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Strategies for Implementing a Successful Enterprise Resource Planning System

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This is to certify that the doctoral study by

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Abstract

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Abstract

The U.S. Department of Defense executives consider enterprise resource planning systems as a critical technology because of increasingly global operations and audit compliance pressures, which may affect organizational performance and overall success. The estimated cost to implement enterprise resources systems to avoid failure and meet budget cost across the Department of Defense services and agencies has ranged from $530 million to $2.4 billion. Guided by the general systems theory, the purpose of this single-case study was to explore enterprise resource planning strategies developed and implemented by United States Marine Corps military leaders. Data collection consisted of a review of organizational documents and semistructured interviews of 5 organizational leaders in a United States Marine Corps base in Albany, Georgia. Data analysis entailed interview transcription, keyword and phrase coding, and emergent theme identification. The prominent emergent themes were essential strategic planning guidance and organizational leaders and change management, which are the essential components for effectively implementing enterprise resource planning systems. The Department of Defense executives and senior leaders may use the findings of this study to develop an essential strategic plan, which could reduce the excessive cost and over-budget associated with enterprise resource planning systems. Social change implications include enhancing end user knowledge and reducing inefficiencies within organizations to improve corporate social responsibility.

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Dedication

To my Lord and Savior Jesus Christ, this doctoral study is for your glory. Without any reservations, I dedicate my doctoral study to my late mother, Lillie B. Thompson, who was the monarch of our family and an advocate for education and higher learning. Mother, I continue to strive to share your passion for education with my children and grandchildren, to make you proud of me. I believe that we can achieve the impossible with determination and faith.

Acknowledgments

This milestone achievement is a testimony of my faith. I truly thank my Lord and Savior Jesus Christ for inspiration, determination, and my desire to live for his purpose. Secondly, I would like to acknowledge and offer a special thanks to my wonderful and supportive husband, Victor Swanier, the wind beneath my wings for his unselfish support, unconditional love, and sacrifices throughout this entire journey. To my children Antonio, Victor, Ashley, and grandchildren, thank you for your patience, quietness, and love. To Rosie Swanier and Greta Crawford, no words can express my love and gratitude for your encouragement, love, and support. I hope that this achievement compensates for the missed girl-friend times and complaints from me you endured during this journey. I would like to acknowledge my caring and excellent chairperson, Dr. John House, who has been my motivator and partner throughout this journey. I almost gave up but you encouraged me to *push hard*. I would like to acknowledge Dr. Mohamad Saleh Hammoud and Dr. John Glenn for assisting me and coaching me through scholarly perspective in understanding the doctoral journey. I would like to acknowledge Dr. Alecia Brooks for coaching, mentoring, and listening to my woes about this doctoral program. Because of our many late night sessions, I was able to complete this doctoral study. Finally, I would like to acknowledge participants behind the scene who scholarly shaped this doctoral study and helped to make experiences with Walden memorably and to make this doctoral study a reality.

Table of Contents

List of Tables

Section 1: Foundation of the Study

Organizational leaders for military services and agencies continue to invest billions of dollars in enterprise resource planning (ERP) systems to meet audit readiness by the fiscal year 2017 (U.S. Government Accountability Office [GAO], 2011a). To meet audit readiness, U.S. Department of Defense (DoD) organizational leaders will invest the necessary funds to develop and implement ERP systems (GAO, 2012a). An ERP system is a software package that organizational leaders purchase from a commercial vendor rather than attempting to develop their software in-house (Anderson, Banker, & Menon, 2011). Organizational leaders from the DoD defined ERP as an automated system with the capability to perform various functions specifically related to the business of the organization (GAO, 2012a).

Organizational leaders implementing ERP software in DoD will replace over 500 software operating systems to streamline DoD's business operations (GAO, 2011a). Since 1995, DoD business systems lacked modernizations and were high-risk (GAO, 2011a). Since the early 1990s, ERP software has gained popularity as an important information technology milestone with benefits to assist organizational leaders in improving and streamlining business processes (Hwang & Min, 2013). Organizational leaders could benefit from ERP implementation strategies that increase the chances of implementing ERP systems successful (Chang, Fu, & Ku, 2015). Adopting ERP implementation strategies may help DoD subordinates agencies successfully implement ERP systems to replace outdated software and improve subordinate agencies financial audit readiness (GAO, 2011a).

Background of the Problem

Implementing ERP systems will require a change in the organization, particularly when new technology replaces complex, outdated software systems (Saini, Nigam, & Misra, 2013). Organizational leaders who take advantage of implementing ERP systems face problems such as employees' resistance and lack of executives' involvement (Saini et al., 2013). When an ERP system fails to meet the expectations of the organization, a business may suffer (Venugopal & Rao, 2011). Implementing ERP systems can be a costly and risky business decision if organizational leaders select the wrong ERP software package (Kilic, Zaim, & Delen, 2014).

ERP may require years to implement. Organizational leaders analyze the risk in investing a vast amount of financial resources into the project (Galy & Sauceda, 2014). Organizations leaders implement new technology expecting that the product will provide a return on their investment (Galy & Sauceda, 2014). For example, the Hershey Foods Corporation's ERP project was a 4-year plan, but leaders decided to change the plan to 30 months (Sharma, 2012). Hershey leaders rushed to implement the company's customer relation division and logistics software packages simultaneously, which substantially increased the end users' ability to learn and adjust to the complexity of the ERP system (Sharma, 2012). Within DoD, organizational leaders from different subordinate agencies will implement ERP systems to automate various systems to perform specified business functions (GAO, 2012a). However, six leaders implementing ERP systems experienced scheduled delays during the development and ERP implementation phases ranging from

1.5 to 12.5 years (GAO, 2011a), and the cost exceeded $8.0 billion over budget (GAO, 2011a).

Problem Statement

Six of 10 recent DoD ERP implementations experienced schedule delays and incurred an additional cost of $8.0 billion (GAO, 2011a). DoD ERP implementation schedule delays ranged from 2 to 12 years, and five of the 10 ERP implementations incurred cost increases ranging from $530 million to $2.4 billion (GAO, 2011a). The general business problem was there was a need for strategies to realign business processes to implement ERP systems successfully in DoD organizations. The specific business problem was that some DoD leaders lacked strategies to implement ERP systems to avoid failure, cost overruns, and schedule delays (GAO, 2011a).

Purpose Statement

The purpose of this qualitative single-case study was to explore ERP implementation strategies used by organizational leaders in a United States Marine Corps (USMC) military base in Albany, Georgia, which avoided failure, cost overruns, and schedule delays. Identifying ERP implementation strategies that worked on a USMC base in Albany, Georgia, could help other DoD leaders implement successful ERP. The population for this study included five DoD civilian employees, General Service Grade 14 and 15 at the USMC base in Albany, Georgia. These organizational leaders possessed experience in implementing ERP strategies to avoid failure, cost overruns, and schedule delays. Organizational leaders participated in semistructured interviews because these organizational leaders were most suited to identify ERP implementation strategies

necessary to implement successful ERP. I reviewed organizational documents to explore information about ERP implementation strategies to triangulate the data. This study might contribute to social change because ERP implementation strategies are necessary to halt the increase in excessive DoD spending in failed ERP implementation cost. They also enhance the capability and efficiency of DoD organizational leaders tasked with implementing ERP strategic planning and ensure funds remain available to meet future DoD ERP upgrades to support future military technology, growth, and sustainment globally..

Nature of the Study

In a qualitative research approach, researchers address and explore the phenomenon within its context (Yin, 2014). Qualitative research is a valuable tool researchers use to explore issues related to management and develop an understanding of the phenomena from the viewpoint of the participants (Yin, 2014). Researchers use the qualitative research to collect data systematically and interpret the data obtained from interviews or observations (Denzin & Lincoln, 2011). To achieve in-depth explanations of beliefs and experiences from the participant's perspective relating to ERP implementation, I used the qualitative research method. Qualitative research supports data collection through the participant's view and heightens the understanding through exploring and interpreting the meanings expressed by experiences of others (Denzin & Lincoln, 2011; Yin, 2014). Quantitative research is suitable when researchers compare individual variables (Goertz & Mahoney, 2012). In general, mixed method research involves combining or integrating quantitative and qualitative information into one single

study (Ågerfalk, 2013; Moustakas, 1994). There were no quantitative variables in my research; therefore, both quantitative and mixed method research were inappropriate for this study.

A case study design is exploratory in nature and allows researchers flexibility to investigate an event in its current state (Marshall & Rossman, 2016). According to Yin (2014), a case study should represent the real-life and in-depth context of the researcher's investigation. I selected a single-case study method because of the opportunity to collect and gain in-depth knowledge and rich data relating to the phenomenon in its natural setting (Yin, 2014). According to Azevedo, Romão, and Rebelo (2012), case study research is appropriate and commonly used in ERP research. This study was not an inquiry about human experiences focusing on collecting data from lived experiences of participants about a phenomenon (Moustakas, 1994). Therefore, a phenomenological research was not appropriate for this study. Ethnography research usually involves data collection on a large culture group to observe participants' daily lives and so would not have been suitable for this study (Yin, 2014). I used a semistructured interview process. Marshall and Rossman (2016) suggested researchers ask the how and why to interview questions. Similarly, Yin (2014) asserted that asking the how and why questions can help, researchers explore and identify emergent themes commonly related to case study research.

Research Question

The purpose of this qualitative single-case study was to explore ERP implementation strategies developed and implemented by organizational leaders in a

USMC military base in Albany, Georgia, which avoided failure, cost overruns, and schedule delays. The central research question for this study follows: What strategies are necessary to implement ERP systems to avoid failure, cost overruns, and schedule delays?

Interview Questions

1. What strategies affect successful implementation of an ERP system in your organization?
2. What strategies became more important during the pre and post ERP implementation phases?
3. What was your primary role during the strategic planning process for implementing ERP?
4. How would you describe your organization's pre ERP strategic implementation plan?
5. How would you describe your organization's post ERP strategic implementation plan?
6. How many hours did you participate in the ERP implementation strategic planning?
7. How was change to the information technology (IT) systems introduced to your organization?
8. What is your understanding of why ERP is important to your organization business and supply chain processes with an ERP implementation strategic plan?

9. What documentation can you share regarding ERP implementation strategies applied in your organization?
10. How did your organization align business process with organizational strategic plans to implement ERP?

Conceptual Framework

Based on the premise that the whole is greater than the sum of the parts, and single agents exist independently within a larger entity, Von Bertalanffy (1972) explained that general systems theory supports the following key constructs: (a) interdependence, (b) interconnections, and (c) interaction. As applied to this study, DoD organizational leaders are transforming their business processes, and ERP software is a part of the transformation. Implementing ERP systems help organizational leaders interconnect functional divisions of the organization into a single integrated system to manage the flow of information throughout the organization (Beheshti, Blaylock, Henderson, & Lollar, 2014). Organizational leaders responsible for managing the USMC base business processes strive toward improving the functionality of the ERP system without degrading other critical parts of the business operation, and if the ERP system is changed and integrated into the processes, end users could be impacted throughout the entire base business operations.

In the 1930s, Von Bertalanffy (1972) outlined how modern technology and the complexities of traditional methods could no longer meet the needs of society, and a different approach to managing technology was necessary to cope with the rapid changes in technology. DoD is a complex organization and for years operated over 500 operating

systems (GAO, 2012a). As new technology emerges, organizational leaders could face the challenge of integrating outdated business processes. Implementing ERP systems provides a different approach to managing business processes by integrating outdated systems into a single business system. ERP systems address the challenges of having a single information system that encompasses the business functions of the whole (entire) organization (Von Bertalanffy, 1972). The general systems theory was appropriate for this study because DoD organizational leaders were attempting to remove single-source outdated business systems into a single, multifunctional ERP system.

Operational Definitions

Customer relationship management (CRM): CRM is a process organizational leader's use for building value to create a successful win-win relationship, and enhance customer support over a lifetime that increases profitability (Nguyen & Mutum, 2012).

Enterprise resource planning (ERP) system: An ERP system is a set of information software packages consisting of software modules designed to integrate and support all business processes throughout the organizational functional divisions (Maas, Fenema, & Soeters, 2014).

Knowledge management (KM): Knowledge management is an information collection systems implemented throughout the entire organization designed to support, create, and share business processes (Von Krogh, 2012).

Preimplementation phase: Preimplementation phase is the first phase of ERP implementation business that covers the entire installation (Sun, Ni, & Lam, 2015).

Post implementation phase: Post implementation phase is the final stage of ERP implementation used to evaluate the effectiveness of the system development after the system has been in production (Gallagher & Gallagher, 2012).

Supply chain management (SCM): Supply chain management is a key business process for integrating end users to suppliers for providing products, services, and information for the contribution of value added for customers and other stakeholders (Janvier-James, 2012).

Assumptions, Limitations, and Delimitations

Assumptions

Leedy and Ormrod (2010) described assumptions as a basis, and the research problem could not exist without assumptions (p. 62). Two assumptions guided the analysis and data collection for the current research. First, participants of the USMC base Albany, Georgia—organizational leaders, DoD civilian employees, General Service Grade 14 and 15—selected for this study would respond honestly to the interview questions and discuss their experience and knowledge of successful ERP implementation strategies (Bansal & Corley, 2012). Conducting a case study, I assumed the participants would respond to the questions relying on their knowledge and expertise in dealing with ERP systems (Maxwell, 2012). Second, the assumption was that the interview questions for this qualitative single-case study were valid and reliable.

Limitations

Limitations according to Rubin and Rubin (2012) are events or matters that occur in the research that researchers do not control. The main limitation was that the

participants were USMC DoD civil service employees, General Service Grades 14 and 15, who may have had concerns because of confidentiality and may have been unwilling to address all applicable issues during the interview process. Anticipating this reaction, I made sure potential participants received notification before the interview process via e-mail explaining that their service was voluntary, and if at any time during the interview process they felt uncomfortable, withdrawal from the research was acceptable anytime during the research. Researchers should explain withdrawal provisions and notifications to include intent and scope of the interview process to participants before conducting interviews (Yin, 2014).

Delimitations

Delimitations, according to Leedy and Ormrod (2010), are characteristics that narrow the scope and determine the boundaries of the study set by the researcher. Delimitations are choices that researchers control and adapt for the research (Leedy & Ormrod, 2010). Researchers have identified problems of implementing ERP systems throughout both public and private organizations (GAO, 2015a; Maditinos et al., 2012). However, I explored ERP systems implementation within DoD, specifically USMC base Albany, Georgia. The qualitative single-case study focused on strategies DoD organizational leaders could adopt to implement a successful ERP system.

The first delimitation in this qualitative single-case study was the selection of only one USMC base with a successful ERP system as the sample for the study. I conducted interviews only in USMC base Albany, Georgia, because other USMC bases' organizational leaders may not have known ERP implementation strategies to avoid

failure, cost overrun, and schedule delays in USMC base in Albany, Georgia. The second delimitation was the small sample size. A large sample size could have been time-consuming.

Significance of the Study

This research may be significant in exploring strategies for implementing a successful ERP system. DoD organizational leaders defined ERP as commercial off-the-shelf software with multiple and integrated functions designed to automate and perform various business processes such as supply chain management (SCM), payroll, and general accounting (GAO, 2012a). Hoch and Dulebohn (2012) defined ERP system as the information technology IT system that integrates and standardizes the organizational software modules such as supply chain management, customer relations, and human resources processes throughout departments within the organization. The similarity in DoD organizational leaders' and Hoch and Dulebohn's definition of an ERP implies that the software is a beneficial tool for both commercial and private businesses to integrate, automate, and improve their business processes.

Regardless of the benefits of ERP software, government audit reports and DoD internal reports continue to outline the failures and delays of ERP systems implementation within DoD. In 2010, an investigation into the status of DoD's ERP systems revealed that six ERP systems were delayed and over budget (GAO, 2011a). A similar study of DoD's ERP noted that schedule delays and increased cost resulted in DoD agencies' dependence and continued use of outdated systems, all impacting DoD's audit readiness (GAO, 2012a). An investigation in 2010 of the U.S. Army ERP system

discovered the ERP implementation strategy showed improvement. However, the ERP system failed to provide the expected functionality in U.S. Army locations for the third and final ERP deployment (GAO, 2010). Taking advantage of advances in technology such as ERP systems, DoD organizational leaders implemented software to standardize and streamline the financial and accounting system; integrate various logistics systems; and improve its audibility readiness goals (GAO, 2012a). However, delays and cost increases negatively affected DoD's audit plans (GAO, 2012a).

This research may help organizational leaders bridge the gap of comprehending how ERP technology affects and influences the organization's business and supply functions. Knowing more about strategic planning to support the ERP post-implementation problems may provide organizational leaders with the information to handle sensitive issues and situations relating to implementing a successful ERP system. The DoD is a complex organization and one of the largest in the world (GAO, 2015b). To meet its mission, DoD organizational leaders rely upon IT such as ERP to gain a return on their investment and meet audit guidelines (GAO, 2015b). Therefore, results of this study may assist DoD organizational leaders who are struggling to implement a successful ERP system.

Contribution to Business Practice

The research study could potentially fill a gap in the literature by providing knowledge for DoD organizational leaders looking to implement ERP systems to avoid failure, cost overruns, and schedule delays. Understanding strategies that DoD organizational leaders implemented could provide insightful information relating to

implementing ERP systems to avoid failure, cost overruns, and schedule delays. The purpose of this qualitative case study was to explore how organizational leaders in a USMC military base in Albany, Georgia, developed strategies to implement ERP systems that avoided failure, cost overruns, and schedule delays. Organizational leaders should carefully plan and execute ERP implementation strategies appropriate for their organization (Chang et al., 2015). Researchers have identified problems of implementing ERP systems throughout both public and private organizations (GAO, 2014; Maditinos et al., 2012). However, I explored ERP implementation within DoD, specifically USMC base Albany, Georgia. The qualitative single-case study focused on strategies DoD organizational leaders could adopt to implement a successful ERP system. The finding in this study could help organizational leaders review and evaluate their business practices to ensure current strategies are effective, efficient, and enhance the organization's business and supply processes. ERP implementation strategies will help DoD organizational leaders modernize business processes and achieve audit readiness (GAO, 2011a).

Implications for Social Change

The results of this qualitative single-case study may provide information that may be beneficial to executives, managers, and end users of ERP systems, particularly during the post implementation phase. Since 1995, DoD organizational leaders have continued to implement ERP systems. However, the process is not without financial risk (GAO, 2012a) and, in some cases, lacked strategic oversight (GAO, 2015a). Therefore, providing beneficial information to guide strategic planning could help executives and

managers influence the ERP projects. Salih and Doll (2013) emphasized the urgency of organizational leaders developing strategic plans to support the business performance and help prepare the organization for a successful ERP system implementation.

A Review of the Professional and Academic Literature

ERP software is a popular tool organizational leaders use globally to integrate and streamline their business processes (Hasibuan & Dantes, 2012). The purpose of the literature review was providing context and substantiation by the inquiry for the primary research question: What strategies are necessary to implement ERP systems to avoid failure, cost overruns, and schedule delays? To obtain sources for the literature review, I searched the Internet using Walden resources including (but not limited to) ProQuest Central Database, ABI/Inform Complete, and Business Source Complete. Several government articles and documents addressing ERP technology, in general, were accessible; however, only a few addressed DoD ERP implementation. Government websites (e.g., U.S. Government Accountability Office) served as the source for DoD documents and information. I also obtained information relating to government documents by using Google search engine. The key word and primary search terms were as follows: *enterprise resource planning implementation, strategic management, training, knowledge management, change management, organizational culture, business model, SCM, general systems theory, DoD organizational structure,* and *DoD strategic planning guidance*.

The review of literature begins with an overview of general systems theory application the conceptual framework for the study of ERP systems, with a focus on how

general systems theory applied to the study. Next, I summarize the design of ERP systems and how the technology is evolving in the public, private, and DoD organizations and the challenges and consequences of implementing ERP systems. The literature review content includes a description of current challenges faced during the ERP pre- and postimplementation phases, rising costs, and failures of implementing the software. The literature review also includes discussion of the integration of the supply chain; knowledge management; strategic planning; and lean business practices associated with implementing ERP. The literature review concludes with a description of risks and rewards encountered when organizations replace the outdated operating system and replace or upgrade to ERP.

The total number of all references cited in the study includes (a) 212 periodical articles, (b) 14 books, and (c) 12 government sources. Of the 238 references, 209 (87.8%) were less than 5 years old and 212 (89%) were peer-reviewed. There were109 sources in the literature review with 100 being peer-reviewed (91.7%) and 99 (90.8%) published in the last 5 years. The organization of the literature review represents topics relating to ERP systems and reveals various scholarly researchers' opinions and different scenarios relating to ERP systems. The purpose of the literature review was to present information about ERP systems.

General Systems Theory Application

Barr (2013) posited that general systems theory is the remedy for organizations to address complex business problems. General systems theory allows the organization to function as a whole system, consisting of many parts integrating, serving many purposes

to meet a common goal or mission of the organization (Barr, 2013). Organizational leaders are adopting system concepts to integrate the organizational activities with its available IT system to achieve business objectives (Barr, 2013). Therefore, ERP system interconnections include sharing and integrating common data throughout the business and supply chain, which promotes standardizing systems and providing data in a timely fashion.

The premise of general systems theory is that agents can operate individually. This action allows the group to organize independently and function as necessary to interact with other agents working within the group. Chai and Yeo (2012) applied general systems theory as the framework for creating a policy for energy efficiency in industrial businesses. Using the general systems theory as the conceptual framework, Chai and Yeo noted how the interconnections and interactions of the barriers and integrated various perspectives of stakeholders supported the creation of a policy for energy efficiency with the industrial businesses.

General systems theory applies to this study because DoD organizational leaders of various agencies are integrating multiple agents into the supply chain and end users into a single IT system. The main idea behind systems theory is the concept of system wholeness that integrates or connects to make a whole component (Suter et al., 2013). The following characteristics are essential to the general systems theory: (a) systems have components, (b) interdependency, (c) holism, (d) goal seeking, and (e) produce feedback (Suter et al., 2013). Organizational leaders implement ERP systems to transform and eliminate multiple systems and have a single source IT system to handle the business

processes for the entire organization (Teittinen, Pellinen, & Järvenpää, 2013). Von Bertalanffy (1972) concluded that based on the interaction between a system's component, the system is more than the sum of its parts. The general systems theory implies that business operation is an integrated set of subsystems, and each department or unit functions within the entire system together to accomplish the organizational goals.

ERP systems can handle complex business processes such as the organization supply chain (Barr, 2013). ERP systems can function as a system that performs some of the same capabilities associated with the general systems theory: (a) input, (b) output, and (c) provides feedback (Ram et al., 2013). DoD organizational leaders implement ERP systems to integrate complex business processes such as SCM (GAO, 2014). The purpose was to achieve the goal of interaction between a system's components to integrate multiple agents into the supply chain and optimize the supply chain throughout the organization.

Change and the uncertainty of a new operating system can cause a shift in productivity and acceptability (Saini et al., 2013). How end users or agents react with each other can determine if the change is positive or negative (Saini et al., 2013). General systems theory is suitable for this study because DoD organizational leaders are integrating multiple agents into the supply chain and end users into a single IT system. Von Bertalanffy (1972) discussed general systems theory as the interactions between components of a system, governing the interrelationships and properties of the system.

ERP System Current Status

Organizational leaders continue to purchase and implement ERP systems, and the demand for the software according to Beheshti et al. (2014) continues to increase. Although ERP systems consist of standard application packages, some organizational leaders purchase customized ERP systems. One key feature of customizing ERP systems is that the modules can include CRM for organizational leaders to manage effectively internal and external between interactions between all customers (Beheshti et al., 2014). For organizational leaders with advanced technology, customized ERP systems could be costly (Beheshti et al., 2014). To avoid costly ERP customization, organizational leaders could change organizational processes to fit the standard ERP package (Beheshti et al., 2014).

The purpose of organizational IT is to provide the required informational data and support to help organizational leaders manage the business processes to enhance the organization's competitive advantage (Isaila, 2013). Including a CRM module as a part of the ERP package could help organizational leaders create innovative and productive processes to for sustaining a competitive advantage in the industry (Isaila, 2013). Organizational leaders who create efficient business processes are in a better position to meet the expectations of their customers and achieve a return on their investment (Isaila, 2013).

There is still a growing interest in ERP software (Firouzabadi & Mehrizi, 2015). Implementing an ERP system is an investment organizational leaders risk to enhance their organization for competitiveness and improve performance (Firouzabadi & Mehrizi,

2015). Selecting and implementing the right ERP for a government or nongovernment organizations requires organizational leaders to choose which software to purchase and implement (Firouzabadi & Mehrizi, 2015). Firouzabadi and Mehrizi used the VIseKriterijumska Optimizacija I Kompromisno Resenje (VIKOR) method to rank six software packages including: (a) Oracle Business Suite, (b) system application and products (SAP), (c) software security assurance (SSA), (d) global solution, (e) Microsoft business solution, and (f) people soft focus. Firouzabadi and Mehrizi ranked the VIKOR tool as a preferred tool an organizational leader can use in decision-making. Firouzabadi and Mehrizi concluded that SAP software ranked the highest with organizational leaders.

Choosing the right ERP software vendor can make a difference in the performance of the organization (Madapusi & D'Souza, 2012). SAP is a preferred ERP software application followed by Oracle Business Suite (Madapusi & D'Souza, 2012). Some organizational leaders choose their initial ERP software based on the performance of the organization and adjust the requirements to meet the needs of the business (Madapusi & D'Souza, 2012). Implementing ERP systems is a major investment for organization leaders and, if implemented successfully, can improve the business's overall business performance (Madapusi & D'Souza, 2012).

Implementing ERP systems starts with organizational leaders selecting software suitable for the organization's performance and business needs (Olson, Chae, & Sheu, 2013). Implementing ERP systems requires organizational leaders and other stakeholders to commit funding for a long-term investment (Olson et al., 2013). Organizational leaders should be aware of the variety of ERP software and vendor products available. ERP

software packages range from large and functional products such as SAP and Oracle Business Suite vendor products (Olson et al., 2013). Small companies should consider a small, affordable ERP system rather than an expensive, powerful SAP data processing system that, if not implemented correctly, could cause the business to fail (Olosn et al., 2013). DoD acquisition leadership selected two business applications of ERP software to integrate the logistics modernization efforts. The U.S. Army and U.S. Navy organizational leaders selected SAP, and USMC and U.S. Air Force organizational leaders selected Oracle Business Suite (Department of Defense Inspector General [DODIG], 2013a).

Aslan, Stevenson, and Hendry (2012) noted that organizational leaders should be aware of vendors claiming their ERP products applicable and configurable to meet their organizational business system needs. Aslan et al. (2012) implied that make to order (MTO) companies provide a variety of products that ERP functionality may not meet. There is not a shortage of ERP software vendors. Vendors of ERP systems assert that their products are widely applicable and configurable to meet the needs of any organization's business goods or services (Aslan et al., 2012). ERP software applications are popular with beneficial business enhancements, but expensive investments to implement in most organizations, costing more than the budget allowance (Bloch, Blumberg, & Laartz, 2012). The average ERP implementation exceeds $15 million. However, some IT implementations costs are more than 45% over budget (Bloch et al., 2012). Organizations do survive the increases in cost and schedule delays regardless of reporting, and Bloch et al. (2012) commented that 17% of IT implementations fail.

Pacheco-Comer and González-Castolo (2012) concluded that implementing an ERP system is a major and necessary project organizational leaders undertake in the current business environment. Integrating ERP to align with businesses processes and IT resources is a direct relation between the organization's size and the available budget to invest (Pacheco-Comer & González-Castolo, 2012). Organizational leaders should give careful consideration during the ERP decision-making process because of its complexity, cost, and risk associated with implementing the software (Pacheco-Comer & González-Castolo, 2012).

Adapting to change is the key to organizational leaders' success for future business processes and enhancements. However, without the proper subject matter experts, organizations are at risk of not taking full advantage of the benefits technology offers and may need assistance (Gallagher & Gallagher, 2012). Project managers and technical experts can provide support for internal and external users during the ERP implementation processes (Gallagher & Gallagher, 2012). The quality of communication between the project manager and the ERP implementation team could affect employee satisfaction and the success or failure of the ERP project (Gallagher & Gallagher, 2012).

The organizational culture can influence the success or failure of ERP implementation (Chockalingam & Ramayah, 2013). Organizational culture includes beliefs, values, behavioral norms, and collective experiences (Chockalingam & Ramayah, 2013). Manufacturing companies implementing ERP systems in a global environment, according to research conducted by Chockalingam and Ramayah (2013), showed evidence of the project failing. Chockalingam and Ramayah proposed that the

organizational culture functioned as a moderator and facilitated the relationship between the critical success factors and successfully implementing ERP systems. To monitor the effectiveness of the organization performance, organizational leaders can adapt the balanced scorecard (BSC) method to help evaluate the success of the organization's strategy (Grigoroudis et al., 2012). In general, BSC illustrates the organizational leaders' vision and focus on areas that are critical to organizational leaders in achieving its strategic objectives (Grigoroudis et al., 2012). Organizational leaders' BSC systems should not concentrate on a single area of the organization such as accounting but focus on translating the organization's strategic objectives (Grigoroudis et al., 2012).

Organizational leaders implementing ERP systems should develop a project management strategy to oversee the implementation process. Careful study and review of the project management team plans and information relating the implementation of the software success may save the organization time, money, and valuable resources. Chauhan, Dwivedi, and Sherry (2012) conducted a study using the theory of applied agency to test the consultants-client relationship during the ERP implementation process. According to the test results, consultants' monitoring predicted less moral hazard and less moral hazard predicted greater ERP implementation success (Chauhan et al., 2012). Hiring consultants to guide the ERP implementation project from start to finish may help organizational leaders implement successful ERP.

The ERP implementation process continues to present challenges for most organizational leaders (May, Dhillon, & Calderia, 2012). The complication of ERP causes organizations to hire vendors with experience and technical knowledge to

minimize risk or implications that could cause the ERP implementation to fail (May et al., 2012). To reduce these failure rates, organizational leaders should adopt a set of value-based goals to enhance the ERP systems planning process (May et al., 2012). Utilizing ERP systems planning goals can function as a roadmap for improving the organization's decision-making processes to support and make up the project (May et al., 2012).

Implementing ERP systems requires organizational leaders to employ a project manager and technical staff (Aubert, Hooper, & Schnepel, 2013). A project manager and technical staff should communicate the organization's goals and objectives of implementing ERP systems to internal and external stakeholders (Aubert et al., 2013). Implementing ERP software is a complex process that involves more than upgrading software. Organizational leaders are strategically aligning their business strategies and supply functions into one seamless process (Aubert et al., 2013).

Customization of the organizations' ERP package should align with the strategic organizational goals and objectives. A critical issue organizational that leaders face during the decision-making process of ERP implementation is bridging the gap between the ERP software application and the organization's business processes. Parthasarathy and Sharma (2014) conducted a case study focused on the small and midsize organization using two techniques: (a) the nominal group technique (NGT), and (b) the analytical hierarchy process (AHP). The study illustrated how organizational leaders of small and midsize organizations can prioritize their ERP customization plan. Parthasarathy and Sharma determined the primary reasons for integrating ERP software and noted that the

NGT process can help organizational leaders evaluate their ERP customization plans and options before implementation.

Some organizational leaders will choose a complete ERP package that involves a change in their organization's business practices (Motiwalla & Thompson, 2012, p. 145). Such change is necessary to align ERP, and others may customize ERP systems to meet the strategic objectives for the organization's future goals and expectations (Motiwalla & Thompson, 2012, p. 145). Understanding the ERP systems requirements of the organization can save time, money, and valuable resources (Motiwalla & Thompson, 2012, p. 145).

ERP systems functionality and suitability are factors organizational leaders should consider when designing and customizing specifications for their ERP systems (Liu, 2013). ERP failure and misalignment occur when these elements, functions, and ERP system designs do not fit the organization's needs (Liu, 2013). Linking ERP and knowledge management requires organizational leaders to commit to human and financial resources (Liu, 2013). Organizational leaders must understand the critical factors for ERP and knowledge management. Liu (2013) noted that ERP knowledge management could positively influence management performance.

ERP system design can be custom made to accommodate the needs of prospective users and adaptable enough to future requirements of organizations (Simon & Noblet, 2012). However, through building to order designs versus the standard version, implementing an ERP for quality management and effectiveness of the organization performance is achievable (Simon & Noblet, 2012). Implementing ERP systems

increases efficiencies, reduces operating cost, improves daily supply logistic operations, and increases access to data in the supply chain (Simon & Noblet, 2012).

Some constraints of implementing ERP systems include (a) costly customization; (b) risky investment; and (c) the lack compatibility with business and strategic plans (Lee, Hong, Katerattanakul, & Kim, 2012). Developing an explicit linkage between the organization goals and expectations of an ERP system is significant and can help manage the strategic business objectives (Lee et al., 2012). Organizational leaders should link the business model and ERP system design to meet their preference and achieve positive results (Lee et al., 2012).

Guo, Wang, and Feng (2014) noted that organizational leaders face difficulty in achieving a high standard of ERP adoption without a proper learning environment. The learning culture of end users can influence the ERP implementation stage (Guo et al., 2014). During the post ERP implementation phase, employees' understanding of ERP and benefits the new system will offer the organization is critical to the success of the implementation (Guo et al., 2014). Organizational leaders implementing ERP systems should encourage and motivate employees to participate in the implementation process and learn the ERP system to increase the chances of a successful project (Guo et al., 2014). Guo et al. (2014) concluded that organizational leaders should guide end users learning to take advantage of the benefits of the ERP system and the enhancements implementing ERP systems will provide the organizational culture.

After the selection of the ERP software provider, management must commit to fostering an environment to support learning and adapting to the new system (Nwankpa

& Roumani, 2014). Organizational leaders should explain short-term and long-term benefits of the changes ERP would provide to end users to ensure acceptance and understand the new software (Nwankpa & Roumani, 2014). Allowing end users to experiment with the new system before full implementation could ease doubts and increase end users awareness of the potential use of the new system (Nwankpa & Roumani, 2014). Allowing experience and integration into the processes, end-users can identify the usefulness and acquire familiarity with the functionalities of an ERP system.

Organizational leaders investing in ERP fail to understand the impact employee's behavior contributes to implementing the project. Organizational leaders from commercial and private industries may not understand how to deal with sustainability challenge and change (Millar, Hind, & Magala, 2012). Implementing organizational change requires (a) a change in behavior; (b) a change in thinking; (c) a change in attitude; (d) a change in strategic goals; and (e) a change in leadership (Millar et al., 2012). Some organizational leaders will invest in hiring a change management team. A change management team could be the difference between achieving success and failure. Organizational leaders committing to implementing ERP systems are committing to more than simply upgrading or customizing the new software. Organizational leaders are changing the business structure.

The implementation of ERP can change the organizations' business processes, and employees' work structure (Sykes, Venkatesh, & Johnson, 2014). The main drawback to implementing new technology such as ERP according to Sykes et al. (2014) is employees adapting to the change. Organizational leaders should provide training for

employees to maximize the benefits of the system and support for employees learning the process during the post-implementation stage (Sykes et al., 2014). Employee networking can help employees adapt to the new system and share knowledge (Sykes et al., 2014). Organizational leaders should get to know those employees in the organization who can help management influence other employees to get involved and learn the new system (Sykes et al., 2014). Employee involvement with the ERP implementation process could facilitate the knowledge management process and diffuse resistance to the new system. For organizational leaders, creating effective strategies, it may be necessary to change the software or change the organizational systems to align with ERP protocols.

The two critical factors for ERP success according to Maditinos et al. (2012) are consultants support and knowledge transfer. Consultants are subject matter experts with experience and technical expertise to guide the ERP implementation process correctly. Consultants have experience, knowledge, and skills to influence the performance of ERP systems (Maditinos et al., 2012). Implementing ERP systems requires consultants to share directly or indirectly knowledge with the organizational IT members and end users (Maditinos et al., 2012). Transferring knowledge from consultants to end users may instill confidence and raise the education level to support and modify the ERP system in the future (Maditinos et al., 2012). Integrating ERP is an appropriate process for transferring knowledge and information to the organizations' customers and suppliers in the supply chain. Although an ERP system is attractive and adequate, the implementation process is not always successful for organizational leaders to advance and sustain in a global marketplace (Maditinos et al., 2012). Many organizational leaders fail to

understand key critical factors necessary for implementing ERP systems successfully (Maditinos et al., 2012). Implementing ERP systems in the 21st century empowers organizational leaders to use technology design and solution to influence their business processes (Maditinos et al., 2012).

Organizational leaders and business owners of the retail market use CRM technology to assist them in improving customer relations and satisfaction (Menguc, Auh, & Uslu, 2013). CRM is tailoring the business or particular industry ERP systems to increase the control and the flow of data that focuses on developing and maintaining customer relationships (Menguc et al., 2013). Organizational leaders considering adopting CRM should be aware of the business challenges to designing and creating a seamless transition for the customer (Menguc et al., 2013). CRM is a technological tool to help organizational leaders manage and better understand their customer's needs (Menguc et al., 2013). Before implementing CRM, a clear understanding of the strategic and transition plan is necessary to help retail managers because the intent of CRM is to prepare the management team to meet the needs of the customers.

Information technology advances; particularly ERP software is an integrated software system packaged for use by thousands of organizations globally (Bloch et al., 2012). Organizational leaders of both large and small organizations accept the risk of implementing the software. The objective is to increase their competitive advantage in the marketplace and enhance their business processes (Sykes et al., 2014). Investing in ERP is not a simple task and may require organizational leaders to develop and follow an ERP strategic plan to support a successful implementation process.

ERP System Strategic Planning

Developing strategic plans are vital to the business' performance and can help prepare the organizational leaders for a risk-free and successful ERP system implementation process (Salih & Doll, 2013). The main purpose of strategic planning is to integrate and optimize the input of various subject matter experts available in the organization (Salih & Doll, 2013). The organizational leader should ensure stakeholders and other department managers participate in the decision-making process relating to buying the ERP software packages (Salih & Doll, 2013). Applying and integrating management and stakeholders is necessary to prevent surprises and delays in the ERP implementation process (Salih & Doll, 2013). Gathering and assembling data during the ERP pre-implementation and post-implementation phases requires the support of the entire organization support (Salih & Doll, 2013).

Implementing ERP systems can standardize organizations processes; however, aligning ERP with the organization strategic planning is critical to completing a successful project (Mamoghli, Goepp, & Botta-Genoulaz, 2015). According to Mamoghli et al. (2015) the operational model based (OMB) could help organizational leaders effectively manage their alignment. Specifically, Mamoghli et al. illustrated OMB through the application of ERP from a small organization IT system and revealed a misalignment of applications instances that organizational leaders missed. Using OMB could help organizational leaders manage the application alignment, save the organization money by increasing subject matter experts internally, and limiting the support from external experts.

Hirotaka (2013) suggested that a strategy is a leaders' future creation. Organizations are different and have different value chains, different resources, and competencies. However, Hirotaka asserted that the difference could align with the organizational leaders view and interpretation of knowledge-based strategy (KBS). A knowledge-based approach consists of integrating (a) humans as the core of the strategy; (b) treats strategy as a powerful process, and (c) applies strategy as a social agenda. Hirotaka concluded that without the strategic plans that align with the business goals, processes, and humans as an essential component of the organizations' strategy, organizational leader business operations could be in jeopardy.

Top management and stakeholders may require strategic plans that outline the ERP implementation strategies phases to better the odds to successful implement and maintain the ERP system (Salmeron & Lopez, 2012). Preventive maintenance for the ERP systems should be a requirement to ensure the system performs to standard and prevent failure after installation (Salmeron & Lopez, 2012). According to Salmeron and Lopez, organizational leaders fail to consider the risk of not accounting for a maintenance plan for sustaining the ERP system in their ERP strategic plan. Organizations leaders consume billions of dollars to implement ERP systems that in some cases never achieve completion (Salmeron & Lopez, 2012). Once the ERP system installation is complete, maintenance of the ERP system is critical to the life-cycle expectance to prevent failure and damage to the entire system (Salmeron & Lopez, 2012).

For operations in a global environment, organizational leaders are implementing ERP systems to become competitive contenders (Findik, Kusakci, Findik, & Kusakci,

2012). Global organizational leaders of various organizations are considering revamping and transforming their strategic objectives to support their business plans (Findik et al., 2012). ERP is the technology tool to help them in their operational transition to better position their products and services in a global environment (Findik et al., 2012).

DoD organizational leaders from around the globe must execute military operations from field operations, major command, and functional activities (GAO, 2011b). DoD personnel perform interrelated and interdependent business functions such as SCM, financial management, and procurement (GAO, 2011b). Developing an ERP strategy can integrate the business processes and supports the organizational mission and objectives. Organizational leaders implement ERP systems hoping to take advantage of benefits such as (a) reducing inventories, (b) increasing productivity, (c) decreasing operating cost, and (d) achieving the competitive advantage (GAO, 2011b).

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Although DoD is not a competitive organization, organizational leaders are striving to sustain and execute military operations. In support of its business functions,

DoD organizational leaders use an estimated 2,080 business systems such as logistics, personnel, and finance (GAO, 2011b). Implementing ERP systems could minimize the use of varied systems, integrate business processes, and cut the maintenance cost of maintaining outdated IT systems. DoD is a complex and large organization that operates global agencies and military operations (GAO, 2011b). As a complex and large organization, DoD organizational leaders face challenges in addressing and solving military services and agencies financial readiness and business operations problems (GAO, 2011b). Implementing ERP systems to replace outdated systems requires organizational leaders to adopt strategic alignment to increase their chances of success (Salmeron & Lopez, 2012). Although ERP is a useful and resourceful technology, some organizational leaders may view ERP as the solution to solving their business problems. The business goals and processes should align with the organization's strategic plan (Hirotaka, 2013). Organizational leaders may view implementing ERP software as a new core competency rather than a means to achieve the competency.

ERP and the Industry Trend

Organizational leaders see the value of implementing ERP systems (Dey, Clegg, & Cheffi, 2013). Annually, organizational leaders spend over $1.0 million annually purchasing ERP software (Dey et al., 2013). From 2009 to 2010, the sales of ERP software increased and grossed $41 billion and $43 billion respectively (Dey et al., 2013). The sales of ERP software could gross $53 billion in the United States by 2015 (Dey et al., 2013). ERP software accounts could see an increase in the annual growth rate of 6.4%

through 2014 (Dey et al., 2013). Organizational leaders understand the value of implementing an ERP system (Dey et al., 2013).

Prior to implementing an ERP system, organizational leaders may focus their attention on the magnitude of resources necessary during the ERP implementation phase. A business and planning strategic review may be necessary to implement such a complex system. Organizational leaders that integrate business and supply areas to (a) improve the business quality of work; (b) keep a cohesive view of the business activities; and (c) increase their competitive edge in the global marketplace (Dimitrios, Dimitrios, & Charalampos, 2012). Technologies and innovations are critical factors for organizational leaders competing today to improve their business posture in the global market and maximize the supply chain effectiveness and efficiencies, (Dimitrios et al., 2012).

For decades, the ERP systems made its way throughout the global marketplace as the emerging technology tool to integrate fragmented organizational systems, to support better business and supply processes (Shaul & Tauber, 2013). Some organizational leaders recognized that competition in the global marketplace is on the rise and quickly took advantage of the benefits of implementing an ERP system (Shaul & Tauber, 2013). Implementing an ERP system correctly, enhance productivity, work quality, and vendor network to respond quickly to opportunities in the marketplace (Shaul & Tauber, 2013).

Organizational leaders regardless of their company size or location recognize the advantages of implementing an efficient ERP (Azad, Shadmanfard, & Zarifi, 2013). However, many organizational leaders acknowledge that implementing ERP systems can fail to provide the expectations as advertised or fully reach operational potential (Azad et

al., 2013). An integrated system such as ERP allows organizational leaders who are operating globally to access their products quickly to satisfy the customers regardless of the location. However, some factors could affect the ERP implementation. Azad et al. (2013) noted eight factors (a) intelligence information, (b) customer comfort, (c) structure oriented, (d) resource management, (e) flexible structure, (f) knowledge management, (g) customer oriented, and (h) customer oriented. Implementing ERP systems requires organizational leaders, managers, and executives to make critical business decisions (Emami, Feridouni, Kia, & Monnavari, 2013). Questions and concerns relating to the business practices of an organization, its mission, and future goals are critical during the ERP implementation phase (Emami et al., 2013). Therefore, ERP systems interconnections include (a) integrating standard data; (b) promoting standardizing systems; (c) providing data timely to organizational leaders (Emami et al., 2013). All parts according to the general systems theory are integrating or interacting with each other to support the process (Mishra & Garg, 2013).

Collaborating, networking, and establishing relationships is about sharing knowledge of products and services in the marketplace to increase profits and success (Jeng & Dunk, 2013). Collaboration is possible with the aid of technological resources, subject matter experts around the globe, and organizational leaders implementing a single ERP system to facilitate knowledge sharing (Jeng & Dunk, 2013). Involving subject matter experts can be critical to the configuration and design of the ERP system (Jeng & Dunk, 2013). A traditional configuration may not be suitable for organizations operating in a global environment.

Bernroider (2013) conducted a study that explored how organizational leader's funding practices affects IT project success. Using Austrian ERP projects to explore how the role of organizational leaders in IT and strategy affect the project team and decision-making processes. Bernroider concluded all stakeholders should have a voice in the ERP implementation process (Bernroider, 2013). Organizational leaders should not attempt merely to define the stakeholder's value, but involve them during the entire ERP implementation phases (Bernroider, 2013). Due to the complexity of integrating systems from various levels within the organization, organizational leaders may encounter complications. However, the involvement of stakeholders in the ERP implementation process can be beneficial (Bernroider, 2013) and encouraged to gain support for a successful ERP implementation.

Funding new technology is not a simple process for organizational leaders because IT funding and investments are critical to the organization's mission (Peffers & Santos 2013). Organizational leaders can develop a strategy as the foundation for justifying paradigm for investing in IT, and aligning the investment with the organization's mission resources, and capabilities. Millet (2013) contended that standard ERP applications raise questions about the relationship between the organization's needs and the conditions necessary to implement an ERP system. Millet demonstrated a model-driven method of approach for implementing ERP systems that aligns organizations software or current IS with new technology. Millet solution differs from the technology designs and builds a model compatible with the existing software vice removing the entire outdated software.

The DoD reports and business literature relating to ERP is replete with examples and stories of the value and trend of implementing ERP systems. In recent years, DoD audits have included reports of successful and failed ERP and reasons to implement ERP systems (GAO, 2011b; GAO, 2012a). Organizational leaders adopt ERP as a tool to improve business processes (Dey et al., 2013), and competitive opportunities (Hasibuan & Dantes, 2012). To implement a successful ERP process, organizational leaders should consider three attributes (a) people, (b) process and organization, and (c) technology (Jeng & Dunk, 2013). Organizational leader's involvement should include (a) coordination with project teams; (b) selection of internal team members; and (c) selection of ERP consultants (Jeng 7 Dunk, 2013). Researchers continue to warn against the high cost to implement ERP systems (Dey et al., 2013; Jeng & Dunk, 2013) and recommended the necessity of a strategic plan.

ERP: A Technology Solution

In 1968, a new design of a database and information management system by IBM made its debut to the business sector (Wade & Chamberlin, 2012). In the early 1970s, this technology started to gain recognition in the business sector (Wade & Chamberlin, 2012). Since this introduction, technology, software solutions, designs, and consultant services to organizations began to increase (Wade & Chamberlin, 2012).

Technology is a critical factor in the organizational business processes and can change the process and flow of information in the supply chain (Collins & Williams, 2014). Specifically, organizational leaders who implement ERP systems transform the flow of data and information to real-time processing vice the traditional days or weeks

processing times (Collins & Williams, 2014). Organizational leaders are considering ERP systems and the technology advantages it offer and want to link the software with the organizational business profile and operations (Collins & Williams, 2014).

ERP is a complex technology innovation (Ram, Corkindale, & Wu, 2013). In the 1990s, vendors introduced the ERP software that shifted how organizational leaders both in the commercial and private sectors conducted business management (Ram et al., 2013). Implementing ERP systems required organizational leaders to gain and apply knowledge about the best business practices necessary to replace outdated practices (Ram et al., 2013). Organizational leaders who implemented ERP in the early 1990s and 2000s encountered challenges such as (a) lack of experienced ERP project managers; (b) lack of consultants; and (c) lack of quality vendor support (Ram et al., 2013). However, qualified project managers and consultants are plentiful, and vendors have support plans available to customers (Ram et al., 2013).

Implementing ERP systems require organizational leaders to update their business processes to work within the parameters of the ERP system (Zach & Munkvold, 2012). Customizing the right system to fit the organization's particular need is a critical factor in achieving a successful implementation. Zach and Munkvol suggested that after the implementation of ERP, customization of ERP system may be necessary to ensure the system support the organization's needs and eliminates future costly repairs and updates.

Various business factors could be why some organizational leaders are not innovative in implementing newly technological concepts and others standout in the industry. Organizational leaders in the USMC base in Albany, Georgia successfully

implemented ERP in 2010 without failure, cost overruns, and schedule delays (M. T. Madden, personal communication, May 19, 2015). While supporting two wars, USMC Base Albany, Georgia organizational leaders decided to implement ERP systems (M. T. Madden, personal communication, May 19, 2015). The USMC IT structure consisted of aging business systems not suitable for the nature of the USMC current business and supply chain (M. T. Madden, personal communication, May 19, 2015).

The U.S. Navy operated 2,000 different business systems in 2005 (GAO, 2005). The 2,000 business systems represented 57% of the total business systems operating throughout the DoD, with an annual cost of $13 billion for maintenance and support cost (GAO, 2005). Technology, particularly ERP, has a significant influence regarding how DoD operates its business enterprise (GAO, 2005). Because the USMC base in Albany, Georgia primary function is the logistic support to the entire USMC, it is logical that organizational leaders would explore strategies to improve and enhance all business and supply processes. To help guide the ERP implementation processes, organizational leaders employed two independent companies to conduct a business transformation plan, and ERP transition plan (M. T. Madden, personal communication, May 19, 2015).

The DoD organizational leaders are working to streamline current business practices and model the commercial sector. In the mid-1990, military agencies submitted an annual financial statement to align with the guidance of the Chief Financial Officer's Act of 1990. Many military agencies and services attempted to provide their financial statement, but none has successfully complied (GAO, 2011b). Faced with the challenges of four pilot tests, and financial setbacks, in 2013 the U.S. Navy's ERP system was in full

operation. Implementing ERP systems for the U.S. Navy cost an estimated $800 million (GAO, 2005, 2011b).

The USMC ERP system, Global Combat Support System (GCSS), is an Oracle E-Business Suite, used throughout the USMC to support, enhance, and integrate (a) financial management, (b) inventory management, and (c) SCM (GAO, 2011b). Organizational leaders in the USMC base in Albany, Georgia, in coordination with Oracle project managers, and USMC chief information officer worked to develop and integrate processes and information flows (M.T. Madden, personal communication, May 19, 2015). The combined efforts supported the strategic plans and implementation plans necessary to achieve the mission of logistics support to the entire USMC without logistics services interruption (M. T. Madden, personal communication, May 19, 2015).

The DoD leadership is progressing toward new technologies to improve business processes particularly within the service's acquisition program to replace outdated software (GAO, 2012b). In 2012, DoD's IT investment portfolio was an estimated $35 billion (GAO, 2012b). The new ERP systems provide integrative management technology across service platforms to integrate joint processes such as logistics management, and financial management (GAO, 2012b). Military services customers' acceptance of the new technology was a critical factor in the decision-making process as service acquisition leader's move toward successful ERP implementation (GAO, 2012b). However, the DoD's acquisition process for IT systems is lengthy, ineffective, and fails to meet the rapid changes in technology (GAO, 2012b).

Any organizational leader desiring to operate and compete in the global marketplace should develop a global strategic plan to adapt to that operating environment (Méxas, Quelhas, & Costa, 2012). Aligning systems and business processes are essential to ERP development (Méxas et al., 2012). Organizational leaders continue to invest in integrating software data with high expectations for (a) improvements in supply chain and business management processes; (b) improvements in CRM; (c) and improvement in competitiveness (Méxas et al., 2012).

In summation, public and private organizations consider the implementation of ERP systems as the IT solution necessary for improving their business practices (GAO, 2012b). In the 21st century, technology is a critical factor in the organizational business (Collins & Williams, 2014). Researchers noted that ERP is not perfect, but implementing ERP systems may provide many rewards, risks and may improve current IT business systems (GAO, 2012b; Méxas et al., 2012). The high cost of implementing ERP systems associated with the potential risk of failing causes some organizational leaders to question their investment (GAO, 2012b). Although ERP is a useful and resourceful technology, some organizational leaders may view ERP as the solution to solving their business problems. Some organizational leaders may view implementing ERP software as a new core competency rather than a means to achieve the competency (GAO, 2012b).

As a society continues to embrace the advancements in technology, organizations leaders will seek technology such as ERP systems to support their business operations (GAO, 2011a). There is not a lack of research relating to implementing an ERP in small or large organizations, public or private. Researchers noted that organizational leaders

require fiscal guidance and sound strategic planning (GAO, 2011b; Lee et al., 2012; Salmeron & Lopez, 2012).

Organizational leaders lacking innovation and the willingness to change are at risk of not improving their organizational business practices, which could hinder competitiveness (Salmeron & Lopez, 2012). Remaining and sustaining competitiveness requires organizational leaders to keep ERP systems aligned with the business growth, and strategic plan (Lee et al., 2012). Process improvements could be valuable resources to support a successful ERP implementation.

Guiding Principles and Lean Practices

Adopting lean practices during the ERP system implementing process could lead to positive results. Two commonly used strategies according to Powell, Riezebos, and Strandhagen (2013) for organizational leaders to achieve competitive advantage in today's global marketplace is lean production and ERP. To develop an ERP lean implementation process, Powell et al. (2013) asserted that organizational leaders should engage the end users in the process in the early implementation stage. Organizational leaders can capture the end users by providing education and continued learning throughout all phases of the ERP implementation process (Powell et al., 2013). Additionally, Powell et al. asserted that managers should also receive training to support articulating a clear and concise strategic vision to the entire organization.

Developing and incorporating lean business practices could improve the organizational business and supply performance (Powell, 2013). Supply chain integration is a functional area that is critical for organizational leaders in a global marketplace to

improve the competitiveness of the organization (Powell, 2013). Adopting lean practices in a competitive environment is the focus of organizational leaders seeking an effective and efficient supply chain (Powell, 2013).

Implementing ERP systems provides opportunities to (a) align and integrate business and supply processes; (b) enhance communications at different levels; and (c) improve external and external communication for quick access to data (Poba-Nzaou & Raymond, 2011). Organizational leaders adapt different lean practices such as six sigma and lean manufacturing to develop business improvement processes (Poba-Nzaou & Raymond, 2011). These business processes can provide techniques to improve their products and services in the marketplace (Poba-Nzaou & Raymond, 2011). Incorporating these techniques with other supply capabilities such as demand planning, forecasting, and inventory managements could increase operational performance provide a more efficiently and efficient operation (Poba-Nzaou & Raymond, 2011).

The traditional strategic focus of organizational leaders according to Marchi, Maria, and Micelli (2013) is in alignment with developing a lean and agile business practices for the supply chain. The objective is to align the process better into the supply chain between strategic plans and technology implementation such as ERP to better support and enable agility in the supply chain (Marchi et al., 2013). Without an understanding of the business model and processes alignment, implementing an effective and efficient ERP system may be difficult to achieve (Marchi et al., 2013).

Timans, Antony, Ahaus, and Van Solingen (2012) commented that lean practices have been around the business sector for over 20 years. However, if organizational

leaders do not launch the program correctly, their organization will not reap the benefits. Timans et al. (2012) recommended organizational leaders formalize the process and develop initiatives to align with six sigma and advances in technology such as ERP. In various businesses and organizations, particularly the high technical industries leaders are seeking lean process improvements and enhancements in their SCM with the implementation of ERP (Timans et al., 2012).

For decades, DoD organizational leaders operated in a complex environment with over 500 operating systems (GAO, 2012b). Faced with increasing global operations and growing expectations to meet audit readiness by fiscal year 2017 (GAO, 2011a). DoD and commercial organizational leaders implement ERP, and applying lean production techniques may improve organizational business processes.

ERP Advanced Technology

Advancing to new technologies such as ERP and innovations can create a more productive business environment and supply chain (Goswami, Engel, & Krcmar, 2013). With quick changes in technology, organizational leaders should keep the lines of communication open to maintain visibility of new information throughout the supply chain (Goswami et al., 2013). These efforts ensure synchronization of productions, improve changes in demands, and react to quick inventory modifications that can affect supply effectiveness and performance (Goswami et al., 2013).

New technologies have influences across cultures, environments, and economies (Yim, Forman, & Kwa, 2013). Many organizational leaders hire consultants, and project managers to help during the pre-implementation of new technology, planning, and

decision-making process of the organization (Yim et al., 2013). The benefits or results help organizational leaders of small and large organizations advance with their investment successfully (Yim et al., 2013).

Small businesses organizational leaders can develop efficient and effective business strategies, goals, and objectives from the adoption of new technology such as ERP systems (Peltier, Zhao, & Schibrowsky, 2012). Adopting new technology requires organizational leaders to influence their customers to adapt to change regarding technological innovations (Peltier et al., 2012). Before there is a change in products and services performance Peltier et al. (2012) suggested organizational leaders influence the adjustment period prior to launching new products or services. An adjustment period allows employees an opportunity to adjust to new product or service in the operating environment (Peltier et al., 2012).

Investigating in an ERP is a global phenomenon (Farzaneh, Vanani, & Sohrabi, 2013). Various organizations from multiple industries set out to understand what new technologies and ERP systems can offer their organizations for competitive gain (Farzaneh et al., 2013). The data and information from studies and other resources help organizational leaders in the ERP planning and decision-making processes (Farzaneh et al., 2013).

Liu, Ke, Wei, and Hua (2013) concluded that ERP consumes 85% of the organization's capital investment. Some organizational leaders budget 50% of their annual operating allocation to upgrade or improve IT enhancement (Liu et al., 2013). Increased budget allocations may indicate that organizational leaders see a return on their

investment. In today's technologically and globally operating environment, many organizational leaders are removing the single source information systems, software applications and implementing ERP systems (Liu et al., 2013). The ERP software data packages replace outdated software applications to enhance, advance, and maximize the organization's efficiencies and effectiveness as well as increases productivity (Liu et al., 2013).

Researchers continue to embrace the possibility of showing that there is a lack of correlation between an organizations' performance and its' IT system. Organizations that invest in new technologies may differentiate their products or services from others in the same market. To illustrate the advancement in technologies, during the 19th century, engineers did not have backup storage generators to support lighting the street lamps in New York City (Tan, Li, & Wang, 2013). Because of advances in technology, in the late 19th century energy storage batteries could provide backup power to meet supply and demand for lighting street lamps in New York City (Tan et al., 2013). Businesses achieved an estimated 60% to 80% efficiency of battery storage due to the constant increase of the lead-acid battery energy density for lighting lamps in New York City (Tan et al., 2013).

Advancement of technologies can help organizational leaders position themselves in the marketplace with a competitive advantage. Technology such as ERP will continue, and organizational leaders will continue to implement ERP systems to help establish competitive advantages (Ram, Wu, & Tagg, 2014). Incorporating the capabilities that information technology offers organizational leaders can share the information in real

time and effectively affect the logistics integration of the organization (Ram et al., 2014). With the help of advances in technology, organizational leaders can create an efficient and effective business environment (Ram et al., 2014).

As technology innovations disperse, organizational leaders work to ensure their staff gains knowledge of the changes in technology, become familiar with the new technologies, and apply them effectively to gain the competitive edge in the marketplace. Advances in technology provide organizational leaders with a vast amount of quality data and information (Ofner, Otto, & Österle, 2012). As technology advances continue to increase in the global marketplace, organizational leaders strive to position their products and service for advancement to achieve success (Ofner et al., 2012). Areas of focus to achieve success in the supply chain could be financial management, distribution management, and inventory management (Ofner et al., 2012).

The Role of SCM

Adopting and implementing the right information technology is critical for organizational leaders to maintain and sustain competitiveness in the supply chain (Hazen & Byrd, 2012). Logistics information technology (LIT) innovation, as defined by Hazen and Byrd (2012), is an information technology application. Organizational leaders can use LIT for SCM planning to include transportation procedures, implementing processes, and promotes operational and strategic planning (Hazen & Byrd, 2012). Integrating LIT with existing technologies can help organizational leaders improve upon their business performance (Hazen & Byrd, 2012). According to Hazen and Byrd research, several organizational leaders adopted positive SRM with its suppliers using LIT innovation.

Advances in technology continue to change the organizational leaders' view of their business landscape (Saber, Bahraami, & Haery, 2014). Organizational leaders strive to achieve the competitive advantage relying on SCM and business processes (Saber et al., 2014). SCM according to Saber et al. (2014) is an essential business process to connect suppliers, strategic partners, customers, and other agencies in the supply chain (Saber et al., 2014). A SCM support organizational leaders in measuring relationships with strategic partners, and customer relationships to advance in the marketplace (Saber et al., 2014).

SCM has traditionally set the tone for coordinating organizational business processes and functions in the marketplace to gain and sustain the competitive advantage (Feng & Wang, 2013). SCM is critical in developing relationships and sharing information throughout the supply chain. SCM is of particular importance when organizational leaders are introducing new products or services. Feng and Wang (2013) suggested organizational leaders adopt a supply chain involvement (SCI) to assist in managing the new product development to enhance and achieve a successful product and performance.

Hwang and Min (2013) noted that organizational leaders competing in foreign and domestic markets are developing new products and expanding their products and services to achieve financial growth. Implementing an ERP system can provide improvements to the SCM processes, help organizational leader streamline their products and services development concepts and efficiencies (Hwang & Min, 2013). Establishing a relationship with supply chain providers and conducting proper market research is vital

to the organization success and sustainability in the global market (Hwang & Min, 2013). Linking the supply chain and ERP may be the resource organizational leaders need to begin the process of increasing their performance in the global market.

ERP systems support the supply chain to keep organization business relationship working with all members of the supply chain (Lin, Kuei, & Chai, 2013). The supply chain can span across different market segments and geographic boundaries to obtain material from around the globe (Lin et al., 2013). Organizations leaders are operating business globally do so with a network of other partners, suppliers, customers, and agencies (Lin et al., 2013). With various partners in the marketplace, organizational leaders use the resources to exchange supplies, goods, materials, products, and services across global and geographical boundaries (Lin et al., 2013). The supply chain performance may increase if the proper supplies are available, in time, to satisfy customer's requirements and meet the demand.

ERP systems through supply chains collaboration can provide managers the resources to complete critically and time sensitive tasks (Ghadge, Dani, & Kalawsky, 2012). Organizational leaders implementing ERP systems can create an efficient supply system for the organization by achieving success in the SCM process (Ghadge et al., 2012). ERP systems offer the capability to integrate all supply functions of organizations and its supply chain to make a single operating system (Ghadge et al., 2012).

The main purpose of ERP is to integrate informational software modules and application from the organization's internal functions (Li, 2012). SCM functions as a linkage to integrate the external vendors and customers to the internal organizational

supply chain (Li, 2012). Therefore, all SCM information and data is accessible and retrievable from one information system (Li, 2012). Both ERP and SCM systems are compatible with standard software modules to support changing business functionalities of organizations across their supply chain (Li, 2012).

The main objective of SCM is to ensure the supply chain has the right products in the right location, with the right quantity, and ready for use (Ahmad & Zulkifli, 2012). To accomplish this, organizations leaders must share information internally and externally, particularly with the vendors and customers in the supply chain (Ahmad & Zulkifli, 2012). Implementing an ERP system can synchronize all departments in the supply chain and disseminate timely information to the providers in the supply chain to facilitate business and supply processes (Ahmad & Zulkifli, 2012). Sharing accurate information can foster relationships to develop and evaluate the organization's supply chain performance.

Similarly, general systems theory implies that users in the organization are integrating to perform the business necessary to produce the products and perform services to meet the mission of the organization (Suter et al., 2013). The intent of the SCM is to link all parties of the supply chain to ensure the supply chain operates efficient and effective (Abdallah, Obeidat, & Aqqad, 2014). All parties must perform their function throughout the supply chain whether internal or external to add value to the product or service and provide for the customer's needs (Abdallah et al., 2014). All SCM parties will share and process information with the support of ERP enhancement and collaboration throughout the supply chain (Abdallah et al., 2014).

Organizations process planning, data processing, and integrating accountability is the essence of ERP (Hsiung & Wang, 2014). ERP systems can manage multiple business needs from several suppliers around the globe for selling and producing products or services (Hsiung & Wang, 2014). SCM is the method organizational leaders prefer for processing of information and managing communication both internally and externally with various stakeholders around the globe (Hsiung & Wang, 2014).

Managing the communication between suppliers and customers should encompass trust and cooperation to better the planning and coordinating throughout the supply chain (Wolf, 2014). Supplier relationships are the link between the customers and the suppliers up and down the supply chain. Without bonding relationship, organizations face obstacles communicating and liaison with their customers (Wolf, 2014). Lack of planning and communicating in the supply chain can disrupt partnerships and relationships that the supply chain needs to develop and establish ongoing processes to keep the supply chain moving (Wolf, 2014).

Product development and vendor support drive organizational leaders to increase their competitive drive (Cadden & Downes, 2013). Organizational leaders turn to vendors with experience and innovative supply chains connections to increase their products and services, growth and effectiveness to improve their chances of success (Cadden & Downes, 2013). Selecting aggressive vendors in the supply chains will give the organization's products and services a better chance of outperforming the competition (Cadden & Downes, 2013).

Organizational leaders are adopting ERP systems can revamp and support the supply chain processes to enhance and combine SCM communication (Jahanyan, Azar, & Hasan, 2012). Organizational leaders should specify and define their expectations and benefits of ERP systems before implementation (Jahanyan et al., 2012). ERP is a complex and multi-faceted information system that end users of businesses and organizations will encounter to perform their jobs (Jahanyan et al., 2012). On the other hand, organizational leaders implementing ERP systems must realize that the success depends on the acceptance, interaction, and understanding ERP by the end users (Jahanyan et al., 2012). Therefore, integrating end users into the pre and post ERP implementing strategic and planning processes can be a useful strategy for evaluating the system's success.

Organizational leaders implement ERP systems and SCM to align their strategic business plans (Mittermayer & Rodríguez-Monroy, 2013). The objective is to meet the demands necessary to operate in a global and increasingly to change the environment (Mittermayer & Rodríguez-Monroy, 2013). Many organizational leaders implement ERP systems and integrate SCM as a part of restructuring their IT landscape in response to aligning and standardizing supply and business processes (Mittermayer & Rodríguez-Monroy, 2013).

Organizational leaders should assess their success in implementing an ERP and gaining performance improvement in the supply chain as two separate and different variables (Ram & Corkindale, 2014). The difference is necessary because ERP implementation is a project with the outcome while the performance assesses the post

ERP project (Ram et al., 2014). Achieving a successfully ERP implementation can help organizational leaders achieve sustainability and competitive advantage in the marketplace (Ram et al., 2014).

Jenatabadi, Huang, Ismail, Satar, and Radzi (2013) noted that leaders investing in ERP have the advantage of sharing real-time data and information throughout the supply chain that is critical to SCM processes. Enhancements such as this according to Jenatabadi et al. (2013) can support decision-making in SCM and align ERP with SCM to transmit and process collaborative information. Jenatabadi et al. analyzed five elements of ERP (a) operational, (b) managerial, (c) strategic planning, (d) IT infrastructure, and (e) organizational benefits, and three SCM competencies (a) operational, (b) planning, and (c) behavioral methods. Jenatabadi et al. outlined how businesses could measure ERP benefits of SCM functions and capabilities to improve SCM competencies to perform and operate effectively in the global environment.

To increase the possibility of implementing a successful ERP, aimed at sharing knowledge throughout the entire enterprise, organizational leaders must implement an efficient manner to share knowledge (Sternad, Gradisar, & Bobek, 2011). Knowledge management is a resource organizational leaders can adapt to support strategy planning to ensure the identification of the required knowledge that new projects such as ERP implementation (Sternard et al., 2011). Today's 21st century organizational leaders desire to simplify and streamline the supply chain business processes through innovative and creative product efficiencies (Sternad et al., 2011). Integrating the supply chain and the ERP system to connect with the main alliances increases the organizations' success of its

products and services (Sternad et al., 2011). SCM and ERP are essential investments for enhancing businesses performance (Sternad et al., 2011).

Implementing ERP systems to enhance the organization's SCM is evident from the literature relating to this issue (Jahanyan et al., 2012; Sternad et al., 2011). To increase the possibility of implementing a successful ERP, aimed at sharing information and knowledge throughout the entire enterprise, organizational leaders must achieve an effective manner to share knowledge. Knowledge management is a resource and capability organizational leaders can adopt to support strategy planning (Jayawickrama, Liu, & Smith, 2014). The objective is to ensure the identification of the required knowledge that new projects such as ERP implementation processes will need to include people, products, and services (Jayawickrama et al., 2014).

The Role of Knowledge Management

Organizational leaders are focusing their attention toward managing the organization's knowledge to survive in today's growing and expanding competitive global market (Remus, 2012). ERP is a capability to support the organization's knowledge management efforts and issues (Remus, 2012). Knowledge management is a set of processes to manage the creation, identification, and evaluation of organizational information (Remus, 2012). Knowledge management and equipping employees with knowledge management capabilities are important in the global, complex, competitive, and rapid environment.

Some organizational leaders use knowledge management and other business resources to guide their organization to achieving effective performance (Bloodgood &

Chilton, 2012). Knowledge has the potential to improve individual and organizational performance. Organizational leaders should adopt the type of knowledge preference that best suits their organization to improve performance (Bloodgood & Chilton, 2012). Particularly, Bloodgood and Chilton (2012) noted that the individuals' cognitive style typically increases their performance. If the organizational knowledge management resources are unique, the organization can work toward gaining a competitive advantage (Bloodgood & Chilton, 2012). Therefore, in the marketplace the competition may have difficulty duplicating or substituting the products or services, which suggests that the competitive advantage is successful, and sustainable (Bloodgood & Chilton, 2012).

Implementing ERP systems requires organizational leaders, manager, and others to build relationships to bond with end users, suppliers, and vendors (Hung, Ho, Jou, & Kung, 2012). Developing a relationship creates a foundation for transferring knowledge and a framework for transferring knowledge and improving the ERP implementation process (Hung et al., 2012). A critical factor in effective knowledge transfer is establishing a climate that supports positive knowledge transfer (Hung et al., 2012). Organizational leaders should encourage end users, vendors, and others to integrate early in the implementation process to have a positive effect on organization knowledge management planning.

Organizational leaders want the competitive advantage. Organizational leaders can take the approach of coaching, mentoring, and building trust to aid in supporting employees in knowledge sharing before implementing a new system. The objective of knowledge management, according to Liu (2013) is to create innovations and new ideas

to respond to the changes in the organizational operating environment. ERP systems manage the flow of information with a specific design for managers and leaders to monitor the flow of knowledge, and share data (Liu, 2013).

Bivainis and Morkvėnas (2012) conducted a study to investigate and identify key factors that drive organizational success. Innovation was one critical factor Bivainis and Morkvėnas identified that leads to organizational success. Organizational leaders and managers encourage employees to share new ideas to contribute to the success and growth of the organization (Bivainis & Morkvėnas, 2012).

Influencing new ideas could expand the boundaries of possibilities and develop new goals and strategies to help the organizational leaders market their products and services successfully in a competitive globally market (Chan & Mills, 2011). ERP is a capable technological tool to for organizational to use in guiding ideas and knowledge management sharing processes effectively (Chan & Mills, 2011). The role of knowledge management is to enhance and improve organization's competitive position in the marketplace through effective and efficient utilization of the organization's knowledge resources (Chan & Mills, 2011).

The purpose of knowledge management is to help organizational leaders manage information and knowledge (Alegre, Sengupta, & Lapiedra, 2013). The primary focus of knowledge management is guiding organizational strategic planning and identifying, the types of knowledge that exist in business processes (Alegre et al., 2013). Knowledge management practices available for organizations according to Alegre et al. (2013) are knowledge storage system and knowledge dissemination. Knowledge dissemination

includes organizational processes that integrate tacit and explicit knowledge throughout the entire organization efficiency (Alegre et al., 2013). Knowledge storage system is a group of systems and procedures organizational leaders use for managing and storing knowledge efficiency (Alegre et al., 2013).

Organizational leaders of the U.S. Navy reported in 2013 that the estimated cost of Navy ERP decreased due to organizational leader's investment in knowledge management (DODIG, 2013a). Knowledge management is a tool organizational leaders from public and private organizations use to assist in developing strategic plans to meet operational commitments (Remus, 2012). Knowledge management, if adopted, may help organizational leaders globally achieve success and rewards from implementing ERP systems and minimize the risk of failure.

ERP Systems Risks and Rewards

ERP systems may not be the solution to all organizational business problems. Organizational leaders are making a business decision to implement ERP systems positively to change the future of their organizations' success (HassabElnaby, Hwang, & Vonderembse, 2012). Implementing ERP systems can have a positive effect when organizational leaders adopt a business strategy with specific objectives (HassabElnaby et al., 2012). A particular business strategy can help organizational leaders enhance the organization's ability to achieve improved financial performance (HassabElnaby et al., 2012).

Both public and private industries are implementing ERP systems. Specifically, DoD is implementing ERP systems to enhance its support for the warfighter, support

combat operations, and audit readiness (GAO, 2011a). For years, traditional IT systems held the business operations and processes together. Many organizational leaders select ERP systems to increase performance, reduce cost, and integrate the organization's entire business process (Akça, Esen, & Özer, 2013). Other organizational leaders use ERP systems to share information and transfer data efficiently, which leads to eliminating unnecessary procedures and duplication of processes (Akça et al., 2013). The overall objective is ERP integrates organization's workflow processes.

Since the early 1990s, organizations and businesses praised the success of ERP (Garg & Garg, 2013). Although leaders are aware and understand the necessity for incorporating current technologies to leverage their competitive advantage, some do not understand why ERP implementation strategies are necessary to implement a successful ERP system (Garg & Garg, 2013). Many organizational leaders view ERP systems as an answer to failing business operations or supply chain failures (Garg & Garg, 2013). Spending time planning and developing a concept of operations for ERP implementation strategies may help to eliminate mishaps during the implementing phase (Garg & Garg, 2013). The entire organization should have a role and be acceptable to the installation of a new organizational ERP system.

Many organizational leaders according to Rosa, Packard, Krupanand, Bilbro, and Hodal (2013) fail to understand the complexity of implementing ERP systems. Rosa et al. (2013) recommended two estimating models to help organizational leaders schedule and determine ERP implementations, specifically cost overrun. Rosa et al. noted that DoD ERP organizational leaders implementing ERP systems exceeded projected cost and

schedule by 30%. Rosa et al. suggested organizational leaders use the interface, conversion, and extension (RICE) model as a method for measuring product size. Using the RICE models, organizational leaders can integrate product size to predict the ERP and engineering effort necessary to integrate the process. The total integration process includes (a) software engineering, (b) systems engineering, (c) program management, (d) change management, (e) development testing, and (g) training development. Rosa et al. collected data from 20 DoD ERP program managers implementing ERP software over a span of 9 years. Rosa et al. developed a database for DoD ERP programs that provided cost and schedule information aligned with vendor implementation teams during the configuration and implementation of ERP.

Tsai, Li, Lee, and Tung (2011) conducted a quantitative study to analyze success factors relating to implementing ERP systems successfully. Tsai et al. (2011) acquired 110 surveys from 600 large Taiwanese organizations to use for regression analysis to test their hypotheses (Tsai et al., 2011). Despite the knowledge that a successful ERP implementation can positively benefit organizations, respondents noted a decrease in advantages of ERP systems quickly after implementation (Tsai et al., 2011).

During the implementation phase, many organizational leaders experience cost increase, and others face the disappointment of ERP systems not meeting their objectives and expectations (Moohebat, Jazi, & Asemi, 2011). Research reported that 38% of ERP software implementations successfully satisfy the expectations of the organizations (Moohebat et al., 2011). However, despite that information organizational leaders continue to implement the software, which continues to make the industry profitable in

the IT market (Moohebat et al., 2011). Managing and coordinating business functions effectively in a global marketplace can be challenging (Moohebat et al., 2011). Organizational leaders are looking for technology to help with globalization, integration of SCM and business processes in a diverse marketplace (Moohebat et al., 2011). Therefore, ERP could be the technology tool to help them approach this challenge successfully.

Problems and challenges may arise due to the complex and dynamic requirements and processes of implementing an ERP system (Dezdar, 2012). To minimize errors in implementing ERP, Dezdar (2012) noted that organizational leaders should focus on the importance of having accurate and concise expectations of ERP systems. Organizational leaders should understand the critical factors necessary for implementing ERP systems (Dezdar, 2012). In gaining knowledge of what is required to implement ERP, both the organization leaders and vendors can benefit from a successful implementation (Dezdar, 2012). The vendor implementing the software should become aware of the organizational IT complexities commonly surrounding implementing the software to mitigate barriers (Dezdar, 2012).

An ERP system design can be custom made to accommodate the needs of prospective users and adaptable enough to future requirements of organizations (Sarfaraz, Jenab, & D'Souza, 2012). However, through building to order designs versus the standard version, implementing ERP systems for quality management and effectiveness of the organization performance is achievable (Sarfaraz et al., 2012). Implementing ERP

systems increases efficiencies, reduces operating cost, improves supply chain operations, and increases access to data in the supply chain (Sarfaraz et al., 2012).

Implementing ERP integrates data into processing modules and provides for a single source for information repository supporting various departments throughout the organizations using one business system (Frimpon, 2012). ERP systems function as a center database to pull data in and process data into multiple applications that operate together (Frimpon, 2012). ERP systems fail when organizational leaders overlook critical success factors before implementing ERP systems (Frimpon, 2012). ERP strategy is the third most important key success factor effecting ERP implementations (Frimpon, 2012).

Integrating the business processes of an organization is important for organizational leaders to integrate different technologies from various departments into a single database to improve business processes (Tarhini, Ammar, Tarhini, & Masa'deh, 2015). Organizational leaders integrate ERP systems to solve the silo operations of outdated software and business processes (Tarhini et al., 2015). A critical success factor necessary for implementing ERP software is the collaboration with all stakeholders (Tarhini et al., 2015). Implementing ERP systems can be cumbersome and a time consuming project (Tarhini et al., 2015). The ERP project involves many procedures and affects the entire organization's business function such as (a) human resources, (b) financial management, and (c) manufacture management (Tarhini et al., 2015). ERP implementation can affect organization's future business and strategic planning if the project is not successful (Tarhini et al., 2015). Implementing a successful ERP would increase the business processes and performance (Tarhini et al., 2015)

Transition

In this qualitative single-case study, I explored ERP implementation strategies necessary for implementing ERP software successfully in a DoD subordinate agency. Section 1 contained background information relating to ERP systems. ERP can assist organizational leaders in integrating their supply functions and operations and streamline business processes, to affect the flow of information throughout the entire organization (Amid, Moalagh, & Ravasan, 2012). Organizational leaders may encounter problems implementing a new IT system. Particularly, problems such as additional cost and extended wait time occur when migrating from outdated software to ERP systems (Amid et al., 2012). Today's competitive and rapid changes market requires organizational leaders to upgrade their technology constantly to sustain their products and services (Amid et al., 2012). Changes to the business operation causes organizational leaders to spend more than their annual budgets by billions of dollars attempting to upgrade existing ERP systems or implement a new system (Amid et al., 2012).

Additionally, Section 1 included the purpose of the study and outlined the advantages and possible benefits of implementing ERP systems. A qualitative single-case study research design was most suitable to explore strategies necessary for implementing ERP systems to avoid failure, cost overruns, and schedule delays. In addition, Section 1 outlined the research questions, participant's qualifications, and location. Section 1 also included a discussion relating to the implications of social change and the significance of the study, which was helpful for describing the intent of conducting this research. The review of the literature regarding ERP processes, strategies, and design provided the

background for the study. In Section 2 of the study, I covered (a) the restatement of the purpose statement; (b) the role of the researcher; (c) research participants; (d) research method and design; (e) population and sampling; (f) ethical research; (g) data collection instruments; (h) data collection techniques; (i) data organization techniques; and (j) reliability and validity of the study. Lastly, in Section 3, I presented the findings of the study.

Section 2: The Project

Section 2 includes further details regarding the study such as a restatement of the purpose of the study. In Section 2, I provide information relating to investigating the business problem. Section 2 also contains a description of the participant selection process, data collection, and responses to the research questions.

Purpose Statement

The purpose of this qualitative single-case study was to explore ERP implementation strategies implemented by organizational leaders in a USMC military base in Albany, Georgia, which avoided failure, cost overruns, and schedule delays. Identifying ERP implementation strategies that worked on a USMC base in Albany, Georgia, could help other DoD leaders implement successful ERP. The population for this study included five DoD civilian employees, General Service Grade 14 and 15 at the USMC base in Albany, Georgia. These organizational leaders possessed experience in implementing ERP strategies to avoid failure, cost overruns, and schedule delays. Organizational leaders participated in semistructured interviews because these organizational leaders were most suited to identify ERP implementation strategies organizational leaders need to implement successful ERP. I reviewed organizational documents to explore information about ERP implementation strategies to triangulate the data. This study might contribute to social change because ERP implementation strategies are necessary to halt the increase in excessive DoD spending in failed ERP implementation cost. Additionally the study might contribute to social change because providing effective ERP implementation strategies could enhance the capability and

efficiency of DoD organizational leaders tasked with implementing ERP strategic plans and ensure funds remain available to meet future DoD ERP upgrades to support future military technology, growth, and sustainment globally.

Role of the Researcher

Protecting participants' identity and ensuring their safety is a common theme in most case studies (Yin, 2014). Collecting data from participants is confidential, private, and remains protected at all times (Qu & Dumay, 2011). Conducting scholarly research requires the researcher to collect data, perform analysis, and interpret the results (Kyvik, 2013). Screening the data reduces risks and protects the participants (Qu & Dumay, 2011). The role of the researcher is to manage, review, collect, and analyze the data, as well as to interpret the findings (Kyvik, 2013). Researchers also have a responsibility to be objective, clear, and concise in articulating and interpreting the data (Kyvik, 2013).

I was not an employee of this organization and had no working relations with any members of the staff or participants. The participants for the research were center-directors General Service Grade 14 and 15 with changing schedule, travel commitments, and other work obligations. All participants had experience in developing strategies to implement ERP systems to avoid failure, cost overruns, and schedule delays.

Researchers should exercise care and respect and apply the Belmont ethical guidelines to protect participants of the research. The Belmont Report provides researchers three guiding principles: (a) respect, (b) beneficence, and (c) justice (Musoba, Jacob, & Robinson, 2014). The three guiding principles will help the researcher gain an understanding of ethical issues relating to subjects and participants (Musoba et al., 2014).

There are potential participants who are incapable of exercising their opinions or choices, but deserve and warrant respect and protection from coercion or action that could bring harm to them. These guiding principles emphasize the importance of respect for the concept of voluntary research, consent to participate, and the ethical role the researcher must adhere to in order to protect the participant's privacy and identity.

Separating any bias or prejudice from the research is the responsibility of the researcher (Rowley, 2012). However, researchers should exercise care in establishing a relationship with the participants and employ an ethic-of-care approach to maintain consistent communication with the participants (Swauger, 2011). I established the lines of communication through e-mails and telephone contact once participants signed the consent form (Appendix B).

Conducting qualitative research requires researchers to separate any bias or prejudice from the research (Rowley, 2012). However, effective communication is necessary to establish a relationship with the participants (Swauger, 2011). I employed an ethic-of-care approach guided by Swauger (2011), which involves consistent communication with the participants. I established the lines of communication through e-mail and telephone once I obtained a signed consent form (Appendix A) from participants. Building a relationship eases the tension of communicating and sharing, which the researcher needs for data collecting (Rowley, 2011). The participants received instructions outlined in the consent form (Appendix A). I briefly explained the participation requirements to include that participation in the research was voluntary, and participants could withdraw from the research at any time. To complete this research

communication with the participants was a priority. Adapting to changing plans, working after hours, and weekends was not off limits. I did not meet or interact with the potential participants in a DoD office or base facility during their duty hours to collect data for this qualitative study. I met with potential participants and conducted interviews in a local community center classroom off the military base. I invited DoD civilian participants for interviews from various departments in the USMC military base in Albany, Georgia. Perspective participants received an e-mail invitation (Appendix B) inviting them to participate in my study. The e-mail represented initial contact with the participants. Participants who agreed to participate in my study received the consent form (Appendix A).

I e-mailed consent forms to each participant in a USMC military base in Albany, Georgia. Through face-to-face interviews, I captured the participants' views and perspectives. The process of qualitative interviewing allows for researchers using face-to-face interviews to collect data from participants (Rubin & Rubin, 2012). Identifying ERP implementation strategies that worked on a USMC base in Albany, Georgia, could help other DoD leaders implement successful ERP. The population for this study included five DoD civilian employees.

Conducting interviews requires researchers to maintain integrity and respect for all their participants. Adopting an interview protocol can help researchers maintain consistency of research questions and improve the quality of the research (Yin, 2014). Including a research protocol process is another check and balance during the data

collection process (Yin, 2014). At the conclusion of the research, following up and keeping in contact with the participants kept participants close to the research.

Participants

Rowley (2012) suggested that researchers determine the sample size for the research or study. The population for this study was five DoD civil service employees in the USMC military base in Albany, Georgia, of the General Service Grade 14 and 15, center directors for logistics capability center, policy and administration, logistics service, supply integration, and weapon system management. The participants had experience in developing strategies for implementing successful ERP systems in USMC base Albany, Georgia (M. T. Madden, personal communication, May 13, 2015). The population for this study did not include vulnerable groups.

At the time of data collection, the USMC military base in Albany, Georgia, had two distinct and separate commands aboard the military base. I was an employee of the USMC base, Albany, Georgia, and the participants were employees of the USMC Logistics Command Albany, Georgia. Although both commands exist on the same military installation (base), both command have separate organizational structures and command relationships. The participants for this study were not employees of the USMC military base.

Local military protocol and guidance requires anyone desiring to conduct surveys from DoD civilians to submit a written request, interview questions, and problem statement to the executive director or designated appointee for approval before conducting interviews (Appendix C). I notified the executive deputy of USMC base

Albany, Georgia, of Walden University Institutional Review Board (IRB) approval. I obtained access via the Internet to USMC Albany, Georgia, public ERP records, and I used LinkedIn to identify potential participants.

Establishing a relationship with participants is an essential element for obtaining quality information and data during the interview process (Qu & Dumay, 2011). The first step in establishing a working relationship with the participants should be to make personal contact. The initial meeting sets the tone for the remaining interview process. Therefore, researchers should be prompt, respectful, attentive, and build a rapport with the participants. My objective was to develop a rapport with the participants by establishing harmonious communications to eliminate bias or judgment and build a sociable participants and researcher relationship. Trust is another key element necessary for establishing a working relationship with participants (Rubin & Rubin, 2012). Trust is the foundation of the interviews and suggests that the interview setting is safe and comfortable to share personal information (Yin, 2014). The objective of the interview process is to communicate and exchange information without apprehension (Maxwell, 2012).

Researchers should clearly communicate requirements, interview questions, and expectations. Pay close attention to the environment, presentation, and their body language (Yin, 2014). A researcher should respect the participants' time and effort that they have allocated to support the study. I kept participants up to date regarding the progress of the research. The relationship goes beyond the question and answer session. Establishing a relationship with participants for this qualitative single-case study was

essential to the success of this study. I maintained contact throughout the research and, at the conclusion of the research; each participant received a card expressing thanks and gratitude for supporting the research project. Additionally, I provided participants with a summary of the research findings.

Research Method and Design

Research Method

The researcher can identify a research method to effectively achieve the goal of the study and answer the research questions (Hayes, Bonner, & Douglas, 2013). Business and social business research typically use qualitative, quantitative, and mixed method research methods, each illustrating its objective for obtaining research (Venkatesh, Brown, & Bala, 2013). The research method and design for this study was a qualitative single-case study approach to explore how organizational leaders in a USMC military base in Albany, Georgia, developed strategies to implement ERP. The value of using the qualitative methodology for addressing business and management issues such as software process improvement and organizational success is the researcher gain understanding of the issue based on the individuals' perspective (Sulayman, Urquhart, Mendes, & Seidel, 2012). Poba-Nzaou and Raymond (2011) adopted a qualitative approach to explore the phenomenon of adopting unique ERP systems in small and medium companies. Researchers conducting qualitative research offer findings based on individual attitudes, situational awareness, or behaviors of why or how a phenomenon or event occurs (Bernard, 2013).

Quantitative research involves measuring numbers and testing for new information (Maxwell, 2012). The intent of a quantitative research study is to present statistical data with the intention of testing or verifying a theory (Hoe & Hoare, 2013). Researchers using quantitative method focus on quantifying a phenomenon with the intent of testing a theory (Rubin & Rubin, 2012). Mixed methods studies involve both qualitative and quantitative methods to study a phenomenon (Denzin & Lincoln, 2011). The study objective of exploring strategies organizational leaders implemented in a USMC military base in Albany, Georgia, did not require analysis and quantification of factors. Accordingly, a quantitative or a mixed methods research approach did not support this study.

Research Design

The qualitative design considered for this study included phenomenology, ethnography, and case study. A single-case study design supported the conduct of the study of how organizational leaders in a USMC military base in Albany, Georgia, developed strategies to implement a successful ERP system. A review of the professional and academic literature supported the use of the case study design for this qualitative study. A case study design according to Singh (2014) is exploratory in nature and allows researchers flexibility to explore events or factors in their current state. A case study is a research design for researchers striving to represent the various realities described by the study participants, analyzes the data collected from interviews, and observations to construct descriptions of phenomena (Stake, 1995). Case study design, as described by Yin (2014), is appropriate for the exploration of a particular phenomenon and supports

the investigation and description of the phenomenon with a particular, contemporary context.

Typically, case study designs are practicable and suitable for investigating and exploring a phenomenon in its current state (Yin, 2014). Montealegre (1999) noted that the case study method is suitable for information technology implementation given the intent of the inquiry is the reaction between implementing new technology and the organizational environment and not technical data or issues. Zach and Munkvold (2012) asserted the value of a qualitative case study for exploring and understanding the ERP customization the small and medium enterprise. Similarly, Schlichter and Kraemmergaard (2010) noted the importance of a case study research design to explore a cross-case analysis and comparison of ERP.

An assessment of other research designs did not support the rich case exploration and descriptions desired for this study. Phenomenology research design examines lived situations of individuals. The objective of the researcher is to describe a culture's characteristics to describe the experiences of the participants' lived experiences (Moustakas, 1994; Yin, 2014). This research method was not appropriate for this study because the focus was not to examine the uniqueness of participants' lived situations. Application of a phenomenological design allowed data collection from interviews (Marshall & Rossman, 2016) but did not allow for information and data gathering from DoD audits or publicly available documents.

Ethnography research requires researchers to examine the cultural characteristics of communities (Marshall & Rossman, 2016), which was not the focus of this qualitative

single-case study. Yin (2014) defined ethnography research as a method researchers use to collect data from large groups by observing the cultural and daily routines. Ethnographic study designs are appropriate for examining the beliefs and behaviors of cultures or sharing groups (Marshall & Rossman, 2016), a focus that was not relevant to this study of exploring how organizational leaders in a USMC military base in Albany, Georgia, developed strategies to implement ERP systems.

Interviews are valuable resources for conducting a qualitative single-case study research; however, regardless of the research method, Bernard (2013) implied that data saturation for qualitative research is achievable with small sample sizes. I had five participants for this research project. Conducting interviews to support this qualitative single-case study required guidance for achieving data saturation (Yin, 2014). First, I recorded and analyzed responses from the five participants. Second, after interviewing the five participants, I concluded the interviews and reviewed each participant's responses to the questions. After I completed the assessment of the five participants' responses to the interview questions, I scheduled re-interviews to discuss and clarify information to ensure I correctly noted participants' responses. For the purpose of member checking, participants received an e-mail copy of interview transcriptions to revisit the findings, provide feedback, and have an opportunity for follow-up interviews where I would ask probing questions to ensure no new information existed to achieve data saturation.

Lastly, during the data collection process, the need may have arisen for a follow-up interview to encourage participants to expand on their answer. Researchers use

follow-up interviews to refocus the interview and gather additional information, as well as refine the analysis of the data (Seidman, 2012). Francis et al. (2010) noted the uncertainty of how researchers will achieve data saturation or how saturation passes during the sampling process. However, proper sampling size according to Francis et al. is achievable in research by conducting interviews until the researcher achieves data saturation.

Population and Sampling

Determining the proper sampling in a qualitative study is critical because the purpose and intent are selecting interview participants not to count or record the number of opinions (Taplay, Jack, Baxter, Eva, & Lynn, 2014). Researchers use a qualitative study to investigate the scope of the participant's perspectives, opinions, or differences relating to the research questions (Langley, Smallman, Tsoukas, & Van De Ven, 2013). According to Draper and Swift (2011), researchers should target a sample from the geographical location or population with participants who can answer the researcher's questions and who can provide an understanding of the research problem. The sampling population for the study consisted of DoD organizational leaders, general service 14 and 15 position in USMC military base in Albany, Georgia. The proposed participants for this study were five DoD civil service employees, General Service Grade 14 and 15 from the USMC base in Albany, Georgia. Strict compliance was paramount to ensure I followed consent guidance. Each participant received the consent form outlining the statement of consent that included guidance for participation, requirements, withdrawal, and procedures for conducting the study.

According to Denzin and Lincoln (2011), researcher should review different sources of information to enhance the credibility of the research. Yin (2014) recommended researchers use (a) documents, (b) interviews, and (c) observations, to increase or enhance credibility in research. The sampling method for this qualitative single-case study was census sampling. Census sampling allows researchers to collect data from all selected participants (Dani, Idrus, Nimran, & Sudiro, 2013). I used census sampling to ensure that the selected five participants had the opportunity to respond to each research questions to explore strategies to implement ERP systems successfully. Ensuring all participants chosen for the study had a chance to voice their opinions could provide quality information to support organizational leaders in the decision-making process for future ERP systems implementation.

Using the professional referrals of the executive deputy director of the USMC in Albany, Georgia, I selected individual center directors, DoD General Service Grade 14 and 15 with experience relating to ERP implementation strategies to avoid failure, cost overruns, and schedule delays in the USMC base in Albany, Georgia. I contacted potential participants with a minimum of 1 year of ERP experience with ERP implementation strategies in a USMC base to participate in my study via LinkedIn (Appendix B). The objective was to conduct interviews with participants of varying opinions to provide solid and rich descriptions of information and data required to complete my study (Marshall, Cardon, Poddar, & Fontenot, 2013). My objective was to provide organizational leaders a strategic solution to implement ERP systems successfully. Accordingly, I employed census sampling and interviewed all participants

who volunteered to participate in the study. The number five represents an adequate sampling for conducting qualitative analysis (Marshall et al., 2013), to answer the central research question: What strategies are necessary to implement ERP systems to avoid failure, cost overruns, and schedule delays?

Directors ERP implementation skills from five departments within the USMC base in Albany, Georgia participated in this study. Selecting individuals from different departments within the organization can assist in identifying and capturing varying expert viewpoints relating to implementing an ERP system in a USMC base. Collectively, participants had over 20 years of USMC experience relating to ERP strategic planning and implementing ERP systems in a USMC base (M. T. Madden, personal communication, October 16, 2014). The organization structure or areas of responsibility for each director vary in the USMC base in Albany, Georgia. The centers organizational structure allows for the management of system management, technology management, research capabilities, and SCM. All directors integrate ERP strategic processes, supports operations, and acquisition for ERP strategies implementation in the USMC base, Albany, Georgia.

After I interviewed the five participants, I reviewed public record documents and ERP implementation documents. The document reviews included the following: (a) command strategic planning documents; (b) command ERP survey assessment; (c) command after action reports; (d) command lessons-learned ERP implementation phases; (e) executive steering committee planning reports; (f) acquisition planning guide; (g) supplier relationship management vendor performance reports; (h) government audits and

reports; and (i) organizational communication plans. The purpose of triangulation is to bring together different information from various sources to one interpretation (Denzin, 2012). Researchers conducting qualitative research should implement triangulation to help produce a quality and meaningful results (Thomas & Magilvy, 2011). With the converging of information from sources such as (a) documents, (b) interviews, and (c) observations, researchers can enhance credibility in the research (Singh, 2014).

Rubin and Rubin (2012) recommended researchers obtain sufficient samples and saturation to determine the proper sample size for conducting interviews. Conducting interviews for qualitative research requires balance and completeness during the interview process (Rubin & Rubin, 2012). Qualitative researchers can achieve this when the number of participants selected for interviews is adequate to ensure sufficient diversity and depth from the participant's point of view (Rubin & Rubin, 2012). I used member checking to help in achieving data saturation. I conducted re-interviews to ask probing questions to ensure no new information exists.

After I completed the initial interview process, I reviewed and analyzed the participant's responses and re-interview participants and ask probing questions to ensure I received a clear understanding of their responses, and that no new information exists. McConnell-Henry, Chapman, and Francis (2011) implied that probing is a useful and beneficial interview technique providing researchers eliminate adding assumptions. Additionally, at the conclusion of the interview, I collected public record documentation relating to ERP documentation from each participant. Participants provided documents such as (a) strategic planning documents; (b) command ERP survey assessments; (c) after

action reports; (d) lessons-learned from the pre and post ERP implementation phases; (e) executive steering committee planning reports; (f) acquisition planning guides; (g) supplier relationship management vendor performance reports; (h) government audits and reports; and (i) organizational communication plans. Rubin and Rubin (2012) noted that researchers conducting qualitative research can do so without a large number of participants to achieve balance and accuracy. Likewise, Dworkin (2012) recommended that researchers could achieve saturation in qualitative research with the number of participants ranging from five to 50. Therefore, I followed Dworkin's recommendation by interviewing five DoD civil service General Service Grade 14 and 15 employees in a USMC base in Albany, Georgia.

Seidman (2012) defined data saturation as the point researcher realizes that enough information is sufficient, whereas no new data or information emerges in the research, and the total participants are sharing the same information. Researchers achieve data saturation when no new information emerges, the point when the researcher has enough interviews, and when participants begin to share the same information (Seidman, 2012). Overall, this qualitative single-case study supports a small sample size of five participants.

Ethical Research

Ethical principles and issues must be at the forefront of any research that involves humans. Proper qualitative research requires the researcher to adhere to ethical principles and conduct rigorous research (Damianakis & Woodford, 2012). Researchers have an obligation to ensure compliance with ethical principles and issues that can interfere with

the research. Specifically, personal contact and interaction during the data collection process are critical to the study. Therefore, clearly setting guidelines and procedures before conducting the research will ensure the proper ethical protection of the participants.

After I received approval from Walden University IRB (Approval No. 11-04-15-0351564) to conduct a study with the USMC base in Albany, Georgia, participants received the consent form (Appendix A). This process was necessary before collecting data for the study. Researchers use consent form to inform the participants of their rights, expectations throughout the research and researcher's role (Qu & Dumay, 2011). Each participant signed and received a copy of the consent form expressing an interest to volunteer for participation in the research. Prospective participants received an e-mail explaining the requirements of the study and participation was voluntary, and was not obligated to participate and could withdraw at any time. Participants had the option to provide notification of intent or the option to do nothing. The lack of responses indicated that participants chose not to participate in the study.

Participants who signed and returned the consent form participated in the study. There was no reward, compensation, or incentive beyond a personal thank you card for taking part in the research. At the conclusion of the study, I removed all references to the participants' involvement. I ensured confidentially and anonymity of the participants to protect their identities. Each participant received a pre-assigned alphanumeric code. The code aided in tracking and referencing the participants for the duration of the study. The intent of assigning a code was to secure the confidentiality and protecting the privacy of

the participants. Confidentiality and anonymity are critical to present the findings of the research to ensure all participant privacy (Killawi et al., 2014). In addition, the data I collected and transcribed will be stored in a password-protected hard drive of a personal computer located in my personal office. After five years, I will shred and destroy the information beyond recognition.

Data Collection Instruments

The most valuable resource for conducting qualitative research is the individual doing the research (Yin, 2014). The interview is the primary instrument method for collection data for this qualitative single-case study (Yin, 2014). I obtained IRB approval and participants signed the consent form to record the interviews. After I had received the participants signed consent forms, I conducted interviews to collect data. Rowley (2014) commented that interviews are the preferred instrument for collecting data for qualitative research. The research questions served as a tool for formulating interview questions to the participants (Appendix D).

Barusch, Gringeri, and George (2011) described member checking as a quality checkpoint designed to help researcher improve the validity, accuracy, and credibility of the information previously recorded during participant's interviews. During the interview process, I exercised the option of restating or summarizing the participant's responses to the interview questions to determine accuracy or clarification. The participants can elect to either agree or disagree that the summarization accurately reflects their views, and experiences then according to Marshall and Rosman (2016) and Stake (1995), the study represent credibility. Poon and Yu (2010) employed member checking during a study to

improve ERP procurement for organizational leaders in the Asia Pacific region. Poon and Yu provided participants copies of their interview transcripts to verify its content. When necessary, Poon and Yu allowed participants to assess and amend on the credibility to the information. Another study by Schubert and Williams (2011) employed member checking in support of implementing ERP systems. Schubert and Williams provided research participants with final copies of the case study to review and comment on the credibility of the findings.

Using member checking allows participants to contribute to the study by checking the validity and credibility of information, and ensures the information is contextual and transcribed correctly (Singh, 2014). At the conclusion of the interviews, I reviewed the interview results. Additionally, I re-interviewed the participants and asked probing questions to ensure I had an understanding of their answers to the interview questions. Protecting and ensuring the integrity of the data collection process was paramount at all times. Therefore, a case study data collection protocol guided the data collection process (Appendix E). I followed the guidelines of a case study data protocol described by Yin. According to Yin (2014), a case study protocol includes (a) an overview of the study; (b) a brief description of the protocol purpose; (c) a description of the data collection process; (d) a case study report outline; and (e) a list of the research questions. Additional components of the case study protocol are a summary of techniques and data analysis tools, an overview of credibility, transferability, and dependability methods outlined in the study (Yin, 2014).

Yin (2014) implied that qualitative researchers using a case study protocol can enhance the dependability of the case study. I developed a case study database for the study strategies for implementing a successful ERP. The database included (a) interview notes, (b) copies of audio transcripts, and (c) copies of the initial and drafts study findings. Using a case study database enhanced the study dependability by providing other researchers or investigators with insight into the resources, data, and products used to support the findings (Appendix E).

Data Collection Technique

After I received Walden IRB approval, I contacted potential participants by using LinkedIn networking to invite to participate in my study. Additionally, I selected five field panel members to review, access, and comment on the accuracy of the proposed interview questions. Expert review panels are a valuable and knowledgeable mechanism for providing feedback relating to the suitability and finding of the research process (Bernard, 2013). Employees from USMC base Albany, Georgia, logistics, modeling, and simulation department served as panel members to provide feedback relating to the research questions to ensure proper contextual and suitability. Field panel members did not gather research data, and participants did not serve as a panel member. Field panel members reviewed the central research question, interview questions, and study findings only. The field panel did not have access to participants' personal confidential data information. A field panel supports the researcher by providing an independent expert assessment regarding the transferability of the study's findings (Marshall & Rossman,

2016). I incorporated feedback from the field panel. I did not make any changes to report to IRB and report any changes by submitting the Request for Change in Procedures form.

I e-mailed potential participants an invitation to participation (Appendix B). DoD civil service employees, General Service Grade 14 and 15 responded via e-mail a notification of their willingness to participate. I scheduled an interview with each participant. Because of their status in the organization, it was best to schedule the interviews after regular working hours. I did not meet or interact with the potential participants in a DoD office or base facility during their duty hours to collect data for this qualitative study. On the day of their scheduled interview, I met with each participant and informed him or her of all his or her rights about the interview process. After I received the participants signed consent forms (Appendix A), I proceeded and conducted interviews to collect the data. This qualitative single-case study included interview questions to gather data and information. I had permission to collect data from the research and conduct interviews in USMC base Albany, Georgia (Appendix C).

The interview was the instrument suitable for data collection for this research. The design of semistructured interviews is that of rigorous and probing research questions and do not allow for diversion but allows researchers the opportunity to explore relevant information (Qu & Dumay, 2011). The interview involved a conversation with open-ended questions. The objective of conducting the interviews was to gather data from the participants regarding strategies necessary for organizational leaders to adapt to implement ERP systems successfully in DoD agencies. From the dialog with the participants, the researcher is responsible for gathering the information and deciding its

relevance (Rowley, 2014). Information and data collected from their responses generated new revelations and insights that contributed to the research. The data I collected provided information to explore ERP implementation strategies implemented by leaders in a USMC base in Albany, Georgia, which avoided failure, cost overruns, and schedule delays.

The advantage of conducting interviews according to Doody and Noonan (2013) is the appropriateness for obtaining information relating to individuals, experiences, opinions, or perspectives. The disadvantage of conducting interviews includes (a) the perception of bias; a (b) high cost to conduct interviews; and (c) interviews are time-consuming (Doody & Noonan, 2013).

Additionally, to control the quality and movement of information during the interview procedure, the interview protocol helped to guide the interviews process and ensure continuity during the interview process (Appendix F). Interview protocol directs and guides the study (Maxwell, 2012). Interviews were appropriate for this study because I explored strategies organizational leaders explored to successfully implemented ERP from the perspective of participants who had the first-hand experience and lived it. The interview session consisted of open-ended interview research questions to collect data for the study. The open-ended research questions allowed for asking questions about the ERP system and pay attention to the participants talking about their experiences with ERP implementation strategies for USMC base and the technology phenomenon. I followed this technique to capture participant's themes from their ERP lived experience.

I used semistructured interviews to explore strategies USMC organizational leaders in the USMC base, Albany, Georgia avoided failure, cost over-run, and schedule delays to implement a successful ERP system. Semistructured interviews allow researchers to tailor the discussion during interviews specific to the research or study questions (Rubin & Rubin, 2012). Glowalla and Sunyaev (2014) employed semistructured interviews with IT experts for strategic decision-making qualities to explore and identify data quality management use when implementing ERP systems.

I conducted the interviews for this qualitative single-case study in a location off the military installation in a conference room of a local community center. The community center conference room was secure, and near the participant's place of employment. I began the interview by establishing a rapport and gaining the confidence of each interviewee by asking general questions and engaging in general conversation. The intent was for the participants to share and trust their experience and exchange information to support the qualitative single-case study. My objective during the interview processes was to ensure the surrounding was comfortable and uninhibited. Because of participants work schedule and status in the organization, it was best to schedule the interviews after regular working hours.

Face-to-face interviews lasted approximately 30 minutes to 1 hour by appointments to accommodate each director’s schedule. I recorded each interview session using a voice tape recorder, and I took notes. The tape recorder aided in preventing the loss of data during the note taking of the conversation (Trier-Bieniek, 2012). During the interview, I observed each participant body language and other behavior cues to assess

and determine when to conclude the interviews. Using member checking, I conducted re-interviews with those participants to re-visit their feedback and ask probing questions to ensure no new information existed to achieve data saturation. After I interviewed the five participants, I reviewed public record documents and ERP implementation documents. The document reviews included the following: (a) command strategic planning documents; (b) command ERP survey assessment; (c) command after action reports; (d) command lessons-learned ERP implementation phases; (e) executive steering committee planning reports; (f) acquisition planning guide; (g) supplier relationship management vendor performance reports; (h) government audits and reports; and (i) organizational communication plans. This study might contribute to social change because ERP implementation strategies are necessary to halt the increase in excessive DoD spending in failed ERP implementation cost. Additionally the study might contribute to social change because providing effective ERP implementation strategies could enhance the capability and efficiency of DoD organizational leaders tasked with implementing ERP strategic plans, and ensure funds remain available to meet future DoD ERP upgrades to support future military technology, growth, and sustainment globally. At the conclusion of the study, each participant received 1-2 page summary copy of the study findings.

Data Organization Technique

With a signed consent form for each participant, I recorded the interviews and transcribed each interview word for word using a Microsoft Word document. I organized the data collected using a research journal to protect those hand-transcribed and recorded notes. I used NVivo10© software to file, store and organize the data. Electronically

organizing data allowed for quick access and manipulation of data (Houghton, Casey, Shaw, & Murphy, 2013). As technology advances, electronic filing, and data storage are common, user-friendly, and save time (Khan, 2014). I organized the data, according to themes and participants responses to the research questions. I secured all information and consent forms for 5 years. After 5 years, I will shred and destroy the information beyond recognition.

Data Analysis

The interview questions listed in Appendix D facilitate exploration of the central research question of the qualitative single-case study: What strategies are necessary to implement ERP systems to avoid failure, cost overruns, and schedule delays? Stake (1995) described triangulation as a quality check for researchers to ensure the research is discipline research and not intuition. Triangulation in case study research allows the researcher to verify the validity of the study (Stake, 1995). I used methodological triangulation as a strategy for a data collection method. Methodological triangulation can help researchers improve the validity of the study (Yin, 2013).

During the interview process, I requested and reviewed the public records documentation in the possession of participants relating to ERP implementation. After I interviewed the five participants, I reviewed public record documents and ERP implementation documents. The document reviews included the following: (a) command strategic planning documents; (b) command ERP survey assessment; (c) command after action reports; (d) command lessons-learned ERP implementation phases; (e) executive steering committee planning reports; (f) acquisition planning guide; (g) supplier

relationship management vendor performance reports; (h) government audits and reports; and (i) organizational communication plans. (a) strategic planning document; (b) after action reports; (c) lessons-learned from ERP implementation phases; (d) executive steering committee planning reports; (e) acquisition planning guide; (f) supplier relationship management vendor performance reports; (g) government audits and reports; (h) organizational communication plan; and (i) government audits and reports. Yin (2014) suggested that documents could consist of (a) study reports, (b) memoranda, (c) and research documents. Yin (2014) asserted that the validity of documents is critical to the study and researchers should carefully review each document to avoid including erroneous data as a part of the research. However, documents are resources to help corroborate other data gathered, such as research question (Yin, 2014).

After I reviewed the data, I used NVivo10© software to collect and support my analysis and review of the data gathered from the participants interviews. NVivo10© software is a product that can help researchers manage and analyze data (Rodik & Primorac, 2015). Researchers should organize and construct their database to support analyzing the data collected (Franzosi, Doyle, McClelland, Putnam, & Vicari, 2013). Technology provides an opportunity to use tools to analyze data in an efficient and effective manner.

Particular attention to the coding of the participant's responses secured their identity during the data analysis process. I performed the coding after I collect the data to separate and distinguish participant responses. The coding started with P001 through P005 and corresponded to each participant respond to the research questions. I used open

coding to identify themes that emerge during the data collection process (Rubin & Rubin, 2012; Wolfswinkel, Furtmueller, & Wilderom, 2013). Ram and Corkindale (2014) used open coding to capture themes and categories data that emerges from reading abstracts, purpose statements, and research questions of 236 documents from a qualitative research to identify critical success factors relating to implementing ERP systems. Gajic, Stankovski, Ostojic, Tesic, and Miladinovic (2014) used open coding to identify new categories and theoretical concepts during a process in a qualitative study relating to critical success factors for implementing a successful ERP system. Similarly, I used open coding during the interview data collecting process to capture and examine themes and concepts that may supplement the deductive codes applied during the data analysis process.

I used NVivo10© software to create a database to facilitate the sorting, and arranging of the various interview data collected. Using NVivo10© data analysis software is useful for creating themes (Azeem, Salfi & Dogar, 2012). Castleberry (2014) noted that the advantage of researchers using quality data analysis (QDA) such as NVivo software for coding, storing, data in a single location for quick with the accessibility of the information. Yin (1994) noted that database analysis software supports researchers in analyzing data collected. The intent was to synthesize the data to understand the strategies necessary for organizational leaders to develop and implement successful ERP systems.

After I collected and analyzed the interview data, I compared the findings with the conceptual framework: general systems theory. The general systems theory by Von

Bertalanffy (1972) underpins the conceptual framework for this qualitative single-case study. General systems theory primary focus is wholeness of the organizational systems to include human capital, sociality, and technology working together to ensure that organizations can meet their objectives and goals (Kaine & Cowan, 2011). The USMC base in Albany, Georgia, is a business organization with integrated subsystems, and each department function within the system working together to accomplish the organization's business goals. Dominici and Levanti (2011) believed that general systems theory includes business practices. The general systems theory according to Walstrom (2012) is applicable for leadership and management to support improvements in business processes. Von Bertalanffy (1972) acknowledged that systems have input and output functions.

Implementing ERP systems can offer organizational leader more than a new software application (Asl, Khalilzadeh, Youshanlouei, & Mood (2012). The software applications associated with ERP is a multi-module software application that organizational leaders can use to help integrate internal and external information to improve and manage their business performance activities (Asl et al., 2012). However, Asl et al. (2012) asserted that regardless of the popularity of ERP systems, the cause of ERP failure is the organizational leaders' failure in selecting and identifying critical factors appropriate system for the organization. Yim et al. (2013) concluded that most ERP systems fail due to the misalignment organizational requirements and the pre-loaded modules of the ERP systems. Components of the system integrate in various ways, and a single component can operate independently or with other agents within the organization

to achieve the same goals and objectives (Sturmberg, Martin, & Katerdahl, 2014). Stacey (2007) argued that the general systems theory independent agents work together following the same rules to achieve the same goal. Therefore, I reviewed and analyzed the findings from each participant's interview to explore ERP implementation strategies necessary for organizational leaders to implement ERP software successfully in a DoD subordinate agency.

Reliability and Validity

Reliability

Researchers conducting qualitative can focus on dependability to demonstrate the trustworthiness of their research (Marshall & Rossman, 2016). Marshall and Rossman (2016) implied that dependability is a crucial factor in conducting qualitative research, and researchers should include mechanisms for ensuring dependability. Yin (2014) asserted that case study protocols and case study database are appropriate for researchers to demonstrate dependability. Reliability in qualitative research refers to the ability, assurance, and confidence of a researcher to recreate an original study and reach similar findings or results providing the settings of the research are similar (Grossoehme, 2014). I followed the guidelines of a case study data protocol to ensure the dependability of the study findings. I developed and followed a case study protocol (Appendix D) that included: (a) an overview of the study; (b) a brief description of the protocol purpose; (c) a description of the data collection process; (d) a case study report outline; and (e) a list of the research questions. Additional components of the case study protocol are a

summary of techniques and data analysis tools, an overview of credibility, transferability, and dependability methods outlined in the study.

Choudhari, Adil, and Ananthakumar (2013) noted the value of adopting a case study protocol during a qualitative case study in analyzing the decision and strategic choices from five companies in the manufacturing industry to ensure dependability. I created and maintained a case study database for the study of strategies necessary for organizational leaders to implement ERP software successfully in a DoD subordinate agency. The database contained (a) interview notes, (b) copies of transcripts, and (c) initial and drafts copies of the study findings (Appendix D). Using a case study database enhanced the study dependability by providing other researchers or investigators with insight into the resources, data, and products used to support the findings (Yin, 2014).

Validity

Researchers can use various strategies to achieve internal and external validity (Thomas & Magilvy, 2011). To ensure the integrity of qualitative research, researchers implement measures to ensure transferability and conformability (Marshall & Rossman, 2016; Singh, 2014). Applying validity in qualitative case studies may not be applicable, but the researcher must have a measurement for the research (Marshall & Rossman, 2016). Validity refers to the accuracy of the data and findings (Thomas & Magilvy, 2011). Achieving internal validity requires researchers to review the data collected from participants for similar themes or categories (Thomas & Magilvy, 2011). Researchers conducting qualitative research can document the accuracy by using validation procedures (Hanson, Balmer, & Giardino, 2011).

Using the qualitative research method allowed me to gain valuable information from multiple sources. Stake (1995) noted that a case study research design supports researchers in collecting data from various sources. I used methodological triangulation to help increase the validity of the data collected and support the findings of the study. In qualitative research, methodological triangulation is a strategy, which requires researchers to use various methods for understanding the data (Bekhet & Zauszniewski, 2012). Therefore, I used strategies to improve and establish validity for a qualitative single case study using various sources of evidence, maintain a link between evidence, and use member checking (Amerson, 2011).

Researchers can collect data from a single observation and interviews with multiple participants (Kapoulas & Mitic, 2012). Researchers should include multiple validity strategies to enhance the research results (Marshall & Rossman, 2016). I employed the following strategies to support my qualitative single-case study. Creditability strategies can provide supporting evidence to indicate that the results are credible and accurate. The first creditability strategy was explaining the researcher's bias. I collected research data from GAO audits, DODIG reports, public documents, and information from semistructured interviews. The information I received from the sources mentioned above aided to triangulate findings and enhance the quality of the study.

The next strategy was member checking. Member checking is a technique to help researchers strengthen credibility and improve the validity in qualitative research accuracy (Barusch et al., 2011). Member checking allowed participants to validate the responses to context and accuracy (Barusch et al., 2011). To achieve data saturation, I

employed member checking and conduct additional interviews with probing questions to achieve data saturation (Barusch et al., 2011). Elo et al. (2014) concluded that trustworthiness in qualitative research depend on researchers achieving data saturation.

Transferability in qualitative research refers to the degree that the findings are transferable to another setting or context (Goffin, Raja, Claes, Szwejckzewski, & Martinez, 2012). From the perspective of qualitative research, transferability is the sole responsibility of the researcher (Hanson et al. 2011). Using rich thick descriptions allowed readers sufficient descriptions to make individual assessments, gain an understanding of the USMC ERP implementation strategies, and draw conclusions from the information provided. Likewise, I left transferability of the study results for future researchers to make a determination based on the rich, thick descriptions of information provided.

During the data collection process, researchers must remain objective and unbiased. Confirmability addresses the manner to which researchers receive confirmation of the findings or results (Hanson et al., 2011). Confirmability strategies such as incorporating a field review panel enhanced the study by experts in the field validating and verifying the accuracy of the collected information. The field review panel helped test the research process, review the research questions, and make recommendations for efficiencies (Bernard, 2013). Employing a field review panel provides researchers a method to validate the information prior to the main research with an opportunity to make necessary corrections (Bryman, 2012). I employed a field review panel from five individuals with experienced in developing strategies to support successful ERP

implementations from the USMC base, which is the same location for this research. Collecting unbiased information is critical to establishing the validity of the study (Yin, 2014).

Transition and Summary

Section 2 began with the restatement of the purpose statement for this qualitative single-case study. The purpose of this qualitative single-case study was to explore ERP implementation strategies implemented by organizational leaders in a USMC military base in Albany, Georgia, that avoided failure, cost overruns, and schedule delays. I provided details of the research methodology in section 2. The qualitative method was appropriate because it allowed participants to take part in the interview process in their natural environment.

Section 2 also included an explanation of selecting the choice of a single-case study design to conduct the research. In addition, Section 2 provided a discussion why other research methods and designs are not applicable to the study. Section 2 contained an explanation for choosing the participations and the process for gathering the collecting data, information, and responses to the research questions. This section provided a brief description of how the research data is analyzed and organized. The NVivo10© software aided in analyzing and organizing the data captured.

Section 3: Application to Professional Practice and Implications for Change

In Section 3, I have provided a review and analysis of information from the five participants' face-to-face semistructured interviews and documents, as well as the study results addressing the interview questions. The participants were organizational leaders in a USMC base in Albany, Georgia. In addition, Section 3 includes (a) overview of study, (b) presentations of the findings, (c) implication to social change, (d) possibilities for further research, (e) brief description of research data analysis and organization, and (f) a presentation of the finding of the study by themes that emerged during data analysis using NVivo10© software. I conclude Section 3 with a summarization and conclusion of the study.

Introduction

The purpose of this qualitative single-case study was to explore ERP implementation strategies implemented by organizational leaders in a USMC military base in Albany, Georgia. I selected a single-case study to collect and gain in-depth knowledge and rich data relating to the phenomenon in its natural setting. The population for this study included five DoD civilian employees, General Service Grade 14 and 15 at the USMC base in Albany, Georgia.

The data collection process involved semistructured interviews and review of public records documents. To ensure reliability and validity, I used member checking and method triangulation of multiple data sources. After completion of data collection and member checking, I used the coding method by compiling the data and developing themes from the coding process. I used NVivo10© software for coding the data and

analyzing the emerging themes. Four emergent themes pertinent to the central research question emerged from the data analysis: (a) essential strategic planning guidance, (b) necessary strategies for successfully implementing ERP systems, (c) organizational leaders and change management, and (d) critical factors and ineffective strategies affecting ERP.

Presentation of the Findings

I conducted semistructured interviews with organizational leaders from the USMC base in Albany, Georgia, to answer the central research question. For this qualitative single-case study, I focused on addressing the central research question: What strategies are necessary to implement ERP systems to avoid failure, cost overruns, and schedule delays? In the study, I used responses from five participants' semistructured interviews to gain an understanding of strategies necessary to implement a successful ERP system. In addition to conducting semistructured interviews, I reviewed public record documentation in the possession of participants relating to the ERP implementation, strategic planning document, lessons-learned from pre and post ERP implementation phases and other public business records to triangulate and confirm participants' interview data.

Interviews took place off base in a local community center conference room; this offered privacy for conducting five interviews and would make participants comfortable to provide freely detailed responses to semistructured interview questions (Appendix F) that indicated the necessity of strategies for implementing a successfully ERP system. Interviews did not exceed 60 minutes. The population for this study was five DoD civil

service employees in the USMC military base in Albany, Georgia, of the General Service Grade 14 and 15, center directors for logistics capability center, policy and administration, logistics service, supply integration, and weapon system management. After transcribing participants' interviews and gathering public record documentation, I imported data collected from the public records documentation and semistructured interviews into NVivo10© software for coding. Using the recommendation of Sotiriadou, Brouwers, and Le (2014), I developed themes from the information provided by the five participants. Ten themes emerged, which I grouped into four core themes. The four core themes encompassed (a) essential strategic planning guidance, (b) necessary strategies for successfully implementing ERP systems, (c) organizational leaders and change management, and (d) critical factors and ineffective strategies affecting ERP.

Emergent Theme 1: Essential Strategic Planning Guidance

Strategic planning guidance for implementing a successful ERP was the first theme. Participants' responses to Interview Questions 1, 2, 3, 4, and 5 indicated that strategic planning was necessary for organizational leaders to implement a successful ERP. Findings that emerged from this study indicated that employing strategic planning is necessary for organizational leaders to implement a successful ERP. Therefore, a strategic plan is a critical factor for organizational leaders implementing new IT to improve their business performance (Purna, 2012).

Organizational leaders should establish and standardize organizational business processes to align and integrate ERP with the organization strategic planning necessary for completing a successful ERP system (Panayiotou, Gayialis, Evangelopoulos, &

Katimertzoglou, 2015). Panayiotou et al. (2015) indicated that organizational leaders should clearly communicate the strategic plan, intent, and the purpose of implementing the IT system to the end users. Communicating the strategic plan, intent, and the purpose of implementing ERP systems to the employees is the job of all executives, leaders, and managers of the organization. Panayiotou et al. concluded that customization, risky investment, and incompatibility of business and strategic plans could affect a successful ERP implementation, which supports the findings of this study.

My analysis of the organization's documents and participants' responses to the interview questions showed that implementing strategic planning (see Table 1) critically supports organizational leaders implementing a successful ERP. Building on the general systems theory as the conceptual framework of this study, the research findings of the first theme suggested that one strategy alone is insufficient for implementing a successful ERP system. According to Seethamraju (2012), general systems theory requires multiple business processes integrating with processes from an output and working together. Therefore, integrating business processes, end user training, and stakeholder buy-in work together as a single system in the implementation of a successful ERP system.

Several subthemes emerged from the findings as being critical elements for strategic planning necessary for implementing a successful ERP system (see Table 1). The literature referenced in Section 2 was supportive of the data collected regarding the theme. The subtheme identified through P001, P002, P004, and P005 responses and within organizational documents such as sample strategic plans showed the necessity of having a strategic planning guide. The ERP implementation strategies indicated by P001

through P005 suggested the need to integrate organizational business processes, integrate stakeholders, and train end users. Panayiotou et al. noted that integrating stakeholders and business processing are strategies organizational leaders can adapt for implementing successful ERP systems.

Table 1
Frequency of Themes Essential Strategic Planning Guidance

Theme	*n*	% of frequency of occurrence
End User Training	13	29.25%
Integrate Business Processes	7	12.26%
External Project Management	15	32.08%
Vendor Selection	12	26.41%

Note: n = frequency of themes

End users training. Responses from participants and organizational documentations showed organizational leaders applied end user training as an ERP strategy. P001, P002, and P004 noted the organizational leaders' commitment to investing in training presented opportunities for end users to adapt to the new ERP system prior to full implementation. P003 and P005 discussed training the trainer model employed as a very useful model for the organization, and if training of end users is not a priority, ERP implementation is at risk. P001's, P002's, and P004's responses confirmed P003's and P005's responses by announcing training requirements as a strategy for implementing a successful ERP. Kwak, Park, Chung, and Ghosh (2012) denoted a similar finding and implied that comprehensive training for employees can help to organizational leaders maximize the benefits of the system and support for employees learning the

process during the ERP post-implementation stage. Organizational leaders should commit to supporting and fostering a workplace to support learning and adjusting to a new system (Kwak et al., 2012).

P005 indicated that all organizational IT employees had ERP training opportunities. Both P001 and P002 responses aligned with documentation and information in organizational strategic planning guidance. Some organizational leaders offered rewards and financial incentives for IT employees for attaining ERP system certification. The organization after action reports revealed IT employees and other organizational employees participated in training and team-building workshops, which affirms training as a strategy used by organizational leaders to support implementing a successful ERP system. P003 stated, while referring to IT employees, continuous learning processes are critical to the workforce development. Both organizations' public records and participants' documentation revealed end user training as a strategy for implementing a successful ERP, which aligned with Schniederjans and Yadav (2013) research.

To comply with DoD audit requirements, organizational leaders must train employees before, during, and after implementing ERP. Integrating business processes can be costly and time-consuming. However, P001 disclosed that the organization leaders who fail to budget for labor and external resources run the risk of not meeting timelines. P001 commented that planning is an absolute necessity if organizational leaders want ERP systems to be successful.

DoD auditors concluded that the U.S. Army and U.S Air Force developed and implemented training strategies with skills and knowledge objectives to support end users

performing their roles and responsibilities (DODIG, 2013b). The findings indicated that organizational leaders should create training opportunities suitable for the organization and align with the organization's strategic planning guidance. The sample strategic planning documentation and public record documentation revealed that training of employees' pre and post ERP implementation is a necessary strategic principle in preparing employees for new technology implementation.

Integrating business processes. As it related to integrating business processes, responses from participants, organization's public documentation, and strategic planning guidance document confirmed the findings of previous research. Jackson (2013) noted that organizational leaders should view ERP as a technology that will support the strategic objectives of the organization that leads to human capital and systems integration.

Findings of this study confirmed DoD challenges in implementing ERP systems such as schedule delays for three of the six ERP systems and increased cost (DODIG, 2013b). DoD organizational leaders implemented ERP without strategic oversight and proper planning to integrate the entire business operation (GAO, 2015c). P001, P002, P003, P004, and P005 revealed that military organizations are complex, and implementing ERP systems was directed by DoD senior leaders to achieve audit compliance.

Each of the five participants mentioned that during the ERP implementation, the organization was supporting customers globally. Additionally, all five participants mentioned that up-front ERP strategic planning is a major contributor for implementing

ERP systems before developing the implementation plan. P002 and P004 stated that the lack of evaluating the ERP software before integrating with the existing business processes could lead to problems and confusion because organizational leaders may not fully understand the supportability of integrating business processes with new technology. P001 and P003 stated that the sole purpose of integrating business processes was to maximize the organization business performance and increase productivity.

Shaul and Tauber (2012) suggested that implementing an ERP system is an investment organizational leaders chose to improve the organization's performance as supported by the findings of this study. Ratajczak-Mrozek (2012) found that integrating efficient business processes helps organizational leaders meet the expectations of suppliers and customers to achieve a return on their investment. P004 and P005 noted that the organization's ERP implementation planning guidance helped reduce the chance of problems arising in both the pre and post ERP implementation phases. P004 specifically noted that the overall intent of the strategic planning guidance approach is to manage risk and IT data exchange to mitigate problems. P001 mentioned that although DoD executives mandated military services to implement ERP, some services rushed to implement ERP systems only to discover that the ERP system failed. The ERP strategic planning approach represents a common goal with attention on improving the organizational business processes improvement that ultimately improves the organization's performance.

External project management team. The greatest frequency resulting from the theme ERP strategic planning guidance for organizational leaders to implement a

successful ERP was external project management team (see Table 1). All participants' responses aligned with the organization public records and confirmed previous research findings. Chou and Yang (2012) found that organizational leaders who fail to integrate a project management strategy are more likely to waste resources and inhibit operational efficiencies as also mentioned specifically by P001, P002, and P003.

Action reports presented by P001, P002, and P003 indicated that organizational leaders used a data conversion process at the start of every ERP strategic planning meeting. This process involved a thorough evaluation and review of the current state of ERP implementations and the plans for future implementations. I reviewed the organization's lessons learned reports of March 2008, April 2009, and July 2013 and noted the value and use of external project management. P001, P002, and P003 expressed that the benefits of using external project management as critical for implementing a successful ERP. In concurrence with the participants' responses, Spalek (2014) found that hiring and integrating an external project management team helps organizational leaders to achieve goals and objectives throughout the entire business process.

Vendor selection. Each participant spoke of the importance of carefully selecting the ERP vendor. P001, P002, and P003 noted the USMC' top acquisition leadership made the ERP vendor selection for the entire USMC. P001 and P002 commented on their association and experience with the selection process. P001 and P002 noted that extensive research was necessary for selecting the right ERP vendor, and although DoD leadership mandated implementing ERP systems, each military service executive leaders

made different ERP vendor selections. P002, P004, and P005 noted the same selection criteria for ERP vendor selection.

P001 and P002 commented that choosing ERP vendor selection and the ERP software package depends on the organizational business requirements. Sarker, Sarker, Sahaym, and Bjørn-Andersen's (2012) research aligned with the viewpoint of P001 and P002 and suggested that choosing that software application would depend upon the nature of the organization's business structure, needs, functions, and expectations. A review of GAO audits validated P001 and P002 remarks by revealing that various DoD acquisition leaderships selected two suites of ERP software to integrate the logistics modernization efforts. The U.S. Navy and U.S. Army organizational leaders implemented ERP using SAP vendor, and the USMC and U.S. Air Force organizational leaders opted for Oracle Business Suite (DODIG, 2013b).

Aloini, Dulmin, and Mininno (2012) concluded that examining the background and products of a potential ERP vendor and software should be the first order of business for organizational leaders planning to implement ERP. The financial risk associated with implementing a successful ERP requires organizational leaders to examine the potential vendor background thoroughly and record of accomplishment to minimize the risk (Aloini et al., 2012). DoD audits linked the failure of the U.S. Army's ERP to lack of strategies and strategic guidance during the vendor and software selections (DODIG, 2013b). P003 mentioned a different perspective about vendor selection; relating to the size of the U.S. Army and U.S. Navy, organizational leaders may overlooked the functionality of ERP software that results in over budget and missed timelines.

Emergent Theme 2: Necessary Strategies for Successfully Implementing ERP Systems

The second theme I identified was necessary strategies for organizational leaders to implement a successful ERP system. There were several strategies mentioned by all participants, in public documentation, and confirmed by previous research. I discovered that knowledge management, CRM, and top leadership involvements were necessary strategies for implementing a successful ERP system.

The finding indicated that during the pre and post ERP implementation stages, organizational leaders should evaluate and consider the knowledge management of the organizational IT staff involvement in the ERP system. The finding also revealed that organizational leaders needed to address all issues and concerns that prevent the ERP project from completing on time. The high frequency of total leadership management involvement (see Table 2) indicated that leader involvement is critical to integrating processes from multiple systems to a new single source system to successfully implementing ERP systems as noted in this study; therefore, organizational leaders should be involved in both the pre and post ERP implementation phases. Leadership involvement and guidance can influence the organizational, goals, and objectives. I noted in the organizational ERP strategic planning documentation that USMC organizational leaders involvement helped shape the ERP strategic implementation planning guidance

The three emergent themes necessary strategies for successfully implementing ERP systems indicated a clear alignment with general systems theory. Young and Leveson (2014) noted that general systems consist of different parts interrelated and

interdependent with each other, whereas a change in one part could affect other parts. I show the core themes that emerged from the data analysis relating to necessary strategies for successfully implementing ERP systems in Table 2.

Table 2
Frequency of Themes Necessary Strategies for Successfully Implementing ERP Systems

Theme	*n*	% of frequency of occurrence
Knowledge Management of IT Staff	5	19.15%
CRM	3	10.12%
Top Leadership Management and Involvement	7	70.73%

Note: n = frequency of themes

Knowledge management of IT staff. P001 and P004 noted that knowledge management was a necessary and effective ERP strategic, which aligned with Oluikpe (2012). P001 and P004 suggested that organizational leaders should integrate the organization's IT experts with the external experts during and after ERP implementation. P001 and P004 responses aligned with research by Gallagher, Worrell, and Mason (2012). P002, P003, and P005 regarded knowledge management as an effective management strategy that helps organizational leaders accomplish success. Nold (2012) supported P002, P003, and P005's arguments**.**

CRM. CRM emerged as being critical to organizational leaders' ability to maintain customers' information and relationship for support and sustainment throughout the organization. P001, P004, and P005 noted that, when communicating with suppliers, vendors, and other agencies of changes in the IT system, some organizational leaders avoided communicating the change until full system installation and integration of the

new IT system. Nguyen and Mutum (2012) research affirmed P001's, P004's, and P005's statements by concluding that integrating and aligning systems and business processes are essential for technologies upgrades. CRM is an approach recommended by Wang and Feng (2012) to help organizational leaders improve customer relationship with their customers and suppliers by developing and implementing strategic resources such as a customer orientation to support new technology.

Top leadership management involvement. P001, P002, P003, P004, and P005 noted that top leaders management involvement from start to finish is a necessary strategy to implement a successfully with the ERP implementation process which aligned with research conducted by Huang and Handfield (2015). Without executive leaders and management involvement in the ERP implementation process, the outcome could negatively affect the organization performance (Shoa, Feng, & Liu, 2012). Top Leadership participation and involvement in the ERP implementation process is critical for the organization to achieve ERP success, and organizational leaders should explain the organization's strategic objectives to all end users (Tambovcevs, 2012).

Researchers continue to warn against the high cost to implement ERP systems with no assurance of success (Ali & Xie, 2012; Moalagh & Ravasan, 2013) and recommended the necessity of a strategic plan. P001, P003, and P005 commented that top leaders communication with employees during the pre and post ERP implementation phases can help employees understand the expectations of changing from the old IT system to a new IT system. Additionally, within the organizational lessons learned of March 2008, April 2009, and July 2013, I discovered several comments in which

organizational leaders stated that communication at all levels with employees was necessary to implement ERP.

Emergent Theme 3: Organizational Leaders and Change Management

The third theme related to organizational leaders and change management necessary for implementing a successful ERP system. Interview question 3 addressed the role of leadership during the ERP implementation strategic planning for implementing ERP. Themes that emerged as being necessary for organizational leaders in implementing a successful ERP were organizational leaders and employee relationships, change management team involvement, organizational culture, and organizational leadership characteristics. These findings suggested that organizational leaders who implement ERP systems implementation strategies help the organization increase the odds of having a successful ERP system.

Given the emergent theme of organizational leaders and change management, I concluded that the USMC organization worked as a system with different strategies to implement a successful ERP system. The general systems theory applies to the organization's integrated design processes for implementing ERP systems necessary to support and develop cooperative and innovative solutions to create sustainable value for the entire organization and stakeholders (Latham, 2012). Table 3 shows the sub-themes that emerged from the data analysis regarding organizational leaders and change management necessary to implement a successful ERP.

Table 3
Frequency of Themes for Organizational Leaders and Change Management

Theme	*n*	% of frequency of occurrence
Leadership and Employee Relationship	7	9.70%
Change Management and Team Involvement	12	32.06%
Organizational Culture	13	39.16%
Organizational Leaders Qualities	9	19.08%

Note: n = frequency of themes

Leadership and employee relationship. P002 and P004 commented that organizational leaders should be mindful that implementing an ERP is more than updating software, but impact employees and leaders relationships. During the implementation of ERP, there are varied opportunities available for leaders to display their leadership qualities to influence the success of ERP. P001, P003, and P005 commented and concluded that relationships between employees changes due to the shift in merging multiple departments and integrating the entire business process into a single source system to accommodate the new system. P002 noted that organizational leaders should not neglect to invest in the human capital to implement ERP. P004 noted that end users of the old IT data could be valuable to the new IT process and in some instances necessary for a smooth implementation. P004 comments align with research finding noted by Arvidsson, Holmstrom, and Lyytinen (2014).

Change management team involvement. All five participants expressed that investing in a change management team equate to a successful ERP system. P001, P002, and P005 noted that command policy required organizational leaders to frequently

monitor the integrating of a change management team, assess the project state of readiness, and communicate with the staff. P001, P002, and P005 concluded that investing in a change management team is a strategy that influences a successful ERP implementation. Tsai, Lee, Shen, and Lin (2012) researched aligned with P001, P002, and P005 conclusion.

Organizational culture. Organizational documentation and participants' responses contained information relating to the organizational structure and culture. A review of organizational lessons learned from March 2008, April 2009, and July 2013 revealed that the organization's success was not due solely to leaders, but made possible with significant contributions from employees of all general service grades within the organization. Particularly, P001, P003, and P005 stated that the organizational ERP implementation strategic planning document of January 2008 provides organizational leaders the integrated process structure for capturing and incorporating employees into decision-making. Organizational leaders jointly collaborated and communicated the status of the implementation process and addressed complaints and issues relating to the IT changes through regular town hall forums. P001 indicated that organizational leaders encouraged feedback, suggestions, and stressed employee networking to ease the transition process. Strategies discovered through the data analysis aligned with Fazey et al. (2013) study. Fazey et al. suggested that organizational leaders facilitate an organizational culture that supports implementing a successful ERP.

Organizational leaders' characteristics. Change is never easy and can offer opportunities for leaders to demonstrate their leadership characteristics to implement a

successful ERP system. P002, P003, and P005 expressed that leaders should exercise care and understanding when addressing the challenges employees face during pre and post ERP implementation phases. Particularly, P001 noted that recognizing the issues of employees, and sharing with employees what leaders and managers can do to take action and address issues demonstrated caring and understanding. P001 stated that s/he solicited input from the management team and articulated to employees' decisions that s/he made, which included the logic applied to the decision-making process.

All five participants noted that trying to keep the entire organization working together to implement ERP systems is no small task. Keeping employees involved with the project team, IT staff, and other internal and external organizations required constant encouragement and involvement. Metcalf and Benn (2013) found that leadership and management relate to general systems theory, which leads to improving business processes and aligns with the findings of this study.

Emergent Theme 4: Critical Factors and Ineffective Strategies Affecting ERP Systems

The fourth theme related to critical factors, ineffective strategies, and hiring ERP consultants can affect organizational leaders implementing ERP system successfully. Interview question ten revealed that ineffectively aligning organizational business processes with the organizational strategic plan could negatively affect the ERP implementation process. Findings revealed that there are strategies necessary for implementing ERP systems successfully, there are critical factors to consider, and ineffective strategies that prevent successful implementation of ERP.

The inability to acquire and achieve adequate training for the entire organization is a critical factor that affects the success of organizational to implement ERP. Therefore, organizational leaders should budget for training and incorporate training requirements in the organizational ERP implementation strategic planning guidance. The consensus among the participants was that integrating consultants with the employees' influences, motivates, and encourages ownership of the new system to support the timely ERP implementation. Therefore, organizational leaders should be in touch with the needs of the organization's employees, particularly IT professionals with specific skill sets applicable to implementing the ERP system. The absence of trained IT professional could create delays in the ERP implementation timeline. The fourth core theme denoted critical factors some organizational leaders must consider when developing strategies to implement ERP.

General systems theory is evident in the findings of emergent theme 4. The study findings discussed in this theme showed critical factors necessary for implementing ERP systems and ineffective strategies that prevented organizational leaders in implementing a successful ERP system. These critical factors such as the value of the organization's IT employee (P001, P002, and P004), critical factors such as hiring ERP consultants, (P001, P003, and P005), and ineffective strategies (P003, P005) affects ERP implementation, and therefore plays a part in the general systems of integration.

The holistic view of general systems theory is that multiple components are working together in wholeness to assist with achieving the organization's goals (Latham, 2012). General systems theory applies to many of the management practices when

multiple strategies and business systems work together as a whole to achieve the business or organizational goals of implementing a single, complex, and multifaceted business system (Ducq, Chen, & Doumeingts, 2012). Wong, Ngan, Chan, and Chong (2012) noted that new technologies create opportunities for organizational leaders to have influences of cultures, and economies that require efficient and effective business strategies, planning, goals, and objectives for the adoption of new technology such as ERP systems. Therefore, the research findings from emergent theme 4 align with general systems theory. Table 4 shows the sub-themes that emerged from the data analysis regarding the critical factors, and ineffective strategies.

Table 4
Frequency of Themes for Critical Factors and Ineffective ERP Implementation Strategies

Theme	n	% of frequency of occurrence
Critical Factors	12	35.29%
Ineffective ERP Strategies	13	42.39%
Hiring ERP Consultants	9	22.32%

Note: n = frequency of themes

Critical factors. Participants' responses revealed their perceptions of the critical factors influencing a successful ERP implementation project. Participant P001 discussed the value of having a single source IT business solution for both supply and business processes and how critical that integration of systems and services are to the organization. P002 explained why the integration of supply and business functions is of value to the organization because without SCM nothing happens. P001 stated that based on his/her

personal experience SCM affects every department within the organization business processes.

SCM according to Ahmad and Zulkifli (2012) is an essential business process to help organizational leaders connect with suppliers, strategic partners, customers, and other agencies in the supply chain. Ahmad and Zulkifli discussed the importance of SCM supports to organizational leaders in measuring relationships with strategic partners, and customer relationships to advance in the marketplace. P002 responded that SCM is a necessary component for compiling data. Ahmad and Zulkifli noted that SCM is necessary to pull the data and information together due to the technology changes and ERP software changes. Therefore, SCM is critical to integrate organizational business processes.

P003 also mentioned that SCM and integration of business processes is necessary to complete the ERP implementation process. P003 commented that implementing ERP systems separately from integrating the business processes is risky. P002 recommended organizational implement ERP systems and integrate business processes together to minimize problems. P001 and P002 summarized previous statements and said integrating and aligning SCM with the ERP strategy is a necessary and critical factor for success in implementing ERP.

Ineffective ERP implementation strategies. Participants responded to interview question four and revealed strategies that failed to produce results in implementing ERP. P001 expressed that allowing the project manager to have full control of the ERP process is not an effective ERP strategy. From P001, P004, and P005's perspective, lack of

coordination and integration with external customers and suppliers are not effective. P001 and P004 specified that the organization staff should work closely with the project manager from start to finish. Therefore, P001 indicated that seeking referrals and the advice of other services or agencies is wise before soliciting and hiring a project manager. Patanakul and Shenhar (2012) supported P001's and P004's argument and noted that organizational leaders should review the project management strategies and plans. Doing so will ensure that the information relates specifically to the organization's needs.

P002 discussed under-budgeting for resources, such as on-site surveys and external IT support, as an ineffective strategy; s/he commented that under-budgeting could cause delays in reaching the organization's timeline. P003 noted that higher authority executives may dictate the timeline, and if pressured by senior executives, organizational leaders may rush to complete the job. P002 commented that one setback could delay the entire project. Both P002 and P003 concluded that organizational leaders who under-budget for implementing ERP systems jeopardize completing the project on time and risk implementing a successful ERP system.

Hiring ERP consultants. Participant interview responses provided detailed information relating to hiring ERP consultants. P001, P002, and P004 commented that the hiring an ERP consultant is a win-win for the vendor supplying the software and the organization implementing the software, but argued that the hiring the right ERP consultant tailored to meeting the needs of the organization is critical to the success of the ERP project. Ahmad and Cuenca (2013) who found consultant support is a critical factor

for ERP success. P002 noted that, if the hired consultant does not support the needs of the organization and understand the uniqueness of the organization structure, the ERP project could fail or miss the implementation deadline. P001 was unsure of the solicitation process for selecting an ERP consultant. In consensus with Ahmad and Cuenca, the April 2014 organizational records regarding lessons learned and the organization's ERP implementation strategic planning documentation illustrated that the relevance of consultant support.

Applications to Professional Practice

Implementation of the ERP implementation strategies identified from this study might help organizational leaders implement a successful ERP system. The overall objective of the study was to explore organizational leaders' views about strategies used to implement a successful ERP system. Organizational leaders should understand the strategies that best align with the organization business as noted by P001 and P002. However, organizational leaders should be cognizant of the many software applications to choose, focusing on the software packages that align with their organization's business practices and IT needs (Nazemi Tarokh, & Djavanshir, 2012; You, Lee, Chen, & Jiao, 2012).

Organizational leaders can implement strategic planning guidance to achieve an acceptable performance for the entire organization (Teittinen et al., 2013). Implementing ERP systems is an audibility and compliance concern for DoD organizations (GAO, 2012b). Implementing ERP systems is an audibility and compliance concern for DoD organizations (GAO, 2012c). ERP implementation strategies identified by P001, P002,

P003, P004, and P005 in the first core theme, such as end user training, integrating of business processes, and vendor selecting are necessary strategies for implementing a successful ERP system.

Organizational leaders integrate processes to sustain the organization's performance and achieve audit compliance with a successful ERP system (GAO, 2012b). ERP implementation strategies may prevent the need for organizational leaders to pay the high cost to maintain the operation of outdated IT systems because outdated IT systems are costly to maintain and do not provide organizational leaders the opportunity to manage the organizations' business processes effectively (DODIG, 2012). Thus, the application of implementing ERP systems implementation strategies presents an opportunity for the organizational leader to invest in end users training, employee-leader relationships, and change management teams (P001, P002, P005) to help end users and IT staff with the system transition.

Hornstein (2015) indicated that investing in a project manager is a strategy that influences the success of the project. P002 confirmed research by Hornstein who noted that change management is a strategy for organizational leaders integrating new processes. Hornstein indicated that the benefit of communication and change management increased the chances of implementing a successful IT system that P001, P002, and P005 identified.

Organizational leaders can apply factors found within the second and third core theme such as understanding the effectiveness of leadership and employee relationships for implementing a successful ERP. Organizational leaders may experience greater

employee morale and acceptance of the new IT system if employees are involved in the decision-making process as noted by P001. Applying leadership characteristics and practices that encourage employees and leaders relationship as mentioned in the third emergent theme may lead to implementing a successful ERP system.

P001 confirmed previous research by Bano and Zowghi (2014) that encouraging and motivating the employees to participate in the implementation process and learn the system is an effective strategy. However, not all strategies are best suited for every organization, as confirmed by P001, P002. However, applying necessary strategies and lean principles may provide greater chances for efficiencies throughout the entire organization (Karim & Arif-Uz-Zaman, 2013). Organizational leader's characteristics and practices should encourage and influence employees' trust, during the pre and post implementations of a new IT system. Communication at all levels internally and externally affords opportunities for organizational leaders to bridge the gap between employees and agencies, as noted in the third core theme may lead to implementing a successful ERP system.

Organizational leaders can implement ERP systems implementation strategies that are effective (Marciniak Amrani, Rowe, & Adam, 2014), and disregard those strategies that are ineffective. P001, P002, and P003 noted that hiring a project management team was an effective strategy for implementing a successful ERP system as evident from research by (Marciniak et al., 2014). As technological changes occur in the business environment, organizational leaders upgrading software applications to improve the organization's business processes may be necessary (Marciniak et al., 2014).

Similarly, as organizational leaders continue to advance their business operations with new technology, gaining an understanding of necessary strategies could lead to implementing a successful ERP. Implementing ERP systems without effectively training users will not results in a return on the investment. Lutovac and Manojlov (2012) found that an estimated 40% of small-to-medium businesses have two or more ERP software packages while more than 15% businesses have approximately three ERP packages to replace outdated IT systems to increase functionality.

Implications for Social Change

I conducted semistructured interviews, reviewed study participant responses and public documentation, and found the following ERP implementation strategies that included end user training, leaders and management involvements, and critical factors affecting the implementation of a successful ERP. ERP implementation strategies might assist DoD organizational leaders in achieving audit compliances as well as support public and private businesses sustainability (GAO, 2012b, 2015c). A requirement for effective ERP implementation is the ongoing involvement and efforts from the organizational leaders, end users, and other stakeholders to enhance the end users' knowledge of ERP implementation. Obtaining audit compliance could provide the DoD selective executive branch and leaders the opportunity to co-operate and contribute to the advancement of corporate social responsibility.

Recommendations for Action

Findings and recommendations from this study may be useful for any business or organizational leader with direct relevance to a DoD organizational leader facing ERP

implementation. Adopting effective ERP implementation strategies may allow organizational leaders to use palpable methods to implement ERP systems successfully and increase business performance. Moreover, all organization's stakeholders involved in the pre and post ERP implementation may be interested in the findings of this study.

The result of this study may benefit current DoD organizational leaders by exposing ineffective strategies that some DoD organizational leaders may have in place to achieve audit compliance (GAO, 2012b). A variety of business and professional channels are available for the dissemination of the study results such as conferences, scholarly journals, DoD professional and business journals. Additionally, the findings from the study may be appropriate for circulation through training and educational seminars regarding ERP implementation strategies organizational leaders need to implement a successful ERP system.

Recommendations for Further Research

I used a census sample of organizational leaders in the USMC organization in Albany, Georgia, and selected publicly available documents and documents made available by participants as the basis for the study. I gathered data from five participants, using semistructured interviews. I identified key perceptions and facts through the analysis of the data relating to the problem of having effective ERP implementation strategies necessary for executing a successful ERP system. The findings from this study warrant additional research and exploration of ERP implementation strategies for organizational leaders. According to research by Marciniak et al. (2014) public and private organizational leaders need to adopt ERP implementation strategies to improve

and integrate business process particularly DoD organizational leaders (GAO, 2012b).

One recommendation for the further study includes the exploration of DoD organizational leaders' responses to the ERP problems freely without constraints. DoD organizational leaders are free to implement varied ERP solutions, but resist and limit discussions related to why organizations implement different ERP software applications; however, DoD guidance as outlined in GAO (2012b) implementing ERP systems is mandated to achieve audit compliance. Therefore, further exploration of the topic should include problems not discussed in the study to address the limitations of this study.

Researchers could employ a single-case study, a qualitative approach similar to that used for this study to review of how DoD organizational leaders characterize responses to the problem of why implementing ERP systems in DoD agencies are over budget, and not functional as suggested by the findings of two GAO studies (e.g. GAO, 2005, 2010). Alternatively, future researchers could use findings from this study to develop a survey that serves as the foundation for a quantitative investigation of the relationship between implementing different ERP systems across DoD agencies and achieving audit readiness and limit process integration within DoD. Finally, I would also suggest conducting a study to compare ERP implementation strategies of the private sector versus DoD agencies. A comparison between these organizations could reveal ERP implementation strategies best suited to avoid failure, cost overruns, and schedule delays.

Reflections

When I began the pursuit of doctoral studies, I was unsure of what to expect. During the research process, I gained an understanding of doctoral level research, which

changed my perspective. The level of attention to details and alignment required for scholarly research were overwhelming. The candid responses and support of participants for this study surprised me. The data collection process, particularly coding and data mining information that emerged during the semistructured interviews were overwhelming. All five participants were consummate professional who exhibited pride, professionalism, and passionate about implementing ERP systems in USMC base Albany, Georgia.

As a business professional and leader with knowledge relating to ERP within DoD, the findings of this study affected me. The findings of the study were similar to experiences I encountered in a previous organization trying to implement ERP. Although participants demonstrated some differences in their perspective, there were many similarities and challenges that all faced as organizational leaders desiring to implement a successful ERP system. During this study, I have exposed business efforts, new strategies, and practices that are useful to my profession. My main goals in conducting the single-case study were to share awareness relating to areas of concern DoD leaders face in implementing ERP systems and enhance my competence to conduct a qualitative research.

Summary and Study Conclusions

Advances in technology such as ERP provides organizational leaders a tool to standardize, streamline, integrate the financial and accounting system; integrate various logistics systems; and improve audit readiness goals (GAO, 2012b). However, delays and cost increases negatively affect DoD's audit requirements (GAO, 2012b). Xie, James,

and Ali (2014) noted that the cost to implement ERP systems continues to increase, but the performance of ERP systems remains unchanged. Organizational leaders need effective strategic planning guidance to shape and define the critical success factors necessary to achieve and maximize a performance level while working fiscal and budgetary constraints to implement ERP systems successfully (Xie et al., 2014). Therefore, the specific business problem for this study was that some DoD leaders lacked strategies to implement ERP systems to avoid failure, cost overruns, and schedule delays (GAO, 2011b).

The qualitative single-case study allowed for the in-depth study of one USMC military base in Albany, Georgia, which has successfully employed ERP implementation strategies. I used the lens of the general systems theory for the conceptual framework. The purpose of this qualitative single-case study was to explore ERP implementation strategies implemented by organizational leaders in a USMC military base in Albany, Georgia, which avoided failure, cost overruns, and schedule delays. Five organizational leaders from a USMC base in Albany, Georgia participated in semistructured interviews, and organizations' public documents supported the interview data. After conducting interviews and thoroughly analyzing data, four themes emerged from the data including: (a) essential strategies planning guidance, (b) necessary strategies to implement ERP, (c) organizational leaders and change management, and (d) critical factors and ineffective ERP implementation strategies. The findings revealed that organizational leaders from public and private business sectors need strategies such as user training, project management, and leader involvement to implement a successful ERP system.

In conclusion, the findings also indicated that organizational leaders should understand effective ERP implementation strategies and address critical factors that prevent the success of ERP implementation strategies. Vom Brocke et al. (2014) commented that change management practices, leadership involvement, and end user training also influences organizational leader's business process improvements. Organizational leaders must consider critical factors when accessing which strategies are best suited for the organization (Xei et al., 2013). As noted for the purpose of general systems theory, incorporating ERP implementation strategies requires all strategies to integrate or interact with each other to support a single process (Seethamraju, 2012).

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Appendix A: Consent Form

CONSENT FORM

You are invited to take part in a research study of designed to understand the necessity of implementing strategies to achieve a successful ERP in a DoD subordinate agency. The researcher is inviting DoD civilian employees, General Service Grade 14 and 15 at the USMC base in Albany, Georgia to be in the study. You meet the following participation criteria: (a) DoD civilian employees, (b) General Service Grade 14 and 15, (c) at the USMC base in Albany, Georgia, and (d) a leader with experience in implementing ERPs strategies. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

A researcher named Wanda A. Swanier, who is a Doctor of Business Administration student at Walden University, is conducting this study. You may know the researcher in her professional role as a Logistics Management Specialist but this study is separate from that role.

Background Information:
The purpose of this study is to explore ERP implementation strategies implemented by organizational leaders in a USMC military base in Albany, Georgia, which avoided failure, cost overruns, and schedule delays. The study will look at the phenomenon by interviewing organizational leaders who have knowledge and experience with USMC ERP systems.

Procedures:
If you agree to be in this study, you will be asked to:

- Participate in a 30 minute to 1 hour semistructured interview
- If necessary, participate in a 30 minute follow up interview arranged at time convenient for you
- Participate in a 10 minute member checking process to review my interpretations of the information and data collected during the interview

Here are some sample questions:

1. What strategies affect successful implementation of an ERP system in your organization?
2. What strategies became more important during the ERP pre and post implementation phases?

Voluntary Nature of the Study:
Your participation is strictly voluntary and you may withdraw at any time. Everyone will respect your decision of whether or not you choose to be in the study. No one at the USMC base in Albany, Georgia will treat you differently if you decide not to be in the

study. If you decide to join the study now, you can still change your mind later. You may stop at any time.

Risks and Benefits of Being in the Study:
Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as embarrassment or shame regarding sharing information about one's work setting. Being in this study would not pose risk to your safety or wellbeing.

The benefits of your participation may provide you with a sense of high self-respect knowing that you could contribute to helping improve the your own and organizational leaders' understanding of the necessity of implementing strategies to achieve a successful ERP in a DoD subordinate agency.

Payment:
There will be no compensation provided for your participation in this study.

Privacy:
Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Participants' identification will be an alphanumeric to ensure privacy and confidentiality. Data will be kept secure by Wanda Swanier on a password-protected computer and locked personal safe located in the researcher's personal office. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:
You may ask any questions you have now. Or if you have questions later, you may contact the researcher via wanda.swanier@waldenu.edu. The researcher's doctoral study chairperson is Dr. John House. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 612-312-1210. Walden University's approval number for this study is **11-04-15-0351564** and it expires on **November 3, 2016.**

The researcher will give you a copy of this form to keep.

Statement of Consent:

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below, I understand that I am agreeing to the terms described above.

Only include the signature section below if using paper consent forms.

Printed Name of Participant _____

Date of consent _____

Participant's Signature _____

Researcher's Signature _____

Appendix B: Participation E-mail Invitation

Dear [Recipient's name],

I hope this email finds you well. I am Wanda A. Swanier, Director of Supply Integration Division; USMC base Albany, Georgia. I am doctoral student from Walden University, where I am currently pursing my Doctor of Business Administration (DBA); focus area is Supply Chain Management. The purpose of my dissertation is to explore ERP implementation strategies implemented by organizational leaders in a USMC military base in Albany, Georgia, which avoided failure, cost overruns, and schedule delays. Based on professional networking, I understand that you have firsthand experience relating to ERP strategic management, policy, technology, and knowledge in a USMC organization for successful ERP implementation.

Based on your professional LinkedIn profile, you were chosen as a potential participant for my study. It would be a privilege if you are available to be a part of my study. This email represents my initial contact with you. Once I obtain official approval from Walden University Internal Review Board (IRB), you will receive an official Informed Consent for Participation. The time commitment for this study is that you will be asked to complete the 30 minutes to 1-hour interview after your normal working hours away from your place of work in a secure, private location.

If you wish to speak with me, my contact information is listed below. Thank you and I look forward to your participation with my study.

Sincerely,
Wanda A. Swanier
Wanda.swanier@yahoo.com
Wanda.swanier@usmc.mil
229-639-7238 or 619-249-6947

Appendix C: Approval Letter

ALBANY, GEORGIA 31704-0201

IN REPLY REFER TO:
4000
P50
OCT 1 6 2014

From: Executive Deputy, Logistics Command
To: Ms. Wanda Swanier, Walden University Student

Subj: APPROVAL OF INTERVIEWS OF PERSONNEL IN SUPPORT OF DOCTORAL BUSINESS ADMINISTRATION (DBA), GLOBAL SUPPLY CHAIN MANAGEMENT PROGRAM

Ref: (a) OPNAVINST 5300.8C

1. Per the reference, written approval is requested to conduct personnel survey or interviews with selected DoD personnel aboard the Logistics Command.

2. After reviewing the problem statement, purpose statement, and research questions for Ms. Swanier's DBA study, approval is hereby granted.

Appendix D: Interview Questions

1. What strategies affect successful implementation of an ERP system in your organization?
2. What strategies became more important during the pre and post ERP implementation phases?
3. What was your primary role during the ERP strategic implementation planning process for implementing ERP?
4. How would you describe your organization's pre ERP strategic implementation plan?
5. How would you describe your organization's post ERP strategic implementation plan?
6. How many hours did you participate in the ERP strategic planning?
7. How was change to the information technology (IT) systems introduced to your organization?
8. What is your understanding of why ERP is important to your organization business and supply chain processes with an ERP strategic plan?
9. What documentation can you share regarding ERP implementation strategies applied in your organization?
10. How did your organization align business process with organizational strategic plans to implement ERP?

Appendix E: Case Study Protocol

A. Introduction of Case Study

1. Case Study Main Research Question

   - What strategies are necessary to implement ERPs to avoid failure, cost overruns, and schedule delays?

2. Introduce Research Follow-on Questions

3. Conceptual Framework

   General Systems Theory (Von Bertalanffy, 1972)

B. Discuss the Purpose and Intent of Protocol Guide

   - Researcher will use protocol guide to monitor and inform study data collection processes, analysis, preparation, and conclusion.

C. Data Collection Processes

   - Data collection includes information from semistructured interviews with organizational leaders responsible for ERP implementation strategies necessary for successful ERPs in a USMC military base in Albany, Georgia.

Appendix F: Protocol Interview Guide

1. Introduction of participants and researcher
2. Ensure participants consent letter is signed
3. Review and discuss the intent of the research
4. Review confidentiality and interview times schedule (approximately 30 minutes)
5. Remind participants that the interview will be audio recorded
6. Discuss any questions or concerns
7. Commence recording and start with the interview questions
8. Conclude the interview and stop audio recorder
9. Allow participants to ask questions
10. Thank the participants