the use of resource-based theory in cases of contract management that resulted in successful outcomes. According to Merriam (2009), a qualitative case study provides a holistic description and analysis of a bounded phenomenon such as a process or social unit. The case study approach was the most appropriate investigative strategy for this narrative

study because the potential effect of the resource-based theory on contract management was an unknown phenomenon.

Definitions

Acquisition workforce: represents agency personnel responsible for determining and defining agency requirements for goods and services. The acquisition workforce's responsibilities include familiarity with the markets in which the agency will seek goods and services to meet agency needs. They are also responsible for monitoring and measuring contract performance, including testing of goods, auditing, responsible for contract administration, and evaluation of contractor performance. Their responsibilities encompass managing the programs in which the goods and services acquired are employed (Report of the Acquisition Advisory Panel to the Office of Federal Procurement Policy and the United States Congress, 2007).

Competency: is an underlying characteristic required to perform a given task, activity, or role successfully. Competency may take the following forms: knowledge, attitude, and skill. Other characteristics of an individual include motives, values, and self-concepts (Kavitha et al., 2010).

Competency-based management: is the application of a set of competencies for managing human resources so that performance contributes efficiently and effectively to organizational results. Essential elements of competency-based management include competency identification whereby process exists to discover what competencies are necessary for exemplary or fully-successful performance. Another essential element of competency-based management is a competency model with a narrative description of the competencies for a targeted job category, occupational group, division, department or

other unit of analysis. A competency standard is the identified essential skills and knowledge workers must have, and defines the performance levels they must achieve, to demonstrate competency in a specific work segment or function. The competency profile is an element of competency-based management in which the set of competencies described in the documentation is particular to a position or job or occupational group. (Tripathi and Agrawal, 2014).

Contract administration: is any administrative activity undertaken by either the government or the contractor during the time from contract award to contract closeout (Nash et al., 2007).

Contract management: is the process of managing contracts, deliverables, deadlines, and contract terms and conditions while ensuring customer satisfaction (NCMA, 2013).

Contracting officer: is an employee of the government with the authority to bind the government legally by signing a contractual instrument (Nash, Schooner, O'Brien-DeBakey, & Edwards, 2007)

Contracting officer's representative (COR): is an individual who is designated and authorized in writing by the Contracting Officer to perform specific contract management or technical functions on contracts or task/delivery orders. CORs serve a critical and vital role in assuring contractors meet the performance requirements of the contract in terms of quality, quantity, schedule and of course cost/price. CORs are equally critical in assuring government requirements under the terms and conditions of the

contract are met (e.g. contractor gets paid on time, receives government provided information or property in a timely manner, etc.). (DAU, n.d.a).

Contractor: is an organization, or an individual, that provides goods or services to another organization or individual under terms specified in a contract. In defense acquisition, a contractor is normally the entity that provides goods or services to the Department of Defense under the terms of a contract. (DAU, n.d.a.).

Defense Acquisition Workforce Improvement Act (DAWIA): is a statute originally enacted in Public Law 101-510 required the Secretary of Defense to establish policies and procedures for effective management of persons serving in acquisition positions in the U.S. Department of Defense (DoD). The Act provides for the establishment of certain minimum education, training, and experience requirements for individuals filling acquisition positions (Nash et al., 2007).

Defense Acquisition University (DAU): Authorized by Title 10, U.S.C. § 1746, and chartered by the DoD Directive 5000.57, the DAU provides practitioner training, career management, and services to enable the DoD acquisition workforce to make smart business decisions and deliver timely and affordable capabilities to the warfighter. DAU provides a full range of basic, intermediate, and advanced curricula training, as well as assignment-specific and continuous learning courses to support the career goals and professional development of DoD (DAU, n.d.b).

Dynamic capabilities: is the firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments. (Teece, Pisano & Shuen, 1997).

Federal Acquisition Certification for Contracting Officer's Representative (FAC-COR): are the three levels of certification for CORs. (Gordon, 2011)

Federal Acquisition Certification in Contracting (FAC-C): are the core competencies required for certification of civilian agency contracting professionals. (Field, 2014)

Federal Acquisition Certification-Program Management (FAC-PM): are the Federal acquisition certification requirements for professional program and project managers. (Jordan, 2013).

Federal Acquisition Institute (FAI): is a research and management facility dedicated to promoting government-wide career management programs for a professional procurement workforce (Nash et al. 2007).

Federal Acquisition Regulation (FAR): is the regulation for use by federal executive agencies for acquisition of supplies and services with appropriated funds (DAU, n.d.a).

Functional Advisory Board (FAB): is a multi-agency Contracting Functional Advisory Board (CON-FAB) working to improve the FAC-C and FAC-COR programs within the Federal Government. The CON-FAB established by the Office of Federal Procurement Policy (OFPP) makes recommendations to more effectively train and develop the contracting workforce and more effectively manage the COR workforce (COR-FAB), respectively (Field, 2009).

Perceived organizational support (POS): According to organizational support theory (Eisenberger & Stinglhamber, 2011), employees develop a general perception

concerning the extent to which the organization values their contributions and cares about their well-being (Kurtessis et al., 2015).

Resource-based view: assumes that the success of the organization lies in the organization itself, in its valuable, intangible, and not perfectly imitable resources, allowing it to achieve a sustainable competitive advantage (Szymaniec-Mlicka, 2014).

Assumptions

This study included several fundamental principles considered unproven assumptions. The first assumption was that the term *contract success* is synonymous with *project success*. A wide diversity of opinions in the field of project success about what constitutes project success exists. Since projects are different in size and complexity, the measures used for assessing success vary among projects (Mir & Pinnington, 2014). Project success is a measure against the overall objectives of the project; project management success is a measure of cost, time, and quality.

The second assumption was that the contracting officer and the program manager or organizational leadership would define success and identify successful contracts for this study. The successful performance of contract requirements is the contractor's responsibility. Most contracts require the contractor to possess the resources needed to deliver the product or perform the service.

The third assumption was that the contracting officer's representatives participating in the study would meet one of the three certification levels as defined in the FAC-COR. Before appointment by the contracting officer, all contracting officer's representatives are required to meet the standards at one of the three competency levels.

Contracting officer's representatives participating in this study are representative of the population responsible for contract management in the Federal Government.

Scope and Delimitations

The scope of this study is contract management in the Federal Government by the contracting officer's representative. Within the acquisition workforce population, contracting officer's representatives have primary responsibility for the contract management function in the Federal Government. The general population for the study encompasses the executive branch of the Federal Government, comprised of ten Federal civilian and defense agencies in the continental United States. Certification standards for the acquisition workforce in the civilian agencies are different from those in the DoD. Including both civilian and defense agencies allowed for investigation of a sample from the total population affected by the contract management challenges and the solution.

The definition of *Delimitations* (2016) is the determination of a limit or boundary. The focus of this study was a select group of contracting officer's representatives from ten Federal Government agencies based on federal contracts expenditures. The potential transferability of the representative results within the diverse population of both civilian and defense agencies was the rationale for selecting the participant contracting officer's representatives from these ten federal agencies.

Limitations

One of the boundaries of this multiple embedded case study was time. The context of the study was limited to cases about completed contracts or contracts that have some level of completed performance. Acquisition personnel assigned to contracts that are currently in operation may not possess the knowledge yet pertinent to the success

factor phenomenon of this study. Patton (2002) encouraged the use of multiple sources of information to validate and crosscheck findings.

Another limitation was researcher bias. I started my career as a contracting officer's technical representative (COTR) in a program office in the Federal Government. The contracting officer's technical representative's responsibilities included monitoring, managing, and ensuring the efficient and effective performance of several contractors. Thus, my interest in performance management began early in my career. Initially, contract administration was my only perspective on performance management. My experiences and background have allowed me to view performance management in different perspectives as my career progressed. The credibility of the inquirer is another important consideration of qualitative analysis (Patton, 2002). I mitigated any potential researcher bias in the study methodology by monitoring my behavior in relation to the theoretical framework and taking an objective approach that was sensitive and respectful of the respondent as well as nonjudgmental.

Significance of the Study

The identification of problems with the administration and management of Federal contracts is continuous in Federal Government acquisition history. These problems reflect a higher risk for lost dollars and other resources used to correct deficiencies or handle tasks more efficiently. Part of the emphasis on improving Federal contract management is on the contracting officer's representative, a Federal employee with written authority, appointed to perform assigned technical or administrative functions of the contracting officer. The contracting officer's representative's authority includes primary responsibility for contract administration and management during the

contract life cycle. Results of this study provide insightful information on the often misunderstood role of the contracting officer's representative in the acquisition workforce.

Significance to Practice

Changes made to the Federal Acquisition Regulation in 2013 were to define and clarify the role of the contracting officer's representative in an effort to address the contract management problems. Before the change in the Federal Acquisition Regulation, the contracting officer's representative's role was assumed and explained only in agency procedures and guidance documents. In March 2015, the U.S. DoD (Acquisition, Technology, and Logistics, 2015) explained the contracting officer's representative's role by issuing a standard for contracting officer's representative certification that included guidance for the management of contracting officer's representatives. This standard based on competency-based human resource management is a proven practice in effective performance (Kavitha et al., 2010). Despite the level of importance placed on the role of the contracting officer's representative, organizational inhibitors to his or her effective performance exist. No job classification for the contracting officer's representative in the Federal personnel system exists. The location of this position in a matrix organization is with the contracting officer designating the contracting officer's representative and the contracting officer's representative's supervisor managing the contracting officer's representative's performance. The experiences of contracting officer's representative certification standards on contract outcomes were unclear. The results of this study can enhance future management decisions on the effective use of the contracting officer's representative's resources.

Significance

A need existed to explore a comprehensive model for contracting officer's representative resource management because of the necessity to improve contract management by the contracting officer's representative, a critical government resource. An examination of a resource management approach that results in successful Federal contract management outcomes was past due. I investigated in this narrative study the feasibility of the resource-based theory, a proven strategic resource management approach, in managing the contracting officer's representative's resources to improve Federal contract management. I also explored the dynamic capabilities approach for enhancing Federal contract management by contracting officer's representatives. Results of this investigation add to the body of knowledge on the resource-based theory, and the dynamic capabilities approach in public organizations and when replicated can enhance future resource management issues in the public sector. Successful practices gleaned from the multiple case studies provide valuable insight on methods that worked in solving persistent problems in managing the contracting officer's representative's resources, such as minimal time commitment, decreasing proficiency in competency, and lack of organizational support.

This narrative study has implications for strategic management of resources in the Federal sector. It includes a description of the inimitable factors of successful contract/projects for possible replication in several government acquisition offices. Knowledge about the available resources along with the determination of an effective resource management framework are particularly noteworthy in both theory and practice. The findings from this study have implications for future research in the application of

the resource-based theory and the dynamic capabilities approach in the strategic management field for public organizations.

Significance to Social Change

The linkage and relationships between individuals on the acquisition team referred to as social capital is potentially an intangible resource that can influence overall performance. The president and chief executive officer of the premier government technology and professional services industry trade association, the Professional Services Council, Soloway said, “We have to more smartly utilize, allocate and strategically think about increasingly precious internal resources” (Host, 2013). For example, the reputation and view of the contracting officer’s representative’s role are not always positive. Assignment of contracting officer’s representatives’ responsibilities in addition to other job duties is sometimes based on length of service and other factors that may or may not be favorable. Even though the job of a contracting officer’s representative is considered important, some employees assigned to be contracting officer’s representatives perceive that the organization does not care about them. According to Kaplan and Norton (2004), the measure of the value created by intangible assets embedded in the strategy pursued by the organization. One of the outcomes of this study is an explanation of the experiences of this social capital on contract performance and success. Positive social change resulting from the exploration of this facet of social capital and its implications for the acquisition workforce significantly facilitate superior performance and organizational capital.

The enactment of the Government Performance and Results Act (GPRA) of 1993 established the need for fiscal transparency. One of the stated purposes of the GPRA was

to “improve the confidence of the American people in the capability of the Federal Government, by systematically holding Federal agencies accountable for achieving program results.” Information in a report by the General Accountability Office on the acquisition workforce (GAO-13-231) indicates the lack of existing comparable cost data and limited insights on the benefits of training investments to the program or organizational results. Efforts to fulfill the stated purposes of GPRA appear hampered by this lack of insight on the effect of acquisition workforce training on the performance outcomes.

The need for efficient and effective management emphasized on the General Accountability Office’s website under best practices and leading practices in acquisition management issue summary (2016) with the recognition that hundreds of billions of dollars of tax dollars are spent in the acquisition of goods and services. One of the four interrelated elements recommended by General Accountability Office (2016) to promote accountability in the acquisition environment and process is to define the roles and responsibilities of all participants in the acquisition process. Allowing contracting officer’s representatives to have a voice about their role and to contribute to an understanding of best practices for using contracting officer’s representatives’ resources can improve contracting officer’s representatives’ identification and commitment to the organization. For the first time, it also gave contracting officer’s representatives an opportunity to provide input on a successful approach to managing Federal contract management resources. Results from this study can create positive social change in the morale of the government acquisition workforce and ultimately can improve the financial transparency of the management of government resources.

Summary and Transition

This chapter contains an overview of the study on the possible experiences of the dynamic capabilities approach and resource-based theory on contract management when used by the government's contracting officer's representative. It includes the identification of the quality management problem in the Federal Government's contracting officer's representative contract management resources. The findings from the General Accountability Office (2015) study indicate that this has been a high-risk area throughout the Federal Government for the past few years. Despite the identification of the problem, unanswered questions exist about the efficacy of the single approach to addressing the contract management challenges. I explained in the purpose statement my intent to explore an organizational excellence framework using resource-based strategies to improve the contracting officer's representative member of the acquisition workforce's efficacy in Federal contract management. The overarching question guiding this study follows: How does the management of key organizational resources influence the organization's performance?

Chapter 2 includes the history of Federal procurement as it relates to contract management responsibility and how it has evolved from Congress to the contracting officer's representative. Information in the chapter describes the stages of the contracting officer's representative's evolution, along with his or her identified resource issues such as time commitment, organizational support, and competencies. Throughout each of these evolutionary stages, a consistent assumption exists that contract administration and management is important to ensuring that the government is benefitting from the contracting officer's representative's resources. The basis of this study was to explore the

potential of a resource-based management organizational framework to enhance the management of the contracting officer's representative's resources.

Chapter 2: Literature Review

This chapter includes a review of the literature about the contracting officer's representative and components of the conceptual contract management framework that I used for the study. The first includes an in-depth explanation of the past contract management efforts in the Federal Government. Efforts to date have focused on improving the contract management competencies of the acquisition workforce, including the contracting officer's representative (FAI, 2016). Despite these efforts, the historical information reflects a continuing quality problem in contract management that is increasing due to the complexity and large dollar values of the federal acquisitions (GAO, 2016).

The second section includes a literature review of the characteristics of the contract management resources used in the Federal Government. To address the problem, I reviewed the literature using the resource-based theoretical lens to determine the existence and level of strategically important contract management resources used by contracting officer's representatives and to assess their organizational advantage and value.

The third section includes a literature review of the components of a conceptual framework, including the structure of the organization and outcome success factors. In a literature review on the resource-based view, Szymaniec-Mlick (2014) focused on understanding the organizational structure and resources to address management challenges. In this literature review, I examined the contract management resources used by contracting officer's representatives and their potential efficacy in a dynamic resource-based theoretical framework.

Literature Search Strategy

My initial research efforts concentrated on the history of federal contract management. I examined congressional records to determine the intent of Congress regarding the management of contract resources. My literature searches on congressional intent at the Library of Congress resulted in historical and seminal documents over 10 years old. The seminal work of Nagle (1999) included a significant portion of federal contract management history. A sample of historical artifacts gathered from the Library of Congress search included legislative actions such as the Armed Services Procurement Act of 1947 (ASPA) and the Federal Property and Administrative Services Act of 1949 (FPASA). I searched for other legislative actions, such as the Competition in Contracting Act (Public Law 98-369), Public Law 93-400 establishing the Office of Federal Procurement Policy (OFPP; August 1974), and the Services Acquisition Reform Act (SARA) of 2003 (Public Law 108-136). Special commission and policy documents that I researched included the Hoover Commission report (1955), the Packard Commission Report (1986), and the Policy Letter 05-01 Developing and Managing the Acquisition Workforce (April 2005).

My literature review included a search of several online databases, including a database of federal regulations and the association for contract management. Table 2 includes a list of the databases searched and the key search terms. I did not track the number of documents searched.

Table 2

Literature Search Databases

Categories of types of literature searched	Databases searched	**Key words** searched	Number of documented search results
Competency-based theory			
Peer-reviewed journal	Academic Search Complete	Competency-based; performance management; success factors	2,400
Contracting officer's representative			
Government document	Federal acquisition regulations	Contracting officer's representative	
Peer-reviewed journal	National Contract Management Association (NCMA)	Contracting officer's representative; contracting officer's technical representative; contract management; acquisition workforce certification; performance management, success factors	
Government document	General Services Administration, FAI	Contracting officer's representative; contracting officer's technical representative; contract management; acquisition workforce certification	
Government document	DAU, Acquisition Community Connection	Contracting officer's representative; contracting officer's technical representative; contract management; acquisition workforce certification	
Dynamic Capabilities			
Peer-reviewed journal	Academic Search Complete	Dynamic capabilities	
Perceived organizational support			
Peer-reviewed journal	Academic Search Complete	Perceived organizational support	86
Resource-based theory			
Peer-reviewed journal	Academic Search Complete	Resource-based, strategic management	51
Peer-reviewed journal	Google Scholar	Resource-based, resource-based theory	23,400
Peer-reviewed journal	ProQuest Central	Resource-based, resource-based theory	757
Success factors			
Peer-reviewed journal	ProQuest Central	Success factors	16,069
Peer-reviewed journal	Google Scholar	Success factors, contract completeness	17,500
Quality Management			
Peer-reviewed journal	Academic Search Complete	Quality management, operational excellence	

I examined the federal acquisition regulations using search terms such as *contracting officer's representative, contract management,* and *acquisition workforce certification*. A search of the National Contract Management Association's archives yielded a historical article in their *Contract Management* publication on "The Foundations of Government Contracting" (Keeney, 2007). Even though some of these documents are over 5 years old, the history of government contracting and the regulations promulgated by Congress is significant to understanding the context of the acquisition workforce's contract management activities. The historical search yielded a major study by the U.S. Merit Systems Protection Board (MSPB; McPhie, 2005) that offered insight on initial efforts to manage the contracting officer's representative's resource. The MSPB study is frequently referred to throughout the literature review on the subject of contract management.

I accessed several Federal Government online databases to ensure a comprehensive review of the available information on the study's subject areas from the federal perspective. My review included a search of the Defense Acquisition University Acquisition Community Connection, an online knowledge management resource, to acquire the DoD references such as memoranda, directives, and other artifacts regarding the certification standards and information about contracting officer's representative in the DoD. I accessed the Federal Acquisition Institute (FAI) website to obtain the current contracting officer's representative certification standards and other artifacts about the contracting officer's representative in civilian agencies. In addition to the historical search of the National Contract Management Association's records, I searched their resources for articles, books, and any related acquisition workforce and contract

management information in the field. Their journal and magazine publications are accessible to members. Search terms included *contracting officer's representative, contract management, performance management, competency-based, certifications,* and *success factors.*

I searched in the Walden University library for peer-reviewed articles and information about the concepts explored in the study. Search terms included *contracting officer's representative, project success, project management, performance management, project success measurement, strategic management, critical success factors, resource-based theory, resource-based view, competency-based management, competencies, contract management, dynamic capabilities, operational excellence, perceived organizational support, and quality management*. I accessed the following databases: Academic Search Complete, ProQuest, Google Scholar, Thoreau Multi-database, ABI/INFORM Complete, PsycINFO, ScienceDirect, and Sage. The literature included that is more than 5 years old predominantly pertains to historical and seminal works about certification standards, dynamic capabilities, resource-based theory, and the history of government contracting.

Conceptual Framework

The concepts that guided my research on the management of the COR's contract management resources were the dynamic capabilities approach, resource-based theory, competency-based management, and organizational support theory. Combining the resulting analytic framework with social exchange theory yielded a theoretically driven explanatory effects matrix. This matrix was useful in a causal analysis of the resource-

based theory on contract management resources used by CORs. Table 3 includes key theoretical concepts.

Table 3

Key Theoretical Concepts

Key theoretical concepts	Principal contributor(s)	Theoretical origin	Key insight(s)
Dynamic capabilities	Teece, Pisano & Shuen (1997)	Dynamic capabilities	Strategic management approach to enable business enterprises to create, deploy and protect their intangible assets for long-term performance.
Effective and efficient application of all useful resources that the company can gather assists it in optimal performance	Madhok et al., 2010	Resource-based theory	Strategic management theory on the essence of resources on competitive advantage
Effects of organizational resources on public agency performance	Lee & Whitford, 2012	Resource-based theory	Strategic management theory on the essence of resources on competitive advantage in public management
Interior structure of the organization, resources, and capabilities to meet emerging challenges	Szymaniec-Mlicka, 2014	Resource-based theory	Strategic management of public organizations
Core competencies as a stepping stone to future success	Ljungquist, 2013	Core competence management model	Focus on organizational details to understand core competency applications
Behavioral response to perceived organizational support	Kurtessis et al., 2015	perceived organizational support	Relationship between perceived organizational support and results

The conceptual framework that grounds this study had three areas that constitute the interaction of the COR's contract management resources in the federal sector (see Figure 1). The COR is the link between the contracting office and the project/program management office. Both the delegation by the contracting officer and the nomination by the COR's supervisor contribute to the COR's resources or inputs on the activities. The case study descriptions of CORs include the context in which CORs function, such as contracting officer's delegation and the COR's alignment with the contracting officer and project/program management office. I addressed this segment of the framework in the research question on the nature of the expectations that affect the COR's actions. I explored in the research question how the COR's contract management resources influence contract outcomes the three resources that serve as inputs for the COR, namely organizational support, time, and competencies.

Another area influencing CORs' resources and their activities encompasses the environmental factors, risks, and processes unique to each contract. Activities include processes such as communication and knowledge in technical or business areas.
I investigated this area in the response to the research question on perceptions and measurement of CORs' activities. The third area of focus was the CORs' output, including the experiences of the contractors' resources on the contract outcomes. The basis of the focus in this area of research is the response to the research question regarding the CORs' contract management activity reporting. I used the conceptual framework presented in Chapter 1 to explore the characteristics of the three COR inputs (resources), CORs' activities, and the structure of the organization that can lead to successful contract outcomes from the resource-based theory perspective.

Literature Review

My literature review began with the legislative history of congressional attempts at federal contract management. Congress initially tried to maintain the responsibility for contract management, including awarding contracts and monitoring performance (Nagle, 1999). From the historical literature researched in this study, it appears that Congressional efforts resulted in vendors and citizens avoiding doing business with their government even during wartime. Through some growth stages, the Federal procurement system evolved (Keeney, 2007). This evolution resulted in legislation and regulations assigning contract management responsibilities to contracting officers who can delegate a portion of their contract management responsibilities to the contracting officer's representative (Nagle, 1999).

History of Federal Government Contract Management

Nagle, author of the 1999 seminal book on the history of government contracting tells the history of Federal Government contract management intertwining it with the growth and development of the United States of America. Nagle (1999) explained that starting with the Continental Congress, policies to centralize contracting went through various phases and growth dilemmas. Initially, the Office of Quartermaster General was responsible for purchases. Congress appointed purchasing officers with the authority to buy, sell, insure, ship, and incur debt in their client's name; however, the Federal Government did not have an organized procurement system, and the lack of an effective supply system created a shortage of supplies to the Continental Army (Nagle, 1999).

According to Keeney (2007), Congress passed the Act of February 6, 1781, to organize the government and establish three executive departments: Treasury, Marine,

and War. Nagle (1999) explained that financial matters, including purchasing, were the responsibility of the Treasury Department. During this period, the superintendent of finance overhauled the contract system. Congress passed the oldest procurement regulation in 1808. It was the Officials Not to Benefit statute that prohibited members of Congress from profiting from government contracts. Before this statute, Congress authorized contracts to support war efforts. The purpose of oversight seemingly focused on the efficient and effective management of resources (Nagle, 1999).

According to Nagle (1999) many of the initial procurement laws designated contracting authority but failed to give clear direction on roles and responsibilities for contract management. The delegation of contracting authority to the Treasury Department was an effort to address the procurement problems. Also, the Treasury Department was responsible for initiatives to develop domestic sources for defense weaponry. In the history of government contracting, Nagle (1999) portrays a procurement system fraught with problems, such as fraud and bad management practices. During the War of 1812, the United States had to buy a portion of its supplies from foreign sources because many suppliers did not want to do business with the U.S. government (Keeney, 2007). Through the years leading up to the Civil War, changes were happening in the contracting process, and it became more structured and formal because of the 1857 General Regulations of the Army. An example of the structure imposed was the detailed recordkeeping and formal advertising required for all procurements (Nagle, 1999).

In 1861, the Civil Sundries Appropriations Act solidified the procurement regulations. According to Nagle (1999), the Dockery Commission of 1893, composed of U.S. Senate and House members, began to examine government purchasing. This

scrutiny was the first attempt at developing a process for contract management in the Federal Government. It resulted in a revised statute requiring one bid opening day for all agencies. The Dockery Commission identified a critical need to centralize the procurement process (Nagle, 1999).

Because of the Dockery Commission recommendations, Congress created a three-member Board of Awards to compare and examine submitted proposals and make award recommendations to respective agencies. The view of the Board of Awards' recommendations as advice resulted in the exemption of the War and Navy Departments from this required procedure. Thus, some of the Federal Government did not follow the Board of Awards' contract management procedures. According to Nagle (1999), President Harrison and then President Roosevelt issued several executive orders regarding procurement matters. This lack of a consistent Federal Government contract management process persisted for several years (Nagle, 1999).

According to Nagle (1999), President Theodore Roosevelt appointed the Keep Commission in 1905, to study the purchasing problem. The Keep Commission recommended the establishment of the General Supply Committee, the predecessor of the current General Services Administration. This new committee, along with the Treasury secretary, developed standardized procedures and purchases. The Keep Commission and the Treasury Department promulgated standard forms, as well as standard contracts and standard bonds, thereby restricting the discretion of individual contracting officers. The Treasury Department issued a policy circular in 1915 that specified contract administrative procedures for default. Other policy circulars issued during this period dealt with contract management topics such as inspection before acceptance and

payment. These changes appeared to resolve some of the contract management issues but did not identify the person responsible for contract management within the agencies (Nagle, 1999).

Nagle (1999) described the continued efforts to address procurement issues that resulted in legislative and regulatory actions. In 1942, the Army replaced the Army Regulations and Procurement Circulars with a series of War Department Procurement Regulations. Following the passage of the Armed Services Procurement Act of 1947 (ASPA), regulations were promulgated to implement the ASPA. This legislation allowed defense agencies to acquire all property (except land), construction, and services. The ASPA also allowed the delegation of procurement responsibilities within the DoD. Section 10 of the ASPA stated that each agency head might assign or delegate procurement responsibilities to civilian employees of the agency, either jointly or in combination with other offices. Finally, the legislation delegated the responsibility for the procurement of supplies and services at the contracting officer level. In 1978, the name of the ASPA regulations changed to the Defense Acquisition Regulation. These changes were only applicable for the DoD, leaving contract management authority unclear for other executive departments and agencies of the Federal Government (Nagle, 1999).

According to Nagle (1999), the later legislation included the delegation of contract management authority for other executive Federal departments. In 1949, Congress enacted the Federal Property and Administrative Services Act (FPASA) to provide contracting authority to government agencies other than the DoD. The FPASA allowed the delegation of procurement authority within the civilian agencies. It allowed in Section 302 of the FPASA the administrator to delegate purchasing and contracting

authority for the acquisition of supplies or services to the head of an agency provided they notify the General Accounting Office. The National Aeronautics and Space Administration (NASA) established NASA regulation to implement FPASA, and the General Services Administration established the Federal Procurement Regulation for all other agencies under FPASA. The promulgation of regulations has been the primary method to control procurement in the executive branch of government. These legislative and regulatory changes finally resolved the issues regarding contract management authority by allowing the designation of authority at the contracting officer level (Nagle, 1999).

Even with the establishment of contract management authority, problems persisted in Federal acquisitions. According to Layton (2007), Congress commissioned studies to concentrate on acquisition as an integrated process with other disciplines of procurement. Based on the reports of several commissions, such as the Hoover Commission (1955) and the Commission on Government Procurement (1969), procurement personnel became an area of focus to resolve acquisition problems. Acquisition workforce improvement efforts began in DoD in 1952 with a directive addressing acquisition personnel training requirements. In 1966, an issued manual provided a description of the skills and knowledge requirements or demonstrated competencies for civilian contracting personnel (Layton, 2007). These reports and other actions were the beginning of a concerted effort on improving the efficacy of contract management resources, such as the acquisition workforce.

Consolidating the regulations and policies of executive department and agencies' procurement actions became a critical step in improving contract management. In 1974,

the Office of Federal Procurement Policy in the Office of Management and Budget established Congressional action in Public Law 93-400. This congressional action assigned the Office of Federal Procurement Policy responsibility for improving the quality, efficiency, economy, and performance of government procurement organizations and personnel. In 1980, the Office of Federal Procurement Policy established the Federal Acquisition Regulation system that became effective in 1984. The NASA regulation and Federal Procurement Regulation replaced the Federal Acquisition Regulation and agency supplements. According to the Federal Acquisition Regulation contracting authority and responsibilities rests with agency heads. It includes authorization for the delegation of that authority to contracting officers. The Federal Acquisition Regulation also includes the assignment of specific responsibility for "ensuring compliance with the terms of the contract, and safeguarding the interests of the United States in its contractual relationships" (Federal Acquisition Regulation, 48 CFR 1, 1.602-2, 2015) to the contracting officer. Finally, the legislative branch established by law the role and responsibility of personnel assigned to provide contract management. Other regulatory action in Title 41 of the Code of Regulations, Public Contracts, Property Management, subpart 3-75.1 Procurement Authority allowed the re-delegation of the agency head's procurement authority. It indicates that the heads of procuring activities could re-delegate their authority and that the personnel delegated procurement responsibilities would have to possess "a level of experience, training, and ability commensurate with the complexity and magnitude of procurement actions involved" (Procurement Authority, 48 CFR 1, 2015). Ensuring that acquisition personnel were adequately prepared to handle the workload became an issue.

Preparing the authorized personnel to provide effective contract management was the next step in improving contract management. According to Nagle (1999), the persisting procurement system problems continued to focus on government purchasing officials. Areas needing revision included improving the ability of purchasing officials to choose suppliers and the need to give purchasing officials greater tools to identify and prosecute contractor misconduct. In addition, the DoD suffered from several procurement mistakes by buying products with huge mark-ups. Congress responded by enacting legislation recommended by the 1970 Commission on Government Contracting. The Competition in Contracting Act (CICA) of 1984 required "full and open competition" to ensure all responsible sources could submit an offer. Congressional action in CICA established the role of the competition advocate and a protest process. Even with the enactment of CICA, procurement problems continued. Under the leadership of David Packard, the Packard Commission issued a report in 1986 severely criticizing the training and experience of the acquisition workforce (Nagle 1999).

In 1991, Congress passed Public Law 101-510, Title 10 U.S.C., the Defense Acquisition Workforce Improvement Act (DAWIA). It was an effort to improve the defense acquisition personnel's performance in managing and implementing defense acquisition programs. The DAWIA congressional action required each military department to establish an acquisition corp. Only civilians at the GS-13 grade level or above and military at the major or lieutenant commander rank or above become acquisition corps members. These new requirements created a shift in the proportion of civilians serving in critical acquisition positions. Overall, the benefit of DAWIA was the elevation of training and professional standards for both military and civilian acquisition

personnel. The DAWIA certification is still in use today, providing a level of professionalism to the contract management field in its ongoing improvement efforts.

Historians revealed that more actions were taken to ensure that the necessary structure was in place for Federal contract management. In 1994, Congress passed Public Law 103-355, legislation that reaffirmed the assignment and delegation of procurement functions and responsibilities. According to this legislation, “the head of any agency may delegate functions and assign responsibilities relating to procurement to any officer or employee within such agency.” Congress in the Federal Acquisition Streamlining Act (FASA) attempted to simplify Federal acquisitions. This attempt by Congress to address procurement problems in the Federal Government advanced in 1996 with the enactment of Public Law 104-106, called the Information Technology Management Reform Act of 1996 and also known as the Clinger-Cohen Act. It was another effort to simplify the acquisition process. The major emphasis in the Clinger-Cohen Act was the repeal of the General Services Administration’s central authority for IT acquisition. Bringing the responsibility for contract administration and management to the lowest level within the agency appeared to be the trend of these legislative actions.

Acquisition personnel in executive departments and agencies other than the DoD were not subject to the DAWIA requirements because the legislation regarding DAWIA certification focused on personnel within the DoD. In 2003, Congress enacted Public Law 108-136, the Services Acquisition Reform Act to create similar professional training requirements in other executive departments and agencies. The Services Acquisition Reform Act included a focus on the acquisition workforce and training, establishing an acquisition workforce-training fund and an acquisition recruitment program. Before the

Services Acquisition Reform Act, the statutes focused on the establishment of a comprehensive procurement system. The congressional enactment of the Services Acquisition Reform Act began an emphasis on the qualifications, training, and experience of the acquisition workforce in the executive branches of the Federal Government other than the DoD. Thus, the trend to improve the acquisition workforce's capabilities to manage contracts was under way.

Starting with Congress, attempting to manage the acquisition process themselves through the delegation of the responsibility to the contracting officer within agencies, efforts existed to manage the acquisition process effectively throughout the history of contract management. The trend after establishing the role and responsibilities of acquisition personnel was toward making sure their capabilities were standardized. Then the nature of Federal acquisitions changed. Following the enactment of the Services Acquisition Reform Act, the level of spending on services in the acquisition environment increased noticeably, procurement actions were for higher dollar amounts, and the number of personnel in the acquisition workforce decreased. This increase in spending on services, as well as the turnover in acquisition workforce personnel, created another dilemma in contract administration and management.

While the resolution of the dilemma regarding the role and responsibility for contract management was in effect along with the DAWIA and other acquisition workforce certification standards, the organizations handling Federal contract management were undergoing changes. To address the dynamic nature of the Federal acquisition system, the approaches used to seek effective contract management must also consider the environment and management of the contract management resources along

with the acquisition workforce. This review continues my exploration of the components of the current approach to solving the persistent issues in contract management, including the management of the contracting officer's representative's resources such as competencies, commitment, and organizational support. The review includes perspectives on elements of a proposed framework for contracting officer's representative resource management. Findings from the review also explain how resource-based theory may be a viable strategic management approach in public organizations like the Federal Government.

Contract Management in the Federal Government

Relevant to this current study is an understanding of the characteristics of contract management in the Federal Government. In addition to the historical information on previous contract management in the Federal Government, the literature includes information describing current Federal contract management. The definition of contract management is the series of activities performed to ensure the work done under contract achieves expected results. The contract management series begins with acquisition planning (pre-award phase), continues through source selection (competition and award phase), then through contract administration, and ends with contract close-out (post-award phase). According to Kahler (2013), no standard procedures in contract management exists even though it has some common elements such as the contract life cycle. Figure 2 displays the key contract phases and selected activities as interpreted by the General Accountability Office (2014).

Figure 2. Key contract phases and selected activities, federal acquisition regulation. From *Ineffective Planning and Oversight Practices Underscore the Need for Improved Contract Management* (GAO-14-694), by U.S. Government Accounting Office, 2014, retrieved from "http://www.gao.gov/assets/670/665179.pdf". Reprinted with permission in Appendix H.

Several reasons for the increasing need for contract management even with its persistent problems exist. One reason for the rising need for contract management is the increasing number of contractual transactions. According to USASpending.gov (2015), 866 transactions occurred in the fiscal year 2013 and 1,220 transactions in the fiscal year 2015. A transaction includes any amendment or modification to a Federal contract grant, loan, or cooperative agreement award. Contracts requiring lengthy terms and conditions is another reason for the need for contract management. Specialty technical subject matter areas requiring unique contract terms also contribute to the rising need for contract management. International transactions drive the increased complexity of contracts, resulting in a need for contract management. Increasingly, these needs have prompted the creation of contract management systems.

New legal, statutory, and regulatory requirements are the basis of efforts to standardize contract management into a contract management system. An example is a legal requirement in the Sarbanes-Oxley Act of 2002 whereby contracting parties must ensure their integrity by precluding conflicts of interest in the transaction. A contract management system facilitates compliance with this requirement. A prohibition exists

against discriminatory practices in the contracting process, and an effective contract management system would maintain adherence to this requirement. Monitoring performance by the parties is a part of the contract management system. Each contractual party assigns responsibility within its respective contract management system to investigate and develop the burden of proof when contract performance is lacking or faulty.

Another example of the need for effective contract management was the launch of the Healthcare.gov website. In 2014, the General Accountability Office investigated the Centers for Medicare and Medicaid Services' (CMS') contract management of the contract to develop the federal facilitated marketplace, which is accessible through Healthcare.gov. Many users had major problems accessing the Healthcare.gov website because of issues with its launch. The General Accountability Office determined that unless CMS improves its contract management, major performance issues will persist and significant risks will remain. One of the problems the General Accountability Office cited was the lack of knowledge by the CMS program and contracting staff, thus the need for knowledgeable contract management professionals within the contract management system.

The emphasis on acquisition personnel's contract management capabilities continues to the present day. Evidence of the growing need for acquisition personnel with general and specialized subject area expertise is beginning to show. According to Garrett and Nelson (2015), Step 1 in creating a world-class contracting organization is developing contract management talent. Hiring, training, mentoring, and rewarding personnel will result in increased profits for the organization. The importance of having

qualified contract management personnel is an important consideration to achieve successful contract outcomes. One effort to achieve world-class contracting organization status is National Contract Management Association's institution of a contract management body of knowledge (CMBOK) to confirm the framework of competencies, standards, and expertise needed for contracting professionals. National Contract Management Association's contract management body of knowledge appears to promote the knowledge foundation linking theory and practice in the contract management field (Falcone & Wangemann, 2015). The contract management body of knowledge has five knowledge competencies: pre-award, acquisition planning and strategy, post-award, specialized knowledge area, and business (Couture & Schooner, 2013). These competencies are basic to the competency certification requirements for Federal Government acquisition workforce. The contract management body of knowledge includes contracting officer's representatives' competencies as a part of the broad area of contract management.

Acquisition Workforce

The United States Senate Committee on Armed Services in Senate Report No. 114-49 (2015) on the national defense authorization act for fiscal year 2016 mentions the repeated failures in the acquisition of major information technology business systems programs in the United States Department of Defense. An example of the failures was the Expeditionary Combat Support System and the Defense Integrated Military Human Resources System, which spent billions of dollars and delivered no useful capability. According to the committee, one of the causes for the failures of these acquisitions is the weakness of the Department of Defense's acquisition workforce in developing and

deploying these systems. The committee believes that the Defense Department does not internally employ or have external access to expertise that can develop and technically manage these programs. Exploring the usefulness of the dynamic capabilities approach in a comprehensive contract management framework may address this dilemma by developing capabilities to support shifts in the organizational environment.

The adoption of a competency-based management approach to develop effective contract management capabilities did not include all of the factors for achieving successful outcomes. One of the missing elements was the lack of a clear determination of the personnel included in the acquisition workforce. Starting in 2002, the General Accountability Office recommended that the Office of Federal Procurement Policy refine the definition of the acquisition workforce to include noncontracting staff. The General Accountability Office consistently found vulnerabilities in the Federal procurement system in the areas of its acquisition workforce capabilities and contract surveillance. As a result, the DoD embarked on a mission to determine the competencies needed to deliver mission-critical capabilities (DoD, Under Secretary of Defense, 2010). A competency-based management model resulted from the civilian agencies' human-capital strategy to continuously define and maintain the required competencies. One of the three focus areas in the adopted competency-based management model was the contracting officer's representative (Denett, 2007).

The General Services Administration's Federal Acquisition Institute undertook efforts to investigate the effect of the competency standards. In 2000, the Federal Acquisition Institute initiated a study in 2000 to identify and validate the general and

technical competencies for the acquisition workforce because several problems were emerging with the acquisition workforce's contract management capability. This Federal Acquisition Institute study supported incorporating the competency approach as being successful in workforce management. It cited empirical evidence of the success of a competency approach for focusing the acquisition workforce and organization on outcomes related to the agency's mission and program management.

Based on the evidence of success, in 2003, the Federal Acquisition Institute published the initial acquisition workforce competencies for contract specialists. The contracting officer's representatives' competencies replicate the Federal Acquisition Institute's success with the contract specialists' competencies. In 2011, the Federal Acquisition Institute promulgated competencies into the FAC-COR. The Federal Acquisition Institute (2011) recognized that the FAC-COR is only a part of strengthening the contracting officer's representative function. Other important parts include the selection of a person to be the contracting officer's representative and ensuring they understand their role, have organizational support for the contracting officer's representative's responsibilities and facilitate their performance in work with the contracting officer. The Federal Acquisition Institute study included an analysis associating the competencies with effective contracting. This study was a precursor to follow-up studies on the acquisition workforce; however, the follow-up studies did not pursue the alignment of the competencies, time, and organizational support with performance management, the outputs, or contract outcomes.

While instituting a contract management knowledge discipline is undeniably beneficial, Borkovich (2011) also projected a need to explore the acquisition workforce's

perceptions to develop an effective contract management culture. Acceptance and deployment of the competency-based model did not take into consideration the social science of divergent roles within the organization's culture. Review of the organization's culture must also include recognition of the uniqueness of the contracting officer's representative's job. According to Phillips (2014), the standardization of the contracting officer's representative's competencies for certification does not address the qualifications contracting officer's representatives' need to perform the work. Contracting officer's representatives perform different roles; their training should be relevant to the work they will be performing as contracting officer's representatives. The one-size-fits-all approach to contracting officer's representative's competency certification does not reflect the uniqueness of the contracting officer's representative's role in the organization.

The Contracting Officer's Representative (COR)

One of the least understood roles in the Federal acquisition workforce is the contracting officer's representative. The role and responsibilities of the contracting officer's representative vary between Federal agencies and offices. According to the 2007 Office of Federal Procurement Policy Memorandum on the Federal Acquisition Certification for Contracting Officer's Technical Representative (FAC-COTR), the contracting officer's representative is responsible for critical acquisition and technical functions. This memorandum also indicates that the contracting officer relies on the contracting officer's technical representative for ensuring that the contract management function meets the mission needs of the organization. Even with these statements, the role

of the contracting officer's technical representative/contracting officer's representative has been unclear through the years.

A DoD panel on Contracting Integrity investigating the vulnerable areas of the defense contracting system identified a weakness in contractor surveillance by contracting officer's representatives (DoD, Under Secretary of Defense, 2010). The panel's subcommittee reviewed the contracting officer's representative training and assignment process, contracting officer's representative accountability, and contracting officer's representative surveillance documentation on sufficient contract surveillance. This panel developed a DoD contracting officer's representative certification standard that identified competencies, experience, and minimum training for contracting officer's representatives. The DoD panel also introduced the contracting officer's representative tier structure dependent on the complexity of the contract assignment. This panel's findings resulted in a recommendation to revise the Federal Acquisition Regulation. Before the enactment of the Services Acquisition Reform Act in 2003, contracting officer's representative was defined only at the agency level. Before the Services Acquisition Reform Act, the Federal Acquisition Regulation did not include a reference to the contracting officer's representative or the contracting officer's technical representative. It includes an expanded definition of acquisition to include contracting officer's representative functions, such as managing and measuring contract performance and providing technical direction. The Under Secretary of Defense for Acquisition, Technology, and Logistics issued the DoD standard for contracting officer's representative certification in March 2015 to implement the recommendations of the DoD Panel on Contracting Integrity set out in the 2008 report to Congress.

The definitions and responsibilities of contracting officer's representatives vary among the Federal Government agencies. Even within some departments, the definition of contracting officer's representatives may differ. In the Federal Emergency Management, an agency in the Department of Homeland Security, the definition of the contracting officer's representative's role is support to the contracting officer in managing the contract. They are responsible for administering the agreement within the confines of the contract, monitoring performance, ensuring that requirements meet the terms of the contract, and maintaining a strong partnership with the contracting officer. These definitions do not address pre-award activities or other functions for contracting officer's representatives as allowed under the Federal Acquisition Regulation.

Efforts to delineate the contracting officer's representative's role and responsibilities were pursued in 2007 when the administrator of the Office of Federal Procurement Policy issued a memorandum (Denett, 2007) on the FAC for contracting officer's technical representatives. Attached to this memorandum was the FAC-COTR, which reflected the structured training program for contracting officer's technical representatives and others, performing contract management activities. This memorandum and accompanying FAC-COTR were critical documents to formally stating the role and responsibilities of contracting officer's representatives. In 2011, the Office of Federal Procurement Policy administrator revised the certification requirements in a memorandum with revisions to the FAC-COR (Gordon, 2011). Information in this revised memorandum replaced the original memorandum issued in November 2007 and established a three-tier certification program for civilian agencies. Information in this Office of Federal Procurement Policy memorandum also changed the title of this

acquisition team member to contracting officer's representative (COR) and noted the establishment of a multi-agency COR FAB as a part of the Office of Federal Procurement Policy's Acquisition Workforce Development Strategic Plan. The mission of the COR FAB is to improve the FAC-COR program and recommend any needed changes to enhance the efficiency of contracting officer's representative workforce management.

Even with FAC-COR guidance documents, the COR's delegated responsibilities vary depending on factors such as contract type and agency-specific policies. Some agencies only appoint CORs for contract awards that exceed $100,000. For other agencies, this dollar threshold may determine whether the COR's role will be predominantly administrative rather than programmatic. Risk level has been an important consideration in selecting the contract type. According to the 2011 FAC-COR certification requirement, risk should be a consideration in COR appointments (see Table 4).

Table 4

COR Appointment Criteria Matrix

Risk Factor	Little or no risk associated with project	Significant or high risk associated with project
Sensitivity or Complexity of What is Being Procured	Oversight confined to basic inspection and acceptance (e.g., COTS or standard supplies)	Highly complex requirements; professional and technical services closely associated with inherently governmental functions; critical functions; continuous oversight or technical direction required (e.g., developmental; new or emerging technologies; poor or no performance history)

(Table continues)

Risk Factor	Little or no risk associated with project	Significant or high risk associated with project
Number and location of performance sites	Non-complex shipping/delivery at a single domestic delivery site	Highly complex shipping/packaging/delivery (e.g., requiring export, staging of shipments, multiple customers with competing requirements, multiple deliverables or sites, foreign performance site(s), span of control)
Impact of Delay	If project is delayed, no serious impact to mission that cannot be easily alleviated	Serious impact on mission; high degree of impact on follow-on or interdependent projects; time is critical due to urgency, weather, or long-lead time items in critical path (e.g., contingency contract)
Visibility	Little or no internal or external interest anticipated	High degree of internal or external interest anticipated (e.g., GAO oversight; congressional engagement; other special interests)
Contract Type/Structure	Firm fixed price contracts with basic provisions	Contracts other than firm fixed price (e.g., letter contract; cost-type contract; contract financing provisions required; hybrid contract; incentives; time and materials contract)
Special Considerations	No rights in data or government property required; No Personally Identifiable Information (PII) or security concerns	High level of oversight required to assure government/contractor rights in data or government property; Significant security concerns relating to contract classification or PII data

The contracting officer's representative's role has been historically unclear for years. Concannon (2014) expressed in the Public Contracting Institute blog the importance of the Federal Acquisition Regulation's clarification of the contracting officer's representative's role in contract enforcement. Before 2013, the position of contracting officer's representative was an internal administrative assignment in each agency. The Federal Acquisition Regulation did not include the contracting officer's

representative job until June 2013 when the final rule published in the Federal Register amended the Federal Acquisition Regulation and clarified the contracting officer's representative's responsibilities as the contracting officer's representative, 48 C.F.R. 1, 1.602-2(d) (2015). The intent of the amendment was to improve contract surveillance. The amendment added clarity to the contracting officer's representative's responsibilities.

The contracting officer's representative's appointment and delegation of authority by the contracting officer vary even though overall guidance for the contracting officer's representative's appointment is in the Federal and agency regulations. For example, the contracting officer's representative's contract administration duties may be simple or complex, encompass much or little time depending on the type of contract, contractor performance, and the nature of the work. Initiation of the contracting officer's representative's assignment starts when the program office needing the contracted goods and services nominates the contracting officer's representative. According to the revisions in the Federal Acquisition Regulation, certification is required for the contracting officer to designate a Federal Government employee as a contracting officer's representative. Palmer (2014) cited assignment shortfalls that affected contingency operations when insufficient numbers of contracting officer's representatives nominated, appointed, and trained to monitor contractor performance existed. A standard for the alignment of contracting officer's representatives to mission and time allocated to perform contract management responsibilities remains unspecified in the literature. The 2011 FAC-COR specified the training and other requirements for contracting officer's representative certification as displayed in Table 5.

Table 5

2011 FAC-COR Certification Levels

FAC-COR levels	Training requirements	Contract responsibilities
Level I Certification	8 hours of training, no experience required	Low-risk contract vehicles, such as supply contracts and orders.
Level II Certification	40 hours of training and one (1) year of previous COR experience required	General project management activities and appropriate training. Contract vehicles of moderate to high complexity, including both supply and service contracts.
Level III Certification	60 hours of training and two (2) years of previous COR experience required on contracts of moderate to high complexity that require significant acquisition investment	The most experienced CORs within an agency assigned to the most complex and mission-critical contracts within the agency. These CORs frequently have to perform significant program management activities. At a minimum, CORs for major investments who, as defined by OMB Circular A-11, shall generally be designated as Level III CORs.

To clearly delineate the distinction in contracting officer's representative's responsibilities for service contracts, in March 2010, the Undersecretary of Defense, Acquisition, Technology, and Logistics for the DoD issued the DoD standards for contracting officer's representative service acquisitions certification of contracting officer's representatives for service acquisitions. The DoD standard defined the minimum competencies, training, and experience for contracting officer's representatives. Contracting officer's representatives' certification standards in DoD align to the complexity of the contract and the level of performance risk. Table 6 includes a summary of the DoD COR certification standards.

Table 6

DoD COR Certification Standard for Service Acquisitions

Certification level	Training requirements	Contract responsibilities
Type A Certification	DAU CLC 106, DAU COR 222, minimum of 1-hour acquisition ethics and additional training mandated by contracting activity; minimum of 6 months agency experience; relevant technical experience as determined by the nominating supervisor; general competencies as determined by the nominating supervisor	Fixed-price requirements without incentives, low-performance risk; generally limited to minimal technical and/or administrative monitoring of the contract.
Type B Certification	DAU COR 222 or equivalent course, minimum of 1-hour acquisition ethics training or agency provided training annually and additional training mandated by the contracting activity; a minimum of 12 months agency experience, relevant technical experience as determined by the nominating supervisor and general competencies	Fixed-price requirements without incentives, other than low-performance risk. Attributes of such requirements might include the nature of the work is more complex; the effort will be performed in multiple regions/remote geographic locations, a contract containing incentive arrangements or cost-sharing provisions, the contract has cost-type, time, and materials/labor-hour type or fixed price level of effort. The COR's duties/responsibilities are of increased complexity.
Type C Certification	DAU COR 222 or equivalent course, minimum of 1-hour acquisition ethics training, additional training mandated by the contracting activity; a minimum of 12 months agency experience, relevant technical experience as determined by the nominating supervisor and general competencies	Unique contract requirements that necessitate a professional license, higher education, or specialized training beyond the type B requirements. COR duties/responsibilities of increased complexity.

The titles used to identify contracting officer's representatives across the Federal Government reflect the continuing dilemma regarding the contracting officer's representative's role and responsibilities. Some titles for contracting officer's representatives include government technical representative, technical representative of the contracting officer, project officer, cognizant technical officer, task order monitor (TOM), and task order contracting officer's representative. In the 2005 the General Accountability Office's study on opportunities to improve surveillance on DOD service contracts, references to contracting officer's representatives included surveillance personnel along with quality assurance personnel (QAP), quality assurance evaluator (QAE), contracting officer's technical representative, and TOM. According to current Federal regulation regarding the contracting officer's representative, 48 C.F.R. 1, 1.602-2(d) (2015), contracting officer's representative is the current title for this member of the acquisition workforce team. The composition and titles for members of the acquisition workforce within each organizational unit are dependent on the organization's management of its resources.

CORs' Authority

From the legislative branch's perspective, the statutes are clear. The contracting officer, as delegated by the head of contracting activity, is responsible for procurement in each of the Federal Government agencies. Congress' enactment of the Services Acquisition Reform Act even established a chief acquisition officer position in each agency to enhance views on the importance of the acquisition function to business management practices. Procurement authority includes providing for full and open competition in the acquisition process. Full and open competition means that all

responsible sources including state and local governments, for-profit and not-for-profit organizations, universities, and individuals, are eligible to compete for a contract. In the initial phase of contract management, each acquisition team member should participate in the pre-award process such as determining and selecting the responsible sources for Federal contracts. The evidence is lacking on the contracting officer's delegation to the contracting officer's representative a responsibility to participate in the pre-award phase of contract management. It appears that contracting officer's representatives need help in this area. According to the *2016 Acquisition Workforce Competency Survey Report* (FAI, 2016), the lowest rated proficiencies were acquisition planning and pre-award communication. Since contracting officer's representatives have different assigned responsibilities, their authority is not clear across the Federal Government.

In the Federal regulation on the contracting officer's representative, 48 C.F.R. 1, 1.602-2(c) (2015), the contracting officer is to request and consider the advice of technical specialists as appropriate to fulfill their contract management responsibilities. According to the imputed knowledge concept in common law, the representative has a duty to inform the contracting officer (principal), and it is the contracting officer's duty to stay informed. This concept is the basis for the statement that the contracting officer's representative is the *eyes and ears* of the contracting officer because his or her knowledge adds to the contracting officer's knowledge. Even with the clear description of contracting officer's representative's authority, no link established between the contracting officer's representative's performance within his or her authority to organizational expectations or successful contract performance existed.

One of the fundamental principles of Federal Government contracting is that legal transactions committed by individuals with apparent authority are not binding on the United States Federal Government. Unlike private agency law where there may be a binding connection between an employer and the actions of an employee, government employees with apparent authority have no authority (Cibinic, Nash, and Yukins (2011)). An example court decision where a government employee was found to have no authority was that of *Jascourt v. United States*, 207 Ct. Cl. 955, *cert. denied*, 423 U.S. 1032 (1975) where the government was not bound by the actions of the Deputy Assistant Secretary of Labor for Labor Relations since this official did not have the authority to enter into a contract (2011). Federal Government contract actions require actual authority to be binding. This actual authority to bind the government rests with the contracting officer as evidenced by their warrant. According to the regulation on the contracting officer's representative, 48 C.F.R. 1, 1.602 (2015), contracting officers have the authority to bind the government only to the extent of the authority delegated to them. The Federal Acquisition Regulation further indicates that the contracting officers can designate and authorize contracting officer's representatives according to their agency procedures. Formally designated contracting officer's representatives rely on their written designation, agency directives, policy letters, and agency Federal Acquisition Regulation supplements for guidance on the limits of their authority. Again, no link existed between the contracting officer's representative's performance within his or her authority or social context and organizational expectations or successful contract performance

Upon examination of the assigned contracting officer's representative duties and tasks, it is not apparent whether the contracting officer's representative is also being

designated with implied authority—a form of actual authority. According to the 1979 Armed Services Board of Contract Appeals decision of Urban Pathfinders, the delegated authority was broad enough to allow the project officer (COR) to order additional work. Giving the contracting officer's representative's authority to provide guidance or instruction about technical matters to contractors opens for discussion the notion of whether the government is liable for the essence of the contracting officer's representative's guidance. The regulation on contracting officer's representative, 48 C.F.R. 1, 1.602-2(d) (2015) indicates specifically that the contracting officer's representative "has no authority to make any commitments or changes that affect price, quality, quantity, delivery, or other terms and conditions of the contract." This regulation, along with the contract clauses, overrides the appearance of implied authority for the contracting officer's representative. According to Cibinic et al. (2011), continuing confusion exists regarding the appointment and authority of representatives responsible for the successful results of the contract.

Prior to recent legislative and regulatory actions, the delegation of procurement authority to the agency head and further delegation within the agency did not consistently specify the personnel responsible for contract administration and management across the Federal Government. FAC-COR and the DoD contracting officer's representative certification standards are to establish consistency and further delineate these responsibilities; however, the certification standards do not indicate if contracting officer's representatives' resources, including contracting officer's representatives' individual capabilities and experience, will have a meaning on the success of the contract/project.

Studies of Federal Contract Management

Historically, the Federal Government's approach to contract management has been plagued with difficulties. The General Accountability Office conducted a study (GAO/GGD-89-109, 1989) to assess the adequacy of the administration of large dollar-value contracts at civilian agencies. The General Accountability Office examined contracts valued at approximately $1.4 billion at several civilian agencies and identified deficiencies in 68% of the contracts assessed. These deficiencies included government impediments to contractor performance and program officers exceeding their contract authority. The deficiencies contributed to cost increases and delays, according to the General Accountability Office. Problems identified by the General Accountability Office with the acquisition workforce's performance in contract management were just beginning.

In 2005, the MSPB assessed the acquisition workforce. Questions raised in the *Workforce Quality and Federal Procurement: An Assessment* report to Congress in 1992 (McPhie, 2005) were on the quality of work in Federal procurement. The capabilities of the workforce and appraisals of other elements that affect performance were two of the factors in this assessment. One of the intents of the MSPB study was to determine if a relationship exists between the potential quality indicators and actual performance. The report included a definition of workforce quality as the tie between employee skills and job requirements. Results of the study were positive from the perspective of the contract specialists and their supervisors. Findings from the study validated an indicator of quality as education level of the workforce. Other quality indicators validated by the study were percentages of awards made and increased training completed by the contracting

personnel. The discoveries from the study were significant with the emphasis on improving contract management by enhancing the acquisition workforce competencies.

Contract management problems and potential solutions continued through the years. In 2003, the DoD inspector general conducted an audit of the service contract awards made between fiscal years 1992 to 2002 and identified many contract administration problems. One of the recommendations was to require contracting officers to designate in writing personnel delegated contract surveillance responsibilities, including their duties and limitations. This recommendation was specific to cost reimbursable and time-and-materials contracts. The Defense Procurement and Acquisition Policy office responded by initiating plans to include this written designation requirement in the Defense Federal Acquisition Regulation Supplement. Another interesting caveat of this audit report was the agency's responses to an earlier inspector general report citing the need to adjust the assigned workload and staffing for contract surveillance personnel to resolve imbalances. The Army's response was that it did not have the resources needed to accomplish contract surveillance for service contracts. The Navy started an initiative to address the problem, and the Air Force declared that it already required contract surveillance at the installation level. Limited resources and organizational factors appeared to have a significant meaning on the fulfillment of the new DFARS requirements.

Problems continued despite the regulatory change initiated to address the imbalanced staffing for contract surveillance. The DoD inspector general's report reiterated the continuing problems in the January 2003 General Accountability Office report, *Major Management Challenges and Program Risks: Department of Defense*.

Adequate oversight of contractors is lacking according to the GAO's report on the DoD's management of service acquisitions. In the follow-up the General Accountability Office report on contract management in 2005, DoD officials identified the factors affecting surveillance of its service contracts. One of the factors was that contract surveillance was not always a top priority for contracting officers and managers. Another factor was the lack of time available for surveillance in a normal workday, with declining personnel resources in functional offices responsible for conducting surveillance. The March 2005 General Accountability Office report highlighted the assertion that contract surveillance was not a priority. DoD officials reported that no performance review or rating of surveillance personnel on their surveillance responsibilities exists because "surveillance is considered a part-time or ancillary activity" (GAO-05-274 Surveillance of DOD Service Contracts). An indication that DoD is attempting to rectify this problem is in the March 2015 *Department of Defense Instruction Number 5000.73*. This DoD instruction requires that adequate resources are available for the performance of contracting officer's representative responsibilities before contract award and that the contracting officer's representative's performance assessment include performance of contracting officer's representative responsibilities.

GAO's (2007) report *Defense Acquisitions: Improved Management and Oversight Needed to Better Control DoD's Acquisition of Services* included findings of the continuing problems in surveillance and holding personnel accountable for performing their surveillance duties. It was interesting to note that Navy officials mentioned contract surveillance as a low priority since it remains a part-time duty with insufficient time to perform surveillance. The flexible nature of commitment and organizational support for

the contracting officer's representative's role in each agency poses questions regarding the measurable meaning on the management of contract performance and outcomes.

Another critical assessment of the acquisition workforce's performance of its contract management function was conducted in 2005 when the MSPB piloted a study on contracting officer's representatives that addressed many of the issues identified in the contracting officer's representative's evolutionary stages. In December 2005, the MSPB presented the report *Contracting Officer Representatives: Managing the Government's Technical Experts to Achieve Positive Contract Outcomes* (McPhie, 2005) to the President and Congress. This report focused on managing the contracting officer's representative to achieve more positive contract outcomes in terms of quality, completeness, timeliness, and cost of deliverables. Findings in the MSPB report identified contracting officer's representatives as highly educated, highly graded, nonsupervisory, professional, and technical personnel. Since the MSPB study in 2005, the demographics of the acquisition workforce, including contracting officer's representatives, have changed. The demographics of contracting officer's representatives identified in the MSPB study do not appear to be representative of contracting officer's representatives across the current three contracting officer's representative competency levels. The MSPB study is the only research found that specifically focused on the management of the contracting officer's representatives in the Federal Government. While the MSPB study is historically significant, it offers limited value to knowledge about the current demographics of contracting officer's representatives and their capabilities.

The MSPB study included a focus on the management of the contracting officer's

representative to achieve positive contract outcomes (McPhie, 2005). Information in the MSPB report related many of the positive contract outcomes to the management of contracting officer's representatives. Several regulatory changes have occurred since the MSPB report, including regulations to enhance the contracting officer's representative function as a member of the acquisition workforce. In 2013, the Federal Acquisition Institute updated the contracting officer's representative competencies and project/program manager competencies. One of the objectives of the competency models was to provide a performance measurement tool for workforce management. According to the *2014 Acquisition Workforce Competency Survey Report* (FAI, 2014), the highest certification rate among the segments of the acquisition workforce population was that of the contracting officer's representatives at 61%. This finding indicates the efficacy in achieving a level of competency that is standard across the Federal Government.

One of the benefits of the MSPB (McPhie, 2005) study was that contracting officer's representatives had an opportunity to express their opinions and provide insight on contract management, their perspectives regarding their own management. Contracting officer's representatives reported better contract outcomes when they were involved in acquisition planning and contract administration. They also reported better outcomes when they felt they had enough time allotted for their contracting work.

Contracting officer's representatives' expressions regarding the timing of their appointment and the time allowed for them to perform their activities are very important to the current study. The two factors examined in the MSPB (McPhie, 2005) study to determine contracting officer's representatives' potential efficacy were (a) the delegation of authority, including training and management, and (b) time allotted for contracting

officer's representatives to perform their contracting duties. An assumption throughout the report was that a correlation exists between the contracting officer's representatives' management and positive contract outcomes. Even though the MSPB study had a focus on managing contracting officer's representatives, its findings were inconclusive about the relationship of factors, such as organizational support, that may affect contracting officer's representatives' value in relation to successful contract performance and outcomes.

While the contracting officer's representative function is assumed to be an essential element in facilitating the outputs of a contract, the alignment of the contracting officer's representative's resources and activities to the outputs, and ultimately the outcomes of the contract, is not evident. None of the studies have aligned contract success factors to the contracting officer's representative's resources, aside from the attempt in the MSPB (McPhie, 2005) study to align contracting officer's representative competencies to management support. The MSPB study was conducted before the establishment of contracting officer's representative certification levels and did not address other contracting officer's representative resources, such as organizational support and time, nor contracting officer's representatives' activities, such as business/technical acumen, project management tools, and communication that may contribute to contract success. These omissions are significant when examining contracting officer's representatives' resources and their potential efficacy in contract management.

The time and organizational support for the contracting officer's representative's role represent significant inconsistencies in the studies on Federal contract management.

Historically, contracting officer's representatives have not been participants in the pre-award phase of the acquisition life cycle. No assessment exists yet on the efficacy of recent regulatory requirements to delegate and assign contracting officer's representatives to support the pre-award function. Contract surveillance and contract administration are the processes done after the awarding of the contract and are frequently the duties assigned to the contracting officer's representatives. I explored the link between the contracting officer's representative's actions during pre-award as well as post-award processes to the success of the contract.

Another part of contracting officer's representatives' responses in the MSPB (McPhie, 2005) study dealt with recognition of their time commitment to contract management. Participants in the MSPB study felt that contracts resulted in positive outcomes when agencies rated them on the performance of their contracting officer's representative duties. Little to no current information is available on organizational support for the role of the contracting officer's representative. Working with other members of the acquisition team (e.g., contracting officers, agency managers at all levels, and other personnel) was also perceived by contracting officer's representatives as a factor in achieving better contracting outcomes. No empirical evidence existed confirming this assumption or perception discovered in the historical or current documents.

The COR's Resources

This literature review continues with an examination of the characteristics of the contracting officer's representative's resources. The three resources focused on in the current study are competencies, time commitment, and organizational support. These

resources are consistently in the historical and current literature on contracting officer's representatives and Federal contract management. According to Seshadri (2013), a link exists between the organization's resources and its performance. The dilemma is on the use of standard organizational performance measures to test the resource–performance link and its effect on outcomes. In the Seshadri study, practice over time drove the performance measure of the resource. My literature review focused on determining the level of need for the resource and the resource's attributes needed for effective contract management rather than performance measures. I examined in the current study whether these contracting officer's representative resources are such that agencies can achieve better contract performance and success with the efficient use of resources.

My examination of the contract management resources including competencies, time commitment, and organizational support involved an approach similar to that of Victer (2014). Rather than focus on the resource itself, Victer examined the attributes of the resource. Victer used this approach to assess the relevance of resources to outcomes. Victer identified a critical resource, technological knowledge by organizing panel data sets of antiretroviral drugs using a time series methodology over a decade. The findings support the premise that the management of resources is relevant to the changes needed for successful outcomes. Victer identified the characteristic of the knowledge resource as more relevant to management decision making and execution than the knowledge resource. Victer's perspective on resources is not dissimilar to the three essential characteristics of intangible resources by Molloy, Chadwick, Ployhart, and Golden (2011). The three essential intangible resource characteristics include the lack of deterioration with use, multiple managers can use intangible resources at the same time,

and intangible resources are difficult to exchange since they are distinguishable from their owner (Molloy, et al. 2011). This unique approach to exploring the peculiarities of the relationship between resources and performance was one of the areas viewed in the examination of the contracting officer's representative's resources in the current study.

Resource: Competencies. The first resource considered was that of contract management competencies within the acquisition workforce. An assumption was that improving the Federal Government's contract management capabilities involves enhancing the acquisition workforce's competencies including contracting officer's representatives' competencies. The adoption of a competency-based approach to performance improvements prompts a need for clarity on the meaning of competency. According to Rejas-Muslera, Urquiza, and Cepeda (2012), seminal author Boyatzis (2011) competency includes the characteristics of an individual that have a causal relationship to effective performance. Consistently, the literature includes statements that the contracting officer's representative is a key member of the acquisition workforce. Contracting officer's representatives act as representatives of the contracting officers by assisting and supporting them in managing, monitoring, and administering the technical or programmatic aspects of contracts. The contracting officer's representative is the technical or program expert formally designated as representing the contracting officer for an assigned contract. The characterization of the contracting officer's representative as the expert or key member of the acquisition workforce is noteworthy when examining the role of the contracting officer's representative and the meaning of contracting officer's representatives' competencies on effective performance. Incomplete information

existed on whether this characterization was an accurate description of the contracting officer's representative's role and experiences consistently across the government.

Efforts to pursue a competency-based strategic management approach began with the development of competencies during 2002 and 2003 with the identification of the competencies for the contracting officer job along with training and career development processes. The establishment of competencies for contracting officer's representatives followed the establishment of the contracting officer's competencies. In 2003, the Federal Acquisition Institute in partnership with SRA International conducted a study to identify contracting officer's representative competency recommendations for training and development improvements. Participants identified the top business competencies as oral communication, decision-making, and teamwork. Participants identified the top technical competencies as effective communication of contract requirements, effective performance management, and strategic planning. This combination of contracting officer's representatives' competencies serves as organizational capabilities in the Federal Government. The combination of contracting officer's representatives' competencies is consistent with the literature. Weigelt (2013) determined the need for a combination of capabilities to create positive performance outcomes. Weigelt further shows that managers need to look closely at not just the acquisition of the capabilities but also the use of organizational capabilities. The use of contracting officer's representatives' resources was not clear in the Federal Government.

The Federal Acquisition Institute (2010) examined the use of contracting officer's representatives' capabilities. The Federal Acquisition Institute administered a survey to acquisition personnel in the civilian agencies to assess the level of acquisition expertise.

The survey conducted online on a voluntary basis included contracting officer's technical representatives with responses from approximately 3,174 contracting officer's technical representatives or 46.3% of the overall survey participants. The proficiency levels for contracting officer's technical representatives increased from the previous survey conducted in 2008. Skills proficiency increased in contract financing, unpriced contracts, and pricing arrangements. Contracting officer's technical representatives identified needing additional training in competencies, such as acquisition planning, negotiation, and defining government requirements in commercial/noncommercial terms. One interesting note from the Federal Acquisition Institute's (2012b) *FY2012 Annual Report on the Federal Acquisition Workforce* was that contracting officer's representatives' certification rate of 94% was the highest among the three acquisition workforce populations, including program managers and contracting officers. This finding indicated the effect of an emphasis on getting the acquisition professionals certified in the three FAC program area competencies but did not reflect a link between the competencies and improved performance outcomes.

The Federal Acquisition Institute (2014) conducted a follow-up survey of the acquisition workforce in the Federal Government. The key findings from the *2014 Acquisition Workforce Competency Survey Report* of CORs showed that the demographics of contracting officer's representatives had stabilized since 2010. Of the 12 contracting officer's representative competencies, the proficiency of five competencies increased slightly. An increase in competencies existed in the post-award phase areas of inspection and acceptance, business acumen, and communication skill set. The competencies shown with a decrease in proficiency were in the pre-award phase,

including acquisition planning, market research, and pre-award communication. This survey finding indicates a deterioration of competencies but not from use since the contracting officer's representative's appointments may not occur until after the pre-award phase.

Continuing with the Molloy et al. (2011) approach to characterizing a resource, the contracting officer's representative's competencies are an intangible resource because the competencies may improve with use. Thus, contracting officer's representatives' competencies may meet the first characteristic of an intangible resource. The contracting officer's representatives' competencies are available to multiple managers, the contracting officer, and the program manager. This availability is indicative of the second characteristic of an intangible resource. Contracting officer's representatives' competencies are standards in the various policy documents, thereby making them separable from their owner, the third characteristic of an intangible resource. I validated the contracting officer's representatives' competencies as an intangible resource in the current study.

Project management literature has cited competency-based human resource management as a proven practice in effective performance. According to Kavitha et al. (2010), the organization's performance is dependent on the right mix of competencies. Especially noteworthy is the link of motivation, work environment, and incentives for employees' performance. The value of an organization's intangible assets such as a "motivated and prepared workforce" are aligned to the context of the human resource strategy (Kaplan & Norton, 2004).

In another perspective, Ljungquist (2013) proposed a core competency management model that focuses on the organizational structure and key activities within the organization. Ljungquist looked at core competencies from a different perspective that looks at the integration of the process and coordination of resources into the organization. Previously no identified link existed between the competencies in the FAC-COR and subsequent policy documents to organizational performance or successful contract outcomes. Prior to this study, no direct connection existed between the contracting officer's representative's competencies and organizational performance even though project management skills and relationship management were considered important traits. The Federal Acquisition Institute (2003) validated 14 competencies for the contract specialist; however, they did not provide data validating contracting officer's representatives' competencies. One explanation for this omission may have been the difficulties in the past in identifying contracting officer's representatives in the Federal agencies.

Competency-based strategic management is a method used by organizations to deploy resources in a manner that helps them achieve their goals. One of the objectives of the competency-based management model the DoD adopted in 2008 was to ensure that acquisition workforce members possess and maintain capabilities for mission-critical delivery. The DoD competency-based management model allows the government to align training and development strategies to address any gaps in acquisition workforce competencies. Even the General Accountability Office's inspector general emphasized the importance of improving contracting officer's representatives' competencies to avoid exposing the General Accountability Office to ineffective contract oversight (GAO,

2012). Even with the determination of the types and level of competencies, their alignment to contract success was not in the current or historical artifacts for civilian or DoD agencies.

In civilian agencies, the emphasis on improving contracting officer's representatives' contract management competencies continued despite the lack of evidence of a link between contracting officer's representatives' competencies and effective contract outcomes. Based on a structured questionnaire administered to executives in a public-sector organization in India, Kavitha et al. (2010) established that three factors contributed more to employee competencies: (a) personal values and general management, (b) ability to build commitment, and (c) ability to transmit relevant information. The authors also found a significant relationship between employee competencies and employees' strong desire for achievement. Using similar research findings, in May 2014, the acting Office of Federal Procurement Policy administrator issued a revision to the FAC-C. The revised FAC-C recognized that core competencies were only one facet of strengthening contracting functions. Other facets included selecting the right individuals, providing adequate time and resources for training and development, and building an environment that encourages collaboration and innovation. Even with notation of the repetition in the revised FAC-COR documents, no strategies were proposed to address the factors other than competencies. This study of the factors, such as time commitment and organizational support, investigated the alignment of core competencies to contract performance and success.

The 2011 revisions to the civilian agencies' FAC-COR also noted that the competency requirements are only one means to strengthen the contracting officer's

representative function. The revisions also reflected that other factors to strengthen the contracting officer's representative function should include choosing the right person to be a contracting officer's representative, providing adequate time and resources for the contracting officer's representative, and ensuring collaboration and communication between the contracting officer and the contracting officer's representative. According to Molloy et al. (2011), intangible resources have three essential characteristics. Evidence exists that the contracting officer's representatives' competency resource may possess the three characteristics of intangibles. The first characteristic is that the resource does not deteriorate from use. Contracting officer's representatives' competencies appear to improve with use. The second characteristic is that more than one manager may use resources at the same time. The contracting officer delegates contracting officer's representatives who serve as a link between the contract and program offices and sometimes report to several managers. The third characteristic is the close alignment of the resource to its owner and difficulty in exchanging or separating it for use by others. The competency levels and standards for contracting officer's representatives are consistent regardless of the manager. These essential characteristics create value for the organization by their use when deployed in combination with other resources.

Resource: Time. The second resource I examined was the time contracting officer's representatives participated in or were committed to contract management. Consistent with the Molloy et al. (2011) approach to examine the attributes of the resource, I investigated two facets of the contracting officer's representatives' time committed to contract management. One facet was the contracting officer's

representatives' participation level; the other facet was the time standard needed for effective performance.

Time is a critical resource in Federal contract management. An assumption existed that the time committed by contracting officer's representatives is significant for their effective participation in the acquisition team's contract management activities, especially in the acquisition-planning phase. According to Nielsen and Randall (2012), it helps to ensure effective outcomes when employees participate in the planning and deployment of an intervention. Nielsen and Randall provided evidence linking employee participation in planning and implementing an organizational change to intervention-to-intervention outcomes. Similarly, Valikhani, Hashempoor, and Vastegani (2015) showed that employee participation has a positive effect and influence on organizational performance. The literature did not adequately reflect consistent data about contracting officer's representatives' involvement in the pre-award phase and participation in planning activities across the Federal Government.

Information on contracting officer's representatives' time commitment to contract management was not available. In a General Accountability Office (2013) report on the civilian acquisition workforce's training efforts, agencies reported challenges to identifying contracting officer's representatives and subsequently challenges in finding time for staff with acquisition-related functions, such as contracting officer's representatives to attend training. According to the General Accountability Office's study, many civilian agencies reported challenges to acquisition workforce members participating in training because the performance of the work is a collateral duty. Several agencies support separating the acquisition-related work into a job series to facilitate the

identification and management of the acquisition workforce members such as contracting officer's representatives. Some agencies preferred the use of a registration system for tracking acquisition workforce training and certifications. While these solutions may enhance the identification and management of acquisition workforce members, still no solution addressing the time commitment dilemma of the acquisition workforce, including contracting officer's representatives exists.

To understand the contracting officer's representative's time commitment to contract management, the literature review entailed a focus on a measure of participation. The definition of participation (2016) is having or forming part in some action. Dow, Watson, Greenberg, and Greenberg (2012) investigated three dimensions of participation: (a) situational participation, (b) intrinsic involvement, and (c) influence. Situational participation is the performance of activities, intrinsic involvement is the link between the outcome and its importance to the person performing the action, and influence is the individual's control over the process and outcomes. Dow et al. showed that intrinsic involvement had the greatest meaning on both satisfaction and motivation, leading to the perception of improved performance. An important knowledge gap was the level of intrinsic involvement of contracting officer's representatives on acquisition-related tasks.

In another study on participation. Gallie (2013) made the distinction between various forms of direct participation: individual task discretion (or autonomy), semi-autonomous teamwork, and consultative participation. Gallie found that the individual task discretion form of direct participation consistently had the most effect on job satisfaction and psychological well-being. An effective measure to assess the effect of participation was separating the participation dimensions. No similar measure discovered

assessing the participation level of contracting officer's representatives in contract management existed.

Bhatnagar and Biswas (2010) extended the resource-based view of the firm to include employee engagement and its link to firm performance. Employee engagement is an intangible concept. Bhatnagar and Biswas contended that the development of the intangible capabilities, such as employee engagement, could result in a more competitive firm. These studies are important considerations in confirming the causal relationships between the time commitment, participation or engagement of contracting officer's representatives, and successful contract performance.

According to the Federal regulation, the engagement of the contracting officer's representative should occur in all phases of the contract, pre-award and post-award; however, history indicates that the timing of contracting officer's representative designations is one of the consistent problems in the contracting officer's representative's appointment. The 2003 Federal Acquisition Institute report on competencies for the contracting officer's technical representative job function described the contracting officer's technical representative function as a "linking-pin" between the contractor and government in the procurement process. According to the report, the contracting officer's technical representative's role includes both technical and project management oversight during the contract life cycle. Even though it is possible to assign the contracting officer's representative during the pre-award phase, many are appointed upon contract award or after contract award. Assumedly this is due to the perception that the contracting officer's representative is primarily responsible for monitoring and documenting the contractor's performance. The Federal Acquisition Institute asserted that this delay in the contracting

officer's representative's appointment results in limitations on the contracting officer's representative's function before contract award.

In a 2008 interim rule, the Federal Acquisition Regulation includes a requirement for agencies to designate and authorize in writing a properly trained contracting officer's representative prior to contract award. Additionally, the requirement in the 2008 interim rule mandates the involvement of the program office at the early stages of the acquisition to facilitate proper contract management and oversight. The final rule specifying when to appoint the contracting officer's representative became effective in April 2012. Contracting officer's representatives designated upon contract award are primarily responsible for monitoring and documenting the contractor's performance. The current study explored the experiences of the timing of the contracting officer's representative's appointment on the outcomes.

I explored the standard time requirements for effective contract management in this literature review as one of the characteristics of the time commitment resource. According to Kahler (2013), a push is underway to standardize contract management, including the standardization of contractual processes from initiation through termination. The standardization effort is evident in the creation of procurement administrative lead-time (PALT) in some Federal Government contract offices. One example was the U.S. DoD, Defense Security Cooperation Agency's (2011) fiscal year 2012 PALT timeline specifying the award type and the timeline for processing the action in a set number of days. Some Federal Government contract offices have issued directives and policies on contract action lead-time (CALT) and the total action lead-time (TALT) specifying the time interval standards for contract management from receipt of a request to final

processing of the action. These indicators and standards help to assess and establish quality levels and customer's satisfaction for the contracts office but do not indicate similar standards for the contracting officer's representatives or program offices.

A standard for time commitment by the contracting officer's representative to perform contract management does not appear to exist. Only one study in the literature review appeared to address a standard for enhancing time availability to improve contract performance. In an article by Kamradt, Choi, and McIntosh (2010), the Censeo Consulting Group study described whereby a contracting officer's representative/contracting officer's technical representative resource planning model was developed for use as a tool in allocating contracting officer's representative time resources. Kamradt et al. surveyed approximately 150 contracting officer's representatives for the study with a span of 280 unique contracts for the resource-planning model. A range of hours required for contracting officer's representatives in pre-award and post-award contract phases using 17 spend categories was determined. The contracting officer's representative surveyed to develop this model revealed the need for approximately 33-62 hours per week ideally for post-award activities and 103-166 total hours for the entire pre-award phase. The numbers of hours in this model are ideal, but the model also reflects a spectrum of hours for activities in both the pre-award and post-award phases. One of the key findings was that the contracting officer's representatives in the study felt that more time and more training was needed to accomplish their contracting officer's representative duties fully.

In a comparison study on acquisition management in the Army, Navy, and Air Force, the levels of time resource committed to contractor surveillance of service

contracts were significantly different (Apte, Apte, and Rendon (2010). Apte et al. discovered that contracting officer's representative and the procuring contracting officer share the responsibility for contractor surveillance, but the Army and Air Force use contracting officer's representatives to provide contractor surveillance. This finding represents a significant gap in knowledge on the time commitment for contract management since it is dependent on agency and factors such as contract type. The DoD Instruction 5000.72 (Acquisition, Technology, and Logistics, 2015) addresses the contracting officer's representatives' time commitment by noting that no prohibition from performing contracting officer's representative duties on more than one contract simultaneously exists. It leaves the designation of a contracting officer's representative on more than one contract up to the discretion of the contracting officer.

In this literature review, I conducted an analysis of the characteristics of the time resource using the resource-based theoretical lens. According to the three theoretical considerations purported by Molloy et al. (2011), the first characteristic is that the resource does not deteriorate from use. No consistent application of a standard for contracting officer's representatives' contract management time is apparent, so no determination exists if deterioration or improvement occurs with use. More than one manager may use resources at the same time is the second characteristic. The contracting officer and various other program offices share contracting officer's representatives' time. The third characteristic is the close alignment of the resource to its owner and difficulty in exchanging or separating it for use by others. Contracting officer's representatives assigned to a program office have responsibilities that require interaction with other offices regardless of the manager. These essential characteristics of the time

resource have the potential to create value for the organization by their use when deployed in combination with other resources.

Resource: Organizational support. I explored another contracting officer's representative resource, the organizational support provided to contracting officer's representatives by examining the attributes of the resource, characteristics of contracting officer's representatives' perceptions as well as actual organizational support. In a meta-analytic evaluation of the organizational support theory, Kurtessis et al. (2015) identified the antecedents of perceived organizational support (POS), leadership, human resource practices, employee–organization context, working conditions, and the consequences of perceived organizational support, including employee performance and well-being. The Federal Acquisition Institute (2010, 2012a) explored actual organizational support in their acquisition workforce competency surveys and indicated the level of support offered by supervisors to contracting officer's representatives. Training is an example of the support contracting officer's representatives receives to fulfill their responsibilities.

The respondents to the 2010 Federal Acquisition Institute survey in the area of organizational support felt that their supervisors supported their training requests. In the 2012 Federal Acquisition Institute (2012a) survey, participants responded to a question regarding supervisory support for training; 84.5% agreed that their supervisors approved training requests to maintain certification, but over 50% responded that they did not have a mentor/coach. The mentor/coach area was the lowest organizational support response in the survey. Another low organizational support response was for time allowed to dedicate to completing online training courses. The contracting officer's technical representatives' supervisors responded that they provided adequate feedback on the contracting officer's

technical representatives' performance, but their responses were also low in the area of mentoring/coaching and on-the-job training. The study findings of minimal support for mentoring, coaching, or training offer insight on contracting officer's representatives' perceived organizational support and their supervisors' thoughts about organizational support.

Many of the contracting officer's representatives have been delegated the contracting officer's representative responsibilities as additional duties; the assumption is that not all contracting officer's representatives perceive these added responsibilities as career-enhancing or positive benefits. According to the 2010 Federal Acquisition Institute acquisition workforce survey, approximately 47,959 personnel identified as contracting officer's representative. This workforce count is limited because the civilian agencies have reported difficulties in identifying contracting officer's representatives. The General Accountability Office (2013) report reflected that work performed in some acquisition positions such as contracting officer's representatives are a collateral duty. According to Kurtessis et al. (2015), perceived organizational support fulfills the employees' socioemotional needs, and employees' responses reflect an identification and commitment to the organization. Prior to the current study, no information existed about contracting officer's representatives' perceptions regarding the additional responsibilities discovered.

Despite the apparent attempt to consider other factors than the competencies to improve the acquisition workforce's performance in contract management, little to no evidence existed of other resource commitments such as organizational support. The revised FAC-COR memorandum indicated that other resources, such as building

environments that encourage collaboration and innovation are important factors in strengthening the contracting officer's representative function. The actual number or percentage of contracting officer's representatives that perform their acquisition-related work as "other duties as assigned" is not clear. A need exists for additional information on contracting officer's representatives' time commitment to conduct an investigation of organizational support for contracting officer's representatives.

One form of communication to demonstrate organizational support is the annual performance appraisal. A recent effort to establish a job series and evaluate contracting officer's representatives' work as a part of their performance appraisals was not successful in the civilian agencies. The U.S. DoD (Acquisition, Technology, and Logistics, 2015) recently released Instruction Number 5000.72, which mandates the provision of feedback on contracting officer's representative's performance to contracting officer's representatives' supervisors and the inclusion of contracting officer's representatives' performance in their annual performance appraisal or assessment. Eisenberger & Stinglhamber (2011) defined perceived organizational support as the development of employee beliefs about the extent that organizations care about their contributions and well-being. This belief reflects perceived organizational support.

Arefin, Raquib, and Arif (2015) conducted a study based on social exchange theory, to explore the relationship between high-performance work systems and proactive work behavior. The results of the Arefin, et al. (2015) study from structural equation modeling and hierarchical regression analyses showed a positive relationship between perceived organizational support and proactive workplace behavior. According to organizational support theory, when employees perceive that organizations care about

their well-being or receive benefits from their organizations, they are more likely to exhibit behaviors that affect work-related outcomes. This social exchange process starts when employees feel an obligation to reciprocate positively by helping the organization achieve its goals and objectives. The only evidence of the potential existence of a link between contracting officer's representatives' organizational support and their acquisition-related work and contract outcomes was in the DoD 5000.72 instruction (DoD, Acquisition, Technology, and Logistics, 2015).

Employee engagement is another facet of the contracting officer's representative's organizational support that warrants consideration. According to Alvi et al. (2014), employee engagement is a predictor of outcomes, such as work performance and customer satisfaction. While studying the experiences of perceived organizational support on employee engagement, Alvi et al. hypothesized that employees with high levels of organizational support engage more with their assigned tasks and work toward achieving organizational goals. Without an assessment of contracting officer's representatives' performance as a part of their performance appraisal, measurement of contracting officer's representatives' engagement is not available.

Caesens and Stinglhamber (2014) conducted a study to investigate the relationship between perceived organizational support and work engagement. The study included an online questionnaire administered to 265 employees of two private companies, with the results evaluated by their direct supervisors. The study examined self-efficacy, an individual's beliefs about his or her ability to perform tasks effectively as an underlying mechanism. Caesens and Stinglhamber reported study results indicating that perceived organizational support has a positive relationship to self-efficacy and work

engagement. Organizational support has a motivational role by reinforcing employees' self-efficacy; the employees, in turn, perform their tasks with more enthusiasm and dedication. While efforts to improve contracting officer's representative competencies have increased over the past few years, no evidence has pointed to a measure of the level of employee engagement or organizational support for contracting officer's representatives.

Information from the literature review by Nyberg, Moliterno, Hale and Lepak (2014) describes the relationship between unit level human capital resources such as social capital and unit performance. Employee engagement plays a major role in driving positive organizational outcomes. Mahon, Taylor, and Boyatzis (2014) studied the antecedents of engagement. Job-related factors, such job characteristics, as well as organizational support have a positive influence on engagement. An important aspect is the investigation of the experiences that the contracting officer's representative has on contract performance and success. Contracting officer's representative's engagement may be less than optimal due to the manner of contracting officer's representatives' appointments and nominations. Mahon et al. measured the antecedents of engagement to determine the degree to which employees implemented their preferred selves. The definition of emotional intelligence is the ability to identify, comprehend, and use emotional information to improve and deploy greater individual performance. Mahon et al. did not show a direct association between emotional intelligence and organizational engagement because emotional intelligence is self-centered; however, a link exists between the shared personal vision of emotional intelligence and organizational engagement. Previous studies by the Federal Acquisition Institute (2014) have not

indicated the level of organizational support, other than as some indication of varying degrees of management support provided to the contracting officer's representatives, in performing their responsibilities.

The dynamics of contracting officer's representatives' support may vary depending on the organization. Caesens, Marique, and Stinglhamber (2014) performed a study on the relationship between perceived organizational support and affective commitment. They linked social exchange and social identity perspectives to study the relationship between perceived organizational support and affective commitment, the emotional attachment to, identification with, and involvement in the organization. The contracting officer's representatives' organizational identity alignment falls between administrative support personnel and program/project personnel with this additional responsibility assignment. The dynamics underlying the relationship between perceived organizational support and contracting officer's representatives' affective commitment needs further examination. One of the missing knowledge areas is the dynamics of the relationship between the organizational support provided to contracting officer's representatives assigned to successful contracts and contracting officer's representatives' commitment.

Teams of people working cooperatively toward a common goal conduct acquisitions. Members of the acquisition team work together and are empowered to make decisions within their areas of responsibility. The contracting officer's representative has a unique role as a member of the acquisition team. The contracting officer's representative's role is not precisely defined or consistent across acquisition teams. This part of the contracting officer's representatives' environment provided insight on

contracting officer's representatives' experiences on contract performance and success but was another missing knowledge area. Mathieu, Tannenbaum, Donsbach, and Alliger (2014) reviewed the dynamic and temporal framework of several team composition models. They concluded that the composition of the team with the right people affected the team's efficacy in performance quantity and quality. Dependent on their roles, some team members have a greater influence on team outcomes than do those members in peripheral roles. The dynamics of the acquisition team, including the contracting officer's representative, represented another knowledge gap.

Even though it is a proven conclusion that perceived organizational support has a positive effect on work performance, it may not be applicable at the team level. Jin and Zhong (2014) studied the relationship between perceived organizational support and team innovative performance as mediated by knowledge integration. The researchers conceded that the team's organizational context, the structures, and other external factors help or impede the team's efficacy. The definition of organizational context is the structures and other external factors that help or impede the work of the team. The two aspects of organizational context include micro- and macrocontext. The micro aspects are specific team needs that may change over time; macro aspects remain constant and are consistent among teams. The researchers used previous research to conclude that innovative outcomes occur when the organizational culture includes rewards for innovation and innovative behavior.

Based on his experience as an acquisition consultant for the U.S. Department of Veteran Affairs, Phillips (2014) criticized the use of continuous learning points to improve performance by the contracting officer's representative. Phillips' criticism is a

follow-up to his description of the acquisition team's relationship with the contracting officer's technical representative as dysfunctional, especially in the pre-award phase and sometimes in the post-award, compliance-monitoring phase (Phillips, 2011). This dysfunctional relationship would have obvious consequences on perceived organizational support and thereby organizational commitment, job-related affect, and job involvement. The participants in the Federal Acquisition Institute (2010, 2012a) surveys offered insight on the contracting officer's representative's role, indicating three facets of that role: technical information conduit, contracting and regulatory liaison, and business partnership manager. The study participants concluded that good project outcomes result when all stakeholders work as a team to achieve a common purpose. The participants felt that a solid team relationship, based on mutual respect and focused on the customer, would keep the projects on time. I documented the composition of the acquisition team and the contracting officer's representative's role on the acquisition team that has resulted in contract success in the current contracting officer's representative narrative study.

In a study to assess how hotel employees perceive organizational support, psychological empowerment, organizational citizenship behavior and job performance, Chiang and Hsieh (2012) collected data through the distribution of 513 questionnaires. The research hypotheses included the experiences of perceived organizational support and psychological empowerment on job performance and the mediating effects of organizational citizenship behavior (OCB). This behavior is another perspective under consideration in the current study. The motivational level of employees after adding the contracting officer's representative responsibilities is a concern. Chiang and Hsieh found that employee attitudes, personality traits, perceptions of fairness, leader behavior, and

job characteristics were antecedent concepts of OCB. When employees developed OCB, their efforts reflect increased energies and better job performance. A precedent of their OCB is psychological empowerment. Both perceived organizational support and psychological empowerment have a positive effect on OCB. The level of psychological empowerment and OCB in the contracting officer's representative environment is unknown.

I conducted an analysis of the characteristics of the organizational support resource using the Molloy et al. (2011) approach. The first characteristic is the lack of deterioration of the resource from use. The level of organizational support beyond time for training is not clear; hence, no measure of deterioration is available. Organizational support provided and used by more than one manager at a time is possible, which is the second characteristic. The third characteristic is possible whereby the organizational support resource's alignment to its owner is difficult to exchange or separate for use by others. The contracting officer's representative's organizational support demonstrates an intangible resource.

Contract Management Framework

Continuing with the multidisciplinary construct validation approach presented by Molloy et al. (2011) to examine the characteristic of the resource, I measured and validated the intangible resources within the resource-based theory construct. The fundamental tenet of the resource-based theory is that the use of the firm's tangible and intangible resources help it achieve better organizational performance. The three resources consistently identified in the historical and current literature on contracting officer's representative are competencies, time commitment, and organizational support. I

explored a resource-based theoretical framework on the relationship between contracting officer's representatives' resources and organizational performance as well as contract success using the previous determination of the characteristics of the three contracting officer's representative resources as tangible or intangible.

The overarching strategy under examination for the current study is the resource-based theory. The resource-based theory is a strategic management strategy, whereby the use of the firm's tangible and intangible resources help it achieve better organizational performance. According to Barney et al. (2011), the resource-based theory evolved from the resource-based view introduced by Penrose in 1959. One of the accomplishments from this evolution includes the interlinkage of resource-based theory with other theories. I examined the interlinkages of resource-based theory with competency-based management, and a dynamic capabilities approach in this study.

In resource-based theory, organizations with valuable resources that are difficult to imitate can achieve sustained competitive advantages. These competitive advantages can create an organization that performs better than an organization that does not make proficient use of similar resources. The definition of resources is inputs into the process, such as contracting officer's representatives' resources of competencies, time, and organizational support. These resources require conversion into actions, such as communication and teamwork to be productive. A capability is a capacity for the contracting officer's representative and the acquisition team to take action. Resources are the source of an organization's capabilities, and these are the main components of the organization's competitive advantage. A central theme of the resource-based theory is that the heterogeneous and unique nature of each firm's assets is such that competitors

with a sustainable competitive advantage cannot imitate outcomes. In the resource-based theory, a firm can sustain its competitive advantage when its unique resources are inimitable, nontransferable, and nonsubstitutable. An understanding of the relationship between core resource characteristics and strategic activities can enhance contract management resources.

The Molloy et al. (2011) study using a multidisciplinary assessment process (MAP), included a determination of the how, why, and value of the intangible resource. Step 1 of the MAP involves defining the essential characteristics of the intangibles. Step 2 encompasses embedding the intangible within the resource-based theoretical construct including the context, lifecycle, use, and expectations. Steps 3 and 4 deal with the application of the theory of the intangible by measuring its validity and reliability. Earlier in the current study, I initiated the step 1 of the MAP. The theoretical resource-based contract management framework will commence Step 2 of the MAP. Steps 3 and 4, applying the theory, are in the methodology for the current study.

Another resource-based theory approach is to look at the interior structure of the organization along with its resources and capacity to meet challenges. This approach is prevalent in the management of private organizations. According to Szymaniec-Mlicka (2014), before developing an organizational structure, it is important to diagnose the environment. DoD's initiative to achieve better capabilities by improving technical excellence and promoting innovation is one public agency's strategy for making better use of its resources (DoD, Acquisition, Technology, and Logistics, 2015).

Building on this approach for public organizations, Bryson, Ackermann, and Eden (2007) proposed a structure for processing a livelihood scheme as a precursor to

developing a strategy. In a case study on building governmental efficacy, Bryson et al. created a process for identifying and using distinctive competencies. One of the steps in the process was creating the full livelihood scheme mapping the organization's goal, including its identified critical success factors to distinctive competencies. A strategic plan developed after this mapping based on the livelihood scheme links an action plan for each goal. I considered this approach when mapping the organizational contract management goals to the identified distinctive contracting officer's representative competencies for the current study.

Since organizational frameworks also contribute to performance advantage, I sought further information on an appropriate organizational framework for contracting officer's representatives' activities. Bundling valuable resources with the human resource management system of organizations to create an organizational resource can result in a competitive advantage. According to Sadatsafavi and Walewski (2013), organizational resource bundles are advantageous when they are rare, costly to imitate, and nonsubstitutable. In resource-based theory, the organization's unique resources are the only factors capable of developing lasting performance differences to consider in strategy making.

In addition to the organizational framework, seminal resource-based theorists Barney et al. (2011) purported that the achievement of productive value of the resource is by appropriate management and the technical and intuitive skills of the individual team members as well as the team. Different resource arrangements to achieve public value are dependent on political, economic, and social factors and their fit within the environment. Backman, Verbeke, and Schulz (2015) proposed the development of a resource-based

view conceptual model that analyzes the differing resource combinations that contribute to competitive advantage. The resource-based model that Backman et al. suggested includes a proactive environmental management strategy that acquires and transforms its resources into competencies that will result in better performance.

Sebastian and Davison (2011) developed a conceptual framework to manage organizational behavior, which they described as the root cause of problems in the contract life cycle phase of contract administration. In their study, behaviors and the environment combined explain the typical problems in contract administration. Identifying the root causes of the problems is a key element in the risk mitigation model in project management. In a natural resource-based view study, Alt, Diez-de-Castro, and Llorens-Montes (2015) urged managers to implement proactively environmental strategies recognizing the relationship between the employee's role as the environmental change agent to create performance improvement. Previewing an organizational framework for Federal contract management through the resource-based theoretical lens and risk management framework can enhance the efforts for improvement.

I examined other resource management approaches to determine an appropriate strategy for Federal contract management. Szymaniec-Mlicka (2014) summarized several studies in a literature review on the resource-based view in the strategic management of public organizations. For instance, in the findings in one study knowledge and appropriate management factors positively influence organizational performance. Higher efficiency results from the combination of these resources. When enabled resources, such as leadership, employee loyalty and experience, knowledge sharing, and access to government information, the effects are smoother transitions. When attention is on

management's awareness and understanding of the resource potentials, such as education for employees engaged in their work, better financial results tend to be forthcoming. Even though the Szymaniec-Mlicka literature review included elements of a framework, nothing provided in the review revealed the information needed to develop a cohesive framework for Federal contract management. With further investigation, I revealed an emerging research stream on resource orchestration whereby two related frameworks, comparing resource management and asset orchestration resulted in the integrated framework of resource orchestration.

According to Sirmon, Hitt, Ireland, and Gilbert (2011), in the resource orchestration framework, different strategies at the corporate and business levels require unique capabilities to be effective, and resource orchestration would develop those capabilities. An important factor is the stage of the firm's life cycle affects the actions in resource orchestration. During the firm's life cycle, input from each of the management levels helps in the explanation of the unique resource management or orchestration for different strategies. Even though public organizations were not the focus of the resource orchestration framework, it has important considerations for the current study regarding the management of resources.

One example of the lack of a cohesive framework in the literature review is the consideration of the organizational environment. Lee and Whitford (2012) asserted that unlike private firms striving to achieve a competitive advantage, public organizations compete in the political arena for support and attention. Lee and Whitford showed that certain resources are critical to gaining this support or reputation and may lead to better performance.

In a study to determine a resource-based view of the relationship between reputation and performance, Boyd, Bergh, and Ketchen (2010) portrayed reputation as an intangible resource composed of a combination of internal and external factors. Boyd et al. asserted that reputation leads to market prominence, which may influence performance. The role of reputation in the contracting officer's representative function is an area of concern since many contracting officer's representatives assigned this responsibility have it as another duty beyond their main job. An added responsibility without appropriate consideration and its implications on reputation may be an influence on performance, but this represented a knowledge gap in the literature.

My literature review continued by seeking to examine other approaches to a comprehensive framework for resource management. Madhok et al. (2010) studied insights on resource-based theory and its relation to performance. Madhok et al. looked at the isolating mechanisms that distinguish some managers' decision-making. They introduced the concept of comparative advantage, which describes one firm's ability to produce a product or service at a lower cost than other firms. Significant to capturing rent (i.e., income that exceeds opportunity costs) is the dynamic management of the firm's collection of resources using strategies that improve the growth, development, and earnings of the firm. The definition of rent is income that exceeds opportunity costs. The major point in the Madhok et al. study was an explanation of the differences between firms and why they are unable to imitate one another. Ability-isolating mechanisms (AIM), such as learning and development costs, and willingness-based isolating mechanisms (WIM), such as delays in pursuing opportunities, relate to managers' resource allocation decisions and the sustainability of competitive advantage. The

identification of AIM and WIM were important considerations in the organizational context, especially as related to management support and team leadership.

My investigation of other bases for the environmental factor, risks, and processes portion of the conceptual framework included the link between dynamic managerial capabilities and strategic outcomes. The dynamic managerial capabilities have a meaning on performance outcomes because they drive differences in the way the organization's resources are bundled and deployed (Beck & Wiersema, 2015). According to Favero, Meier, and O'Toole (2012), internal management often neglects the determination of the effects of management on performance. While it would be tough to analyze the performance-related consequences of all internal management factors, some core elements such as credible commitment are a consideration. Consistent with the Favero et al., management support for the contracting officer's representative's role and function should include credible commitment, as well as goals, worker participation in decision-making, and feedback to workers. These internal management practices contribute positively to performance, hence their inclusion in the conceptual framework for the current study.

The dynamic capabilities framework builds on the resource-based approach. The dynamic capabilities framework is integrative, linking three organizational and managerial processes, coordination/integrating, learning, and reconfiguring as core elements. These capability enablers are the mechanisms that influence performance results in the dynamic capabilities framework. Several studies on the experiences of dynamic capabilities conclude that the transformation of the combined operational capabilities and efficient use of resources within operational processes improve

performance results (Masteika & Cepinskis, 2015). The dynamic capabilities framework is an important consideration to ensure the development of competencies and capacities in the current COR environment.

The framework should also include consideration of the organizational context of acquisition workforce team. Contracting officer's representatives are acquisition team members, along with the contracting officer and program/project manager. The acquisition team is responsible for ensuring that the program and contract meet the agency's needs and intended results. Acquisition team compositions differ depending on the size, scope, and complexity of the acquisition, as well as the agency, program, and office policies and determinations. The contracting officers chair some acquisition teams while program managers or subject matter experts lead others. These differences create diversity in performance and results. In resource-based theory, the function of the team structure that produces advantage is social capital, the linkage, and relationships between individuals on a team. This social capital is an intangible resource that can influence overall performance.

According to Gupta, Huang, and Yayla (2011), the team or social capital serve as an important enabler of superior competitive performance. Gupta et al. studied the experiences of collective transformational leadership (CTL) on the relationship between social capital in self-managed teams and performance. Prior research findings indicate found that when teams possess strong interpersonal bonds or high social capital, they function better. Gupta et al. enhanced that finding by adding the CTL concept. They found that the combination of resources, CTL, and social capital resulted in some teams performing better than others do.

In a study of the social network of the contracting officer's representative, Judy (2012) found the key attributes of the contracting officer's representative's social network's effect on contract surveillance include communication within the network, contracting officer's representatives' knowledge and experience, contracting officer's representatives' oversight, and their time commitment to performing acquisition-related responsibilities. Judy's study was limited to three contracting officer's representative social networks, but the findings and recommendations reflect a continuing need to explore the experiences of the social network on the contract performance and success. Ployhart, Van Iddekinge and MacKenzie (2011) further confirmed this concept, whereby the influence of unit-specific human capital on service performance behavior results in unit efficacy. Findings from these studies were the basis of the activities section of the conceptual framework for the current study.

Output, Outcomes, and Impact

The conceptual framework for the current study ends with outcomes. The result sought by public organizations is different from that by other organizations. Whether government agencies expect to produce outcomes is not clear. According to Rainey and Jung (2015), several propositions influence public organizations' goal ambiguity. One of these propositions is the effect of leadership and managerial efficacy in the clarification of the organization's goals and individual roles. Rainey and Jung suggested that regulatory agencies tend to have less goal ambiguity than other agencies, depending on the political authority and other influences on the agencies. This concept makes determining the outcome of a project more difficult since the goal or result sought is not clear. Research into the link between public management, context, and performance leads

to the internal organization's context. According to O'Toole and Meier (2015), the context under which management operates affects the relationship between management and performance. The perceived result of the public organization's performance is different dependent on the political context, environmental context, and internal context. Favoreau (2015) contended that the public manager's emphasis on goals in the organization is also key to effective performance. Understanding the context can augment and clarify the anticipated result of performance.

When assessing performance, agencies appear to concentrate on the inputs, processes, and outputs. The history of procurement in the Federal Government reflects this concentration on other than outcomes. According to the Government Performance and Results Act of 1993, the Federal Government strives to measure outcomes rather than output. The definition of outcomes is the degree to which the intervention has the intended effect on its target population regarding knowledge, behavior, attitude, or solution. This definition of outcomes does not include an explanation of the intervention. According to Bromiley and Rau (2014), usually, the measures cited for the outcomes of resource-based view studies were a return on assets or Tobin's Q. The preferred measure should emphasize performance rather than advantage.

In an empirical study, Patanakul, Iewwongcharoen, and Milosevic (2010) indicated that using project management tools and techniques during certain project life cycle phases impacts performance. Patanakul et al. also noted which project management tools and techniques that contribute to project success measures during the project life cycle phases. Identifying the factors that influence agencies' performance outputs would enhance the understanding of how processes interact to produce outcomes.

My literature review continued with an investigation of the factors linked to outcomes such as time, competencies and organizational support. Mathur, Jugdev, and Fung (2013) used a conceptual model to apply the resource-based theory linking the project management assets to project management performance outcomes. According to Mathur et al., when the characteristics of the project management assets defined as valuable, rare, and inimitable are present along with organizational support (VRIO), a relationship exists between these assets and performance outcomes. In an online survey of 198 study participants, the results indicated a link between project management performance outcomes and the factors that comprise the project management assets and organizational support to these assets. Rare project management resources include knowledge-sharing processes and knowledge-sharing tools and techniques. Inimitable project management assets include proprietary tangible assets and intangible assets that are a part of the organization's routines. Mathur et al. identified the organizational support factors such as project management alignment, communication, and integration. They determined that two factors characterize performance outcomes: (a) the traditional measure of success, such as time, cost, quality, scope, and customer expectations and (b) the traditional measure of competitive advantage, such as sales targets, customer loyalty and satisfaction, profitability, market share, and innovation. The VRIO conceptual model is unique in its linking VRIO characteristics to project and firm performance. The current study is similar in its linkage of contracting officer's representatives' resources or assets to contract performance outcomes.

According to the literature review findings on quality management by Ebrahimi and Sadeghi (2013), quality management has an impact on organizational performance.

Key quality management practices such as human resource management, top management commitment and leadership, process management and customer focus and satisfaction are important contributors to improved performance. Current quality management literature has focuses on operational excellence. The building blocks for achieving operational excellence include providing the organization with help to define their quality standards. The building blocks also include defining the organization's quality standards, using tools to measure the organization is maintaining the desired quality level, identifying quality problems, and expanding the quality standards to manage and mitigate the risk (Snyder, 2015). An exploration of contracting officer's representatives in successful Federal contract management organizations revealed the quality management tools and validated the effect of quality management practices on the contracting officer's representatives' contract management performance.

Throughout the history of Federal contract management and the evolution of the contracting officer's representative as a member of the acquisition workforce, little to no attempts exist to align the contracting officer's representative's resources to contract results or success. This lack of alignment may be due to the lack of a comprehensive framework for measuring success. Serrador and Rodney Turner (2014) surveyed 865 people to gain insight on perceived project success. The findings grouped into three measures of success include (a) efficiency, (b) stakeholder satisfaction, and (c) overall success. The authors found a relationship between efficiency and stakeholder satisfaction, indicating that meeting the project's time, budget, and scope goals relate to stakeholder satisfaction. The study results confirm the assumption of the link between project

efficiency and stakeholder satisfaction and overall project success. It does not include evidence on the other factors that may affect the successful outcomes for a project.

Determining project or contract success is elusive, dependent on the researcher's perspective. Kusljic and Marenjak (2013) addressed this issue in a study on the measurement of project success for public-sector projects. They identified five success criteria: (a) required services definition, (b) usage effectiveness, (c) economical effectiveness, (d) client satisfaction, and (e) end-user satisfaction. These five criteria are similar to those in the seminal study by Pinto and Slevin (1987) that defined successful project implementation. The notable point from the study was that project success involves more than measuring time, funds, and performance output data. Client satisfaction is also critical to the perception of project success. In a study on the stakeholder's perception of project success, Davis (2014) identified common success factor themes among the stakeholder groups as cooperation, collaboration, consultation, and communication. The conceptual framework for the current study includes some of these factors in contracting officer's representatives' activities.

My examination of the factors linking performance to outcomes included an explanation of success factors in performance management outcomes of public organizations. Lee and Whitford (2013) examined the link between the resources and agency effectiveness. They used the resource-based theory to explain how different resources have meaning on organizational performance. The authors used objective measures of organizational effectiveness or performance from the Performance and Accountability Report (PAR), developed under the Government Performance and Results Act. While many studies have linked organizational effectiveness to management,

Lee and Whitford incorporated the resource-based theory to assess the impact of resources on performance. This theoretical approach to investigating the link between the management of resources and outcomes is important to the current study. Haron, Gui, and Lenny (2014) conducted another study that supports this premise. Haron et al. identified the resource linkage of project management, including the quality of the project manager and top management support, to the project's success. Haron et al. concluded that these were critical success factors for projects.

As a follow-up to the Pinto and Slevin (1987) study, other researchers have identified five critical success factors: (a) technical performance, (b) efficiency of execution, (c) customer satisfaction, (d) personal growth, and (e) manufacturability and business performance. Mishra, Danagayach, and Mittal (2011) grouped these factors into six main characteristics or dependent concepts. Then the researchers studied the influence of the independent concepts of project manager and project team against these dependent concepts. The critical success factors that related to the project team members were communication, team commitment, and team members' cooperation. The factors that related to the project leader were effective leadership, situational management, and the ability to manage resources efficiently. This study provided empirical evidence of the relationship between the dependent concept (project success) and independent concepts (project manager and project team).

In a similar study, Joslin and Műller (2015) examined the relationship between project management and project success in different project governance contexts. Joslin and Műller showed that project management methodology, including tools, techniques, process capability profiles, and knowledge areas, are linked to success. Alleman (2014)

purported five immutable principles linking project management practices, such as performance measurement and risk management to project success. Similar validation of the alignment of the contracting officer's representative's and acquisition team's resources and performance was needed to verify their meaning on project success.

The most commonly used project success factors include cost, schedule, technical performance outcomes, and client satisfaction. Lech (2013) developed a framework that included context in the analysis of project success. The two aspects of this evaluation framework include product success and project management success. Lech revealed that the participants considered product success more important than project management success.

Another framework in the Pinto and Slevin (1987) follow-up research by Muller and Jugdev (2012) defined project effectiveness in three clusters: (a) meeting design goals of time, budget, and performance; (b) impact on the customer, and (c) benefits to the organization. Project managers distinguished between success dimensions, including project efficiency, impact on customers, business success, and strategic potential.

The literature regarding project success factors is extensive. Allen, Alleyne, Farmer, McRae, and Turner (2014) offered another perspective that characterizes a project success framework that includes external influences. Allen et al. examined the influence of the project coordinator's role and the program manager's role in the three typical organization structures: function, project, and matrix.

Building on the Standish group report, Neverauskas, Bakinaite, and Meiliene (2013) provided project success factors and a criteria matrix for the project life cycle stages. The continuing trend in the findings from this study and other results of research

has been the inclusion of project success factors such as communication, team member cooperation, effective resource management, and stakeholders' needs satisfaction. Neverauskas et al. provided empirical evidence on the importance of these factors on project success.

Consistent with findings from Neverauskas et al. (2013) is the identification of similar critical success factors in knowledge management among project-based organizations (Akhavan & Zahadi, 2014). Akhavan and Zahadi (2014) used the five major areas of the project management body of knowledge (i.e., initiating, planning, executing, monitoring, and control and closing) in a study. They concluded that knowledge structure and knowledge strategy are needed within an organization-wide culture to achieve goals more efficiently in order to accomplish the project objectives. The findings from these two studies support the elements of the conceptual framework such as communication, project management tools, team support, and technical acumen. I sought further evidence of the alignment of the contracting officer's representative's activities to project success in the current study.

The contractor's resources are an important consideration in the result of performance. Doloi, Iyer, and Sawhney (2011) identified several critical factors that influence project success. According to Doloi et al., the most significant success factor is the contractor's technical ability to plan and control the project. The context of the contractor's technical ability was of particular importance in understanding the outcome of the contract and the experiences of contracting officer's representatives' resources on contract success.

Gap in the Literature

The gap in the literature is the unknown effect of contracting officer's representatives' resource management on organizational performance outcomes. Project management literature includes indications that effective management is one of the factors related to project/contract outcomes. Even though the literature has indicated a relationship between this factor and outcomes, it does not reflect the relationship between other factors, including contracting officer's representatives' competencies, time, and organizational support. The inconsistencies identified in the current study include:

- Inconsistency 1: No studies emerged in the literature review that clarified the role, authority, and responsibilities of contracting officer's representatives in Federal contract management.
- Inconsistency 2: The literature does not include consistent criteria for measuring time committed by contracting officer's representatives on contract management.
- Inconsistency 3: No studies informed the use of a resource-based strategic management framework for managing contracting officer's representatives.
- Inconsistency 4: No current and very limited research involving the interactions of the contracting officer's representatives' resources on organizational performance.

I identified the first inconsistency by reviewing the Federal regulations and policy documents regarding the contracting officer's representative. The definition of a contracting officer's representative in 48 C.F.R. 1, 1.602 also delineated the contracting officer's representative's contract management responsibilities. It was still unclear if the

performance of these responsibilities had an influence on the organization's performance. Procurement regulations now include a requirement for clearly written delineation of responsibility for contract administration and management. According to Cibinic et al. (2011), confusion still exists about the contracting officer's representative's authority. The duties assigned to the contracting officer's representatives are dependent on factors such as contract type, complexity, the time allotted by the nominating officer, and agency policies. Since the contracting officer's representative's duties and responsibilities vary, aligning the contracting officer's representative's functions to the contract outcome is difficult. Further complicating this is when the contracting officer's representative is the same person as the project/program manager. Information in a previous General Accountability Office study (2013) includes the difficulties in identifying contracting officer's representatives. Some project/program management duties or leadership responsibilities, regarding communication, appear to be similar to that of the contracting officer's representative. The assumption was that the contracting officer's representative is performing as an acquisition team member rather than as a leader. Soloway (2014) advised that the Federal Government needs to "more smartly utilize, allocate and strategically think about increasingly precious internal resources." Effective contract management requires clarity in the role, authority, and responsibilities of the contracting officer's representative. This lack of clarity is the basis of the research question about the nature of the expectations that affect the contracting officer's representative's actions, including the rationale for the contracting officer's representative's assignment to the contract management team. The data collected to address this inconsistency resulted in a finding about expectations in the contracting officer's representative's environment.

Finding 1, Understanding the contracting officer's representative's environment clarifies the function of the contracting officer's representative within the organization.

Inconsistency 2 emerged from reviewing the literature on the relationship between employee engagement and participation on organizational performance and comparing it to the engagement time committed by contracting officer's representatives on contract management. Valikhani et al. (2015) confirmed the positive effect and influence of employee participation on organizational performance in a study. Further investigation into the concept of participation resulted in an explanation by Dow et al. (2012) of its dimensions described as situational participation, intrinsic involvement, and influence. Gallie (2013) concluded widespread consensus exists on the importance of employee participation to the quality of work. In the Gallie (2013) study, the form of direct participation called individual task discretion or autonomy has the strongest effect on psychological well-being. Bhatnagar & Biswas (2010) explored the link between employee engagement and firm performance by proposing a conceptual model. The proposed conceptual model based on the resource-based view perspective relates the antecedents and outcomes of employee engagement to the tangible variability of firm performance. This proposed conceptual model and theoretical findings supported the premise of a relationship between employee engagement and participation on organizational performance.

I compared these theoretical findings to the level of contracting officer's representatives' engagement in Federal contract management in finding 2 (Table 30). A study conducted by Kamradt et al. (2010) appeared to be the only research that addressed a standard for the contracting officer's representative's time commitment. Even though

the Kamradt et al. study addressed this area, no level of effort standard existed for contracting officer's representatives to perform their function identified in the literature. The contract type is a major consideration in assigning contracting officer's representatives' resources because other primary job responsibilities may overtake the contracting officer's representatives' function in terms of time commitment. This inconsistency in the level of effort that contracting officer's representatives commit to contract management activities is attributable to the fact that it remains dependent on the agency and specific delegated job responsibilities. Apte et al. (2010) discussed further evidence of the inconsistencies in the level of effort in the comparison of acquisition management in the Army, Navy, and Air Force article. Despite evidence on the effectiveness of commitment to organizational advantages and performance outcomes, the literature has not included information on an appropriate level of time resources employed by contracting officer's representatives for performance successes. A study by the Federal Acquisition Institute (2003) included information on the effect of the timing of the contracting officer's representative's appointment on pre-award competencies. In the best practices section of the 2003 Federal Acquisition Institute study, one of the recommendations was to include contracting officer's representatives in the acquisition planning phase. The rationale was that the contracting officer's representative's involvement would permit them to have a better view of the overall program plan and how the contract work fits in the program's objectives and goals. Even with the 2003 Federal Acquisition Institute study information, no link on the effect of the contracting officer's representative's appointment timing and performance outcomes existed. The 2003 Federal Acquisition Institute study also included three environmental scans to gain

an understanding of the Federal acquisition workforce challenges. These environmental scans revealed two areas that are particularly challenging for acquisition workforce personnel. One area is role conflict in managing acquisitions both as a regulator and as a customer-oriented advisor. The other area identified is the increasing expectations for a smaller workforce of acquisition personnel to handle more complex procurements in a virtual environment. The October 2009 *Acquisition Workforce Development Strategic Plan* (Field, 2009) reinforced the effect of the second area in its statement that "the increased workload leaves less time for effective planning and contract administration which can lead to diminished acquisition outcomes." The response to the research question about how contracting officer's representatives employ their time resources to manage contracts and influence contract outcomes address this inconsistency.

In addition to the examination on the level of the contracting officer's representative's engagement on contract management, my literature review also included an exploration of the organizational support for contracting officer's representatives. The General Accountability Office (2013) identified contracting officer's representatives' contract management responsibilities as collateral duties that may have an effect on their perceived organizational support. According to the research findings by Kurtessis et al. (2015), perceived organizational support is dependent on employees' attribution of the organization's intent with favorable or unfavorable treatment and negatively relates to job stress and burnout. Caesens & Stinglhamber (2014) when discussing the relationship between perceived organizational support and work engagement further emphasized this finding. Efforts such as open communication have a positive effect on task performance and actions to benefit the organization. These theoretical findings were not evident in the

literature review on the contracting officer's representatives. Several Federal Acquisition Institute studies (2012 and 2014) reflected the contracting officer's representatives' perception of organizational support as limited to training support by contracting officer's representatives' supervisors. In the Department of Defense, the contracting officer's representatives' performance annual performance appraisals (DoD, Acquisition, Technology, and Logistics, 2015) includes their contracting officer's representative job performance. I compared the acquisition team's relationship with contracting officer's representatives as described by Phillips et al. (2011). This relationship is dependent on whether contracting officer's representatives view themselves as equal members of the acquisition team and each member's expertise relates to the outcomes. Even though this information provided valuable insight on contracting officer's representatives' perceived organizational support, no link on the effect of the contracting officer's representative's perceived organizational support and performance outcomes existed. In order to fully understand how this intangible asset, organizational perception is linked to performance, according to Kaplan and Norton (2004), it was necessary to identify the processes important to creating the value proposition, and then to determine the human, information, and organization capital needed to implement the processes. The response to the research question about the organizational support needed for contracting officer's representatives to manage contracts and influence organizational performance addressed this inconsistency. Finding 4 offers insight on the social capital needs of contracting officer's representatives in their relationships with other team members.

I identified the third inconsistency by examining the government's response to a persistent problem in Federal contract management. In November 1990, the Defense

Acquisition Workforce Improvement Act (DAWIA), Public Law 101-510, Title 10 U.S.C. was enacted to improve the capabilities and competencies of the DoD acquisition workforce. The enactment of DAWIA standards started the government's use of a competency-based management model to ensure the adequacy of the acquisition workforce and became a focus area in solving many procurement problems. Also in 1990, the United States Office of Personnel Management (OPM) began developing the application of competency-based human resource applications (Rodriguez, et al, 2002). I examined the competency-based management approach by looking at studies such as the empirical study by Kavitha et al. (2010) on competencies as a tool for organizational success. The competency-based management approach was adopted by the government after the Federal Acquisition Institute validated (2003) recommended competencies for training and development improvements. The recommended competencies resulted in competency certification standards for contracting officers, project/program managers, and contracting officer's representatives. This model provided a framework to train and develop personnel, as well as manage resources to meet the need. In the follow-up acquisition workforce competency surveys by the Federal Acquisition Institute (2011 and 2014), a noticeable alignment of competencies to performance outputs, such as awarding contracts and accepting products or services existed. No consideration of other factors existed such as environmental and risks in the use of a single framework such as the competency-based framework to improve contract management in the Federal Government. In 2013, the Professional Services Council (PSC) issued a stinging report on the current human capital dilemma of the Federal acquisition workforce. Most notable in the PSC report was the finding that the training and education reforms are not

delivering the desired results. According to the 2013 General Accountability Office report (GAO 13-231), the shortage of acquisition personnel with the appropriate skills is a hindrance to managing and overseeing complex and expensive contracts. Finding 3 alleviates this concern by providing examples of the competencies contracting officer's representatives found evident in the enactment of their processes. The research question that addresses this inconsistency was about how the resources employed to manage contracts influences organizational performance. The officer's representatives demonstrates flexible assimilation of the knowledge needed to perform contracting officer's representatives' tasks.

Inconsistency 3 resulted from an effort to identify a comprehensive resource framework for Federal contract management. According to Bryson et al. (2007), the proposition in the resource-based view offers a method for identifying and utilizing distinctive resources to form a *livelihood scheme* that manages resources to achieve organizational goals. No identified frameworks existed in the literature review for managing the contracting officer's representative's resources. The only reference to managing the contracting officer's representative was in the MSPB (McPhie, 2005) study conducted before the establishment of contracting officer's representative certification levels. Also, the MSPB study did not address other contracting officer's representative resources, such as organizational support and time, nor contracting officer's representatives' activities, such as business/technical acumen, project management tools, and communication that may contribute to contract success. A study by Sadatsafavi and Walewski (2013) addressed the advantages of organizational resource bundles and confirmed the positive influence of resource arrangements on organizational performance

outcomes. Lee and Whitford (2013) further established these findings by examining the effects of organizational resources on public agency performance The resource-based view on the differences between firms raised questions on how to enhance a firm's internal efficiency by resource utilization (Madhok et al., 2010). The literature did not include comprehensive contracting officer's representative resource management aside from the competency-based management approach. The conceptual framework (Figure 1) is a graphical presentation of a resource management framework supported by the study findings. It includes a comprehensive frame of reference for the management of contracting officer's representatives' resource inputs, activities, and outputs. Finding 3 also includes information that addresses the research question about the resources contracting officer's representatives employ to manage contracts.

I identified the fourth inconsistency when seeking an explanation for the effect of contracting officer's representatives' resources on organizational performance. No clear alignment existed of perception and measurement of contracting officer's representatives' contract management activities to organizational goals. While the contracting officer's representative function is assumed to be an essential element in facilitating the organization's performance as measured by the outputs of a contract, the alignment of the contracting officer's representative's resources and activities to the outputs, and ultimately the outcomes of the contract, was not evident. Part of the reason for the lack of evidence of this alignment may be because of public organization's goal ambiguity as explored by Rainey and Jung (2015). Project success appears to be an elusive area in the public sector without the identification of success criteria (Kusljic & Marenjak, 2013). None of the studies have information aligning contract success factors to contracting

officer's representative resources, aside from the MSPB (McPhie, 2005) study aligning contracting officer's representative competencies to management support. Finding 5 on teamwork was the result of the search for an answer to the fourth inconsistency. The fourth inconsistency was the basis of the research question on the nature of expectations, specifically anticipated outcomes from contracting officer's representatives' involvement in contract management. The single measure used to align contracting officer's representatives' resources and outcomes to organizational performance was the achievement of teamwork. Contracting officer's representatives' perspectives on measures that reflect successful performance was not linear, but showed a circuitous route to recognizing the value of team members' contribution to successful organizational performance.

Summary and Conclusions

The overarching question in this exploratory study was to understand how the management of important organization resources, such as the contracting officer's representative, influences the organization's performance. Responses to the three subquestions provide clarity to understanding the effect by adding insights on the specific resources used by contracting officer's representatives, the expectations for contracting officer's representatives' actions, and the perception of and performance record for the contracting officer's representatives' actions. The historical perspective and current status of the contract management problem was investigated in the literature review but did not offer a clear resolution to the persistent quality problem in Federal contract management as related to the contracting officer's representative's contributions.

The history of contract management reflects an evolution of responsibility from members of Congress to the current position of contracting officer's representative. Throughout this evolution, numerous identified problems persist such as levels of responsibility for contract management and authority. The literature review reflected attempts to resolve the problems regarding levels of responsibility in recent congressional statutes, such as the Services Acquisition Reform Act. The identifications for resources in resource-based theory are tangible and intangible. I made attempts in the literature review to determine each of the contracting officer's representative's resources as either tangible or intangible. A clear determination of the contracting officer's representatives' resources as either tangible or intangible was unclear. According to Madhok et al. (2010), effective and efficient application of all useful resources that the company can gather assists it in optimal performance. Questions persisted on what the expectation is for contracting officer's representatives and their role and responsibilities as a member of the acquisition team.

In resource-based theory, the context of the management of the resources is significant to the outcome of the effort. I investigated the contextual environment of contracting officer's representatives in the literature review using the resource-based theoretical lens. My investigation resulted in an explanation of the current contract management framework along with a description of the activities performed by contracting officer's representatives as reported by the General Accountability Office. Information in National Contract Management Association's contract management body of knowledge further delineated the acquisition workforce's responsibilities and expected capabilities within a contract management framework. Current efforts based on a

competency-based management approach include the contract management body of knowledge. While the literature includes information supporting the theoretical meaning of competencies on outcomes, no information gleaned from the literature on the experiences of contracting officer's representatives' competencies on outcomes exists. Improving capabilities using the competency-based framework does not include factors such as environment and risks. The literature is unclear if implementing other management approaches such as resource-based theory may yield better results in Federal contract management. According to Kavitha et al. (2010), the organization's performance is dependent on the right mix of competencies. Questions remained on the possibilities for improving contract management by using a more comprehensive management framework for managing the contracting officer's representative's resources in addition to improving his or her competencies.

Other contracting officer's representative resources under consideration in the comprehensive management framework were time commitment and organizational support. Despite the recent regulatory requirement to assign contracting officer's representatives during the pre-award phase of the contract management cycle, little to no evidence exists in the literature that this is occurring. Only one study included information addressing the time commitment by contracting officer's representatives on contract management activities (Kamradt et al., 2010).

The literature review also included numerous examples of studies that reflected the importance of support from the organization and its meaning on employees' behavior and performance. Even though organizational support is an important part of the contracting officer's representative's environment, little to no evidence of organizational

support beyond supervisors' support for training exists. Kurtessis et al. (2015) identified the antecedents of perceived organizational support as leadership, human resource practices, employee/organization context, working conditions, and the consequences of perceived organizational support, including employee performance and well-being. Questions persisted on the management of the contracting officer's representative's resources, such as time committed to achieving performance results, which meet the organization's expectations as well as the organization's support for contracting officer's representatives' efforts.

Different resources affect organizational performance in public organizations and certain resources are critical to gaining the support or reputation needed and may lead to better performance (Lee & Whitford, 2013). Despite the proliferation of literature on the effectiveness of resource-based theory in organizations, limited research exists on its efficacy in public organizations. Numerous studies include information defining success factors as measures of organizational performance, but few delineate a public organization's performance expectations. Compounding the issue was the lack of a clear definition of an organization's goals and expectations as they related to the contracting officer's representative's performance toward achieving results. Questions persisted on the use of resource-based strategic management to improve the contracting officer's representative's efficacy in Federal contract management.

Even though the Chapter 2 literature review documented references to the relationship between resource management and effective outcomes, this relationship remained unproven in Federal contract management. The need to investigate another strategy was supported by the statement of the leader of the 2013 Professional Services

Council (Soloway, 2014) when he said, “We have to more smartly utilize, allocate and strategically think about increasingly precious internal resources.” Chapter 3 includes a description of the research design and method employed to seek the answers to the persistent questions identified in the literature review. Information in Chapter 3 describes the conduct of an investigation of the conceptual framework. This investigation resulted in recommendations for creating a dynamic framework for contracting officer’s representatives’ resource management that effectively fulfills the organization’s mission by managing the cost, quality, and performance of Federal contracts.

Chapter 3: Research Method

The purpose of this qualitative multiple embedded case study was to explore how using resource-based strategies can improve the acquisition workforce's efficacy in contract management. The focus of the study was on exploring an organizational excellence framework using resource-based strategies to improve the COR member of the acquisition workforce's efficacy in federal contract management. Despite the known success of the resource-based theory in providing a competitive advantage to private organizations, knowledge about its efficacy in achieving success in a public organization's performance is minimal (Szymaniec-Mlicka, 2014). From the historical research for this study, it appears that no studies exist that give insight into the organizational dynamics that influence the contracting officer's representative's resources on contract performance and outcomes. This inconsistency reflected a general lack of knowledge on the contracting officer's representative's role in contract management.

Chapter 3 includes the methods used to gain insight into the usefulness of a proven strategic management theory, the resource-based theory, and its efficacy in enhancing the management of the contracting officer's representative's resources. This chapter includes a description of the research design and rationale, as well as the data collection instruments and process for gaining insight into contracting officer's representative resource management. Chapter 3 also includes a description of the data analysis plan and strategies supported by previous similar studies.

The purpose of this multiple embedded case study was to explore how using an organizational framework based on proven strategic management approaches to manage the contracting officer's representatives' resources can solve the quality management

process problem. The COR is responsible for providing technical direction and supporting the contracting officer in administering and managing the contractor's performance. My assumption in this study is that the contracting officer's representative (defined in 48 C.F.R. 1, 1.602) for a Federal Government contract has an influence on organizational performance, but the context of this experience on the performance outcomes and success of the contract is open to conjecture. I explored in the case studies, the usefulness of resource-based theory in the strategic management of resources, such as time, competency, and organizational support in public organizations.

A writer on the Where in Federal Contracting (WIFCON) blog (2013) included an example of the type of problem with the management of the contracting officer's time. The blogger, LM_ABITWT wrote:

> I have a serious problem with one of my CORs not reviewing vouchers submitted to him for several months and then when he does review he finds a problem with it and we have to resubmit and then another long period of time passes and the COR finds another problem or has another question. This goes on for several months and we're not getting paid for 180 days or sometimes longer. I understand that it's our job, as the contractor, to ensure our invoices are 100% accurate, but what recourse do I have to get my COR to review the invoices more timely? Our contract says that the authorizing representative will review within 7 days. We are looking at a minimum of 60 days before he even begins to look at it.

The time committed to contract administration by contracting officer's representatives varies across certification levels, federal agencies, and individual offices. Information from this study included the time committed by contracting officer's

representatives in organizations with successful performance outcomes. The importance of the time resource and possible detrimental effects become evident when the contracting officer's representatives have inadequate time to perform contract administration functions such as review and approval of a contractor's invoice. In this case, the government may owe the contractor additional funds because a requirement exists in a federal contract clause to pay the contractor's proper invoice or voucher by the due date which is usually 30 days. If the government fails to pay promptly, the contractor is entitled to a late payment interest penalty.

The DoD Inspector General's report (DODIG-2015-026), *Army Personnel complied with the Berry Amendment but can improve compliance with the Buy American Act* included an example of the type of problem with competency-based management. The DoD Inspector General conducted an audit to determine if Army personnel at three locations complied with the Berry Amendment and the Buy American Act when they purchased covered items such as food, clothing tents, textiles, and hand or measuring tools. The value of the 33 contracts reviewed was $124.6 million. For 50 Buy American Act contracts with an obligated value of $4.7 million, the acquisition personnel did not complete required component assessments to distinguish commercial and commercial off-the-shelf items. A component assessment to determine the manufacture of the products or components of the products in the United States is very important. Failure to adhere to the Buy American Act requirements as cited in this audit report resulted in the initiation of a preliminary investigation of the potential Antideficiency Act violation for one of the contracts. The competency training of the acquisition personnel assigned to administer these contracts appeared to be lacking since the Inspector General

recommended the Commanding General to require additional training for the acquisition personnel.

The report, *Assessment of USDA's Contracting Officer's Representatives* by the Office of Inspector General for the United States Department of Agriculture (50099-0002-12) includes an example of the organizational support problem. The report included a finding that 60% of survey responders felt that they were being held accountable for their performance of contracting officer's representative's activities. Many of the responders indicated in interviews a lack of understanding between the heads of contract activity and the contracting officer's representatives on the definition of adequate performance or performance standards. One of the priority recommendations in the report is to revise performance standards to ensure that one critical element in the contracting officer's representative performance standard is specific to contract management. Another recommendation is that the contracting officer's representative's supervisor evaluation include a performance standard related to oversight of contracting officer's representative responsibilities.

The August 2016 investigative summary by the Office of the Inspector General of the U.S. Department of Justice (i1608), illustrated all three resource management problems in federal contract management. The report summary identified the persons responsible for the irregularities as inspectors rather than contracting officer's representative, who are normally designated inspection and acceptance responsibilities. In 2006, DoD awarded a fixed-price, indefinite delivery/indefinite quantity, performance specification based contract to manufacture Advance Combat Helmets to ArmorSource LLC and the Federal Prison Industries as a subcontractor. After producing and delivering

126,052 helmets, ArmorSource and the Federal Prison Industries received a payment totaling $30,336,461.04. In 2008, DoD awarded a $23,019,629 firm fixed price, performance-based, indefinite quantity contract to Federal Prison Industries to manufacture lightweight Marine Corps helmets. The Federal Prison Industries produced approximately 23,000 helmets and delivered 3,000 to the DoD. The DoD did not pay for the 3,000 helmets delivered by the Federal Prison Industries because they did not meet contract specifications and were defective. Later, both the advance combat helmets and the lightweight Marine Corps helmets were found to be defective and posed a potential safety risk to the user. The summary included a statement that read:

> The investigations found that the Defense Contract Management Agency inspectors did not perform proper inspections, lacked training, and submitted false inspection records wherein they attested that the Advance Combat Helmet lots were inspected when in fact they were not. At least in one instance, an inspector certified the lots as being inspected over a fax machine.

The summary statement did not include any information on the rationale for the inspectors' behavior. 126,052 A recall of the advance combat helmets, and the money lost by the government totaled more than $19,083,959. The government quarantined the lightweight Marine Corps helmets and the contractor was ordered to stop any further deliveries of this product. The report summary provided no information about military personnel sustaining injury or death as a result of the defective advance combat helmets.

While this case is extreme, it indicates that one of the most frequently designated contracting officer's representative's responsibility, inspection and acceptance is an

important function in federal contract management. The time committed to performing contract administration responsibilities, competencies required to ensure that the product or service is technically sound and consistent with the contract requirements and, organizational support to monitor whether the contracting officer's representative's actions align with the organization's mission, were the three areas explored in this study. Examples of effective resolution strategies explored in the current study follow in Table 7.

Table 7

Examples of Resource Management Problems .

Resource Management Problems	Study to Explore
Limited time allotted for contract administration	Nature of COR's delegation Time committed to contract management by CORs.
Misalignment of competencies to project requirements and organizational goals	Dynamic nature of competency training Adequacy of training
Lack of demonstrated organizational support for COR function	Recognition and performance measurement of COR's activities

The multiple case studies included the experiences of contracting officer's representatives for successfully completed contracts in the nine major civilian agencies and the DoD. These experiences illustrated effective resource-based strategies that resulted in positive performance outcomes. A cross-case synthesis included individual case study examples at each of the three contracting officer's representative certification levels and a composite description of the experiences of the contracting officer's representative on organizational performance leading to contract success.

Research Design and Rationale

I explored how using resource-based strategies can improve the acquisition workforce's efficacy in federal contract management. The focus of the current study was one overarching question and three subquestions. The guiding question is as follows: How did the management of key organizational resources of the contracting officer's representative influence the organization's performance? The three subquestions listed below include the specific type of information sought and the participants in data collection:

1. How did the contracting officer's representatives' resources employed to manage contracts influence effective contract outcomes? The identification of resources and competencies within dynamic environments will be from interviews with contracting officer's represenetatives (resource-based theory).
2. What is the nature of the process expectations that affect the contracting officer's representative's actions and facilitate outcome-based effectiveness? A description of the organizational culture and exchanges within the environments gathered from interviews with acquisition team members such as the contracting officers and program managers, as well as contracting officer's representative supervisors (competency-based management) is anticipated.
3. How are the contracting officer's representative's activities on assigned contracts perceived and reported to show the workforce's effectiveness? Information collected from interviews with acquisition team members and

contracting officer's representative supervisors will include the level of organizational support and involvement of managers (organizational support theory).

Central Concept of the Study

I conducted an analysis using a conceptual framework for contracting officer's representatives' contract management based on the resource-based theory. Szymaniec-Mlick (2014) conducted a literature review on the resource-based view and focused on understanding the organizational structure and resources to address management challenges. I used the conceptual framework (see Figure 1) to facilitate an exploration of what the contracting officer's representative's contract management process includes and to explain the phenomena under investigation: managing contracting officer's representatives' contract management resources.

The current study results address the timing of the contracting officer's representative delegation starting with the contracting officer's delegation action. Questions investigated in the current study are about the three contracting officer's representative resources: time, competencies, and organizational support. I included information in the current study to address the level of effort or time commitment contracting officer's representatives have for contract management activities, the level of organizational support provided to contracting officer's representatives for contract management activities, and improving competencies in the pre-award phase of contract management. Results from the investigation include the effect of the contracting officer's representative's resources along with the environmental factors, risks, and processes, such as communication, team support, and tools on organizational outputs and outcomes.

Results in the current study include information addressing questions on what the success measures were and how the contracting officer's representative facilitated outcomes. The current study results demonstrate the efficacy of the resource-based theory in public organizations as related to managing contracting officer's representatives' resources to improve federal contract management.

Research Tradition and Rationale

I used an exploratory case study design for the current study. Figure 3 is a flowchart of the process used for this study.

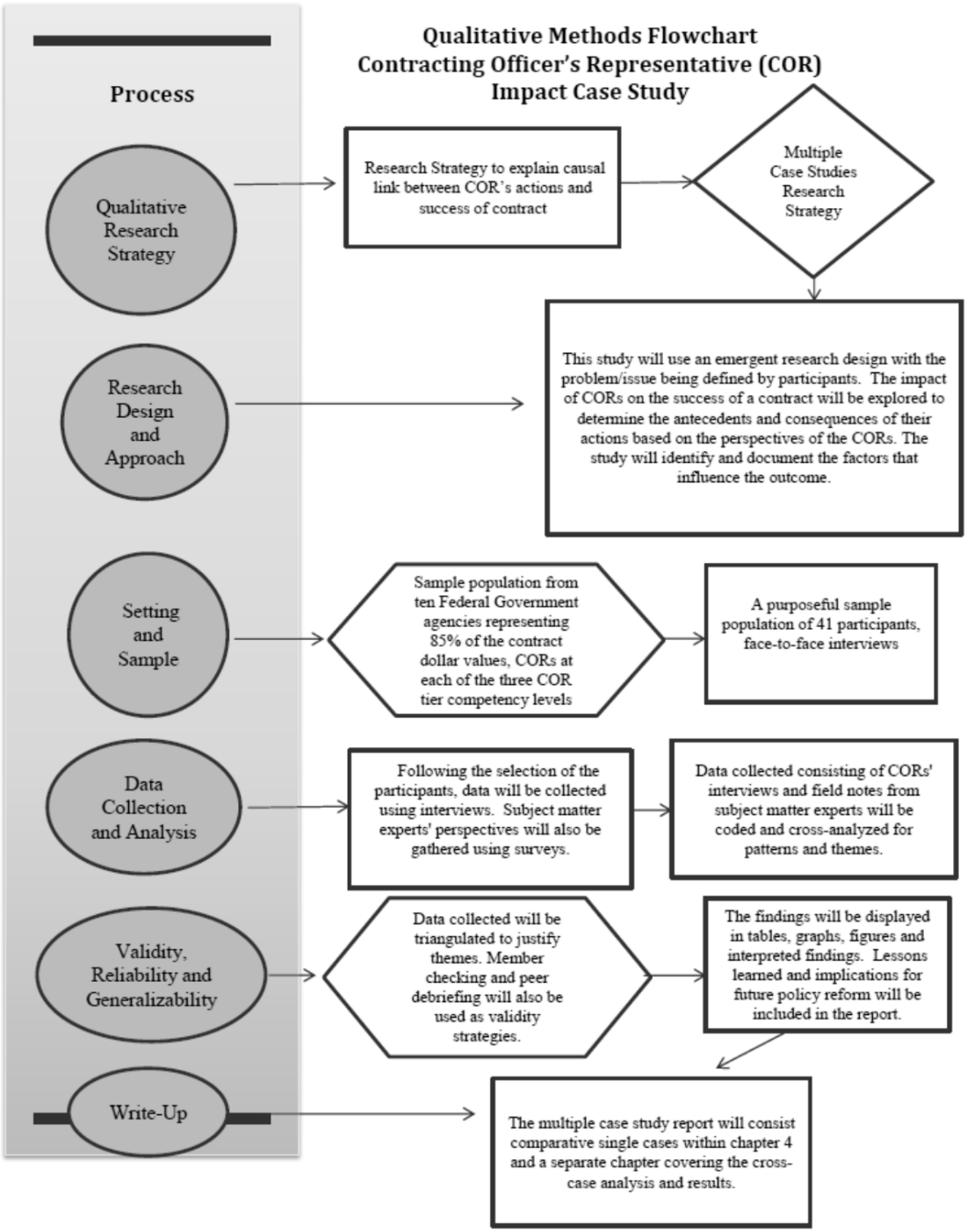

Figure 3. Qualitative methods flowchart qualitative methods research process used for the current COR impact study.

I used three major theories to explore the phenomena in this qualitative study. The three theoretical bases included competency-based management theory, resource-based strategic management theory, and social interaction theory such as perceived organizational support. These three theories produced conditions for the case. Important considerations for this study were dynamic capabilities and operational excellence. According to Yin (2003), when employing these theories, they may also lead to a predictable course of events. The prediction of the events is traceable by pattern-matching analysis whereby the proposition is comparable to the actual occurrence of events. Relating the theoretical propositions to patterns in an organizational framework in pattern matching can help to build a causal inference from the case. The theories can also lead to other theories or explanations. An exploratory case study allows the researcher to debate the value of further investigation of the propositions in the case (Yin, 2014).

The defined subject for this case study or the primary unit of analysis was the linkage of the management of the contracting officer's representative's resources to the organization's performance, resulting in the success of the contract. The interaction of the contracting officer's representative's resources within the context of the Federal agency and the effect of the contracting officer's representative's role was the particular event or situation to be studied. The embedded unit of analysis was the organizational process for contract management. For this study, the process used by the Federal agency to perform contract management was the concept of focal interest or the dependent concept. The main facts possibly affecting those dependent or independent concepts were the contracting officer's representative's role, resources, and experiences. A multiple embedded case study approach allowed for cross-analysis of the case studies and

provided a composite description of the potential experiences that contracting officer's reresentatives have on the organization's performance and successful completion of assigned contracts. Thus, the intent was to employ a multiple embedded case study design using an embedded unit of analysis.

A multiple embedded case study allowed the inquirer to illustrate the demonstration of the theory or concern in several cases. In this multiple embedded case study, I explored the efficacy of the resource-based theory in Federal contract management. A multiple-case theoretical replication design for the case studies provided a demonstration of the how and why of the theoretical propositions. According to Yin (2014), the selection of cases based on prior knowledge of the outcome will allow for a multiple case inquiry focused on the replication of the occurrence of the outcomes in each case. Cases selected for the current study were determined based on their successful outcomes, which resulted in literal replications. The cases in the current study focused on the management of the contracting officer's representatives' resources in Federal contract management since the performance outcomes are predetermined.

The current study was on the management of contracting officer's representatives' resources in Federal contract management in a Federal agency organizational setting. Berg and Lune (2012) define a case study of organizations as a systematic gathering of information about the organization to view the organization's operation. By emphasizing a component of the organization, the research may result in the unique illustration of the organization's processes and operations. The narrative approach did not fit the objective of the study since the study focuses on the individual contracting officer's representative's first-person accounts of experience such as autobiography or life history.

Because the focus of the study was not the commonality of the individual contracting officer's representatives and their experiences, the phenomenological approach was not appropriate for this study. In phenomenology (Patton, 2015), the essence of the shared experience is the object of exploration, which was not the objective of the current study. The grounded theory would allow the inquirer to build a theory based on data collected from various sources such as interviews and observations. The grounded theory (Patton, 2015) approach was not appropriate for this study due to the focus on the investigation of existing theories such as the resource-based theory rather than the development of a theory based on data analysis of the Federal contract management process. Similarly, due to the focus of the current study, ethnography cite as a research design was not appropriate. Ethnographic research focuses on human society and culture. In ethnography, the investigator's lenses focus on the organizational culture to understand the phenomenon. The focus of the current study was not the culture of the organization, thereby eliminating ethnography as an appropriate approach.

The most appropriate qualitative approach for the current study appeared to be a case study based on its characteristics. Merriam and Tisdell (2016) defined case study as an in-depth portrait of a bounded system. The unit of analysis or bounded system was the linkage of the management of the contracting officer's representative's resources to the organization's performance, resulting in the success of the contract. Thus, the unit of analysis was the defining characteristic of a case study. Other approaches as defined by the focus of the study were not consistent with the focus on this unit of analysis. A multiple embedded case study was the best approach since enlightenment about phenomena without predetermined outcomes was possible in case study research.

Multiple case studies using a qualitative and naturalistic approach can assist in deriving an inductive and holistic explanation of the human experience and constructing meaning in context.

Role of the Researcher

My role throughout this study was an interpreter. As an interpreter, I worked out the structures and relations of meanings by categorizing and interpreting the context of the interview statements within broader frames of reference. My focus was on conducting the interviews and interpreting the interview statements to work out structures and relations of meanings not immediately apparent in the interview text. I started my government career as a contracting officer's technical representative, currently referred to as contracting officer's representative. Due to my previous contracting officer's representative experience and my current responsibility as a contracting officer's representative trainer, I have personal insight into the context of the contracting officer's representative's operational environment. While this previous experience may be a barrier, it can be beneficial regarding understanding since I am acutely aware of the need to maintain a balance between empathy and objectivity. The integrity of the researcher is important to the quality of the knowledge gained from the qualitative inquiry (Brinkmann & Kvale, 2015). My intent was to conduct an objective examination of the contracting officer's representative's role and experiences in Federal contract management and not allow my previous or current experiences to distract from this objective.

During each phase of the study, my insight of the contracting officer's representative's contextual environment facilitated the analysis and mitigation of threats to data quality. No ethical, personal, or professional issues existed. I did not have any

personal or professional connection with the participants since recommendations for participants were primarily from the DoD agency points of contact for contracting officer's representatives and the COR FAB Acquisition Career Managers (ACMs). My past contracting officer's representative experience was not an obstacle to maintaining ethical ideals. I made an effort to ensure that I had no previous or current relationship with the nominated contracting officer's representative participants and other acquisition team members through the participant nomination process.

Qualitative Method

Participant Selection

One of the critical decisions made in planning the research was the sample size. The key to determining an appropriate sample size is in a sample that provides enough information at the end of the study to achieve the research objective of the research. Overall, the objective in qualitative case study research is the in-depth study of the unit of analysis. The unit of analysis for the current study was the link between the management of contracting officer's representatives' resources to the organization's performance resulting in the success of the contract. A sample size of 41 participants for the contracting officer's representative narrative study reflected this objective.

The proposed sampling strategy for the contracting officer's representative narrative study was stratified purposeful sampling. Merriam and Tisdell (2016) described criterion-based selection as a process to use to decide on the sample. The criterion for the current study sample included (1) contracting officer's representative for a Federal contract that has achieved successful outcomes, (2) contracting officer's representative with certification at one of the three-certification levels, and (3) contracting officer's

representative within one of the ten Federal agencies selected for the study. A minimum of one contracting officer's representative represented each of the three-certification levels for the ten Federal agencies. According to Patton (2002), this strategy depicts the characteristics of each of the subgroups individually and facilitates comparison. This strategy resulted in a representative population of contracting officer's representatives across the Federal sector and at each of the three-certification levels.

Purposeful sampling (Patton, 2015) allows for an examination of resource-based theory at the three-certification levels. By using purposeful sampling, I was able to present contracting officer's representative variations across the range of the three-certification levels. Moreover, I illustrated differences in settings, individuals, and certification levels. The sample size of 41 participants is the sample size that produced reasonable coverage of the phenomenon.

Other considerations in selecting an appropriate sample size were the researcher's investment and whether the information gathered from the sample would be useful, defensible, and collectible within the available time and resources (Patton, 2002). The agencies identified for the contracting officer's representative narrative study were chosen based on their contract expenditures. The total Federal expenditure for contracts in the fiscal year 2014 was $444.8 billion. According to USASpending.gov, the agency summary of contract values in the fiscal year 2014, the chosen agencies represent 85% of the dollars. Table 8 lists the Federal agencies and the contract-dollar expenditures during the fiscal year 2014.

Table 8

Fiscal Year 2014 Federal Government Contract Expenditures by Agency

Agency or department	Contract amounts	%
Defense (DoD)	$284,789,674,620.71	64
Health and Human Services (HHS)	$21,362,434,442.67	5
Veterans Affairs (VA)	$19,008,344,908.17	4
Homeland Security (DHS)	$12,818,173,911.31	3
State	$9,056,001,610.07	2
General Services Administration	$8,967,126,677.18	2
Justice	$6,885,198,497.65	2
Transportation	$6,191,387,283.45	1
Agriculture	$5,210,161,651.07	1
Commerce	$2,946,824,690.87	1
Total	$377,235,328,293.15	85%

A sample population of ten agencies including the U.S. Departments of Defense, Health and Human Services, Veterans Affairs, and Homeland Security, represented 85% of the total contract dollars. The contracting officer's representatives' competencies reflect a tiered approach to certification. The three tiers range from Level 1, contracting officer's representatives who monitor low-risk contracts to Level 3, contracting officer's representatives who track significant investments. I developed three case studies from a sample population of contracting officer's representatives at each of the three contracting officer's representative certification levels across the ten Federal agencies. When difficulty existed in finding participants in two of the initially identified Federal agencies, I added agencies such as the Department of Agriculture and Commerce.

Table 9

Sampling

	DoD	HHS	VA	DHS	State	GSA	DOJ	DOT	USDA	DOC
Level 1 COR	2						1		3	
Level 2 COR	2			1			4	3	6	
Level 3 COR	3	1	1	4	1	2		1	5	1
Total	7	1	1	5	1	2	5	4	14	1

The sample included only organizational segments within Federal agencies that have demonstrated successful Federal contract management performance. The FAB representative and DoD agency points of contact for contracting officer's representatives based their recommendations of contracting officer's representatives with demonstrated successful organizational performance. In response to the requests from the FAB representatives and other agency representatives, the study participants volunteered and acknowledged their past representative contracts met the success criteria.

The interviews to develop profiles of volunteer study participants included success criteria assessment questions. The literature review identified studies on the success that provided an array of factors, but the baseline criteria for the current study focused on goal setting, goal alignment, absorptive capacity, and government and mission-critical success factors.

According to Johnson, Garrison, Hernez-Broome, Fleenor, and Steed (2012), goal setting is an important factor in behavior change. This goal-setting factor is consistent with the findings by Ayers (2015) on the criticality of goal alignment in organizational management systems for improving organizational performance. Johnson et al. defined

goal alignment as the link between individual goal outcomes and organizational goal outcomes. Two of the questions in Part 2 of the survey were to determine if these factors were present in the recommended organizations. Another success factor is absorptive capacity.

Harvey, Skelcher, Spencer, Jas, and Walshe (2010) purported that when an organization has absorptive capacity, it is successful when its knowledge processes (i.e., competencies) align to the changing environmental conditions. This concept is important since one of the contrating officer's representative's resources under investigation is competencies. The responses to two of the questions in Part 2 of the survey indicated the presence of this factor in the recommended organizations.

Also important is the organizational setting within government agencies. Success factors unique to the government include being within budget, being on time, and meeting the end user's technical quality standards. Dobriansky (2013) added success factors for mission-critical government programs, including government and industry teams, internal and external stakeholder management, requirements development and management, and timely financial capital. Several questions in Part 1 of the survey assisted in detecting the presence of these factors in the recommended organizations. Having study participants with these baseline critical success factors and consideration of these issues ensured that the study population represents a measure of success.

Sudhakar (2012) identified a model of critical success factors that included areas such as communication, team, and environmental and organizational factors similar to the conceptual framework of the current study. Panda and Sahu (2013) identified issues I address in a model for developing critical success factors; these include consideration of

cultural dimensions, adoption by stakeholders, and the impact of project environment and organizational perspective. The profiles developed from the interviews with the volunteer study participants included information about which of the critical success factors they met. The intent was to use standard criteria to assess the success of the volunteer study participants using a consistent frame of reference. I conducted interviews primarily by telephone.

These information-rich cases met sample-size selection considerations, such as purpose, researcher's investment, usefulness, and defensibility, and were within the available time and resources for completion. Even though I anticipated that all selected study participants would be representative of similar structural and social conditions, variations existed due to the differences in organizations. This sample size reached saturation since the sampling strategy allowed for the demonstration of a sampling representative of the focal population and accounts for observed differences.

Instrumentation

All proposed contracting officer's representative narrative study instruments were subject to Institutional Review Board (IRB) review and approval before conducting the current study. Appendix A contains the contracting officer's representative Impact Study Participant Survey, which I used to gather demographic information and recommendations from the ACMs and DoD contacts for study participants. I gathered baseline information to ensure that the recommended study participants meet the criteria for the study. The survey consisted of modification to the Federal Acquisition Institute 2010 Acquisition Workforce Competency survey. Originally, the Federal Acquisition Institute used the survey instrument to determine the progress in meeting competency

standards for targeted acquisition professionals and managers at all grade levels performing contracting, contracting officer's representative, and program manager duties. A total of 6,906 acquisition professionals representing 49 civilian departments and agencies participated in the 2010 Acquisition Workforce Competency survey. The target audience was all members of the Federal acquisition workforce in civilian agencies, including contracting officers, contract specialists, project and program managers, contracting officer's technical representatives, contracting officer's representatives, and others performing contracting and acquisition-related work. Contextual similarity existed since the target audience for the current study is a segment of the target audience identified in the Federal Acquisition Institute 2010 Acquisition Workforce Competency survey. Subject matter experts from several Federal agencies, including the Office of Federal Procurement Policy, the Office of Personnel Management, and the Federal Acquisition Institute participated in the development of the 2010 Acquisition Workforce Competency survey. Researcher modifications for the current study were minimal, focusing on success criteria and contracting officer's representatives' resources.

Appendix B contains the protocol for the telephone interview. The Telephone Interview Protocol, involving four parts, is researcher-modified based on the Telephone Interview Guide used by the Federal Acquisition Institute (2003) for the contracting officer's technical representative job function. The Federal Acquisition Institute used the telephone guide with 32 interview participants and 15 focus group participants in Federal civilian and Defense government agencies to identify critical competencies for the career management of contracting officer's technical representatives. The Federal Acquisition Institute used a multimethod approach including telephone interviews and focus group

sessions on establishing the contracting officer's technical representative competencies. The Federal Acquisition Institute designed the telephone guide to gather rich, detailed responses from participants. I made minimal modifications to the guide for the current study. The Telephone Interview Protocol was used to collect demographic information and includes questions that cover time commitment, organizational support, competencies, contractor information, environmental factors, measurement measures, and the contracting officer's representative appointment process. The conceptual framework was the basis for the modified questions. I received IRB approval before the collection of the demographic information using the Telephone Interview Protocol.

Appendix C contains the draft Contact Summary Form, which was based on the form used by Miles and Huberman (1994, p. 53). It was appropriate for the contracting officer's representative narrative study to help with maintaining information for further data analysis. The Contact Summary Form was useful for following up with contacts when I needed additional information.

Appendix D contains the draft Document Summary Form based on the form used by Miles and Huberman (1994, p. 55). It was appropriate for the contracting officer's representative narrative study to gather and maintain a record of special documents, archival records, and physical artifacts for the study.

Appendix E contains the draft Case Analysis Meeting Form, based on the form used by Miles and Huberman (1994, p. 76). I used the Case Analysis Meeting Form to structure the interview meeting notes.

Appendix F contains a sample of the Case Study Outline. It was researcher-modified based on the outline used by Miles and Huberman (1994, p. 79). I used the

outline to summarize information for follow-up interviews with CORs and acquisition team members to review findings and determine the quality of the summarized information.

Appendix G contains the results of a field test of the interview protocol to determine its alignment with the research problem and purpose statements. I received feedback from 3 qualitative research subject experts on the alignment and modified the research subquestions and purpose statement as they recommended.

Appendix H contains a draft Informed Consent Form used for the contracting officer's representative narrative study. Appendix H is a researcher-modified version of the Walden University sample consent form.

Procedures for Recruitment, Participation, and Data Collection

Maxwell (2005) suggested four main components for conducting a qualitative study. The first component is the research relationship that you establish with those you study. I reestablished a relationship with the leadership of the Federal sector working group for the civilian agencies. The COR-FAB leader had previously agreed to support the study by providing contact information for the civilian agencies, study instruments, and results from various Federal Acquisition Institute-conducted surveys.

The leader for the civilian agencies is the chair of the multi-agency FAB established to improve the FAC-COR program and make recommendations to more effectively manage the contracting officer's representative workforce. The COR certification standard defines minimum contracting officer's representative competencies, experience, and training according to the nature and complexity of the requirement and contract performance risk. Members of the COR FAB had previously expressed an

interest in assisting with the current study. It will help them in pursuing one of their areas of interest (i.e., the additional duties associated with contracting officer's representative acknowledged and evaluated in performance appraisals).

The second component suggested by Maxwell (2005) was the selection of the site and participants. In the first phase of data collection for the current study, I asked COR FAB representatives for referrals of contracting officer's representatives from their agencies with demonstrated successful Federal contract management experience. I presented the parameters of the study to the FAB representatives and other agency representatives to solicit referrals for volunteer study participants. When potential participants volunteered, I queried them to determine if they possessed baseline success criteria for the study. The primary communication mode for the interviews was telephone conversations. I conducted similar interviews to develop successful contract profiles with the DoD defense department representatives that volunteered for participation. No personally identifiable information included in this phase due to the sensitivity of the contracts information discussed during the interviews exists.

I followed a similar process for recruitment of study participants from the DoD. My employer, the DAU conducts the majority of contracting officer's representative training for the defense agencies. I asked the points of contact for several Defense agencies for referrals of contracting officer's representatives with demonstrated experience managing successful contracts.

Maxwell's (2005) third suggested component is data collection. Data collection in the current study consisted of three phases. The first phase involved identifying

contracting officer's representative assigned to contracts in the civilian and defense agencies who have experienced successful outcomes.

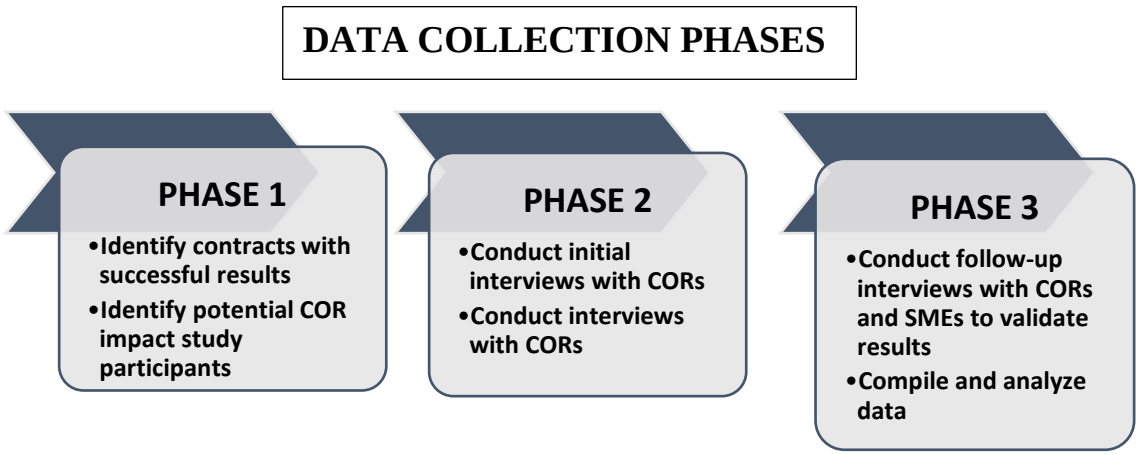

Figure 4. Data collection phases. Schematic of the data collection phases in the current COR narrative study.

Similar to the approach used by the Federal Acquisition Institute for its Acquisition Workforce Competency Survey, the ACMs provided insights into contracting officer's representatives at the three-certification levels in their respective agency. I asked the ACMs by telephone and e-mail to identify contracting officer's representative and organizational entities within their respective agencies who have experienced successful performance outcomes and contracts. I contacted the contracting officer's representatives volunteering in response to referrals by the ACMs and the DoD points of contact. I screened volunteer participants by telephone and e-mail to assess their availability to take part in the current study and their alignment with success criteria. Participants in the study consisted of a representative sample of the major Federal agencies and met the criteria for the study.

During the second phase of the study, I followed up with the volunteer CORs that met baseline success criteria to schedule their interviews. Then, I conducted interviews using the Telephone Interview Protocol and documented the results. I gathered signed informed consent forms before starting interviews. The interviews took 45 minutes initially and no more than an extra 15 minutes for any additional information. I used a digital audio tape recorder to capture the responses to the interview questions along with handwritten notes. For each participant's interview information, I assigned a number to maintain anonymity. My collection of interview protocol documents did not include personal information or identifiers. I used a transcription service to transcribe interview recordings. The use of a transcription service ensured the objectivity of the results of the interview data. I assigned codes for the relevant themes from the transcribed interviews. Throughout the study, I completed and maintained the Contact Summary Form to guide planning for the next contact, as needed and the coding structure.

Following each interview, I completed a Case Analysis Meeting Form. It included any follow-up questions or additional information needed from the study participants. In phase three of the study, I developed an Interim Case Study Outline from each interview. This phase reflected an emphasis on management of the contracting officer's representative's resources and perceptions about the efficacy of those resources on organizational performance and contract outcomes. I categorized the case analysis meeting forms by themes for each of the three-certification levels and combined the overall results. The outline documents provided a synthesis of the case information gathered and any missing data.

Every stage of the interview inquiry embedded content validity with the use of previously validated instruments by the Federal Acquisition Institute, and a cross-check of the contracting officer's representative participants' comments with subject matter experts. Following each interview, I reminded the study participants that the information collected would remain confidential. Also, I reminded the study participants of the purpose of the study and future use of the information. I expressed my gratitude for their voluntary participation in the study and offered to send the transcribed interview for review as a part of my closing script. I sent the findings and interpretations to a three-member team of subject matter experts for verification and validation of the information.

Data Analysis Plan

Phase 2 of the data collection included interviews with identified contracting officer's representatives. Table 10 includes the connection between the interview questions and the research questions.

Table 10

Research Question Data Collection Connection

Research Question and Subquestions	Interview Protocol Questions
How did the management of key organizational resources of the contracting officer's representative influence the organization's performance? 1. How did the resources employed by CORs to manage contracts influence effective contract outcomes?	Part 4 Unique Features (Addressing Research Question) Q25 - What is your opinion about the influence of resources such as time, organizational support, and competency on the contract/project outcomes? Part 4 Unique Features (Addressing Research Sub-Question #1) Q20, Q21, Q23, Q24 - How much time in your workday do you spend on this contract/project? If the time spent was not devoted to the contract/project on a daily basis, how much time during your work week do you spend on the contract/project?

(Table continues)

Research Question and Subquestions	Interview Protocol Questions
	- What kind of and how much organizational support do you receive in the promotion of your work on this contract/project? Choose from the attached list and indicate agree or disagree to the level of support. - What risks, pressures (e.g., time or money), or other environmental factors you saw during the contract/project performance period that you feel are relevant? - What about the contractor resources, (e.g., staffing qualifications, leadership support, were unique to this contract/project? Part 4 Unique Features (Addressing Research Sub-Question #2) Q22: - Which of the competencies from your certification level training were most evident as you performed these contract/project actions/activities.
2. What is the nature of the process expectations that affect the COR's actions and facilitate outcome-based effectiveness?	Choose from the attached list or describe. Part 2 Chronology (Addressing Research Sub-Question #2) Q14, Q15, Q16: - What were your tasks/duties during this phase? - Describe any unique incidents in which you demonstrated exemplary behavior in performance? What happened? - That is to say, what were the policy, managerial, budgetary, organizational, regulatory supports, and constraints that affected the outcome, and what tasks did you perform?
3. How are the COR's activities on assigned contracts perceived and reported to show the workforce's effectiveness?	Part 3 Results (Addressing Research Sub-Question #3) Q17, Q 18, Q19: - Overall, would you say that the actions of this contract's project's acquisition team, including the COR, contracting officer, and program/project manager, were satisfactory, good, excellent, or outstanding? In addition to your overall assessment of team, please provide a separate assessment of each acquisition team member. - Please describe two specific actions you believe support your assessment of the acquisition team's performance. - How do you measure effective internal actions? What methods do you use to assess success and performance progress internally and externally?

I used coding in each of the data collection phases. I followed a process to tag and index text into codes for later analysis and recontextualization (Bazeley, 2013). According to Miles and Huberman (1994), coding is analysis. In Phase 1, the information collected from the interviewees was recorded on the COR Impact Study Participant Survey and assigned descriptive codes. The descriptive codes served as first-level coding allowing for summarizing segments of data into a word or short phrase (Saldana, 2013). These data segments enabled the researcher to cluster the participants and documents into groups across agencies. The demographics collected in Phase 2 of data collection were assigned attribute codes. The assignment of attribute codes such as demographics was for future categorization and exploration of interrelationships. Coding and indexing are to structure responses in a matrix (Vogt, 2014).

The NVivo coding process was used to assign labels to the information collected on the Contact Summary Form and Parts 2, 3, and 4 of the Telephone Interview Protocol. I used NVivo and Excel software to store, connect, and analyze the data at each coding level. The software supported the researcher's efforts to construct a case record for each participant. In this case record, I organized, classified, and edited participants' information into a manageable and accessible file. My use of the software allowed me to distinguish themes or patterns in participants' responses to the interview questions. The software's content analysis took the qualitative material and identified core consistencies and meanings. I used magnitude coding to indicate the frequency of responses to the question on perceived organizational support and the response to the question on the amount of time spent by contracting officer's representatives on the contract/project.

In second cycle coding, I coded the information gathered on the Case Analysis Meeting Form. Coding in this cycle focuses on developing themes, concepts, and assertions. Similarly, I searched, queried and retrieved coded passages from the first cycle coding to assign pattern codes based on commonalities. Pattern coding is a way to group summaries into themes and is appropriate for forming theoretical constructs (Miles & Huberman, 1994). I used the pattern coding to facilitate the development of a theoretical construct for further analysis by elaborative coding. One of the objectives of the contracting officer's representative narrative study was to determine the plausibility of resource-based theory in public organizations. I used elaborative coding to build on the theoretical construct from previous research of resource-based theory in public organizations.

During the third level of coding, I used causation coding to analyze causality. During the interviews, I queried participants about causes and outcomes. I assigned causation codes based on this interview information. Causation coding is used to map in a three-part process the sequence of inputs, activities, and outcomes such as what came before or what led up to the outcomes. I constructed a graphic model plotting the flow between antecedents and causes, conditions, contexts, actions, and the results or outcomes. Table 11 is an example of the case-ordered effects matrix that resulted from the study findings.

Table 11

Case-Ordered Effective COR Resource Management Effects Matrix. Preliminary format of Analysis of the conditions and outcomes in the current COR narrative study.

	Description of Evident Competency	EFFECTS COR's Action	Outcome
Level One COR			
Level Two COR			
Level Three COR			

I used a case-oriented strategy to analyze data from the multiple cases. According to Yin (2014), one of the four general strategies for analyzing case study information is to follow the theoretical propositions of the case study. I traced relevant contextual conditions in each of the case studies to show effects. I also bracketed and inspected multiple instances of a particular phenomenon in the multiple cases for essential elements or components. I viewed this phenomenon to determine patterns or configurations and sorted them into clusters. My cross-case synthesis resulted in the creation of word tables displaying data from the individual cases. Following this cross-case synthesis, I conducted a qualitative comparative analysis to determine if the cases under study replicated or contrasted with each other. My documentation of the results includes qualitative interpretation that goes beyond the descriptive data. I offer explanations and extrapolated lessons to form interpretations. My explanation of the findings was the last step of analysis for the study.

Issues of Trustworthiness

Credibility

To enhance the credibility of the case study results, I triangulated the qualitative data sources. Triangulation consists of comparing the perspectives of contracting officer's representative participants with that of a three-member subject matter expert team and checking interviews against recent reports and other documents. I established internal validity by basing data collection instruments on survey mechanisms used by the Federal Acquisition Institute (2012a, 2012b, 2014).

Transferability

I included volunteer participants referred by leaders within their respective agencies and selected based on criteria such as contracting officer's representative certification level and critical success factors, thus ensuring variation in participant selection. I established generalizability from connections of cases and connections to the resource-based theory. I develop detailed descriptions of each of the cases along with contextual elements to form thick description. By using these methods of external validity, I was able to synthesize multiple instances of similar phenomena through careful interpretation.

Dependability

I used different data sources to check the consistency of information. In addition to interviewing contracting officer's representatives, I sought feedback from a three-member subject matter expert team and examined recent documents about the management of contracting officer's representatives. This triangulation of sources is one kind of triangulation that can contribute to verification and validation of qualitative

analysis (Patton, 2002). I included audit reviews of the findings and interpretations by the three-member subject matter experts to add external credibility to the quality of the analysis.

Confirmability

During each phase of the study, my insight of the COR's contextual environment was used to analyze and mitigate threats to data quality. My research perspective reflects an objective consideration of my government career as a contracting officer's technical representative, currently referred to as COR. This reflection was consistent with social constructivists' case studies, findings, and reports informed by attention to understanding how one's own experiences affect the inquiry (Patton, 2002). My intent was to conduct an objective examination of the COR's experiences on contract success and not allow my previous or current experiences to distract from this aim.

Ethical Procedures

I received IRB approval prior to the beginning of data collection and recruitment of participants. For approval in DoD, I met with a DoD agency representative to discuss the study. I also met with a leader responsible for contracting officer's representatives within the civilian agencies to discuss the study. Approval by these leaders was not allowed due to restrictions about government support for a non-government financially supported study. Both expressed an interest in the study results. I participated in the ethics course in accordance with the Walden University researchr requirements. This study adhered to the ethical principles and guidelines for the protection of human subjects of research as delineated in the National Institutes of Health Human Research Protections

training. All of the research I conducted that involves human subjects in surveys or interviews was subject to this plan.

I conducted research for use by DoD and the civilian agencies on the policies and procedures for the management of contracting officer's representative's resources. The agency representatives provide oversight of investigations performed by research applicants. No concerns exist from accepting referrals for DoD participants from the DoD agency points of contact since prior approval by the DoD agency legal representative and agency leaders was not required for volunteers participating in the study.

I kept the information provided in the interviews and included in resulting documents confidential. I do not use personal information for any purposes outside of this research project. In addition, my research findings do not include names or anything else that could identify participants in the study reports. Throughout each phase of this study, I kept data secure in a fireproof file cabinet at my private residence protected by an alarm system and locked doors and windows. Electronic data is password-protected and accessible only to me, the researcher. I required the employees of a transcription service to execute nondisclosures. My research data will be kept for seven years, as required by the university.

Summary

I described the research method used in the contracting officer's representative narrative case study in this chapter. It includes an explanation of the research design and rationale. I explained the research methodology along with the proposed data collection instruments. In addition, I described a data analysis plan linking the data to the research questions. My narration also described the various coding types accompanied by an

explanation of the use of NVivo and Excel software for analysis. I explain that I concluded my analysis by conducting an interpretation of the data in the documentation. I discussed the ethical considerations for human subject protections and threats to data quality and data protections in this chapter. Chapter 4 provides the results of the data collection and analysis.

Chapter 4: Results

The purpose of this multiple case study was to explore how using an organizational framework based on proven strategic management approaches to manage the contracting officer's representatives' resources can solve the quality management process problem. This chapter includes the information gained from interviews with a representative population of government contracting officer's representatives from across the Federal Government. Chapter 4 also contains the demographics, data collection, data analysis, results, and evidence of trustworthiness.

The issue that I explored in this study was how using resource-based strategies may improve the contracting officer's representative's efficacy in contract management. One overarching question was how did the management of key organizational resources of the contracting officer's representative influence the organization's performance. The three subquestions to explore my concentration on the effective management of contracting officer's representative's resources such as time, competencies, and organizational support were as follows:

1. How did the resources employed by CORs to manage contracts influence effective contract outcomes?
2. What is the nature of the process expectations that affect the COR's actions and facilitate outcome-based effectiveness?
3. How are the COR's activities on assigned contracts perceived and reported to show the workforce's effectiveness?

Research Setting

The study setting remained consistent throughout the data collection process. Most of the participants were volunteers from referrals by the agency acquisition career managers. I acquired other participants from professional and personal networks. I conducted the semistructured interviews based on the previously approved telephone interview protocol. No participant reported any employment changes that could impact the study results.

Demographics

The volunteer participants were referrals by the acquisition career managers and leaders at several Federal Government agencies. Following a meeting with the Federal Acquisition Institute's COR Functional Advisory Board, the acquisition career managers sent a request for volunteers to the contracting officer's representatives within their respective civilian agencies. Some agencies chose not to participate in the study, including the Department of Energy and the National Aeronautics and Space Administration. Following approval by the Institutional Review Board, I expanded my participant pool to include other agencies such as the Department of Agriculture and the Department of Transportation. I posted an article on the LinkedIn social networking site, sent research invitations to known contracting officer's representatives in my professional network, and identified new contracting officer's representatives based on contacts provided by those I interviewed. I interviewed 41 contracting officer's representatives in total. All of the participants met the participant criteria and provided their consent to participate by email.

Table 12 provides a list of the Federal Government agencies represented by volunteer participants in the study.

Table 12

Agencies represented by Volunteer COR Participants.

Federal Government Departments	Agencies
Department of Defense	Navy, Air Force, Health Agency, Army
Department of Health and Human Services	Food and Drug Administration
Department of Veterans Affairs	Information and Technology
Department of Homeland Security	Transportation Security Administration, Management Directorate, Customs and Border Protection, Chief Information Officer,
Department of State	Consular Affairs
General Services Administration	District of Columbia Service Center, Federal Supply Schedule
Department of Justice	Financial Office, Office of Justice Programs,
Department of Transportation	Federal Highway Administration,
Department of Agriculture	Forest Service, Public Health Science and Food Safety, Farm Services Agency
Department of Commerce	National Oceanic and Atmospheric Administration

Six of the 41 participants were level one certified contracting officer's representatives. Table 13 contains the participant demographics at the COR certification level one. A total of six level one certified contracting officer's representative participants from 3 agencies, including the Department of Defense, Department of Agriculture, and the Department of Justice contributed to the research study.

Table 13

Certified COR Level One Participant Demographics (N = 6).

Time	Years in Position	Years in Government	Years at Agency	Years on Project	Length of time as COR
Less than 1 year	1	-	-	1	1
1 to 5 years	4	2	4	3	1
6 to 10 years	-	-	1	1	1
11 to 15 years	-	2	-	1	1
16 or more years	1	2	1	-	2

Seventeen of the 41 participants were level two certified contracting officer's representative. Table 14 contains the participant demographics at the contracting officer's representative certification level two. A total of 17 level two certified contracting officer's representative participants from six agencies, including the Department of Defense, Department of Agriculture, Department of Homeland Security, Department of State, Department of Justice and the Department of Transportation contributed to the research study.

Table 14

Certified COR Level Two Participant Demographics (N=17)

Time	Years in Position	Years in Government	Years at Agency	Years on Project	Length of time as COR
Less than 1 year	-	-	1	5	1
1 to 5 years	9	1	3	10	5
6 to 10 years	4	1	6	2	4
11 to 15 years	3	5	1	-	5
16 or more years	1	10	6	-	2

Eighteen of the 41 participants were level three certified contracting officer's representatives. Table 15 contains the participant demographics at the contracting officer's representative certification level three. A total of 18 level three certified contracting officer's representative participants from eight agencies, including the Department of Defense, Department of Health and Human Services, Department of Veterans Affairs, Department of Agriculture, Department of Homeland Security, General Services Administration, Department of Commerce and the Department of Transportation contributed to the research study.

Table 15

Certified COR Level Three Participant Demographics (N=18))

Time	Years in Position	Years in Government	Years at Agency	Years on Project	Length of time as COR
Less than 1 year	3	-	1	7	2
1 to 5 years	6	1	2	10	6
6 to 10 years	6	4	9	1	2
11 to 15 years	2	2	2	-	4
16 or more years	1	11	4	-	4

The level of experience and length of time as contracting officer's representatives indicated in Table 15 appears to be consistent with the contracting officer's representative population in the Federal Government. According to the respondent profile in the *2016 Acquisition Workforce Competency Survey Report* (FAI, 2016), the number of years of acquisition experience for contracting officer's representatives is 5 to 10 years, with 10 to 20 years of overall experience in government.

The pay grades for the volunteer participants varied across the agencies. Table 16 provides the respondent profile across the three COR certification levels.

Table 16

COR Pay Grades of Volunteer Participants)

Pay Grade	Level One	Level Two	Level Three
GS 5 to 9	3	2	-
GS 10 to 14	3	12	13
GS 15 or equivalent	-	3	5

Overall, the volunteer participant job titles were 73% program managers or specialists, 20% other job titles including wildlife biologist, training, and development specialist, budget analyst, writer/editor, and logistician and seven percent procurement analyst or contracting officer/specialist.

Data Collection

Interviews with all study participants were by the telephone. An e-mail sent to the participants responding to a referral by the agency acquisition career manager included an introduction and a request for an interview appointment. I recruited several participants from my professional network by sending an e-mail of introduction and a request for an interview appointment. Each participant received the interview protocol before the interview appointment. The study participants and I completed Appendix A-COR Impact Study Participant Survey, rather than the acquisition career manager as originally proposed. Appendix A included the participant criteria in determining the eligibility of the contracting officer's representative to participate in the study. One of the criteria for participation in the study was contracting officer's representatives that had contract management experience with successful contracts. All except one of the participants

stated that the projects chosen for this study demonstrated four factors of success including completion on schedule, completion within budget, achievement of all or most of the originally set goals, and client acceptance and use. Participants were also asked to choose from a list of success factors in Appendix A to express why the project was determined to be successful. A list of the success factors that participants identified as evident is in Table 17.

Table 17

Evident Success Factors

Percentage of participants that identified success factors as evident in contract/project's organization	Success Factors
98%	Clearly defined goals, goal commitment of project team, CORs competence
90%	Management support, Project schedule, project manager's competence, monitoring and feedback, adequate team capability, acquisition team support
80%	Communications and procedures, sufficient resource allocation, well-developed project requirements, project plan, manpower and organization, progress meetings, financial support, client consultation, client acceptance, characteristics of the project team, project review, appropriate time commitment
66%	Facility support, and Urgency
49%	Politics

Each interview ranged from 45 minutes to 60 minutes in length, including 15 minutes to complete the participant survey. All participants answered the questions in the

Appendix B-Telephone Interview Protocol. I recorded the participants' responses to the questions using a digital recorder as well as typed and handwritten notes. My handwritten and typed notes added context and ensured the accuracy of the transcribed recordings. I had each recording transcribed by a professional transcription service after execution of a nondisclosure agreement. I encountered no problems encountered during the data collection process. Each participant expressed an understanding of the interview questions by providing responses reflective of their projects and office environments.

Data Analysis

I used the software NVivo 11 and Microsoft Excel to analyze the data from the semistructured interviews and supporting documents. The use of the NVivo software facilitated my data analysis of the participant interview data. Using NVivo, I was able to glean recurring themes from the interviews. I started data analysis by conducting first cycle coding to summarize the interview information. In this interpretive process, I was able to organize the data to derive an understanding. My first cycle coding involved determining an initial code from the phrases in each participant's interview. I applied several types of codes during the first cycle coding. According to Saldana (2013), descriptive coding summarizes the words and phrases. I used descriptive coding to summarize the participants' responses to questions on the contracting officer's representatives' processes and tasks. In response to the questions requesting opinions, I applied value codes such as supported and evident. Value codes reflect a participant's attitudes, values, and beliefs (Saldana, 2013). I used magnitude coding for the responses to the question on the amount of time spent by contracting officer's representatives on

their tasks. Magnitude coding includes information such as frequencies or percentages (Saldana, 2013). After applying the initial codes, I reviewed them to determine their appropriateness. I made changes in the codes during each coding cycle. I developed an initial list of categories in second cycle coding.

In second cycle coding, I focused on finding the themes. I used the capabilities of the NVivo software to develop word trees based on word frequencies and similarities to identify patterns and relationships. During second cycle coding, I commenced connecting the codes to determine related categories. I put the recurring words and concepts into categories based on identified trends, patterns, and relationships. This pattern coding was used to facilitate my formation of a theoretical construct (Miles & Huberman, 1994). Some of the codes became categories, and others were grouped under a category to become subsets of the topic. This cycle of coding involved revisiting the codes to determine related codes as subsets of the categories. I removed the redundancies during this cycle of coding. I also discovered during this cycle the importance of developing categories of responses that address the research questions.

I identified six themes and ultimately six findings from the codes identified in the first two coding cycles. Appendix J includes a list of the codes summarized into categories and findings. I assigned causation codes during the third level of coding. Causation codes are used to analyze causality as a result of processes (Saldana, 2013). The contracting officer's representatives' processes in each of the contract management phases resulted in an outcome. Applying causation codes allowed me to link the

participants' processes to the outcomes. Next, I reviewed the codes to determine their fit within the conceptual framework. This method served to facilitate further data analysis.

Discrepant Cases

I did not have any noteworthy discrepant cases. When several participants reviewed their interview transcripts, they made minor clerical and wording corrections. Of the 41 participants interviewed, four made changes to clarify their information.

Evidence of Trustworthiness

Credibility

I employed member checking to increase the credibility of the study. I sent each participant an e-mail message requesting them to confirm the accuracy of their interview responses based on the transcripts and my handwritten and typed notes. Each participant was asked in an e-mail message to confirm the accuracy of their responses to the interview questions. I enhanced the credibility of the data collected by triangulating the qualitative data sources. The triangulation consisted of comparing the perspectives of contracting officer's representative participants with that of three subject matter experts in the field of contract management and checking the information from interviews against recently published reports. I established internal validity by basing my data collection instruments on survey mechanisms used by the Federal Acquisition Institute (2012a, 2012b, 2014). I initiated the study with a declaration of my personal values that could influence the framework of the study to address researcher bias or subjectivity.

Transferability

I intentionally included participants referred by the agencies' acquisition career managers and from referrals in my professional network based on criteria such as contracting officer's representative certification levels and evident success factors. The use of ACMs' and other professional network referrals ensured variation in the participant selection and allowed me to establish generalizability from connections of cases and connections to the resource-based theory. Detailed descriptions of the cases at each of the three contracting officer's representative certification levels were developed to form thick description. The method of external validity employed with a sample size of 41 interview participants and three subject matter experts allowed me to synthesize multiple instances of similar phenomena through careful interpretation.

Dependability

I used different data sources to check the consistency of information in addition to a redundancy test. Dependability was satisfied when the participants were providing the same or similar responses to the questions. I digitally recorded the interviews and transcribed the digital recordings. I initially proposed to query other acquisition team members and examine documents about the successful contracts. The sensitivity of the contract information precluded this triangulation strategy. I adjusted by seeking verification and validation of the information from three subject matter experts in the field of contract management.

Confirmability

I developed numerous file memos and notes to safeguard against biased findings. The interview transcripts, handwritten and typed notes serve as evidence of the study

findings. My handwritten notes were used to provide insight on the contracting officer's representative's contextual environment and mitigated threats to data quality. I conducted an objective examination of the COR's experiences on contract success. The results were not impacted by my previous or current experience as a COR or instructor of CORs.

Study Results

The frequency of coded responses and patterns by a majority of participants to the research questions served as the basis for the findings. Alignment of the research questions and the findings is resultant of the data analysis. This thematic finding alignment is supported by the frequency of similar participants' responses and includes sample excerpts of their responses. Table 18 contains a summary of the findings aligned to the research questions and subquestions.

Table 18

Findings from data collection aligned to research questions

Research Question	Findings
How did the management of key organizational resources of the contracting officer's representative influence the organization's performance?	Finding #6: Organizational support to enhance competencies (Gap)
1. How did the resources employed by COR to manage contracts influence effective contract outcomes?	Understanding CORs' environments (Inconsistency #1) Organizational models with CORs (Inconsistency #2)
2. What is the nature of the process expectations that affect the COR's actions and facilitate outcome-based effectiveness?	CORs' processes (Inconsistency #3)

(Table continues)

Research Question	Findings
3. How are the COR's activities on assigned contracts perceived and reported to show the workforce's effectiveness?	Finding #4: Characteristics of CORs' Relationships (Inconsistency #4) Finding #5: Teamwork (Inconsistency #4)

Research Subquestion 1

Research subquestion 1: How did the resources employed by CORs to manage contracts influence effective contract outcomes?

Two findings emerged from the qualitative analysis in response to the first research subquestion. The two findings provide responses to inconsistencies one and two of the current study. These findings align with the risks and pressures under which CORs operate, the level of organizational support actually provided and the CORs perception of their organizational support, and acquisition strategies that impact the CORs' work. An explanation of the two findings from responses at each COR level is in the following paragraphs.

Finding 1: Understanding CORs' environments. Inconsistency one in the study was that no studies emerged in the literature review that clarified the role, authority, and responsibilities of CORs in Federal contract management. The value of the CORs' work includes a recognition of the influence the COR's environment has on the contract outcomes. Several risks and pressures exist outside of the COR's control. These risks and pressures impact the contract outcomes based on the CORs' risk and issue management actions. Overwhelmingly, the most frequent risk that CORs at all three certification levels confronted was the issue of funding or money to support the contract. The following is a

statement from a certification level two contracting officer's representative about the instability of funding:

> So that is a risk because the requirement often changes and with the economy the way it is, you never know if finances are going to be available. And, even if they are available the red tape that is required to go through to get those finances doesn't always meet the time schedule for that the requirement.

The second highest risk identified by all three certification levels was time. Planned events are scheduled early in the contract life cycle, but adjustments are necessary throughout due to a number of factors such as weather or changing site conditions. The COR and the acquisition team deal with the impact on the period of performance as well as the time for completion. Excerpted comments from a certification level two contracting officer's representative follows.

> There were definitely time pressures in the initial phases of this contract and when I first took the contract over. A lot of those time pressures had to do with the transition of the contract from one office to another. There was not a whole lot of time given when we would have the other people involved.

Contracting officer's representatives certified at levels two and three also cited the risk of protests. Sometimes vendors that were unsuccessful in winning a contract award file protests with the agency or other legal venues to force a review of the source selection process thus causing the suspension of actions to award the new contract for a period. The acquisition team along with legal counsel must handle protests to address the

protestor's concerns within strict timelines appropriately. The following is an explanation from a certification level three contracting officer's representative.

> There was a protest on it and a legal representative recommended that we do a stay override. We were unsure because we didn't know about limitations for the stay override. We had to do the protest response. The override stay of the protest meant that we would say yes to acknowledge a protest, but we were going to continue to work. The government's legal representative didn't think that the vendor had a strong or valid argument for the protest. So we had to go through and actually do the response to the protest. The Armed Services Board sustained the protest based on their finding that the vendor had no grounds for a protest.

The acquisition strategy for contract awards is the responsibility of the contracting officer with input from the program manager and the contracting officer's representative. While CORs certified at level one did not include assisting with the acquisition strategy development in their list of responsibilities, contracting officer's representatives certified at level three overwhelmingly mentioned acquisition strategy development as one of their tasks. The work done by CORs certified at level two was within the predetermined acquisition strategies such as multiple award contracts or small business contracts.

Another facet of the CORs' environment is the level of organizational support provided to the CORs. Organizational support by the agency takes many forms including training or continued learning, incentives through performance appraisals and the provision of resources to facilitate the CORs' actions. Even though the Department of Defense requires the inclusion of COR's work in their performance appraisals, none of

the DoD or civilian agency respondents mentioned this as an element of organizational support. The following is a representative response of a COR certification level one COR from a civilian agency. “It is very well defined on how to evaluate the contractors who work but there doesn't seem to be anything on our end to evaluate how a COR is doing or a CO for that matter.”

An aspect of the CORs’ environment is the CORs’ perceptions of their organizational support. Table 19 includes the CORs’ perception of the organizational support they received from their respective agency.

Table 19

CORs’ Perceived Organizational Support)

	Level One	Level Two	Level Three
Fully Supported	50%	76%	78%
Somewhat Supported	33%	12%	17%
Not Supported	17%	12%	6%

Considerable variance of the contractors’ tasks in the study participant population existed. Some of the tasks were service oriented such as lawn mowing and planting trees. Other contractor tasks included knowledge-based services such as leadership support and public relations. Even with this variance on the contractors’ tasks, the majority of CORs at all three levels cited the contractors’ staffing as an important resource to get the work in a successful manner. The following is an excerpt of a COR at certification level three comments.

> For this particular project, the staffing was appropriate for the size and complexity of the project. That caused you to have better communications with the vendor. I

> was able to stay on top of that particular project, communicate clearly, upline with my supervisor, the program manager as well as with the CO.

This finding illuminates the COR's environment in response to inconsistency one whereby the COR's role, authority, and responsibilities were unclear. It adds to the body of knowledge about the COR's role, authority, and responsibilities in Federal contract management. This added knowledge enhances teamwork by informing team members, stakeholders, and others about facets of the CORs' situations that reflect their actions.

Finding 2: Organizational models with CORs. Inconsistency 2 in the study was that the literature review did not include consistent criteria for measuring time committed by CORs on contract management. This finding includes an explanation of organizational models with CORs managing contracts with successful outcomes. The most frequently cited function at all three COR certification levels was inspection. Level one certified CORs characterized their function as inspectors sometimes working with the inspectors or coordinating the work of inspectors. Level two certified CORs described their functions as subject matter expert, inspector and project manager or site lead. An example of the subject matter expert function expressed by a level two COR follows.

> And there were some significant meetings held to provide a lot of input from other agencies that do the work. In a true acquisition team working session, I was brought in to help with some aspects of the project and served as a subject matter expert.

Most of the CORs at certification level three considered their function as liaison in addition to inspection. One level three certified COR summarized this function as the

liaison between the requiring officer, the requirements office, and the contracting agency. Their function as liaison is demonstrative of an acquisition team coordination role.

More than one-half of the participants in all three of the COR certification levels said that their worktime as COR is dependent on the contract phase. If the COR is involved in the proposal evaluation, their work during the contract formation phase requires more time than the COR expends for their contract administration tasks. The majority of CORs at certification levels one and three said that they spend 10% or less of their worktime performing COR tasks. Level two certified CORs responded to this question with a range from 10% or less to 50% of their worktime on COR tasks. Most level two certified CORs said that their COR worktime depends on the contract phase. The following is a level two certified COR's explanation.

> It varies greatly. Some days, I might spend an entire day or like three half days a week. But some weeks I don't spend any time on it. So, I would say I would probably average it out to a normal work day maybe 15 to 30 minutes on average over the whole course of the year. I work a 40-hour week.

One-third of the respondents at certification levels two and three included contract close-out as a task. Their responsibilities included verifying the receipt of deliverables or accepting services, preparing the documents needed for closing the project and providing input into the past performance data base on the contractor's performance.

Research Subquestion 2

Research Subquestion 2: What is the nature of the process expectations that affect the COR's actions and facilitate outcome-based effectiveness? Inconsistency three in the

study was that no studies informed the use of a resource-based strategic management framework for managing CORs. Finding 3 provides insight responsive to inconsistency three of the current study. I identified one finding from the responses to this research subquestion. It includes the CORs' tasks and competencies. This single finding aligns with how the CORs' tasks and competencies result in effective outcomes. Finding 3 also adds to the body of knowledge on the use of a resource-based strategic management framework in managing CORs.

Finding 3: CORs' processes. In each of the contract phases, the COR performs tasks that are expected to facilitate the outcomes from the contract. The CORs' tasks improved by the CORs' competency training are to enhance the success of the end result of the actions taken before, during and after the contract's performance period. During the acquisition planning phase, the CORs' tasks varied between the three certification levels. At certification level one, the majority of study participant CORs involved during the acquisition planning phase are conducting market research and developing the statement of work. The acquisition planning phase work of study participant CORs at certification levels two and three included conducting market research, defining the requirements as well as developing the statement of work. Defining the requirements also meant that they had some involvement with developing the government's estimated cost for the requirements. More than one-third of study participants CORs certified at level three developed the government's cost estimate for the contract requirements.

During the contract formation phase, the level one CORs involved are preparing the documentation from the source selection teams' evaluations. Their level of

involvement in this phase appears to be minimal. Most of the level two study participant CORs were members of the evaluation team and actively participated in the proposal evaluation process including preparing the evaluation teams' recommendation documents. CORs certified at level three were more heavily involved in the contract formation phase. Their tasks included developing the request for information, developing the source selection plan, serving as members of the evaluation team, sometimes leading the team, coordinating the teams' actions to reach consensus, and preparing the evaluation teams' recommendation documents.

The overwhelming majority of the study participant CORs at all three certification levels performed performance monitoring tasks during the contract administration phase. In addition, CORs at all three certification levels communicated regularly with the contractors starting with meetings conducted immediately after award. Communicating with program and other government personnel was frequently mentioned as a part of the CORs' tasks at certification level three. Study participant CORs at all certification levels were involved with approving invoices for contractors' payments. Most of the study participant CORs at certification level one conducted inspections to monitor compliance of the contractors with the contract requirements. CORs at certification level three held meetings with contractors to communicate about progress and other matters. An excerpt of a level three certified COR explaining their performance management method follows.

> I coordinated all of the periodic contract meetings including meetings with the contractor and collection and communication of all of the government contract requirements during several design review meetings.

Required training exists for certification of all CORs at a level commensurate with their responsibilities. The training ensures that the CORs have a standard set of competencies to perform their tasks. The lists of competencies that the study participant CORs expressed as evident in their performance follows. Table 20 includes the evident competencies for 75% or more of the civilian CORs certified at level one.

Table 20

Evident competencies for the level one study participant CORs at civilian agencies (N=4)

	General Business Competencies
0-1	Attention to Detail
0-5	Integrity/Honesty
0-8	Planning and Evaluating
0-10	Project Management
	Competency 7: Contract Administration Management
7-1	Contract planning and orientation
	Competency 8: Effective Inspection and Acceptance
8-1	Inspect and accept deliveries and services by inspecting deliverables and monitoring services for conformance with contract/order/agreement terms and conditions, and accept or reject them.
8-2	Ensure compliance and completion by the contractor of all required operations, including the preparation of any forms or equivalent which shall be authenticated and certified by the COR that the services/supplies have been received and are acceptable.
8-3	Process inspection report as supporting documentation for payment and maintain documentation of all inspections performed including disposition of the results. Ensure that invoice properly aligns with delivered services and products received and accepted.
	Competency 9: Contract Quality Assurance & Evaluation
9-1	Ensures consistency of appropriate quality requirements as they relate to the contract and validates/verifies adherence to specified requirements through test and measurement activities.
9-2	Monitors the products or services throughout their life cycle
	Competency 11: Contract Reporting
11-1	Develop the COR file in accordance with agency requirements

(Table continues)

	Competency 11: Contract Reporting
11-2	Monitor contractor's performance
11-3	Accept or reject an invoice for a given task or deliverable in accordance with the Prompt Payment Act.
	Competency 12: Business Acumen and Communication Skill Sets
12-1	Manage effective business partnership with the contracting officers, agency and other business advisers, and program participants
12-2	Participate and/or contributes to the formulation of objectives and priorities, and where appropriate, implement plans consistent with the long-term interests of the organization in a global environment.
12-3	Manages stakeholder relationships that generate buy-in to the business and technical management approach to the program.
12-5	Monitors schedule and delivery processes

Table 21 includes the evident competencies for 100% of the study participant Department of Defense CORs certified at level one.

Table 21

Evident competencies for the level one study participant CORs at the Department of Defense (N=2))

	General Competencies
0-1	Attention to detail
0-3	Flexibility
0-4	Oral and written communication
0-5	Problem solving and reasoning
0-6	Self-management and initiative
0-7	Teamwork
	Type A: Technical Competencies
1-1	Business ethics
1-2	Effective communication of contract requirements
1-4	Effective COR performance
	Type A: Required Competencies
2-3	Establish and maintain a COR file with all required documentation
2-4	Identify and prevent unethical conduct and instances of fraud, waste and abuse
2-5	Perform technical and administrative contract surveillance and reporting responsibilities in accordance with the letter of designation and surveillance plan
2-7	Monitor contract expenditures and payments
2-9	Perform liaison responsibilities between the contracting officer, the requiring activity, and the contractor for management of the contract
2-10	Inspect and accept or reject deliverables during contract performance and at closeout in conformance with contract terms and conditions

Table 22 includes the evident competencies for 66% or more civilian CORs certified at level two.

Table 22

Evident competencies for the level two study participant CORs at civilian agencies (N=15)

	General Business Competencies
0-1	Attention to detail
0-2	Decision-making
	General Business Competencies
0-9	Problem solving
0-10	Project Management
	Competency 3: Defining Government Requirements
3-1	Writing statements of work
3-2	Conducting needs analysis and preparing requirements documents
	Competency 5: Proposal Evaluation
5-1	Evaluating non-price factors
5-2	Evaluation documentation
	Competency 7: Contract Administration Management
7-1	Contract administration planning and orientation
7-2	Request for contract modification and adjustment
	Competency 8: Effective Inspection and Acceptance
8-1	Inspect and accept deliveries and services by inspecting deliverables and monitoring services for conformance with contract/order/agreement terms and conditions, and accept or reject them.
8-2	Ensure compliance and completion by the contractor of all required operations, including the preparation of any forms or equivalent which shall be authenticated and certified by the COR that the services/supplies have been received and are acceptable.
8-3	Process inspection report as supporting documentation for payment and maintain documentation of all inspections performed including disposition of the results. Ensure that invoice properly aligns with delivered services and products received and accepted.
	Competency 9: Contract Quality Assurance & Evaluation
9-1	Ensures consistency of appropriate quality requirements as they relate to the contract and validates/verifies adherence to specified requirements through test and measurement activities.
9-2	Monitors the products or services throughout their life cycle

(Table continues)

	Competency 10: Contract Closeout
10-2	Given a contract type, identify the FAR regulations, agency supplemental requirements, as appropriate and steps associated with closeout. Distinguish between physical contract completion and administrative contract closeout.
	Competency 11: Contract Reporting
11-1	Develop the COR file in accordance with agency requirements
11-2	Monitor contractor's performance
11-3	Accept or reject an invoice for a given task or deliverable in accordance with the Prompt Payment Act.
	Competency 12: Business Acumen and Communication
12-1	Manage effective business partnership with the contracting officers, agency and other business advisers, and program participants
12-5	Monitors schedule and delivery processes

Table 23 includes the evident competencies for 100% Department of Defense CORs certified at level two.

Table 23

Evident competencies for the level two study participant CORs at the Department of Defense (N=2))

	General Competencies
0-4	Oral and written communication
0-5	Problem solving and reasoning
	Type B: Technical Competencies
1-5	Effective communication of contract requirements
	Type B: Required Competencies
2-5	Perform technical and administrative contract surveillance and reporting responsibilities in accordance with the letter of designation and surveillance plan

Table 24 includes the evident competencies for 66% or more civilian CORs certified at level three.

Table 24

Evident competencies for the level three study participant CORs at civilian agencies (N=15))

	General Business Competencies
0-1	Attention to Detail
0-2	Decision-making
0-4	Influencing/Negotiating
0-5	Integrity/Honesty
0-6	Interpersonal Skills
	General Business Competencies
0-7	Oral Communication
0-8	Planning and Evaluating
0-9	Problem Solving
0-10	Project Management
0-11	Reasoning
0-12	Self-Management/Initiative
0-13	Teamwork
0-14	Writing
	Competency 1-Acquisition Planning
1-6	Contract type
	Competency 2: Market Research
2-1	Conduct, collect, and apply market-based research to understand the market place/requirement to identify the sources for a supply or service, the terms and conditions under which those goods/services are sold to the general public, and assist the CO on the best way to meet the need.
2-3	Industry trends-Understand the industry environment and determine availability of sources of supply and/or services.
	Competency 3: Defining Government Requirements
3-1	Writing statement of work
3-2	Conducting needs analysis and preparing requirements documents
3-3	Assisting in the develop of acquisition strategy
	Competency 4: Effective Pre-Award Communication
4-3	Solicitation preparation
	Competency 5: Proposal Evaluation
5-1	Evaluating non-price factors
5-2	Evaluation documentation
	Competency 7: Contract Administration Management
7-1	Contract administration planning and orientation
7-2	Request for contract modification and adjustment
7-3	Work order management

(Table continues)

	Competency 8: Effective Inspection and Acceptance
8-1	Inspect and accept deliveries and services by inspecting deliverables and monitoring services for conformance with contract/order/agreement terms and conditions, and accept or reject them.
8-2	Ensure compliance and completion by the contractor of all required operations, including the preparation of any forms or equivalent which shall be authenticated and certified by the COR that the services/supplies have been received and are acceptable.
	Competency 8: Effective Inspection and Acceptance
8-3	Process inspection report as supporting documentation for payment and maintain documentation of all inspections performed including disposition of the results. Ensure that invoice properly aligns with delivered services and products received and accepted.
	Competency 9: Contract Quality Assurance & Evaluation
9-1	Ensures consistency of appropriate quality requirements as they relate to the contract and validates/verifies adherence to specified requirements through test and measurement activities.
	Competency 10: Contract Closeout
10-2	Recommend the appropriate rating criteria for the contractor's performance evaluation within the agency past performance system.
10-3	Identify conditions for final payment to the contractor.
	Competency 11: Contract Reporting
11-1	Develop the COR file in accordance with agency requirements
11-2	Monitor contractor's performance
11-3	Accept or reject an invoice for a given task or deliverable in accordance with the Prompt Payment Act
	Competency 12: Business Acumen and Communication Skill Sets
12-1	Manage effective business partnership with the contracting officers, agency and other business advisers, and program participants
12-2	Participate and/or contribute to the formulation of objectives and priorities, and where appropriate, implement plans consistent with the long-term interests of the organization in a global environment
12-3	Manages stakeholder relationships that generate buy-in to the business and technical management approach to the program
12-4	Risk management-Identify, mitigate, and advise against potential risks
12-5	Monitors schedule and delivery processes

Table 25 includes the evident competencies for 67%, or more Department of Defense CORs certified at level three.

Table 25

Evident competencies for the level three study participant CORs at the Department of Defense (N=3))

	Type C: General Competencies
0-1	Attention to Detail
0-2	Decision-Making
0-3	Flexibility
0-4	Influencing and persuasive interpersonal skills
0-5	Oral and Written Communication
0-6	Planning and evaluating
0-7	Problem Solving
0-8	Reasoning
0-9	Self-Management and Initiative
0-10	Teamwork
	Type C: Technical Competencies
1-1	Business ethics
1-2	Defining government requirements
1-3	Understanding and knowledge of contract type
1-4	Effective analytic skills
1-5	Effective communication of contract requirements
1-6	Effective contract performance management
1-7	Effective COR performance
1-8	Project management
1-9	Strategic planning
1-10	Understanding the marketplace
	Type C: Required Competencies
2-1	Assist in acquisition planning
2-3	Establish and maintain a COR file with all required documentation
2-4	Identify and prevent unethical conduct and instances of fraud, waste and abuse
2-5	Review technical deliverables and ensure compliance with Statement of Work or Statement of Objectives (e.g., perform technical monitoring and reporting in accordance with a quality assurance surveillance plan or other quality surveillance plan).
2-6	Perform administrative monitoring and reporting responsibilities (e.g., handle security issues, attend meetings, etc.).

(Table continues)

Type C: Required Competencies	
2-7	Recommend contract changes when necessary and monitor contract performance as modified
2-8	Monitor contract expenditures and payments
2-9	Monitor contract schedule compliance
2-10	Perform liaison responsibilities between the contracting officer, the requiring activity, and the contractor for management of the contract.
2-11	Inspect and accept or reject deliverables during contract performance and at closeout in conformance with contract terms and conditions.
2-12	Review and validate that contractor payment requests are commensurate with performance.
2-15	Other specific functions consistent with the objectives of the activity's mandatory specialized or technical training.

Research Subquestion 3

Research Subquestion 3: How are the COR's activities on assigned contracts perceived and reported to show the workforce's efficacy? Inconsistency four in the study was that no current and very limited research involving the interactions of the CORs' resources on organizational performance existed. Findings 4 and 5 include the responses to this research subquestion by describing the characteristics of the CORs' relationships and teamwork.

Finding 4: Characteristics of CORs' relationships. The characteristics of the working relationship between the COR and other members of the acquisition team include its communications, the CORs' experience, trust and the work done within the team's organizational structure. CORs at certification level one expressed an emphasis on the need to have consistent and thorough communication between the contracting officer and the COR. Level one CORs described the communication methods as planning meetings, seeking approvals and keeping the contracting officer abreast of the contractor's work progress. CORs at certification level two articulated an emphasis on

the need for the contracting officer to be available when needed by the COR and to be responsive in a timely manner. The responses from the level three certified CORs were similar but added acknowledgement of the contracting officer's strict regulatory requirements and the need to sometimes say no.

The COR's communication also plays a role in the relationship with the contractor. One COR explained their communication between the COR, the contractor and the contracting officer as follows.

> So he's worked with me or I've worked with him to where whenever I get the notification that the contractor has submitted his invoice for payment in the system I reply back to the CO and let him know that I'm sending it in for further processing, and also let the contractor know that I've done it at the same time. So we're all at the same place.

An interpersonal factor of the COR's relationship with the acquisition team members mentioned was trust. The contracting officer delegates responsibilities to the COR to serve as their "eyes" including monitoring the contractor's performance and ensuring compliance with the contract requirements. A level one certified COR explained the trust factor as follows.

> Based on this contract, there's a lot of trust that has to go into it because the CO-- well, I'm sure it's that way in a lot of places. The CO never actually sees the product.

Working within the acquisition team structure is another characteristic of the COR's relationship according to more than one-half of the respondents across the three certification levels. CORs explained their work within the acquisition team in functional

terms such as flexible, professional, influential and coordinating. The delegation of the COR by the contracting officer limits the COR's authority. Work within the team structure requires that the COR and other acquisition team member understand the COR's responsibilities. When the COR is also the project lead, this dual role creates a potential conflict on the COR's influence. A level three certified COR expressed this conflict as follows.

> I was the COR, but I would say there's always a little consternation with our contracting officer. And we actually now may strive to ensure that our program director is the selection authority rather than the acquisition officer.

Finding 5: Teamwork. Frequently the responses to the questions on internal government measures were that no formal measures exist for the work done by the acquisition team. These responses were consistent at all three COR certification levels. An equal number of respondents said that the government measure of success was when the contract work was completed within budget and met timelines. CORs at all three levels also said that the measures of success were when they had no complaints and demonstrated customer satisfaction.

More than one-half of the study participant CORs said that actions taken by the acquisition team were excellent to outstanding. The supporting factor for this assessment was timeliness or responsiveness. The response time or turn-around time was cited as a measure most frequently by CORs at all certification levels. Prompt handling of requests and other communications was an indication of cohesiveness by the COR and other acquisition team members' actions.

> The reason I felt like it was outstanding. Everybody did their job in a timely manner. They made it happen. This contract was awarded within two months, based on the requirements it could have taken up to six months. It was awarded within the short timeframe because everybody provided all the documentation that was needed in a timely manner. We all worked as a team.

Formal measures exist to assess the contractor's performance. These measures vary according to the contract type and contractual requirements. Most of the CORs cited timely performance and quality performance as the predominant measure of the contractor's success. When the contractor completes the task or delivers the products as required, the COR is responsible for assessing the contractor's work efforts. Several CORs described the formal process of accepting or rejecting the contractor's work included communicating with other personnel to determine customer satisfaction, complaints, or client acceptance. CORs record a formal assessments of the contractors' performance in the agency's past performance database. The interactions between the contracting officer, the COR, and other government personnel to conduct the contractors' performance assessments are illustrative of teamwork.

Research Question

How did the management of key organizational resources of the contracting officer' representative influence the organization's performance? The gap in the literature was the unknown effect of CORs' resource management on organizational performance outcomes. Finding six is aligned to this research question and reflects the opinions of the

study participant CORs on the influence of their resources on the organization's performance.

Finding 6: Organizational support to enhance competencies. One finding appeared to be consistent from the responses to question 25. The three COR certification level participants expressed views about the influence of either organizational support or competencies or both on the contract outcomes. The frequency of opinions about the influence of both competencies and organizational support were close in number. CORs at certification level two felt that organizational support was most influential while CORs at levels one and three were of the opinion that competencies were more influential. Table 26 includes the frequency of the responses at the three COR certification levels.

Table 26

CORs' opinions about which resources influence contract/project outcomes)

	Time	Competency	Organizational Support	All three
Level one CORs	-	4	1	1
Level two CORs	-	3	9	4
Level three CORs	-	8	3	6
All levels	-	15	13	11

Several of the study participants explained their opinions about influential resources by describing the relationship between time and organizational support for CORs' contract management efforts. Organizational support is the single resource used by the CORs in their opinion. According to the study participant CORs, organizational support included time, competency and other resources such as incentives. Responses to question number 25 were clearly showing the competency training as a part of

organizational support. The study participants mentioned time only as needed to perform their tasks and is not viewed as a stand-alone resource. One participant said that you must know what you are doing (competency) and have the time to do it. These resources are demonstrative of organizational support.

Summary

Using a qualitative case study research design, I explored through the experiences of volunteer participants, one research question and three research subquestions. Table 19 includes a summary of the alignment of the research question and subquestions to the resultant findings. Research subquestion 1, supported by interview questions 20, 21, 23 and 24 explored the CORs' perceptions about their organizational support and provided insight on the CORs' actual organizational support and the worktime expended by CORs when performing their tasks. Research subquestion 2, supported by interview questions 14, 15, 16 and 22 explored the CORs' competencies and their tasks during each contract phase. Research subquestion 3, supported by interview questions 17, 18 and 19 explored the characteristics of the CORs' relationship with acquisition team members. The responses to these questions also included the efficacy measures used internally and externally to assess the contract outcomes. The overall research question supported by responses to interview question 25 allowed CORs to express their opinions regarding the influence of resources on the contract outcomes. Chapter 5 summarizes an analysis of the research findings, includes recommendations for future studies in managing the CORs' resources for contract management and contains the study conclusions.

Chapter 5: Discussion, Conclusions and Recommendations

Purpose and Nature of the Study

The purpose of this qualitative multiple embedded case study was to explore how using an organizational framework based on proven strategic management approaches to manage the contracting officer's representatives' resources can solve the quality management process problem. The focus of the study was on exploring an organizational excellence framework to improve the acquisition workforce's, including the contracting officer's representative's efficacy in management of federal contracts. This study concludes with an organizational excellence framework based on resource-based theory, a proven strategic management theory for managing resources to achieve positive outcomes. I collected the study data from in-depth interviews of 41 CORs from 10 Federal Government agencies including the Department of Defense. The contract dollar expenditures for these 10 agencies totaled $377,235,328,293.15 in fiscal year 2014 (USASpending.gov).

I used a qualitative research method for this study on the organizational dynamics for the management of COR's resources in federal contracts with successful performance and outcomes. Participation in this study gave the COR members of the acquisition workforce an opportunity to express their views on the effective use of contract management resources. I developed multiple case studies using the resource-based theory as a theoretical basis to explore successful organizations' use of the COR's resources in contract management.

Chapter 1 included the problem statement for this study. Chapter 2 contained the literature review, along with information that supports the conceptual framework, the

research question, and the three research subquestions. I described the methodological research approach in Chapter 3. Chapter 4 consists of findings and results from the data collection. Chapter 5 summarizes the interpretation of the findings and the recommendations for future research. Chapter 5 also includes the limitations of the study and implications for positive social change as well as a conclusion of the study.

Interpretation of the Findings

Research Subquestion 1

Research Subquestion 1: How did the resources employed by CORs to manage contracts influence effective outcomes? The findings derived from the data indicate the influence of the CORs' risk and issue management actions in CORs' contract management efforts and the organizational models under which the CORs operate. The data support the influence of the CORs' environment and the organizational models on the contract outcomes.

Finding 1: Understanding the COR's environment. 26 of the 41 study participants (63%) cited funding as an issue or risk in contract management. The instability of funding, reductions in funding levels and changes in requirements prompt the need for modifications to the contract unanticipated in the original planning cycle. Even though the contracting officer is responsible for issuing the contract modification, the COR is involved in the development of a strategy to address this dominating issue or to mitigate the risk. Dealing with the potential funding risks and money issues are a major part of the CORs' environment. Risk management actions require planning, identification, analysis, handling, and monitoring. The COR has to deploy risk

management methods by applying resources to handle the root causes and the consequences. In some cases, the COR has to use issue management techniques to address and resolve issues that have already occurred. Table 27 includes an analysis of some of the conditions and outcomes from CORs' management of funding risks/issues.

Table 27

CORs' Risk/Issue Management Effects Matrix)

Funding Risks/Issues	CORs' Actions and Outcomes
The inconsistencies of Federal funding and the continuing resolution.	The COR facilitated a revised schedule moving the contract date off of the October 1st start timeline in order to be more efficient with funding and making sure that the contract had adequate funding.
Discrepancy in invoice.	The COR questioned both the program office and the contractor to find out what was going on from both of their perspectives. It turned out that the contractor was doing more work than in previous months and the additional costs were justified.
Timing of money for an environmentally sensitive project.	The COR facilitated the awarding of the contract in an appropriate time window based on a risk hazard analysis.

Planning for risks is an important part of management. CORs appear to be taking actions after the risks become issues with the exception of possibly the time and protest risks. Scheduling adjustments and changes to the requirements are occurring after these areas become issues. An initial step in issue and risk management is the identification of the root cause. Then the team develops strategies to alleviate or avoid the risk or issue. These planning actions do not appear to be occurring either by the contracting officer's representative or the contracting officer. Particularly noteworthy is the finding that the COR's competency training does not include risk and issue management even though the

contracting officer's representatives at certification level three frequently mentioned acquisition strategy development as one of their assigned tasks.

The level of organizational support is an important part of the CORs' environment. The most demonstrative resources provided for contracting officer's representatives by their respective organizations are contracting officer's representatives' worktime and competency training. CORs' perceptions of organizational support is somewhat low at certification level one. Only 50% of the study participants at contracting officer's representative certification level one felt that their organizations fully supported them. Over two-thirds of the study participant contracting officer's representatives at certification levels two and three felt that their organizations fully supported them. A possible explanation of the lower perceived organizational support ratio at contracting officer's representative certification level one is the predominant contracting offier's representative function at level one is inspection. One level one contracting officer's representative explained that the COR certification training "is a waste of my time and a distraction from my work."

Finding 2: Organizational models with CORs. The study participant contracting officer's representatives were asked to describe their function within the organization. Inspection was the most frequently cited function that CORs serve within their organizations at all three certification levels. Even with this consistent response among contracting officer's representatives, distinctions in the CORs' functions at each of the contracting officer's representative certification levels exists. These functional distinctions demonstrate the continuing need for flexibility in the role the contracting

officer's representative plays in their respective organizations. An organizational model based on any preconceived ideals for the contracting officer's representative function may not lead to successful performance within the organization. Flexibility for the CORs' function within their respective organization is key to the organization's performance outcomes. Table 28 includes a sample of the different contracting officer's representatives' functions across the three COR certification levels.

Table 28

CORs' Organizational Function Effects Matrix)

Organizational Function	CORs' Actions and Outcomes
Inspector (Level One)	The COR would conduct inspections and document all this in daily dairies. At the end, the COR did a final inspection and went through the process for final payment to the contractor.
Liaison (Level Two)	The COR facilitated a meeting between other subject matter experts in the field, had the contracting staff come in and really rolled up their sleeves to determine how the contract could be expanded and work successfully.
Subject Matter Expert (Level Three)	The COR provided subject matter expertise from requirements development through market research in a highly visible project.

The agency policy is the basis of the designation of contracting officer's representatives by the contracting officers. The designation of a contracting officer's representative is a formal process guided by agency regulations and policies (FAI, 2016). Federal agencies are encouraged to assign CORs based on factors such as contract complexity and funding levels, competency training, experience, and availability (FAI,

2016). Predominantly, designation of level one certified study participant CORs occurred during the contract administration phase. The designation of the majority of study participant CORs at level three was during the acquisition planning phase. This difference in the phases in which the contracting officer's representative's designation occurs could indicate the level of importance placed on the COR function during a specific phase in the contract management cycle. It could also indicate that personnel were not available or certified to assume COR responsibilities during a phase. Table 29 includes the designation phases for all of study participant CORs.

Table 29

Designation Phases for COR Study Participants (N=41))

	CORs' Designation Phases		
	Acquisition Planning	Contract Formation	Contract Administration
Level One	1	1	4
Level Two	7	3	7
Level Three	12	-	6

I explored the level of CORs' worktime to determine consistency among the CORs on the amount of time best suited to fulfill the COR's responsibilities. CORs' worktime varied among the study participants at all certification levels. The key difference in the CORs' worktime was their responsibility or function within the organization. For work done during the acquisition planning phase, over one-half of the study participant CORs said: "I wrote the statement of work." Over all three COR certification levels, 14 of the 41 study participant CORs (34%) indicated active involvement in conducting market research and defining the requirements. This finding is

complicated since only one of the certification level one study participant CORs indicated their designation as a COR occurred during the acquisition planning phase. COR designations for more than two-thirds of the level three CORs occurred during the acquisition planning phase.

The evaluation of proposals or offers transpires during the contract formation phase. CORs function during the contract formation phase varied from participating as members of the evaluation team to leading or coordinating the evaluation team work. Only one of the certification level one study participant CORs was designated as a COR during the contract formation phase. This finding was complex since 35 of the 41 study participant CORs (85%) at all contracting officer's representatives' certification levels had involvement with proposal evaluations. Table 30 includes COR worktime indicated by the study participants CORs.

Table 30

CORs' Worktime

	CORs' Worktime			
	Less than 10%	10% to 25%	Over 25% to 50%	100%
Level One	5	-	1	-
Level Two	4	3	5	5
Level Three	4	5	2	7

Overall, CORs spend the highest amount of their worktime during the contract administration phase. The majority of CORs at all three certification levels said that they spent more time during the contract administration phase again indicating the level of importance placed on the COR function during a specific phase in the contract

management cycle. The amount of contracting officer's representatives' worktime consistently cited by the study participant CORs was 10% or less of their worktime on COR tasks spent on the CORs' tasks. The percentage of full-time CORs among the study participants was 35% of the level two CORs and 38% of the level three CORs. The full-time CORs had responsibilities for several contracts with tasks that ranged from administrative to program management.

The level of effort expended by CORs indicates the need to be flexible. Within each of the CORs' organizations, the CORs' roles appear to supplement the program's mission in a supportive role rather than a dominant role. "Other duties as assigned" is a frequently used phrase to describe the COR's role. The responses to the question about CORs spending less than 10% of their worktime on COR tasks support the premise that the COR is an important but an auxiliary part of the organization.

Research Subquestion 2

Research Subquestion 2: What is the nature of the process expectations that affect the COR's actions and facilitate outcome-based efficacy? The findings derived from the data indicate the CORs' processes result in outcomes that vary in degree of complexity and benefit to the organization. Internal government operations are facilitated by the CORs' actions such as enhanced communications among the acquisition team members facilitate the organization's performance. The data support the influence of the CORs' communication skills and other competencies evident from their training as very important in the CORs' work processes.

Finding 3: CORs' Processes. According to Harvey, Skelcher, Spencer, Jas and Walshe (2010), the demonstrated success of an organization occurs when its knowledge processes or competencies align to environmental conditions. Sixty-six percent and more of the study participant CORs at certification level three (civilian and defense) cited market research, defining government requirements, and communications as evident competencies in their processes. The CORs' processes in the acquisition planning phase primarily consisted of market research and assisting with developing the cost estimate and statement of work (COR certification levels 2 and 3). An illustration of the alignment of the CORs' processes to the competencies is below. Figure 5 is a display of the competencies shown from COR's action and an acquisition planning outcome done in the contract administration phase.

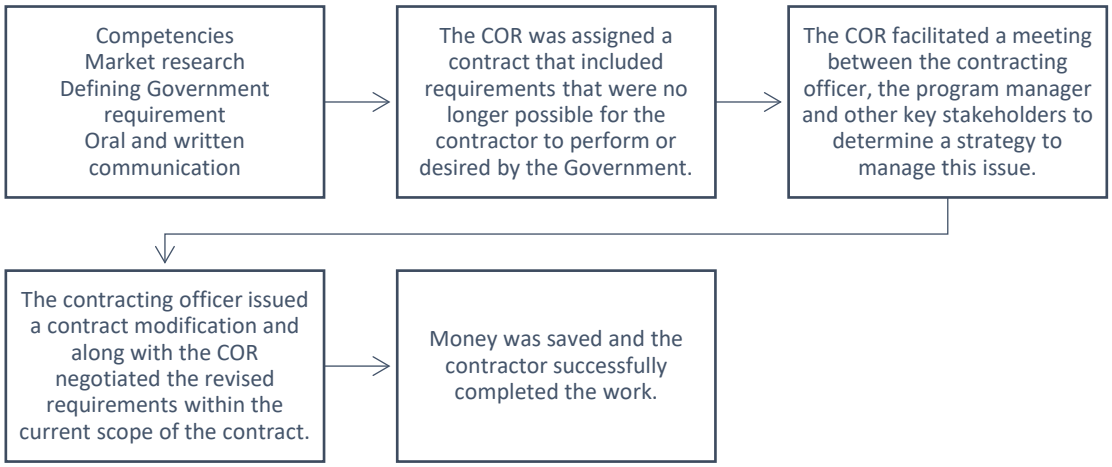

Figure 5. COR's action and outcome resulting from competency training on requirements definition.

The study participant CORs at certification levels one and two (civilian and defense agencies) cited attention to detail, inspection, and performing contract surveillance as evident competencies in their work processes. Figure 6 is a display of the

technical competencies exhibited in the COR's action and the outcome during the contract administration phase.

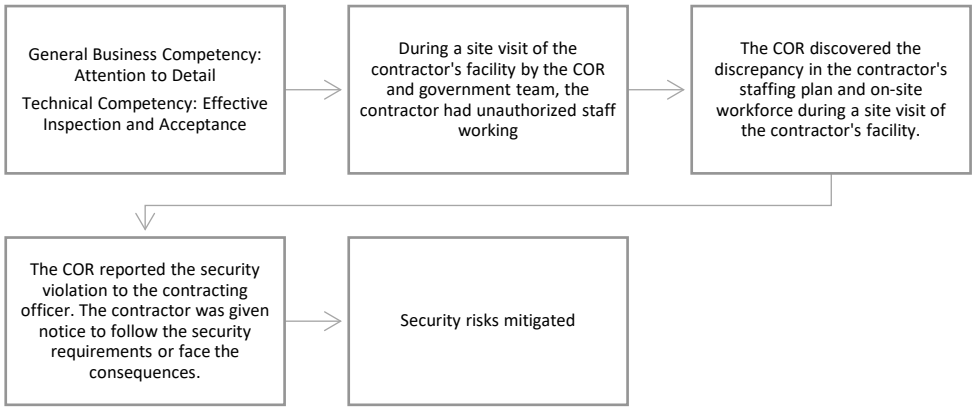

Figure 6. COR's action and outcome resulting from competency training on attention to detail and inspection.

Outcome terms such as money saved, timelines met, and customers satisfied with the results were the expressions used by CORs when asked to assess the results of their processes. The study participants did not include quantitative measures such as values in dollar amounts or time placed on the outcomes derived from CORs' processes when expressing their level of importance to the success of the contract. For example, if the COR had not intervened and proceeded to manage the risk example in Figure 6, it is not known what would have been the consequence of the breach of security at the contractor's site. The CORs' processes are an integral part of maintaining and managing the organization's resources. Their competencies in market research, communications and developing government requirements appear aligned with the environmental needs of the organization.

Research Subquestion 3

Research Subquestion 3: How are the COR's activities on assigned contracts perceived and reported to show the workforce's efficacy? The findings derived from the data indicate the need to understand the characteristics of the CORs' presence and operation within the acquisition workforce and how CORs facilitate teamwork. A consistent finding expressed by 13 of 41 (32%) COR study participants at all three certification levels was the importance of communication among team members. This data support the perceptions that CORs' communications are supportive of the government team operations as well as facilitative to the work of the contractors.

Finding 4: Characteristics of CORs' relationships. Consistently from all of the interviews, it was apparent that the CORs' relationships with other acquisition team members and contractors were dependent on communication. Based on the multidisciplinary assessment process by Molloy et al. (2010), the essential characteristics of an intangible within the resource-based theoretical construct includes the context, lifecycle, use, and expectations. The communication by the COR is demonstrative of a valuable, rare, and inimitable asset that has a direct relationship with the performance outcomes. Figure 7 is a graphical representation of the essential characteristics of the CORs' relationship as an intangible resource. The CORs' level of experience and the dynamic nature of their competency training is an important characteristic needed to achieve the respect needed to fulfill their responsibilities. The CORs' processes in response to issues and as a part of their risk management efforts are important characteristics. Trust is the ultimate characteristic resulting from the CORs' interactions with the contracting officer, stakeholders, and contractors.

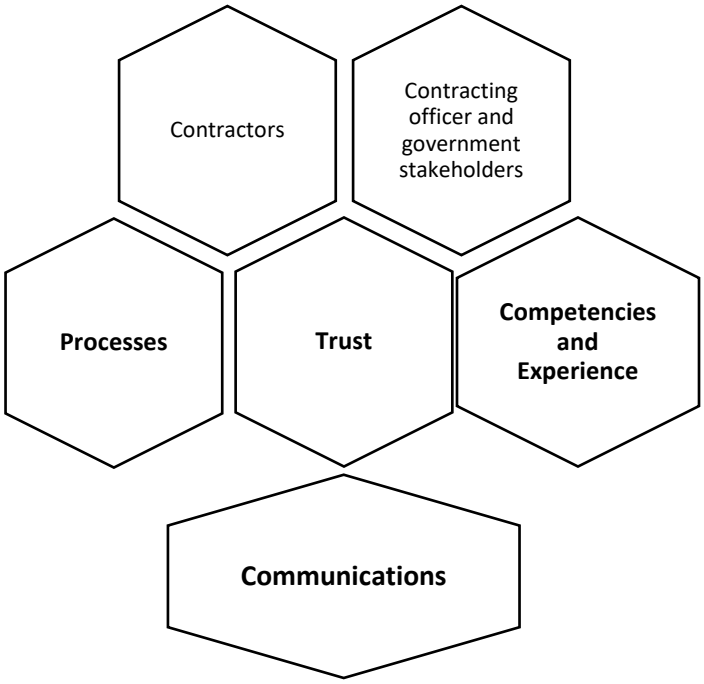

Figure 7. Characteristics of CORs' relationships.

Finding 5: Teamwork. Expectations among the team members appeared to focus on timeliness, prompt responses, quick turnarounds. Expectations for contractors include some measure of timeliness, such as timely performance. Team members depend on each other to do their part, and when a delay occurs by one or more team members, the entire team is affected. The COR's supportive role is important to the efficacy of the team even though CORs spend less than 10% of their worktime on COR tasks. This finding is consistent with the Ebrahimi and Sadeghi (2013) study on the need to identify the organization's quality standards. The measure of the efficacy of the CORs' processes done promptly is perceived to be significant to ensuring that the contractor does the work. This finding reveals the quality management tools used to measure the CORs' contract management performance.

Research Question.

Research Question: How did the management of key organizational resources of the contracting officer's representative influence the organization's performance?

Finding 6: Organizational support to enhance competencies. The study participant CORs did not indicate quantitative measures on the organization's performance. The finding derived from the data indicates the need to understand the resources available to enhance the CORs' actions. The study participant CORs expressed their opinions about the identification of resources such as organizational support as a stand-alone resource. More than 55% of the level 2 CORs cited organizational support as the most influential resource on the organization's performance. This finding was different among the other CORs whereby 67% of the level one and 47% of the level three study participant CORs cited competency as the most influential resource on the organization's performance. Identification of a single influential resource appeared to be less important when more than 30% of the study participant CORs cited all three resources, i.e., time, competency and organizational support as influential on the organization's performance.

According to the social exchange process identified by Arefin et al. (2015) a positive relationship between perceived organizational support and proactive workplace behavior exists. 50% and more CORs at all levels felt fully supported by their organizations in response to the question about their perception of the organization's support. This finding introduces backing for combined resources to support the CORs' contract management efforts. Behaviors that affect work-related outcomes are exhibits of

the positive reciprocation by employees that perceive their organizations care about their well-being.

Limitations of the Study

The following were limitations of this study. The sample size of six CORs at the certification level one may limit the transferability to an overall population at the COR certification one level. The case studies were an investigation with me as the researcher serving as the primary tool. Limitations exist in the study due to the length and detail of conducting interviews with over 40 CORs across ten Federal Government agencies.

Previously, I mentioned the possibility of my bias since I was a COR in the Federal Government and am currently an instructor of CORs in the department of Defense. I do not feel that my biases influenced the participants and the analysis of the data. The respondents appeared to respond to the questions honestly and did not seem influenced by personal or professional reasons. The participants answered the research questions by providing the data included in this study.

I used the validation techniques of data triangulation and member checking to reduce the risk of personal bias. Data triangulation consisted of a search of and inclusion of information recent literature on CORs. My data triangulation also included the review and validation of the findings and interpretations by a three-member subject matter expert team. The data collected from the subject matter experts were used to triangulate data collected from the CORs' interviews. The referral process used for study participants and the volunteer nature of their participation alleviated any possible bias due to a

relationship. The discussions during all of the interviews were limited to the interview questions in Appendices A and B.

Recommendations

Recommendations for Action. Both civilian and defense agency leaders should replicate the recommendations from this study. The CORs participating in this study achieved a level of success, and the value in the examination of these successful cases is the information that can be gleaned and used to duplicate the success. The results of this study include findings about the role and function of the contracting officer's representative that are useful in informing the civilian and defense leaders on successful practices in contract management by CORs. I identified three recommended actions for action by leaders responsible for CORs in the civilian and defense agencies.

My finding that CORs are consistently using risk and issue management in the performance of their tasks and processes is the basis of my first recommendation. This revelation prompts the need to ensure that the CORs' training for certification is dynamic and aligns with the environmental needs of the organization. Even though risk is a consideration in COR appointments, it also needs to be a consideration in COR certification level training. An intangible resource recognized in the study is the COR's competency. It should be demonstrative of Kavitha et al.'s (2010) description of the organization's effective performance dependent on the right mix of competencies.

My finding that teamwork among the acquisition team members and the CORs as well as the contractors is dependent on social exchange and social identity perspectives is the basis of my second recommendation. According to the study by Caesens, Marique,

and Stinglhamber (2015) social exchange and social identity perspectives play a role in the organizational support and affective commitment. More of a concentrated need exists toward developing interpersonal skills such as communication. Gupta, Huang, and Yayla (2011) found that a direct relationship between social capital in teams and performance exists. In essence, the teams that possess strong interpersonal bonds or high social capital perform better. The level and timeliness of the CORs' communication has a direct meaning on their efficacy and ultimately on the success of the contract.

The third recommendation is only for the civilian agency leaders. This recommendation does not apply to the Defense agencies because the DoD Instruction 5000.72 (Acquisition, Technology, and Logistics, 2015), requires feedback on COR performance be provided to COR supervisors on the CORs' performance of related duties and included in the COR's annual performance appraisal. This recommendation is consistent with the Chiang and Hsieh (2012) study on the impact of perceived organizational support. Antecedent concepts of organizational citizenship behavior include employee attitudes, personality traits, perceptions of fairness, leader behavior, and job characteristics. CORs' tasks assignments are additional job responsibilities. The civilian agencies that do not include performance appraisal of COR related tasks should incorporate an assessment of the COR's performance. According to Caesens and Stinglhamber (2014), a relationship between perceived organizational support and employee engagement exists. Including COR related duties in performance appraisals ensure an appropriate measurement of COR's engagement is available.

Recommendation for further research. The recommendation for further research based on this study includes the need to explore an organizational model that assesses the cost and other benefits of only project or program managers serving as CORs. An organizational model with the roles of program manager and COR combined into a single function was used in several organizations represented in this study. Mathieu, Tannenbaum, Donsbach, and Alliger (2014) studied the dynamic and temporal framework of several team composition models. They found that some team members have a greater influence on team outcomes. The effect of a single organizational model was beyond the parameters of this study. Managers considering an appropriate staffing level and time commitment needs for COR tasks may benefit from study of organizational models focused on the CORs' time commitments. Even though other organizational models appeared to be as successful as the program manager CORs, a cost-benefit analysis may provide insightful information on the available organizational model options.

Implications

Significance to Practice

A consistent push exists to achieve optimal results with less Federal Government resource expenditures. The *Department of Defense, Acquisition, Technology, and Logistics Implementation directive for better buying power 3.0-Achieving dominant capabilities through technical excellence and innovation (2015)* exemplifies this push. This stimulus is a description of the defense department's next step in a continuing effort to increase productivity, efficiency, and efficacy. The results of this study can contribute

to the formation of solutions in response to this push and add to the body of knowledge about resource management in the public sector. Lessons learned from my exploration of the CORs' resource management on contracts with successful outcomes provide valuable insight that fills the knowledge gaps in this area of Federal contract management.

Significance to Social Change

Before this study, little to no evidence existed of a study that allowed the CORs the opportunity to express their opinions on assigned areas of Federal contract management. Seshadri (2013) established a link between the organization's resources and performance. Findings from this study link the identified attributes of the CORs' resource management to organizational performance. Recognition of the connections can impress upon the CORs the value of their functions. Results of this study can lead to an enhanced performance by CORs when they view their functions and processes as important to the success of the contract and improvement of organizational performance.

Conclusions

The overall strategy examined in this study was applicability of the resource-based theory in public organizations. A central tenet of the resource-based theory is that organizations with valuable resources that are difficult to imitate can achieve sustained competitive advantage. The resources identified in this study fit the description of intangible resources. This study further confirmed the findings of Barney et al. (2011) that the achievement of productive value of the resource is by appropriate management and the skills of the team. The resource-based conceptual model concluded from this study includes designation of the COR during the acquisition planning phase.

Designating the COR during the acquisition planning phase promotes employee engagement and links the CORs' resources to organizational performance.

The resource-based conceptual model derived from this study also includes a dynamic capabilities approach to competency training. This approach further supports the concepts from Teece, Pisano & Shuen (1997) that organizational dynamic capabilities are the adaptation of the organizations' competencies to address the requirements of a changing environment. Including training on competencies such as risk and issue management and enhanced communication skill represent consideration of the dynamic capabilities approach in this resource-based model.

The forty-one CORs that participated in this study are representative of CORs across the Federal Government. Their insightful contributions to this study support the following three study propositions.

1. The CORs' competencies facilitate contract administration and performance management.
2. The CORs' time commitment and involvement influence the success of the contract.
3. Contract success is affected by the organizational support of the COR's role in contract administration and performance management.

This study provided clarification of the COR's role, authority, and responsibilities in Federal contract management. The COR and their resources fit the description of an intangible resource in resource-based theory. Intangible resources consist of the lack of deterioration with use, multiple managers can use intangible resources at the same time, and intangible resources are difficult to exchange since they are distinguishable from

their owner. Leaders in Federal contract management can expect successful outcomes with the effective management of CORs as intangible resources.

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Appendix A: COR Impact Study Participant Survey

The purpose of this survey is to identify potential participants for the COR impact study. Participation in this survey is completely confidential, and survey results will only be used to initiate communication with potential study participants. Demographic and anecdotal information will be summarized in a final report to describe the COR's work environment. Thank you for your participation in this important effort. Your input is greatly appreciated and will help in continuing efforts to improve the management of acquisition resources.

Today's Date:

Name:

Telephone Number:

E-mail address:

1) Please select your agency/department. Choose one of the following answers:

    1. Department of Defense
    2. Department of Energy
    3. Department of Health and Human Services
    4. Department of Veteran Affairs
    5. National Aeronautics and Space Administration
    6. Department of Homeland Security

2) Please identify your Agency below.

3) Please identify your agency/bureau below.

The COR impact study is seeking to explore the link between the management of COR's resources, such as time, competencies, and organizational support, and organizational performance outcomes such as successful contracts. The three central questions that guide the study include:

(1) How do the resources employed by CORs to manage contracts influence effective contract outcomes?
(2) What is the nature of the process expectations that affect the COR's actions and facilitate outcome-based effectiveness?
(3) How are CORs activities on assigned contracts perceived and reported to show the workforce's effectiveness?

4) Please identify two contracts at each of the COR certification levels for which you have demonstrated successful outcomes or especially noteworthy performance. Part 1 asks you to tell what success factors your recommendation exemplifies, and part 2 asks you to tell which success factors are evident in the contract's/project's organizational environment.

Level One

Contract/Project Name
Contract Number
COR's Name
COR's Telephone Number
COR's e-mail
Contracting Officer's Name
Contracting Officer's Telephone Number
Contracting Officer's e-mail

Part 1: Has the contract/project you are recommending successfully demonstrated these four factors: completion on schedule (time criterion), completion within budget (monetary criterion), achievement of all or most of the originally set goals (effectiveness criterion), and client acceptance and use (client satisfaction criterion)?

[ ] Yes [ ] No

If not, please provide the rationale for your recommendation.

Part 2: Please identify below the success factors evident for this contract's/project's organization. (Circle all that apply)

YES	NO	Clearly defined goals	YES	NO	Project manager's competence
YES	NO	Management support	YES	NO	Monitoring and feedback
YES	NO	Communications and procedures	YES	NO	Adequate team capability
YES	NO	Goal commitment of project team	YES	NO	Client consultation
YES	NO	Sufficient resource allocation	YES	NO	Client acceptance
YES	NO	Well-developed project requirements	YES	NO	Characteristics of the project team
YES	NO	Project plan	YES	NO	Politics
YES	NO	Manpower and organization	YES	NO	Project review
YES	NO	Progress meetings	YES	NO	Appropriate time commitment
YES	NO	Financial support	YES	NO	Acquisition
YES	NO	Facility support	YES	NO	COR competence
YES	NO	Project schedule	YES	NO	Urgency

Level Two

Contract/Project Name
Contract Number
COR's Name
COR's Telephone Number
COR's e-mail
Contracting Officer's Name
Contracting Officer's Telephone Number
Contracting Officer's e-mail

Part 1: Has the contract/project you are recommending successfully demonstrated these four factors: completion on schedule (time criterion), completion within budget (monetary criterion), achievement of all or most of the originally set goals (effectiveness criterion), and client acceptance and use (client satisfaction criterion)?

[ ] Yes [ ] No

If not, please provide the rationale for your recommendation.

Part 2: Please identify below the success factors evident for this contract/project's organization. (Circle all that apply)

YES	NO	Clearly defined goals	YES	NO	Project manager's competence
YES	NO	Management support	YES	NO	Monitoring and feedback
YES	NO	Communications and procedures	YES	NO	Adequate team capability
YES	NO	Goal commitment of project team	YES	NO	Client consultation
YES	NO	Sufficient resource allocation	YES	NO	Client acceptance
YES	NO	Well-developed project requirements	YES	NO	Characteristics of the project team
YES	NO	Project plan	YES	NO	Politics
YES	NO	Manpower and organization	YES	NO	Project review
YES	NO	Progress meetings	YES	NO	Appropriate commitment of time
YES	NO	Financial support	YES	NO	Acquisition
YES	NO	Facility support	YES	NO	COR's competence
YES	NO	Project schedule	YES	NO	Urgency

Level Three

Contract/Project Name
Contract Number
COR's Name
COR's Telephone Number
COR's e-mail
Contracting Officer's Name
Contracting Officer's Telephone Number
Contracting Officer's e-mail

Part 1: Has the contract/project you are recommending successfully demonstrated these four factors: on-schedule (time criterion), within budget (monetary criterion), achieved all or most of the original goals set for it (effectiveness criterion) and has been accepted and used by the clients (client satisfaction criterion)? [ ] Yes [ ] No, If not, please provide the rationale for your recommendation.

Part 2: Please identify below the success factors evident for this contract/project's organization. (Circle all that apply)

YES	NO	Clearly defined goals	YES	NO	Project manager's competence
YES	NO	Management support	YES	NO	Monitoring and feedback
YES	NO	Communications and procedures	YES	NO	Adequate team capability
YES	NO	Goal commitment of project team	YES	NO	Client consultation
YES	NO	Sufficient resource allocation	YES	NO	Client acceptance
YES	NO	Well-developed project requirements	YES	NO	Characteristics of the project team
YES	NO	Project plan	YES	NO	Politics
YES	NO	Manpower and organization	YES	NO	Project review
YES	NO	Progress meetings	YES	NO	Appropriate commitment of time
YES	NO	Financial support	YES	NO	Acquisition
YES	NO	Facility support	YES	NO	COR's competence
YES	NO	Project schedule	YES	NO	Urgency

Appendix B: Telephone Interview Protocol

INTRODUCTION: Hello is this [insert interviewee's name]? My name is Etta Waugh, and I am calling to conduct our interview regarding the COR impact study. Is this still a good time for you to speak with me?

I am conducting this study as partial fulfillment of the requirements for the degree of Doctor of Philosophy in management, with a specialization in learning management. The results of your input will be used in my dissertation on the relationship between the management of contracting officer's representative's (COR's) resources, and organizational performance such as contract outcomes. This study may be useful in supporting effective policies and procedures for the management of the COR resources, such as time, organizational support, and competency training.

Your participation in this study will help identify COR resources that influence organizational performance and contract outcomes. Thank you for completing part 1 of this survey prior to this telephone call. The demographic information included in part 1 will help me understand the context of the case. Thank you in advance for your help!

This interview will take approximately 30 minutes to complete. All information you provide will remain strictly confidential. At no time will your responses be associated with your personal identity. I will be reporting this information as a case study within an aggregate of case studies at each of three COR certification levels.

Do you have any questions before we begin?

PART 1: Demographics

I would like to begin by learning about you and your particular job.

1. Please describe the contracting officer's representative (COR) position within your agency. What is the job title for the position? How does it interface with the other acquisition positions?
2. What is your current grade/pay level?
3. What is your current job title?
4. How long have you been in your current position?
5. How long have you been working for the government?
6. How long have you been with your agency?
7. How long have you worked on this contract/project?
8. In what phase(s) of the acquisition process (e.g., acquisition planning, contract formation, or contract administration) were you assigned to this contract/project?
9. How long have you been assigned COR responsibilities? If not a COR, how long have you been working with assigned COR(s) for this contract/project?
10. At what level are you in the acquisition career path (e.g., I, II, or III)?
11. What is your specialty area (e.g., program, purchasing/procurement, logistics, other)?
12. Do you have any certificates and/or warrants? If so, please describe each and include the year awarded.
13. Please briefly describe your assignments on the contract/project.

PART 2: Chronology

Now I would like to learn more about the contract/project described in the case study. I will be asking you to describe your involvement in each area. Please think about the actions you took and the actions taken by the COR (if you are not the assigned COR). Please bear in mind that, as you are describing the parts of the job, I will be asking you to share which actions you feel were unique to this particular contract/project. That way, I will be able to understand better the special factors that influence effective performance and success.

14. Let's begin with Phase I: Acquisition Planning
    What were your tasks/duties during this phase? Describe any unique incidents in which you demonstrated exemplary behavior in performance. What happened? That is to say, what were the policy, managerial, budgetary, organizational, regulatory supports, and constraints that affected the outcome, and what tasks did you perform?
15. Now, let's move on to Phase II: Contract Formation
    What were your tasks/duties during this phase? Describe any unique incidents in which you demonstrated exemplary behavior in performance. What happened? Again, what I am asking about are the policy, managerial, budgetary, organizational, regulatory supports, and constraints that affected the outcome and what tasks did you perform.
16. Now, let's move on to Phase III: Performance Management and Contract Administration

What were your tasks/duties during this phase? Describe any unique incidents that demonstrated exemplary behavior in performance. What happened in terms of policy, managerial, budgetary, organizational, regulatory supports, and constraints that affected the outcome and what tasks did you perform?

PART 3: Results

The next questions address your opinions regarding the results. In your role, think about the resources expended on the contract/project in which you have participated. If you are not the assigned COR, consider the level of COR resources used on this contract/project, e.g., the time commitment, organizational support and competencies, and your view of the resource utilization.

17. Overall, would you say that the actions of this contract's/project's acquisition team, including the COR, contracting officer, and program/project manager, were satisfactory, good, excellent, or outstanding? In addition to your overall assessment of the team, please provide a separate assessment of each acquisition team member.
18. Please describe two specific actions you believe support your assessment of the acquisition team's performance.
19. How do you measure effective internal actions? What methods do you use to assess success and performance progress internally and externally?

PART 4: Unique Features

The last questions are to determine the unique features of the contract/project that led to the effective performance and successful contract outcomes. If you have an example of other resources that contributed to the contract/project outcomes, please share it.

20. How much time in your workday do you spend on this contract/project?
    If the time spent was not devoted to the contract/project on a daily basis, how much time during your work week do you spend on the contract/project?

21. What kind of and how much organizational support do you receive in the promotion of your work on this contract/project? Choose from the attached list and indicate agree or disagree to the level of support.

22. Which of the competencies from your certification level training were most evident as you performed these contract/project actions/activities? Choose from the attached list or describe.

23. What risks, pressures (e.g., time or money), or other environmental factors you saw during the contract/project performance period that you feel are relevant?

24. What about the contractor resources—e.g., staffing qualifications, leadership support—were unique to this contract/project?

25. What is your opinion about the influence of resources such as time, organizational support, and competency on the contract/project outcomes?

PERCEIVED ORGANIZATIONAL SUPPORT

Listed below are statements that represent possible opinions that you may have about your work environment. Please indicate your agreement or disagreement with each statement that best represents your point of view about your work environment. Please choose from the answers below

The organization in which you work:

The organization in which you work:
It would help me if I needed it.
It takes pride in my accomplishments.
It shows little concern for me.
It really cares about my well-being.
Values my contribution to its well-being.
It strongly considers my goals and values.

COR COMPETENCIES - CIVILIAN

General Business Competencies	
0-1	Attention to Detail
0-2	Decision-Making
0-3	Flexibility
0-4	Influencing/Negotiating
0-5	Integrity/Honesty
0-6	Interpersonal Skills
0-7	Oral Communication
0-8	Planning and Evaluating
0-9	Problem Solving
0-10	Project Management
0-11	Reasoning
0-12	Self-Management/Initiative
0-13	Teamwork
0-14	Writing

Technical Competencies	
Competency 1: Acquisition Planning	
1-1	Documenting the source
1-2	Methods of payment
1-3	Contract Financing
1-4	Unpriced contracts
1-5	Recurring requirements
1-6	Contract type
1-7	Compliance to FAR Guidelines
1-8	Determining need for EVM
1-9	Task and Delivery Order contracting
1-10	Strategic planning
Competency 2: Market Research (Understanding the Marketplace)	
2-1	Conduct, collect, and apply market-based research to understand the market place/requirement to identify the sources for a supply or service, the terms and conditions under which those goods/services are sold to the general public, and assist the CO on the best way to meet the need.
2-2	Gather all information related to the potential sources of an acquisition as well as, for commercial items, the terms and conditions under which the sources sell the goods and/or services involved.

2-3	Industry trends-Understand the industry environment and determine availability of sources of supply and/or services.
2-4	Warranties
2-5	Conflict of interest-identifying potential conflicts of interest
2-6	Technology-understanding available sources of information

Competency 3: Defining Government Requirements

3-1	Writing Statements of Work
3-2	Conducting needs analysis and preparing requirements documents
3-3	Assisting in the development of acquisition strategy
3-4	Pricing information from offerors

Competency 4: Effective Pre-Award Communication

4-1	Publicizing proposed acquisitions
4-2	Subcontracting requirements
4-3	Solicitation preparation
4-4	Pre-Quote/Pre-Bid/Pre-Proposal Conference
4-5	Amending/Canceling solicitations

Competency 5: Proposal Evaluation

5-1	Evaluating non-price factors
5-2	Evaluation documentation
5-3	Ethics

Competency 6: Contract Negotiation

6-1	Negotiation strategy
6-2	Conducting discussions
6-3	Determining capability

Competency 7: Contract Administration Management

7-1	Contract administration planning and orientation
7-2	Request for contract modification and adjustment
7-3	Work order management
7-4	Financial analysis and reporting

Competency 8: Effective Inspection and Acceptance

8-1	Inspect and accept deliveries and services by inspecting deliverables and monitoring services for conformance with contract/order/agreement terms and conditions, and accept or reject them.

8-2	Ensure compliance and completion by the contractor of all required operations, including the preparation of any forms or equivalent which shall be authenticated and certified by the COR that the services/supplies have been received and are acceptable.
8-3	Process inspection report as supporting documentation for payment and maintain documentation of all inspections performed including disposition of the results. Ensure that invoice properly aligns with delivered services and products received and accepted.

Competency 9: Contract Quality Assurance & Evaluation

9-1	Ensures consistency of appropriate quality requirements as they relate to the contract and validates/verifies adherence to specified requirements through test and measurement activities.
9-2	Monitors the products or services throughout their life cycle
9-3	Influences knowledge management practices (e.g., continuous process-improvement)

Competency 10: Contract Closeout

10-1	Given a contract type, identify the FAR regulations, agency supplemental requirements, as appropriate and steps associated with closeout. Distinguish between physical contract completion and administrative contract closeout.
10-2	Recommend the appropriate rating criteria for the contractor's performance evaluation within the agency past performance system.
10-3	Identify conditions for final payment to the contractor.
10-4	Identify the appropriate program file completion requirements.
10-5	Identify the conditions under which a COR's duties and responsibilities end for a specific contract.

Competency 11: Contract Reporting

11-1	Develop the COR file in accordance with agency requirements.
11-2	Monitor contractor's performance.
11-3	Accept or reject an invoice for a given task or deliverable in accordance with the Prompt Payment Act.

Competency 12: Business Acumen and Communication Skill Sets

12-1	Manage effective business partnership with the contracting officers, agency and other business advisers, and program participants.
12-2	Participate and/or contributes to the formulation of objectives and priorities, and where appropriate, implement plans consistent with the long-term interests of the organization in a global environment.
12-3	Manages stakeholder relationships that generate buy-in to the business and technical management approach to the program.
12-4	Risk management-Identify, mitigate, and advise against potential risks.
12-5	Monitors schedule and delivery processes.

1 = Not evident
2 = Slightly evident
3 = Evident
4 = More evident
5 = Very evident

COR COMPETENCIES - DEFENSE

TYPE A General Competencies	
0-1	Attention to Detail
0-2	Decision-Making
0-3	Flexibility
0-4	Oral and Written Communication
0-5	Problem Solving and Reasoning
0-6	Self-Management and Initiative
0-7	Teamwork

TYPE A Technical Competencies	
Type A Technical	
1-1	Business ethics
1-2	Effective communication of contract requirements
1-3	Effective contract performance management
1-4	Effective COR performance
Type A Required Competencies	
2-1	Assist in acquisition planning
2-2	Assist in contract award process
2-3	Establish and maintain a COR file with all required documentation
2-4	Identify and prevent unethical conduct and instances of fraud, waste and abuse
2-5	Perform technical and administrative contract surveillance and reporting responsibilities in accordance with the letter of designation and surveillance plan
2-6	Recommend contract changes when necessary and monitor contract performance as modified
2-7	Monitor contract expenditures and payments
2-8	Monitor contract schedule compliance
2-9	Perform liaison responsibilities between the contracting officer, the requiring activity, and the contractor for management of the contract.
2-10	Inspect and accept or reject deliverables during contract performance and at closeout in conformance with contract terms and conditions.
2-11	Monitor the control and disposition of U.S. Government furnished assets.

2-12	Perform surveillance in a contingency environment, when applicable.

TYPE B General Competencies	
0-1	Attention to Detail
0-2	Decision-Making
0-3	Flexibility
0-4	Influencing and persuasive interpersonal skills
0-5	Oral and Written Communication
0-6	Planning and evaluating
0-7	Problem Solving
0-8	Reasoning
0-9	Self-Management and Initiative
0-10	Teamwork

TYPE B Technical Competencies	
Type B Technical	
1-1	Business ethics
1-2	Defining government requirements
1-3	Understanding and knowledge of contract type
1-4	Effective analytic skills
1-5	Effective communication of contract requirements
1-6	Effective contract performance management
1-7	Effective COR performance
1-8	Project management
1-9	Strategic planning
1-10	Understanding the marketplace
Type B Required Competencies	
2-1	Assist in acquisition planning
2-2	Assist in contract award process
2-3	Establish and maintain a COR file with all required documentation
2-4	Identify and prevent unethical conduct and instances of fraud, waste and abuse
2-5	Review technical deliverables and ensure compliance with Statement of Work or Statement of Objectives (e.g., perform technical monitoring and reporting in accordance with a quality assurance surveillance plan or other quality surveillance plan).

2-6	Perform administrative monitoring and reporting responsibilities (e.g., handle security issues, attend meetings, etc.).
2-7	Recommend contract changes when necessary and monitor contract performance as modified
2-8	Monitor contract expenditures and payments
2-9	Monitor contract schedule compliance
2-10	Perform liaison responsibilities between the contracting officer, the requiring activity, and the contractor for management of the contract.
2-11	Inspect and accept or reject deliverables during contract performance and at closeout in conformance with contract terms and conditions.
2-12	Review and validate that contractor payment requests are commensurate with performance.
2-13	Monitor the control and disposition of U.S. Government furnished assets.
2-14	Perform surveillance in a contingency environment, when applicable.

TYPE C **General Competencies**	
0-1	Attention to Detail
0-2	Decision-Making
0-3	Flexibility
0-4	Influencing and persuasive interpersonal skills
0-5	Oral and Written Communication
0-6	Planning and evaluating
0-7	Problem Solving
0-8	Reasoning
0-9	Self-Management and Initiative
0-10	Teamwork

TYPE C Technical Competencies	
Type C Technical	
1-1	Business ethics
1-2	Defining government requirements
1-3	Understanding and knowledge of contract type
1-4	Effective analytic skills
1-5	Effective communication of contract requirements
1-6	Effective contract performance management
1-7	Effective COR performance
1-8	Project management
1-9	Strategic planning
1-10	Understanding the marketplace
Type C Required Competencies	
2-1	Assist in acquisition planning
2-2	Assist in contract award process
2-3	Establish and maintain a COR file with all required documentation
2-4	Identify and prevent unethical conduct and instances of fraud, waste and abuse
2-5	Review technical deliverables and ensure compliance with Statement of Work or Statement of Objectives (e.g., perform technical monitoring and reporting in accordance with a quality assurance surveillance plan or other quality surveillance plan).
2-6	Perform administrative monitoring and reporting responsibilities (e.g., handle security issues, attend meetings, etc.).
2-7	Recommend contract changes when necessary and monitor contract performance as modified
2-8	Monitor contract expenditures and payments
2-9	Monitor contract schedule compliance
2-10	Perform liaison responsibilities between the contracting officer, the requiring activity, and the contractor for management of the contract.
2-11	Inspect and accept or reject deliverables during contract performance and at closeout in conformance with contract terms and conditions.
2-12	Review and validate that contractor payment requests are commensurate with performance.
2-13	Monitor the control and disposition of U.S. Government furnished assets.

2-14 Perform surveillance in a contingency environment, when applicable.

2-15 Other specific functions consistent with the objectives of the activity's mandatory specialized or technical training.

1 = Not evident
2 = Slightly evident
3 = Evident
4 = More evident
5 = Very evident

Appendix C: Contact Summary Form

Contact	Name:	Contact Type:
		Telephone Number _____
Department/	Agency:	E-Mail _____
Contract/	Project:	Date:

1. What were the main issues or themes that struck you in this contact?

2. Summarize the information you received (or failed to receive) on each of the target questions you had for this contact.

3. Is there anything else that struck you as salient, interesting, illuminating, or important in this contact?

4. What new (or remaining) target questions do you have in considering the next contact with this site/contact?

5. Add coded themes below:

Salient Points	**Coded Themes**

Appendix D: Document Summary Form

Date received:

Name or description of document: Contract/Project:

Event or contact, if any, with which document is associated:

Significance or importance of document:

Brief summary of document contents:

Salient Points	**Coded Themes**

Appendix E: Case Analysis Meeting Form

Date: Contract/Project:

Interviewee:

1. Main themes, impressions, summary statements about COR resources, management, organizational support, time commitment, and competencies.

2. Explanations and propositions about the COR's influence.

3. Alternative interpretations, explanations, and/or disagreements about the COR's influence.

4. Next steps for data collection, including follow-up questions and actions.

5. Implications for revising and updating the coding scheme.

Appendix F: Interim Case Study Outline

Table of Contents

A. The Contract/Project
    1. Setting: an overview of the agency/program, contracting office, program office, acquisition team
    2. Demographics of the contract, contracting officer, program officer, and COR
    3. Demographics of other acquisition team members
    4. Organizational chart

B. Brief Chronology
    1. Acquisition plan, including contract/project objectives
    2. Description of contract/project
    3. The COR's story: acquisition planning, contract formation, performance management, and contract administration
        i. Planning
        ii. The problems
        iii. COR-provided assistance
            1. Sources, types, and adequacy
            2. Why and how the assistance was provided
        iv. How problems were dealt with
            1. Management and tools used
            2. Rationale for using these strategies

C. The Contract/Project Results
    1. Description of the overall effort
    2. Quality and extent of the results
        i. Measurements
        ii. Perceptions
        iii. Explanation of what happened/why implementation occurred as it did
    3. Why these results? Explanation of COR and contractor influences
    4. Lessons learned

Appendix G: Field Test of Interview Protocol to Research Question Alignment

The intent of the interview protocol in the current research study is to conduct an institutional dialogue to investigate people's actions and attitudes in effective performance of contract management. According to Wang and Yan (2012), institutional dialogue is a goal-oriented talk to gather information between a questioner and responder following a sequential structure of questions and answers. To ensure that the responses to interview questions embody the interviewees' points of view on the research questions, I initiated a field study with three qualitative research faculty members from Walden University to review the alignment of the interview questions and protocol and the research questions. The role of the faculty advisors is to serve as subject matter experts and make recommendations on the alignment of the research design, research questions, and interview protocol.

Field Test Communication Log

July 7, 2016	I attended a Qualitative Research Methodology session with Dr. Mary Spillett, Associate Director and Qualitative Methodology Advisor to get directions on getting expert support from qualitative research faculty at Walden University. She recommended using the faculty expertise directory to solicit individuals within the program or get URR suggestions. She also recommended providing a cover letter with directions requesting support.
July 10, 2016	I sent e-mail messages to seven faculty members listed in the faculty expertise directory in the Management department as having qualitative experience/expertise. No one responded to my request.

July 14, 2016 I sent an e-mail request to my Walden University Academic Advisor requesting the names of instructors for the RSCH 8300Z and RSCH 830Z courses. The advisor provided five professors' names. I sent the following e-mail message to each of them and three faculty members agreed to assist me with the field test.

Good afternoon,

This message is to request your assistance with a field test in my qualitative research study on "Improving Contract Management by the Government Contracting Officer's Representatives." I am a student in the school of management and technology working on a Ph.D. in Management. The URR on my dissertation committee, Dr. Richard Schuttler has required me to get a field test of my interview questions and protocols prior to approval of my dissertation proposal. The URR's requirement is to get 3 to 5 qualitative research experts to review my proposed interview questions to ensure that they are aligned to the study's central research questions and will elicit aligned responses to the research design.

Are you available to assist me with the field test? If so, please let me know so that I can forward the dissertation proposal to you as well as any other information that you will need to conduct the review.

I look forward to hearing from you as soon as possible so that I can plan accordingly.

Also, please let me know what the cost is for your assistance.

July 14, 2016 Expert 1 agreed to assist me with the field test.

July 15, 2016 Expert 2 agreed to assist me with the field test.

July 16, 2016 Expert 3 agreed to assist me with the field test.

July 18, 2016 Expert 1 responded with the following feedback.

> It looks aligned to me. The research questions appear to emanate from the problem and purpose statements, as presented. Is there anything else I should provide?

July 18, 2016 I responded to Expert 1's question by sending her the following excerpt from the Proposal URR Rubric Analysis. I also sent this message to Experts 2 and 3.

> Good evening,
>
> Thank you for your prompt response to my request. I made revisions in the dissertation proposal based on Dr. Schuttler's review comments prior to sending it to you for review. I need your advice on the steps needed to adhere to Dr. Schuttler's recommended "field test."
>
> The overall comments from Dr. Rich Schuttler are as follows.
>
> The overall proposal requires closer alignment of the research method and design throughout. A field test needs to be accomplished and then detailed in chapter 3 as to how it was conducted, qualifications of 3-5 experts in qualitative research (perhaps Walden or other faculty approved to teach qualitative research courses), and then provided the pre- and post- Field Test interview questions and protocols.

The concern noted above about a quantitative component/mixed-method should be addressed.

Under #4, the problem statement, purpose, research questions... portion of the rubric, the comments are as follows.

...Also, the subquestions present concerns that appear confusing (I removed the subquestions) to the alignment of the design through the interview questions. No Field Test was done with 3-5 qualitative researchers; one should be conducted as doing so will help to better align the research method and design to ensure the research and interview questions are aligned in accordance to address the gap in the literature.

Under #5, the research design and methodology... portion of the rubric, the comments are as follows.

Appendix B includes "Perceived Organizational Support Five Point Scale." It is uncertain if this case study will contain a quantitative component and if so, if statistical testing is to occur. Is this more so a mixed-method study?

Under #6, the problem statement, purpose, research questions... portion of the rubric, the comments are as follows.

I sense with minor adjustments throughout the document and with the help of 3-5 Field Test qualitative subject matter experts, this and all other areas of concern to the research method and design will improve.

I am not sure what is needed. Please advise.

July 19, 2016 I received the following message from Expert #2.

> I don't think this email was meant for me. If this email was meant for me, this is something to discuss with your committee, not the people you are using to conduct the field test.

July 19, 2016 I received the following message from Expert #3.

> I echo Expert #2's comments about this email as not pertaining to SME decisions.

July 21, 2016 I responded to Expert #2 and Expert #3 with the following message.

> Okay, please provide your review comments regarding the alignment of the problem statement and study's central research questions to the research design and interview questions.
>
> I appreciate your assistance.

July 26, 2016 I received a message from Dr. Wells (Committee Chair) requesting a status report on the revisions and the field test. I informed her that I was still waiting on feedback from the three qualitative research subject matter experts.

July 29, 2016 Dr. Wells (Committee Chair) sent me a sample field test report for use in documenting my field test results.

July 31, 2016 I received the following message from Expert #3.

> Sorry for the delay in getting back with you on this request. I anticipate getting you substantive feedback early this next week.

July 31, 2016 I informed Dr. Wells (Committee Chair) that I heard from Expert #3 and was waiting on his feedback.

August 8, 2016 I sent the following message to the three experts to remind them of the the need for feedback prior to the end of the summer quarter.

Please let me know when I can anticipate hearing from you. My progress this quarter (ending August 22nd) is dependent on making any necessary revisions based on your recommendations and resubmitting the dissertation proposal for approval.

Your prompt response would be appreciated.

August 8, 2016 Expert #1 sent a message with the following feedback.

Okay. I think I see the problem. Here is your purpose statement.

The purpose of this proposed qualitative multiple embedded case study is to explain how using resource-based strategies may improve the acquisition workforce's effectiveness in contract management.

Here are your research questions.

1. How did the resources employed by CORs to manage contracts influence contract outcomes?
2. What is the nature of the expectations that affect the COR's actions?
3. How are the COR's activities on assigned contracts perceived and reported?

They don't align. Your purpose statement and the research questions don't exactly match. From my review of your problem statement, there is a current problem with effectiveness. There is something missing that I cannot quite put my finger on. I think it is in the wording of the questions. If the problem is effective using

the resource-based strategies, then it would seem your questions would be better served in identifying what the issues are with the resource based strategies. Why do you care about the perceptions and reporting of COR activities? I'm not sure I see how this links up to your problem and purpose statement. This one might need some tweaking.

August 9, 2016 I communicated via telephone with Expert #1 to get an understanding of her concern. She said that I should consider revising the purpose statement. Her concern was that there is confusion on whether the study's focus is on determining effectiveness.

August 9, 2016 Expert #2 sent a message with the following feedback.

Dear Etta-- I reviewed your material thoroughly. I believe you need to work with your Chair on qualitative interview development. Your protocol is too lengthy with quite a broad scope of subjects to qualify for a qualitative, case study design. There is little alignment between problem purpose RQs and interview protocol -- because there is just too much going on.

I am attaching a paper here that addresses these issues in developing a qualitative interview protocol your guidance on this topic.

August 10, 2016 Dr. Wells (Committee Chair) sent me references on explanatory case studies and field testing.

August 10, 2016 As a result of the field test and assistance from Dr. Wells (Committee Chair), the purpose statement is modified to reflect the alignment between the problem and purpose statements as well as the research protocol.

August 11, 2016 The revised dissertation proposal was resubmitted for committee review and approval.

August 12, 2016 The committee chair returned the proposal with review comments questioning the change from an exploratory to explanatory case study.

August 18, 2016 The revised dissertation proposal was sent to Expert #3 for feedback.

August 25, 2016 Expert #3 sent a message with the following feedback.

> Thank you for being proactive in your communications and response to feedback as these are signs of an effective and committed doctoral learner!
>
> After reviewing your revised proposal document, I find that you did embrace my feedback and adjust your wording throughout the document.
>
> In light of the suggested changes, I find that your interview questions now better support your intention for the proposed study.
>
> Best of success to you with your continued dissertation journey**.**

Table G1 is a matrix showing the alignment of the problem and the modified purpose statement.

Table G1

Alignment of Management Problem and Research Purpose Statement

General Management Problem	Specific Management Problem	Purpose Statement
The Federal Government has a problem with managing the contract management resources it uses to administer and monitor contracts with state and local governments, for-profit and not-for-profit organizations, universities, and individuals. The contracting officer's representative (COR), a member	The persisting problem is in the quality of management of the CORs' contract management resources and the measures used to assess the influence	The purpose of this qualitative multiple case study is to explore how using resource-based strategies may improve the acquisition workforce's effectiveness in Federal contract management.

General Management Problem	Specific Management Problem	Purpose Statement
of the acquisition workforce, is the segment of the contract management resources with responsibility for contract administration and monitoring. Currently, the government is addressing the problem by attempting to improve the competencies of the acquisition workforce, including the COR.	of the COR on contract outcomes.	

Table 10 in chapter 3 was revised to reflect the alignment between the research questions and interview protocol. Table G2 includes a matrix of the alignment of the study focus, the modified research questions and interview protocol.

Table G2

Study Focus, Research Questions and Interview Protocol Connection

Study Focus	Research Questions	Interview Protocol
Demographics of participants		Part 1 – Questions 1 through 13.
Effect of CORs' resource management on organizational performance outcomes.	#1 How did the resources employed by CORs to manage contracts influence effective contract outcomes?	Part 4 – Questions 21, 22, 23, 24, and 25
Effective appointment time and time commitment of CORs for successful performance outcomes	#2 What is the nature of the process expectations that affect the COR's actions and facilitate outcome-based effectiveness?	Part 4 – Question 20
Level of organizational support and other factors (e.g., time and competencies) that contribute to performance outcomes.	#2 What is the nature of the process expectations that affect the COR's actions and facilitate outcome-based effectiveness?	Part 2 - Questions 14, 15, 16
Alignment of CORs contract management activities to organizational goals.	#3 How are the COR's activities on assigned contracts perceived and reported to show the workforce's effectiveness?	Part 3 – Questions 17, 18, and 19

The responses to the subject matter experts' feedback is reflected in Table G3. Modifications to the purpose statement and research questions were made to reflect the feedback and recommendations of the subject matter experts.

Table G3

Subject Matter Experts' Feedback and Researcher'sResponse

Subject Matter Experts' Feedback	Researcher's Response
Expert #1: They (the purpose statement and research questions) don't align. Your purpose statement and the research questions don't exactly match. From my review of your problem statement, there is a current problem with effectiveness. There is something missing that I cannot quite put my finger on. I think it is in the wording of the questions. If the problem is effective using the resource-based strategies, then it would seem your questions would be better served in identifying what the issues are with the resource-based strategies. Why do you care about the perceptions and reporting of COR activities? I'm not sure I see how this links up to your problem and purpose statement. This one might need some tweaking.	The purpose statement and research questions were revised for clarity and alignment based on the feedback recommendations from committee chair and the subject matter experts in the Field Test. Original purpose statement: The purpose of this qualitative multiple case study is to explore an organizational excellence framework using resource-bases strategies to improve the COR member of the acquisition workforce's effectiveness in Federal contract management. Revised purpose statement: The purpose of this qualitative multiple case study is to explore how using resource-based strategies may improve the acquisition workforce's effectiveness in Federal contract management. Original Research Sub-Question #1: How did the resources employed by CORs to manage contracts influence contract outcomes? Revised Research Sub-Question #1: How did the resources employed by CORs to manage contracts influence effective contract outcomes? Original Research Sub-Question #2: What is the nature of the expectations that affect the COR's actions? Revised Research Sub-Question #2: What is the nature of the process expectations that affect the COR's actions and facilitate outcome-based effectiveness? Original Research Sub-Question #3: How are the COR's activities on assigned contracts perceived and reported? Revised Research Sub-Question #3:

Subject Matter Experts' Feedback	Researcher's Response
	How are the COR's activities on assigned contracts perceived and reported to show the workforce's effectiveness?
Expert #2: I believe you need to work with your Chair on qualitative interview development. Your protocol is too lengthy with quite a broad scope of subjects to qualify for a qualitative, case study design. There is little alignment between problem, purpose, research questions, and interview protocol – because there is just too much going on. I am attaching a paper here that addresses these issues in developing a qualitative interview protocol for your guidance on this topic.	I reviewed the guidance provided by Expert #2 and compared it to my proposed interview protocol. 1. Pick a topic that is interesting to you. 2. Research should guide your questions. 3. Use a script for the beginning and end of your interview. 4. Questions should be open-ended. 5. Start with the basics. 6. Begin with easy to answer questions and move towards ones that are more difficult or controversial. 7. The phrase "tell me about…" is great way to start a question. 8. Write big, expansive questions. 9. Use prompts. 10. Be willing to make "on the spot" revisions to your interview protocol. 11. Don't make the interview too long. 12. Practice with a friend. 13. Make sure that you have set up a second shorter interview to help you clarify or ask any questions you missed after you have transcribed the interview. 14. If needed, clear your project with your school's Institutional Research Board (IRB). My proposed interview protocol is consistent with this guidance. I have not yet practiced with a friend (#12) or sought IRB approval (#14).
Expert #3: After reading your proposal several times and conducting substantive word use inquiries, I find several areas that remain unclear to an academic reader. Perhaps these might be elaborated clarified, or even better worded? Listed here are those overall	

Subject Matter Experts' Feedback	Researcher's Response
concerns and then followed by comments about your request for my field test response.	
1. Overall the proposal does present an extensive effort to define the COR issues and to propose an investigation of strategies that may have been successful by present CORs for mitigating those issues. However, the overall appearance raises questions as to the nature of the proposed study. My impression is that you are addressing a real world on-going performance issue with CORs engaged in contract management. Proposal seems to be oriented toward finding a model of solutions to a range of those COR performance issues. My challenge here is that the wording suggests an applied problem solving that uses response-based theory to provide solution(s). At Walden, the applied approach is usually the DBA program. For a PhD, expectation is a research grounded inquiry that address theory (not uses theory) with either incremental enhancement to theory or revelatory change to theory. Not seeing clearly how this proposal is PhD as contrasted to applied DBA? Clarity on wording may be required to focus this proposal accordingly. Further, I know from my nearly 40 years in engineering-oriented contracting organizations, that performance issues are given by lack of knowledge and lack of	The problem is a real-world, on-going performance issue. I am not sure how to address the issue between the applied approach (DBA program) and the research-ground inquiry of a PhD program. This study is research based on the resource-based theory. The training addressed as part of the "alleged problem issues" is the competency-based strategy that the study is addressing as one of the resources that should be included in a comprehensive management framework. CORs must achieve a level of experience and training to be certified in the competency-based model. This certification is explained in Chapter 2-The COR.

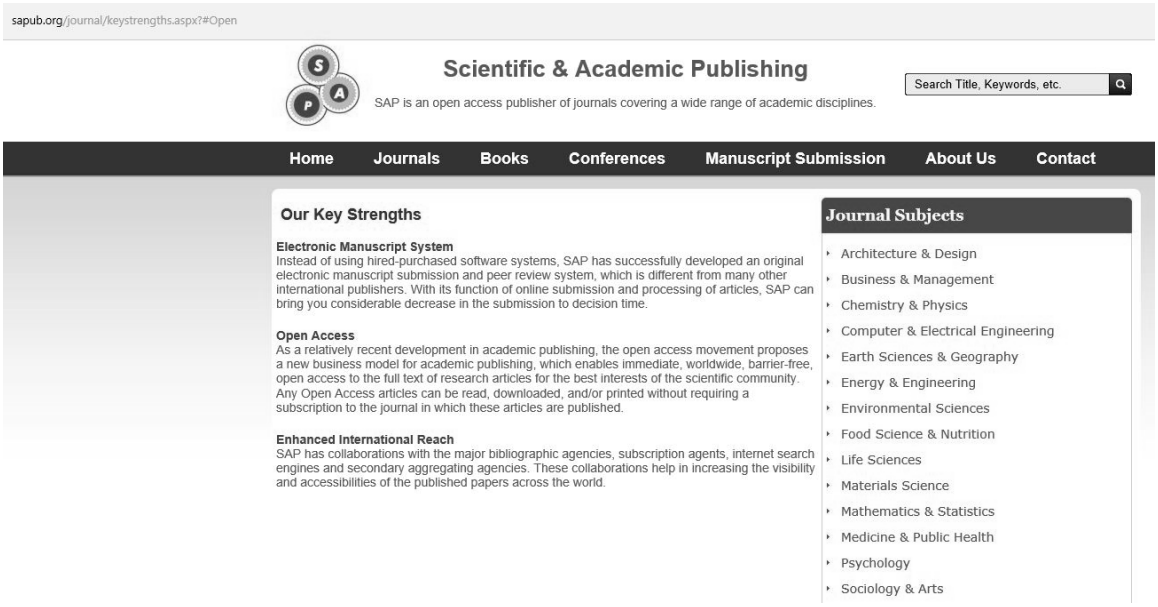
Subject Matter Experts' Feedback	Researcher's Response
training. Seems that training would address both of these alleged problem issues? What is the situation with training as shows up in this COR environment? Are they not trained?	
2. BTW: I have a long term colleague who is a civilian COR for procurement of energy management equipment. As an engineering colleague, I have known him for 35 years and would trust his judgment and experience. A casual conversation with him suggested to me that your topic scope may be too broad and that specific issues through a more focused and narrow lens might yield a more accurate study.	I am not sure how to respond to this comment. The scope of the study is focused on areas as presented in Table G2 and throughout the proposal.
3. When you visit the how the term "problem" shows up in the proposal (see distinction below) you might note that the "problem" is worded multiple (at least 10) different ways in the manuscript. Thus, a reader cannot be clear as to what problem is being addressed?	The problem statement was modified for clarity.
4. Throughout the proposal, wording for both qualitative and quantitative methodology is suggested. Also, the data collection guides and instruments in the Appendix present both open-ended interview question and numerous scaled ranking survey response-like question variables. Based on these findings, I might suggest that you are more likely describing a Mixed Methods methodology.	I am not sure how to respond to the statement that wording for both qualitative and quantitative methodology is suggested. This is a qualitative study. There is no quantitative component in the data collection guides and instruments.

Subject Matter Experts' Feedback	Researcher's Response
Clarity on wording may be required to focus this proposal accordingly.	
5. For the qualitative perspective, the wording suggests a multiple embedded case study design. However, minimal description or discussion as to what constitutes that design seems scattered throughout the manuscript thus making it difficult for reader to ascertain boundaries of the cases, unit of analysis, unit of measure, time frame, and depth of the investigation. Clarity on wording may be required to focus this proposal accordingly.	Pages 117-118 explain the multiple embedded case study design.
6. Appendices show both telephone interview open-ended questions and a series of ranked scoring assessments around COR competencies that appear as survey research format. I guess these could also be asked in a telephone interview. However, the seeming total number of question variables shown in the Appendices exceeds 300! See listing below. How all this data is to be processed is not clearly identified in the proposal section on methodology?	The interview protocol includes a section to gather information on the unique features of contract/project that led to the effective performance and successful contract outcomes. The attached lists allow the study participants to choose from the list to indicate the level of support and the competencies from their certification level training that was most evident as they performed the contract/project activities. There are a total of 25 questions in the interview protocol. The time estimate of 30 minutes for completion is based on previous use of the interview protocol by the Federal Acquisition Institute.
7. A specific Walden expectation is that Proposal and dissertation demonstrate citation of scholarly resources that are current within five years of proposed graduation. An assessment of the references list shows about 65% of those listed meet the currency criteria. I strongly suggest you include	The reference list reflects a lack of current information on the subject area as it applies to Federal contract management by the contracing officer's representatives but numerous historical documents. The only alternative to meet the currency criteria is to add more references on the resource-based theory which did not appear to enhance the focus of the study on its use in the Federal Government.

Subject Matter Experts' Feedback	Researcher's Response
more citations to support your declaration, assertions, and descriptions throughout the proposal and that those sources be current scholarly articles.	
8. Overall, the readability of the wording in proposal suffers from seeming high use of jargon, wordy phrases, and excessive use of acronyms. See the attached readability report (free www site), the images of the word use assessment (from StyleWriter, a profession writing tool), and other attached files.	The proposal was edited extensively by a professional editor, the committee chair and committee members as well the use of Grammerly software. I understand that the writing style I use as a government employee is distinct and appears to be as described, (i.e., the use of jargon, wordy phrases and excessive use of acronyms) but every effort has been made to converse in an scholarly manner.
…The purpose of this memo is to respond to your request for a Field Test of your interview questions and the alignment mentioned in your wording. In order to respond to you in a substantive manner, I needed to gain clarification of many specifics of your intended study and how they show up (or do not show up) in the wording. Following is an echo of my findings and comments about my concerns.	
Proposal Distinctions – Problem Statement: Unclear to an academic reader as what the problem focus actually is.	The problem statement was modified for clarity.
Further, the Problem Statement seems to have minimal sourced support that such problem (either general or specific) actually exists in the literature. Suggest a focus on clarity of the problem to be addressed by the proposed study. Suggest that consistent wording be used to describe the type of problem the proposed study will address.	Examples of specific cases were added in chapter 3 to provide evidence of the problems cited in the literature.
May need to scope a single problem rather than seeming "all" problems?	

Subject Matter Experts' Feedback	Researcher's Response
Purpose of the Study: Suggestion here is that a single purpose statement be presented and then echoed (copy and paste) throughout the proposal wherever the purpose is called forth. Research Objectives: These objectives shoed up from a search of proposal using "objectives." Again, the objective and the purpose are very similar and as such should be consistently worded. Research Questions: See inserted comments on the seeming confusing wording and potential alignment concerns with the problem and purpose for the proposed study. May need to better align these with the topic, problem, and purpose of the proposed study.	The purpose statement was modifed for clarity and replicated throughout the proposal. The references to objectives that were not consistent with the problem and purpose statements were deleted.
Interview Questions: Appendices contain both open-ended interview questions and survey response scaled (ranking choices) for numerous questions. Note that each inquiry (even demographics) are actually a question variable if not an open-ended question.	There are 25 open-ended questions in the interview protocol (Appendix B). The COR competency listings are choices to facilitate the response to question #22. The choices are specific to each of the three certification levels (e.g., Type A, B, or C for defense). It is anticipated that each COR participating in the study is certified at only one of the three levels; hence, the number of questions is only 25.

Appendix H: Letters of Permission



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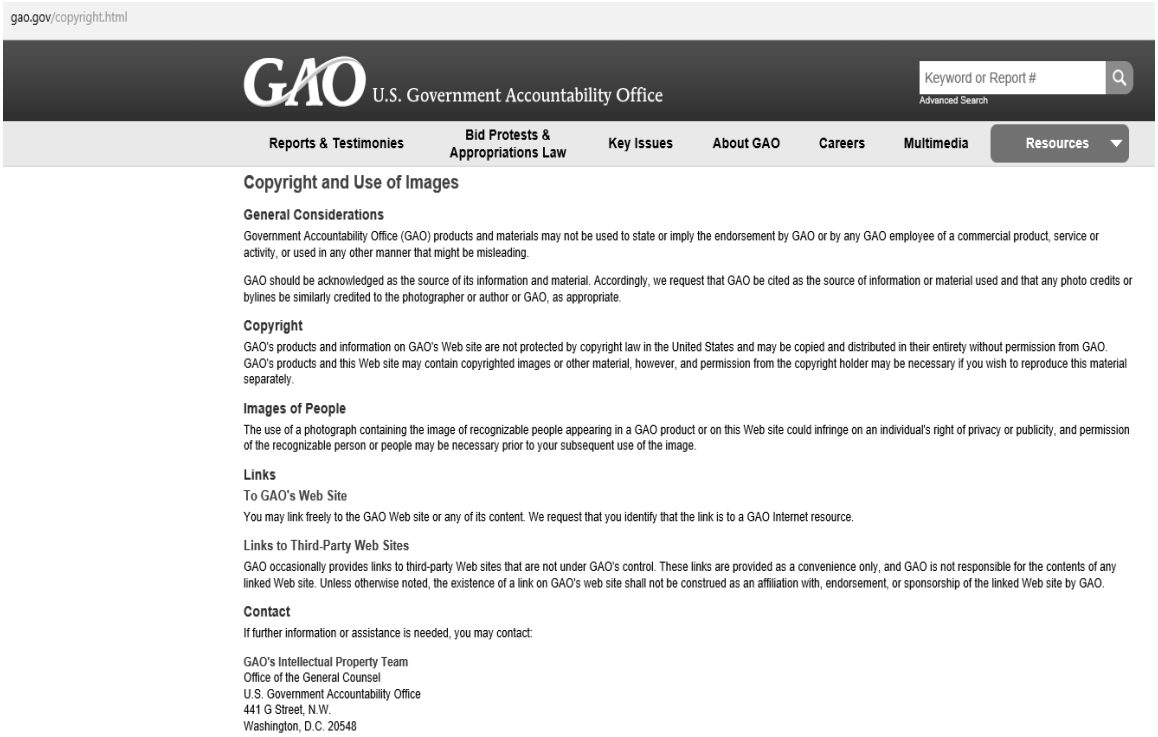
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Appendix I: Codes, Categories and Findings from Interviews and Documents

Codes	Categories	Findings
Collaboration with stakeholders	Communications	Characteristics of CORs' relationships
Communication with program		
Management meetings		
Program reviews		
Communication with contractors		
Professional		
Flexible		
COR influence	Work within acquisition team	
Acquisition team coordination		
COR's authority		
Project lead		
Understand COR's responsibilities		
Set tone		
COR's experience	Interpersonal factors	
Trust		
Accident risk	Risks and pressures	Understanding CORs' environment
Government staff changes		
Changes in requirements		
Fatality risk		
Funding		
Interface risk		
Permit and document approval risk		
Political pressure		
Protest		
Schedule risk		
Security risk		
Site risk		
Weather risk		
Target goals	Organizational support	
Available resources		
Perceived organizational support		
Multiple award contract	Acquisition strategy	
Small business		
Sole source contract		
Lowest price contractor		

(Table continues)

Codes	Categories	Findings
Contractor training Contractor's communication method Contractor's experience Contractor's project management Contractor's staffing Corporate experience Subcontractors	Contractors' resources	Understanding CORs' environment
Lawn mowing Leadership support Logistics Planting trees Public relations	Contractor tasks	
Developing acquisition strategy Document past performance Communicating with program Conducting market research Prepared IGCE Develop report requirements Defining requirements Develop requests for information Develop statement of work Setup contract		CORs' Processes
Debriefing vendors Prepare evaluation documents Evaluating proposals Inspecting products and services Approve invoices Conducting site visits Conducting after award meeting Closing out contract Interpreting contract Supporting contract modifications Monitoring performance	CORs' tasks	
General Business Competencies Technical Competencies	CORs competencies	

(Table continues)

Codes	Categories	Findings
Phase-dependent worktime 10% or less COR worktime 15% to 25% COR worktime 26% to 40% COR worktime 50% COR worktime 100% COR worktime	COR worktime	Organizational models with CORs
Liaison Subject matter expert Inspector Project manager Customer relations Time manager	CORs' Functions	
Task completion time Acquisition office measures After action review Timely performance Customer satisfaction Turnaround time Project alignment Review and rating of programs Saved money Within budget	Government measures	
Teamwork No complaints Acceptance of work Client satisfaction Completion of tasks Contractor expectations		Teamwork
Customer satisfaction Fewer service tickets Funds collected Good staffing Meets timelines Monthly reporting No complaints Quality performance Redo work	Contractor measures	
Organizational knowledge Subject matter expert Continued learning Program management skills	Training	Organizational support to enhance competencies