2018

Strategies for Successfully Managing Organizational IT Projects

Joseph Rathbun
Walden University

Walden University

College of Management and Technology

This is to certify that the doctoral study by

Joseph Rathbun

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Jaime Klein, Committee Chairperson, Doctor of Business Administration Faculty

Dr. Ify Diala, Committee Member, Doctor of Business Administration Faculty

Dr. Diane Dusick, University Reviewer, Doctor of Business Administration Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2018

Abstract

Strategies for Successfully Managing Organizational IT Projects

by

Joseph M. Rathbun

MID, Texas A&M University, 2010

BS, University of Phoenix, 2008

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

August 2018

Abstract

Over 70% of information technology (IT) projects in large organizations in the United States run over budget or fail to reach completion primarily due to a lack of effective strategies. The purpose of this single case study was to explore strategies that IT project managers used to successfully complete IT projects. Hersey and Blanchard's situational leadership theory was the conceptual framework. Purposive sampling method was used to identify 2 successful IT project managers in Central Texas. Data gathered from semistructed interviews and collected from publicly available documents were analyzed using coding techniques, constant comparison, and key word phrases. Member checking enhanced the credibility of the interpretations of participant responses. Two themes emerged from data analysis: good customer focus and providing a standard IT project methodology. Findings may be used to improve IT business managers' competence and sustainability, increase business incomes, provide a better quality of life for employees and their communities, and benefit the U.S. economy.

Strategies for Successfully Managing Organizational IT Projects

by

Joseph M. Rathbun

MID, Texas A&M University, 2010

BS, University of Phoenix, 2008

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

August 2018

Dedication

I dedicate this research to my family, my support network, and the members of the United States Air Force who I had the honor to serve with for over 20 years. Even though they may have experienced the eternal transition, they would be rejoicing in their graves now as they watch me slave through the DBA program. I am sure all of you are proud of the fact that I am finally achieving my doctorate. I thank you, Mom and Dad, for giving me a good upbringing. I pray that Dad's soul rests in eternal, perfect peace (Amen). The direction and guidance you provided me made me who I am today. Thank you, Mom and Dad, for never giving up on me and providing me direction in my life when I needed it most. You two instilled in me my faith in God and a close walk with Him. I also dedicate this research to my daughter, Brittany Rathbun, who gave me a reason to push forward. Thank you for all of your support.

Acknowledgments

I would like to acknowledge my sincere thanks to Dr. Jamie Klein for her mentoring, guidance, and encouragement throughout this process. My special thanks to Dr. Freda Turner for her guidance and encouragement as well.

Table of Contents

List of Tables

Section 1: Foundation of the Study

Managers in the information technology (IT) industry must have financially profitable institutions, practice corporate social responsibility, and achieve consistent strategies to complete IT projects on time and within budget (Ikemoto, Gantman, & Chaves, 2017). IT leaders prefer information technology as a means to meet the challenges of IT business standards, enhance efficiency, and institute capacity for innovation (Webster, 2017). When using IT to improve competitive advantages, many IT leaders are limited to strategies that render them unable to complete IT projects on time and within budget (Lu, Bi, Huang, & Duan, 2017). The purpose of this qualitative single case study was to explore how IT leaders in a large IT organization use strategies to complete IT projects on time and within budget. This research could lead to positive social change by providing information to IT leaders in large IT organizations about effective strategies that could aid in completing IT projects on time and within budget, thereby contributing to sustainable economic growth.

Background of the Problem

More than 70% of IT projects either run over budget or fail to reach completion, primarily due to a lack of effective IT strategies (Mohamed & Kaur a/p Gian Singh, 2012). The lack of IT project management (PM) strategies and a lack of stakeholder support result in IT project failure (Aubry, Müller, & Glückler, 2011; Mignerat & Rivard, 2012). IT is a critical function within 21st-century corporations, and in 2011, company leaders spent $3.7 trillion on IT products and services (Wang, Liang, Zhong, Xue, & Xiao, 2012). Because of these technological advances, organizational leaders rely on IT

and IT leaders to sustain a competitive advantage (El Yamami, Ahriz, Mansouri, Qbadou, & Illousamen, 2017). Properly implemented PM strategies increase the success rates of IT projects (Targiel, 2017), and many business leaders consider the IT environment capabilities of an organization to be essential tools for attaining and maintaining a competitive advantage (Hepworth, Misopoulos, Manthou, Dyer, & Michaelides, 2017).

Problem Statement

Over 70% of IT projects in large organizations in the United States run over budget or fail to reach completion, primarily due to a lack of effective strategies (Cecez-Kecmanovic, Kautz, & Abrahall, 2014). Large IT projects typically run 45% over budget while delivering 56% less value than predicted (Keil, Smith, Iacovou, & Thompson, 2014). The general business problem was that failed projects have a negative impact on profitability in organizations. The specific business problem was that some IT managers in large IT organizations lack strategies to complete IT projects on time and within budget.

Purpose Statement

The purpose of this qualitative single case study was to explore strategies that IT managers in large IT organizations use to complete IT projects on time and within budget. The sample population consisted of two managers employed by one IT company in Central Texas, who had led successful IT projects within the last 3 years. The results of this study may contribute to management practices that maximize organizational performance by identifying strategies that would lead to IT projects being completed on time and within budget. The implications for social change include the potential to reduce

IT project failure rates and increase the sustainability of IT businesses, thereby increasing jobs, increasing sales revenue, increasing tax revenue, and reducing unemployment.

Nature of the Study

I used a qualitative method for this study. Barnham (2016) explained that qualitative research is useful for obtaining a more in-depth understanding of consumers' attitudes, behaviors, and motivations. Using a quantitative or a mixed-methods approach to research involves statistical data and a mixture of open-ended and closed questions (Clinning & Marnewick, 2017). Because researchers who use the qualitative method explore and interpret nonnumeric data to determine underlying meanings and patterns of relationships (Yazid, 2015), I determined that quantitative or mixed-methods designs were not suitable for this study and chose to use a qualitative approach.

Specifically, I used a single case study design. Yin (2014) suggested that a case study design is most appropriate for addressing *how* and *why* research questions that are focused on behavioral events rather than frequencies or incidence. I used a single case study design because this enabled me to address the purpose of my study, which was to explore strategies that IT managers use to complete IT projects on time and within budget. Prior to deciding to use a case study, I examined other designs. An ethnographic researcher studies a particular culture or subject, a phenomenological researcher investigates participants' lived experiences (Moustakas, 1994), a grounded theory researcher studies the construction of theory through data analysis, and a narrative theory researcher studies individuals' stories (Ostovar-Namaghi & Gholami, 2018).

De Montigny (2018) noted that ethnographic research might be the best option for

observing otherwise unobservable, personal effects on business strategy and performance. Because I was not committed to examining a specific culture or set of lived experiences and did not seek to construct a theory or elicit individual stories, I determined that none of these designs were appropriate for my study.

Research Question

The following research question guided this study: What strategies do IT managers in large IT organizations use to complete IT projects on time and within budget?

Interview Questions

1. What strategies did you use to complete IT projects on time and within budget?
2. What goals did you set for completing an IT project on time and within budget?
3. What financial strategies did you use to complete an IT project on time and within budget?
4. What behaviors exhibited by an IT leader in the workplace were the most critical to completing an IT project on time and within budget?
5. How did you use your personal motivations to complete an IT project on time and within budget?
6. How did you determine the overall project timelines to complete IT projects on time and within budget?

7. What else can you share that was pertinent to your strategies for completing IT projects on time and within budget?

Conceptual Framework

The conceptual framework for this study was the situational leadership theory. The situational leadership theory enhances support for leader adaptability and flexibility to the team and suggests that in a situation in which the leader is the most knowledgeable and experienced member of a group, the authoritarian style might be the most appropriate (Lewin, Lippitt, & White, 1939). Lewin et al. (1939) acknowledged three situational leadership styles: authoritarian, democratic, and delegation. Of the three styles, Bhatti, Maitlo, Shaikh, Hashmi, and Shaikh (2012) contended that the democratic leadership approach was the most effective style when applied to the professional environment.

As global IT businesses evolve, the concept of business strategy should grow to align the IT project team processes to fit the management model (Krajčík & Vlček, 2018). Keeping abreast of industry standards could ensure the longevity of IT project organizations (Lo & Li, 2018). Within the IT industry, decision-making involves evaluating IT projects to ensure continued effectiveness (Ahmad, Thaheem, & Maqsoom, 2018). The role of leaders is to advance the fortunes of organizations in a globalized environment by proactively addressing challenges (Winter & Silveira Chaves, 2017). Adopting a strategy to ensure effective leadership within the IT economy is logical and critical for organizational survival (Pimchangthong & Boonjing, 2017).

Operational Definitions

Knowledge transfer: Knowledge transfer is the action of moving knowledge, tacit or explicit, from one individual to another. Formal or informal networks are necessary for the social interactions needed to transfer tacit knowledge; transfer of explicit knowledge occurs through activities such as documented practices, e-learning, or reports (Oye, Salleh, & Iahad, 2011).

Project management office (PMO): A project management office is a centralized section within an organization that oversees developing structured leadership, methodology, and infrastructure throughout the business (Bindrees, Pooley, Ibrahim, & Bental, 2014).

Project management office model: A PMO model includes (a) performance monitoring and control, (b) PM competency and methodology development, (c) multiple project management, (d) strategic management, (e) organizational learning, and (f) PMO organizational structure (Bindrees et al., 2014).

Project management practitioner: A PM practitioner is a person who fulfills the roles of the project manager, project leader, program manager, and portfolio manager and who uses PM guidelines, processes, and practices (Sheffield, Sankaran, & Haslett, 2012).

Project value: The project value measures beyond the traditional constraints of the scope, cost, and time of a project and concentrates on the actual business value (Miller & Kelber, 2015).

Assumptions, Limitations, and Delimitations

Assumptions

Assumptions are possible weaknesses in a study that are out of the researcher's control (Guzys, Dickson-Swift, Kenny, & Threlkeld, 2015). The assumptions of this study were that (a) the interview questions would be relevant to the meanings or perceptions of participants' experiences, (b) the participants would be open and honest in their responses to the interview questions, and (c) the data provided from participants would aid in understanding the contributions of IT project strategies offered by the project manager.

Limitations

Limitations are potential weaknesses in a study (Brutus, Aguinis, & Wassmer, 2013). The limitations of this study were that (a) the study included employees and managers from one IT organization, (b) the participants might have inadvertently influenced the data while being interviewed and during the data analysis process, and (c) the validity of the findings depended on the participants answering the open-ended interview questions about how IT project strategies contribute to improving the success of IT projects.

Delimitations

Delimitations are the boundaries of a study imposed by the researcher (Namey & Trotter, 2015). A delimitation of this study was the inclusion of participants from Central Texas. The second delimitation was that participants had to meet the following eligibility criteria: (a) located in Central Texas; (b) completed two IT projects on time and within

budget; and (c) had a minimum of 5 years of experience in the IT industry. The third delimitation of this study was seven questions asked of only two IT project managers. The final delimitation of this study was that potential participants who did not work for the selected IT organization in Central Texas, were not eligible.

Significance of the Study

Using the results of the 2010 U.S. Census Bureau audit, the U.S. Government Accountability Office (2012) observed that flawed processes and inaccurate outcomes can cost business leaders billions of dollars in unacceptable products and expensive adjustments. Business leaders devote substantial amounts of resources to prevent this unnecessary expenditure (Chen, Yen, Lin, & Chou, 2018). Because of the current condition of IT project evaluation procedures, business leaders are not making the progress they expect (Ahmad et al., 2018).

The ambiguity of IT projects and the haziness of project costs are the biggest obstacles business leaders must overcome when completing IT projects on time and within budget (Jiang & Klein, 2014). Properly defined strategies of an enterprise's IT environment could improve business practices, add value to companies and communities, and have a positive social impact (Taylan, 2014). Implementing cost-effective strategies in an IT project could have a positive influence on the enterprise community. The results of this study could enhance the strategic planning process of organizational leaders by providing realistic and conclusive results. By improving businesses' efficiency, the results of this study could contribute to the IT environment, strengthen the economy, and improve society.

Contribution to Business Practice

Business leaders who try to validate the reliability of current strategies, obtain conclusive results, and translate results into meaningful data face greater hurdles than the initial cost of policy initiative implementations (Hidding & Nicholas, 2017). Business leaders who implement the results of this study might streamline IT project processes and improve the legitimacy of the results. By applying strategies from this study, business leaders could appraise business environments more efficiently, thereby leading organizations to improve business processes, products, and services. Business leaders will be able to devote resources to more fruitful endeavors after implementing strategies that increase productivity and help secure a competitive advantage (Bathallath, Smedberg, & Kjellin, 2016).

Implications for Social Change

Project failures can have an adverse impact on an organization's members and profit margins and result in lower overall performance (O'Sheedy, 2014). Members of a group are negatively affected by project failure, which results in lower organizational morale (Asl, Chavoshi, & Hosseinabad, 2015). These negative emotional effects trigger negative attitudes, promote distrust among team members, and lower productivity, all of which reduce the effectiveness of the organization (Asl et al., 2015). To help avoid such failures, industry leaders spend millions of dollars on new software projects and expect a positive return on their investment (Neves, Borgman, & Heier, 2016). The implications for social change from this study include the potential to reduce IT project failure rates

and increase the sustainability of IT businesses, thereby increasing jobs, increasing sales revenue, increasing tax revenue, and reducing unemployment.

A Review of the Professional and Academic Literature

I used multiple databases accessed through the Walden University library and the University of Phoenix digital library to learn how researchers identified the problems of organizational loss of productivity of IT projects completed beyond project guidelines. I also used multiple databases to review how managers may mitigate the problem using knowledge transfer methods. The databases included ABI/INFORM Complete, Academic Search Complete, Business Source Complete, EBSCO, Emerald Management Journals, LexisNexis Academic, ProQuest Central, PsycINFO, SAGE Premier, and ScienceDirect. Search terms used included *knowledge transfer*, *leadership, leadership styles*, *leadership style effects*, *PMO*, *project management*, *leadership*, and *effects of leadership*. The searches yielded multiple references. The literature review included 84 peer-reviewed references, and 89% were published in or after 2014. Ninety-six percent of the references used in the literature review were peer-reviewed.

The information in this section includes a detailed review of the contemporary and influential peer-reviewed literature that relates to the research topic, including studies addressing the limitations and weaknesses of the study and the potential for future exploration. The literature review focuses on the following key areas: (a) the PM group, (b) IT business leaders, and (c) the reasons why the PM group is fundamental to understanding IT PM. The purpose of this qualitative single case study was to explore

strategies that IT managers in large IT organizations use to complete IT projects on time and within budget.

Situational Leadership Theory

Situational leadership theory, which supported this study, is a theory that suggests that managers select the appropriate course of action to suit the situation and that numerous leadership styles exist; the theory posits that a particular leadership type is most appropriate for distinctive types of decision-making that should confidently affect the team (Lu et al., 2017). An effective leader does not resort to a precise, preferred style when a choice is needed (Lewin et al., 1939). Parris and Peachey (2013) contended that a suitable leadership style should only be chosen after the leader has measured the employees' readiness to achieve the specific task. Situational leadership centers on two main types of leadership behavior: (a) leader instruction—in which a leader participates in encouragement, two-way communication, and assisting behaviors; and (b) relationship behavior—in which the leader outlines roles such as the who, where, what, and when of project specifics (Ramkissoon, 2013).

The dynamics that influence leadership include the situation, the follower, and the leader; the leader's style is always developing, and different styles of leading may impact the decisions made in the workplace (Winter & Silveira Chaves, 2017). The most successful leaders, according to Javani and Rwelamila (2016), regulate leadership style based on the maturity of the group and the tasks that are planned (Lewin et al., 1939; Parris & Peachey, 2013). Having certain characteristics is affiliated with being an

operative leader, including the skill of motivating employees to attain goals of the organization (Weiss, Newell, & Swan, 2016).

Ramkissoon (2013) stated that one area that influences an organization's competitiveness is leadership effectiveness. If the IT industry devotes time to learning, teaching, and implementing effective leadership, it may advance the skills of the IT professionals who work in that industry. It is imperative for leaders to improve effectiveness at gathering and interpreting critical information, which can empower them to address a wide range of performance conditions within the organization (Palshikar, Pawar, & Ramrakhiyani, 2016).

Trait Leadership Theory

The trait theory recognizes specific behavioral or personality characteristics, such as courage and extraversion, that could be theoretically linked to great leaders (Chen, Lee, & Chou, 2016). Germain (2012) noted that the trait leadership theory establishes that leaders differ from nonleaders in the following six traits: self-confidence, drive, knowledge of the industry, honesty and integrity, desire to lead, and cognitive ability. Two complications in using the trait theory to define the noticeable features of leadership are that some people who possess such traits are either not placed in leadership roles or lack enthusiasm for such roles (Tams & Hill, 2015). Although trait theory often concentrates on what traits leadership has, the theory does not identify a set of principles for the types of leaders needed in a particular situation or identify what leaders should do if undergoing a precise set of circumstances (Eun Joo, Ji Hwan, & Seung Ryul, 2015).

However, it does point out that effective leaders are dissimilar in some essential and identifiable ways from leaders who are not effective (Eun Joo et al., 2015).

Contingency Leadership Theory

The contingency leadership theory emphasizes leaders who are effective at applying an individual style of leadership to a specific situation (Diaz Piraquive, Gonzalez Crespo, & Medina Garcia, 2015). Contingency theory concentrates on specific factors related to the environment that may define the particular type of leadership that will be useful (Rivera-Ruiz & Ferrer-Moreno, 2015). In contingency theory, researching project successes or failures involves not only assessing the leadership processes but also researching the organizational environment (Thompson, 2015). The project management field coincides with this theory because projects are often multifaceted social systems that intermingle with the specific environment. Vrîncuț and Lungu (2015) contended that project success depends on a number of factors that include the qualities of subordinates, leadership style, and the situation of the project.

Behavioral Leadership Theory

Behavioral leadership theory is based on the implication that leadership competence is learnable and that success is definable in terms of activities that are desirable (Weiss, Newell, & Swan, 2015). Behaviors are classified into four groups: task-oriented behaviors, change-oriented behaviors, relational-oriented behaviors, and passive leadership (Wells, Dalcher, & Smyth, 2015). According to Derue, Nahrgang, Wellman, and Humphrey (2011), the behavioral theory description closely reflects relational-oriented behaviors such as consideration, empowerment, participation, development, and

enabling. One conceivable mechanism through which leader traits influence leadership effectiveness is a significant classification of the behavioral leadership theory (Raszka & Jamroz, 2015). The idea is that leader behavior mediates the relationship between leader traits and effectiveness (Kukreja, Singhal, & Bansal, 2015).

Transformational Leadership Theory

According to Hoon, Kolb, Hee Lee, and Kyoung Kim (2012), the four essential characteristics of transformational leaders are inspiration, motivation, individual consideration, and intellectual stimulation. Through recognizing the importance of employees' values, needs, and morals, transformational leaders encourage supportive collaboration among team members, which is the key team motivation for organizational performance and process improvement (Botsford Morgan, Perry, & Wang, 2018). The assumption associated with transformational theory is that the leader encourages team members by injecting enthusiasm and relates the overall organizational mission and vision to them so they can work toward accomplishing a definitive goal together (Russell et al., 2018). Employees often work in teams, which places focus on the leader's role in endorsing dynamic interactions among employees as well as providing idealistic guidelines to the organization (Hoon et al., 2012). Transformational leadership could be influential in encouraging team members' work activities for effective knowledge creation practices and dynamic collaboration for constructive knowledge acquisition (Gill, Gardner, Claeys, & Vangronsvelt, 2018).

Transactional Leadership Theory

Known as the management theory that is based on a system of punishment and rewards, transactional leadership theory centers on the role of supervision, group performance, and organizational structure (Newman, Tse, Schwarz, & Nielsen, 2018). The transactional leader focuses on creating and executing work requirements and a rewards structure that employees are aware of (Kairys, 2018). According to Kamisan and King (2013), the transactional leader negotiates with employees regarding goals that are to be achieved by the company by providing rewards for achieving the goals or by making threats of punishment for poor performance, such as rescinding annual raises or withdrawing bonuses. The transactional theory often accentuates the gap between the leader and the subordinates; the leader is noncommunicative and noninteractive with employees and uses the management by exception rule, meaning that if a project is functioning as intended, then it does not need immediate attention (Lemaire & Provan, 2018). Kamisan and King stated that the transactional style of leadership needs to expand the chain of command in order to strengthen leadership practices.

Leadership

The term *leadership* has been defined in numerous ways, and no governing definition has been embraced by researchers (Yukl, 2012). Although leadership is one of the most widely researched business topics, it is one of the least understood (Rehman, 2012). Leadership has played an important role in determining the success and failure of organizations, families, wars, politics, and athletics (Morabito & Shelley, 2018). Leadership is a vital element in life, not only among humans but also among animals;

representatives seek the privileges that come with being a leader (Franken, Branson, & Penney, 2018). Researchers related numerous characteristics to leadership, including power, charisma, communication, intelligence, nurturing, and selflessness (Näsman, 2018).

Definition of leadership. Forming a comprehensive definition of leadership has escaped experts and researchers (De Luna, 2011). Getz and Roy (2013) suggested that many scholars and practitioners have different definitions of leadership. Michie and Zumitzavan (2012) contended that examination of leadership is so wide-ranging that it is perplexing to provide a universally accepted definition. Getz and Roy maintained that the explanation of leadership involves recognizing individual traits and qualities of the leader and linking those traits and qualities to the observable behavior of the leader. De Luna (2011) posited that leadership definitions often feature two main personality traits: (a) the leader guides the employee toward reaching goals and (b) the leader supports the employee in feeling focused and assured.

Rolfe (2011) perceived three major points about leadership: (a) leadership is critical and linked directly to the human sciences, (b) leadership yields operative employee performance, and (c) the leader's personality directs who he or she is. These conclusions were similar to those of Riaz and Haider (2010), who determined that a relationship exists between employee job satisfaction, success, and leadership. Although researchers do not agree regarding the definition of leadership, Curtis, de Vries, and Sheerin (2011) uncovered one constant theme evident in most of the definitions: leadership affects the behaviors and beliefs of individuals.

For my study, the definition of leadership was deemed to be the use of interpersonal skills to influence a group of people to achieve specific organizational goals (Alilyyani, Wong, & Cummings, 2018). This definition embraced a mixture of researchers' views, such as Getz and Roy (2013), whose definition indicated that leadership is a process in which a person stimulates other individuals to accomplish shared goals, and Brown, Fraser, Wong, Muise, and Cummings (2012), who stated that leadership is the use of personal abilities to influence others to accomplish shared objectives. However, a study of leadership that addresses a single definition is not sufficient (Rast, Hogg, & van Knippenberg, 2018). A comprehensive study of leadership must include an investigation of the theories found in the research on what leadership is, what it means to lead, and what it means to be a leader (Rast et al., 2018).

Leadership theories. Leadership theories address how leaders can empower employees to fulfill missions and visions of organizations (Raja, Bouckenooghe, Syed, & Naseer, 2018). Transactional leadership prospered throughout the industrial revolution by incorporating a pay-for-work process (Raja et al., 2018). As industries matured, leadership theories advanced to reflect those of quasi-transactional theories such as Six Sigma, total quality management, and kaizen (Raja et al., 2018). These theories originated from an emphasis on outcomes of production and contained a kernel of a partnership between employees and leaders to raise awareness of each assignment and endorse or deny benefits to the company (Harris & Mayo, 2018).

Webster (2017) suggested that the concept of leadership is vague and misconstrued. When a researcher initiates a discussion of leadership theory, the struggle

to define leadership ensues (Webster, 2017). Determining the definition is commonly an endeavor to compare and contrast current definitions that support the researcher's vantage point (Hernandez, Eberly, Avolio, & Johnson, 2011; Sanders & Davey, 2011). The next step includes connecting the definition to the preferred theory and validating why past theories may be flawed (Curtis et al., 2011).

Project Management

PM is an approach for project leaders based on best practices and conclusive processes (Pollack & Adler, 2015). Modern PM processes include the management of (a) scope, (b) time, (c) cost, (d) quality, (e) human resources, (f) communications, (g) risk, (h) procurement, and (i) stakeholders (Laslo & Gurevich, 2014). A PM practitioner is a leader who uses different methods based on the organizational environment (Ng, Walker, & Levin, 2014). Further, a PM practitioner's leadership effectiveness contains a leadership component that includes the development and application of personal perception skills (Cârstea, 2014). The swing from a modern, task-oriented PM to a universal, people-based approach may contribute to a project's future success (Gonzales, 2012).

The need for PM practitioners is based upon the use of PM practices to achieve a competitive advantage within a global economy (Cârstea, 2014). Studies have shown that the management of projects within the knowledge-based, active, and increasingly multifaceted economy will require skilled PM practitioners (Voss & Kock, 2013). The field of PM has grown during the last 40 years because of the efforts of several professional organizations (Schwalbe, 2015). The International Project Management

Association, the Project Management Institute, and the Association of Project Management provide a body of knowledge and professional accreditation. The accreditation of PM practitioners includes manageable skills, experience, business knowledge, and competency (Muzio, Hodgson, Faulconbridge, Beaverstock, & Hall, 2011). In this context, competency refers to aptitude as it is applied and integrated into knowledge, emotions, and behavior in order to achieve results or success (Guillaume-Joseph & Wasek, 2016).

Project Manager

Managers with effective leadership skills increase project success outcomes (Guillaume-Joseph & Wasek, 2016). In addition, meeting customer requirements is a core indicator of project success (Chen, 2011), and to meet customer satisfaction, a manager must ensure that customer requests do not change and that processes are created. Managers must also ensure job satisfaction among team members because high job satisfaction can lead to lower turnover and more dedication to IT project success (Guillaume-Joseph & Wasek, 2016).

A project manager's job satisfaction is a critical factor in successful project culmination. If leaders are successful in designing an IT project, it might increase revenue, diminish life-cycle costs, and increase competitive advantage. Successful IT projects produce economic value and competitive advantage (Hughes, Dwivedi, Simintiras, & Rana, 2015). Organizational leaders should recognize this goal before starting any new IT projects in order to ensure the organization's sustainable development.

IT managers should possess PM skills in order to reach set goals and objectives, expedite products, and maximize revenue while decreasing costs (Chemuturi, 2013; Hughes et al., 2015). Successful IT projects can lead to business improvements and long-term benefits like prepping the firm for future challenges, competitive market situations, and long-term development (Idoine & Herschel, 2016; Schwalbe, 2015). For a project to succeed, processes, instruments, and procedures should be evident. To evaluate IT project success, project managers have to manage project productivity, the effect on end users, business success, and long-term sustainable development (Kubilus, 2016). Kubilus (2016) further asserted that business leaders who measure project success need to manage projects and team members efficiently.

The success rating of a project may deviate depending on a person's surveillance (Idoine & Herschel, 2016). For instance, while a project leader may consider a project successful, team members may consider it a failure (Nair, 2011). Correspondingly, team members may view a project as successful, but leadership may consider it a failure if certain specifications were not achieved (Dede & Ho, 2016; K. Smith, 2016). Additionally, in the assimilated work location, team cohesiveness is critical for both efficiency and productivity. Team construction and interaction are vital to accomplishing project success.

Project Management Organizational Structure

The framework, or organizational structure, provides a basis for the growth and optimization of business value incorporated into the management of projects, programs, and portfolios (Singh, 2016). Organizational structure provides an authority layer

between senior management and the PM function (Pemsel & Wiewiora, 2013). The PM structure has a foundation like the business, team, or group function, and has the temporary or permanent project integration requirements within the organization (Singh, 2016), although within a project-based organization (PBO), the management of projects has many aspects that include PM practice, process standardization, and knowledge management within the context of organizational dynamics (Koskinen, 2010). In a PBO, the success of elaborate and integrated IT-based projects depends upon a variety of factors, including the experience and competency of the PM practitioner (Clinning & Marnewick, 2017). A maturity model integrates PM functions and develops over time based on the organizational structure and business strategy (Clinning & Marnewick, 2017).

Project Management Maturity Model

In PM, a maturity model provides a method to measure capabilities, competencies, and processes against a benchmark (Hepworth et al., 2017). The Software Engineering Institute developed a five-level capability maturity model for software engineering, which is a robust and adaptable framework for assessing quality and process maturity for multidimensional business practices (Hepworth et al., 2017).

Project Management Competency

A successful IT-based PM specialist has the knowledge, skill, and ability to lead successful projects (Pandya, 2014). PM competency matures through education and experience, but the accomplishment of competency is behavioral based (Winter & Silveira Chaves, 2017). For the management of IT-based projects, the skilled PM

practitioner employs technical knowledge along with interpersonal skills in order to impact behavior and attain project goals (Winter & Silveira Chaves, 2017).

Interpersonal skills are an essential competency for IT-based managed projects (Pimchangthong & Boonjing, 2017), and they are comprised of both self and social competence. Interpersonal skills provide the foundation for successful PM (Jiang & Klein, 2014). In addition, leadership is an added PM practitioner-significant competency (Hidding & Nicholas, 2017).

Project Leadership

One study noted that a PM specialist's leadership style contributes to a successful project conclusion (Webster, 2017). Although grounded in the accepted cultural, organizational environment of the business, a PM practitioner may need to employ different leadership styles in order to accomplish project success (Lu et al., 2017). The most effective leadership styles hinge on the characteristic conditions of the atmosphere and project (Lu et al., 2017). A PM practitioner's primary competency contributes to leadership ability (El Yamami et al., 2017).

Project Success

The classification and capacity of project success are independent and difficult to quantify (Ajmal, 2015). Based on the viewpoint and framework of the project manager, many features and principles affect project success (Ameyaw & Chan, 2015). A project should result in a predetermined outcome within a set of parameters (Ameyaw & Chan, 2015). These parameters may be financially or numerically based, which may lead to unsuspected behavior and project delivery outcomes based upon a single success

measurement (Barnwell, Nedrick, Rudolph, Sesay, & Wellen, 2014). The foundation for project success resides in the perspective of the customer, organization, stakeholder, or PM practitioner (Bayiley & Teklu, 2016). Leadership competency and performance form an important additional factor in project success (Binder, 2016).

Three stages of success criteria exist: PM success, project success, and cumulative project success (Silva, Moreno, & Peters, 2015). Multilevel success criteria result from the PM practitioner's aptitude to determine and expand PM practices (Buvik & Rolfsen, 2015). Continual or cumulative success can conclude in shared knowledge, which can lead to continuous process and project improvement (Buvik & Rolfsen, 2015). Customary project success has a foundation in the management performance of cost, time, and quality (Carvalho, Patah, & de Souza Bido, 2015). Project success may also comprise a business orientation in which the measurement of success depends on the strategic value to the company or organization (Carvalho & Rabechini, 2015). Critical PM practitioner success factors include effective leadership and situational management (Carvalho & Rabechini, 2015). Within a PMO, project successes or failure dynamics change depending upon the framework and multiplicity of the project. However, a people-based methodology proves most effective (Carvalho & Rabechini, 2015). The PM practitioner's leadership style united with a business-value strategic focus adds to successful project outcomes (Chipulu et al., 2014).

Project Management Office

PM constructed by best practices and significant processes is a necessary approach to the management of a project (Sundararajan, Vijayaraghavan, & Bhasi, 2014).

Traditional PM processes include the management of (a) scope, (b) time, (c) cost, (d) quality, (e) human resources, (f) communications, (g) risk, (h) procurement, and (i) stakeholders (Chow, Woodford, & Lambe, 2014). A PM practitioner is a leader who uses different styles based on the organizational environment (Davis, 2014). PM necessitates thoughtful planning and action to create the conditions for a project and put into place the strategy, leadership, and goals to direct and exploit the dynamic nature of project work (Maina & Gathenya, 2014).

Organizational leaders need to further their understanding of how PMOs can do more than reduce project failure rates. Leaders within an organization should capitalize on project value instead of just evaluating project failures (Díaz, Agdas, & Alvarado, 2014). Meeting the demands of the project constraints of scope, cost, and time can achieve project value and extend a genuine business value to the clients (Díaz et al., 2014). Organizational leaders should concentrate on evaluating projects on a larger scale and looking beyond failure rates in order to determine if the projects have a real value to their clients. Such evaluation might provide organizations with a tool for evaluating the value that a project provides to their customers.

PMOs provide organizations with an opportunity to reduce project failure rates. The creation and establishment of a PMO provide a viable framework to address the issues that lead to high failure rates of IT projects (Lin, Huang, & Peng, 2014). IT professionals tend to concentrate on the application of technology and lack the understanding of the business application that warranted the technological investment (Elnour, 2016). The establishment of a PMO provides an organization with a certain level

of centralization of project management functions within the organization, leading to possible increases in the use of standardized procedures within the organizations and delivering successful management processes of projects. Leaders working in a PMO can evaluate projects and benchmark the successful project steps throughout the organization in order to reduce project failure rates and provide larger project support.

Leaders of PMOs provide support through a centralized hub of information distributed throughout the organization. The PMOs leaders provide support through training, consulting, and mentoring (Erez, Schilpzand, Leavitt, Woolum, & Judge, 2015) while capturing and maintaining valuable data in a PM information system (Eubanks, Palanski, Olabisi, Joinson, & Dove, 2016). This process enables a greater degree of use for PM software in order to ensure a higher rate of project success (Gemünden & Aubry, 2015). Because of economic pressure, organizations are increasing the number of projects that run simultaneously, and members of PMOs can provide assistance that aids in navigating leaders through the complexities of these multiple projects (Golini, Kalchschmidt, & Landoni, 2015).

Leaders in PMOs capture the steps that lead to successful project completion and store the data within a database for other employees to use in order to complete their projects successfully. PMOs are a new concept, and the full advantages of a PMO have yet to be ascertained. Because PMOs are a new addition to organizations, they continue to evolve (Golini et al., 2015). The average tenure of PMO personnel is 2 years (Golini et al., 2015), and a number of questions still remain to be answered concerning the qualities of an effective PMO model, such as the following: (a) What is the best organizational

structure (centralized or decentralized PMO structure)? (b) What are the PMO's roles and responsibilities (i.e., determining the level of involvement throughout the project)? and (c) What is the perceived return on investment (Golini et al., 2015; Gu, Hoffman, Cao, & Schniederjans, 2014; Heeks & Stanforth, 2014). Research found that a reduced understanding of an effective PMO model leads to an unstable PMO structure (Hwang & Ng, 2013). Consequently, business leaders, scholars, and practitioners are gathering data to best address the unresolved issues of newly formed PMOs.

Leaders in the industry evaluate the condition of PMOs in order to gain insight into the growth potential of PMOs. Scholars and practitioners within the realm of PM review the guidelines in order to aid in establishing and sustaining effective PMOs, while academic researchers explore theoretical bases in order to add to the body of knowledge on PMOs (Hwang & Ng, 2013). As PMOs gain a higher level of importance in both the academic and practitioner areas, PMOs will have a stronger impact on organizations (Esquierro, Bittencourt do Valle, Pereira Soares, & Castro Vivas, 2014). As PMOs gain respect through the efforts of documented research from these two communities, the increased implementation of PMOs will provide projects with a more significant project structure.

Project Management Institute

When managers use PM, they can capitalize on the proficiency of organizational processes, assist organizations more quickly, and achieve their goals more cost-effectively (Project Management Institute [PMI], 2013). For more than four decades, PMI has sustained PM practices with globally acknowledged standards and collaborative

communities, certifications, professional growth opportunities, and more (PMI, 2013). PMI affords organizations a set of distinguishing instruments and resources that will assist them in becoming leaner and more proficient as organizations.

Researchers have indicated that IT project failures continue to be high worldwide. Ika and Hodgson (2014) noted that IT project failures globally are great. These failures continue despite efforts by PM bodies like PMI to offer managers frameworks and methodologies to aid them in their activities. These initiatives consist of the PM body of knowledge (PMBoK), which prescribes PM processes, instruments, and methods of knowledge. Although the proficiencies of an IT project manager (ITPM) involve hard skills and soft skills, the PMBoK focuses on hard skills.

Competencies of the project manager. Soft and hard skills categorize competence, and researchers noted that project managers with actual competencies were also important to project outcomes. Competence determines the effectiveness of attitudes, behaviors, and skills (Joslin & Muller, 2015). Joslin and Muller (2015) stated that these four factors link the relationship of opportunity and experience.

Hard skills are the essential resources needed to do an activity. Within an IT project, hard skills correlate with the PMBoK. According to J. Smith, Bekker, and Cheater (2011), soft competencies define personal attitudes, behaviors, and attributes that empower the project manager to guide, influence, and inspire team members. Competence relates to project success in two ways: (a) the project leader's competence as a factor in a project's success and (b) the credentials of the project leader.

Positivity and project success. Positivity involves an individual's anticipation of accomplishing goals (Kappagomtula, 2014). These anticipations depict agency (an individual's fortitude to accomplish goals) and paths (an individual's faith that successful plans produce the attainment of goals). Hope is reflected in a respondent's positive statements, such as "I energetically pursue my goals" and "There are ways around any problem" (Kappagomtula, 2014).

However, unrealistic confidence can have an effect on project outcomes. Kappagomtula (2014) contended that unrealistic confidence could have effects on the success of an IT project. Kim et al. (2015) stated that project managers who have previous experience with predicaments exhibit acquired mastery and more resilience. In addition, positivity produces a higher degree of eagerness than does realism.

Lappe and Spang (2014) noted that a balance should exist between positivity and realism. Lappe and Spang further stated that the results of erroneous project estimates and poor project outcomes are frequently due to ITPMs surrendering to false positivity, otherwise known as delusional positivity. This movement toward over-positivity is principally because of the overestimation of a person's guidance and ability. Martin and Desmond (2013) stated that one of the reasons that large IT projects fail is because sometimes too much positivity is exhibited toward the plausible benefit of IT.

Factors That Shape IT Project Success

Mathur, Jugdev, and Fung (2013) noted that global IT development (ITD) practice has become prevailing and specialized, and leaders need to make efforts to address diversity issues. Separate from modern on-site ITD work, globally concentrated

ITD work is located within distinct, complex sociocultural settings and distributed through virtual atmospheres complemented by networking technologies. Individual team members might have diverse national, professional, and cultural backgrounds that may form their attitudes, behaviors, identities, and values. On the one hand, cultural difference is a resource that increases creativity and flexibility, which might be advantageous for team procedures. On the other hand, cultural differences might become an impediment to establishing trust, to sharing, and to transmitting cognition, and might affect team operations in an undesirable manner. For these reasons, management may need to define how to create a sense of cultural difference, understand its influence on the work practices of global information systems development, and decide how to handle cross-cultural or cultural, functional, and organizational dissimilarities in their work practices.

Researchers indicated that a high level of trust in teams could improve overall performance and project success. Mazur, Pisarski, Chang, and Ashkanasy (2014) suggested that a high degree of confidence within a team improves creativity, efficiency, operation, productivity, and the overall product. According to McAdam, Miller, and McSorley (2016), in order to be competitive, businesses must design products and services faster and cheaper in order to sustain a competitive advantage in the global marketplace.

The worldwide economy is affecting how managers protect their institutional knowledge, and trust within the firm's organizations has become essential. For example, sharing information has become crucial in order for firms to handle international interactions and global projects effectively. Enforcing the concept of a *knowledge activist*

inspires knowledge sharing among all knowledgeable stakeholders within a geographically dispersed, multinational, and diverse organization. McAdam et al. (2016) noted that numerous researchers have discovered the challenges associated with knowledge sharing in the framework of geographically dispersed organizations.

Software Project Risk Management

Researchers noted risk factors project managers could use to help minimalize project failures. Meng and Boyd (2017) determined that addressing seven of 10 risk factors improved the use of proven and effective controls. Four of the panels used in their study diminished three or more risk factors. Meng and Boyd established that the three most common risk factors specified in their survey of software development projects were continuous requirement modifications, impractical schedules, and impractical budgets.

These three risk factors were also among the top six software risk factors quantified by Boehm's (1989) inquiry study. In addition, Metzger and Guenther (2015) surveyed the effectiveness of software risk control in comparison to the risk factors. They established that some risk factors—unrealistic schedules, budgets, and misinterpretation of the requirements—tended to diminish with increased PM experience. Moreover, Metzger and Guenther furnished a list of risks to be used as guidelines in software projects for software development projects. The project managers in their survey came from specific industries, primarily IT and finance, but most of them had operated on projects in several other industry divisions. A list of controls guaranteed that these risk factors addressed and circumvented likely problems.

Researchers indicated that within the last two decades, in spite of many good efforts across the globe, problems linked to risk management remain. Mir and Pinnington (2014) determined that despite significant development internationally in the past two decades, growing concerns relating to risk management in software development projects has increased. Murphy, Lyytinen, and Somers (2016) suggested that one strategy that may increase approval and responsiveness is to incorporate assessment of the personnel and their influence on risk management in postmortem reviews or post-implementation. One of the trials faced in the practice of risk management in organizations is that organizational business executives and managers are steered by demonstrable results, which are commonly operation-linked. If the main project is successful, it can be challenging to attribute any component of that result to risk management.

It is also rare for project success to involve risk management. More commonly, success relates to good fortune or to various people because of the skills and unique talent that they brought to the project. It can become easy for a business that has had project success to soften the importance of risk management in the next project. This process can sometimes occur indirectly, either by not being formal in accomplishing the risk management processes or through some means of resource- or cost-cutting measures (Murphy et al., 2016). Therefore, it is important to accomplish a post-implementation review that incorporates a formal assessment of the personnel, performance, and contribution to risk management in the project.

The post-implementation review is a chance for managers to evaluate and improve any risk checklists, frameworks, risk response strategies, risk management

processes, organization-managed tools, and methods to ensure that the lessons learned contribute to succeeding projects. The post-implementation evaluation may also promote awareness of risk management when trumpeting business results. Conversely, failing to learn from experiences in software processes may induce failure (Murphy et al., 2016).

Project managers need to take the initiative in developing rapid response capabilities for managing recognized threats, particularly unanticipated ones. Murphy et al. (2016) suggested that these united proficiencies present risk management processes as an alternative to adopting separate techniques. A good way to begin is by producing a standard contingency response plan for a leading troublesome event. This response plan may incorporate processes for establishing a response team, investigating the problem, defining actions and influences with workarounds, resolving the problem, and scheming longer-term remediation of lessons learned.

Within this general process model, action plans derive from precise organization and projects that can be quickly distinguished (Murphy et al., 2016). To address other threats that are possible to preplan for, the general response process might embrace strategies for representation of people with high problem-solving skills in impact domains. The last step is to institutionalize and confirm this approach to threat management in the authority project framework of the business and increase accompaniment for emerging risk management as a continuing, real-time threat management perspective, not just as a method for infrequent risk planning and reassessment. Finally, in practice-oriented disciplines, it is uncommon for the inquiry to lag behind the needs of the practice. Risk management and project managers should not

defer inquiry. Instead, project managers should acquire from experience in order to learn what was and was not successful in specific situations.

Researchers noted that assembling a flexible design achieves project efficiency. Pollack and Adler (2016) demonstrated that establishing a flexible design is vital to attaining project effectiveness. Efficiency requires risk managers to deliver the project on time and within budget. Pollack and Adler emphasized the importance of regulating the developer's affiliation with the customer. Strong collaboration, especially in a constant climate, endorses investments in design flexibility. Risk management practices are significant when collaboration collapses. According to Pollack and Adler, without collaboration, the continuity and co-location of principal project staff members themselves are inadequate to sustain cooperation.

Cultural differences. Bass viewed culture and leadership within countries, firms, and groups (as cited in Prasad, Tata, Herlache, & McCarthy, 2013) and conveyed the importance of understanding cultural differences between countries. The achievement of the tasks of one individual in one culture is reliant on understanding cultural differences and incorporating an assortment of leadership styles (Prasad et al., 2013). The globalization of many firms and the gaining interdependency of nations make the understanding of culture and its effect on leadership substantial.

Further, these efforts offer a place to start understanding the cultural differences between leadership and the cultural settings that may form individual leaders from distinct countries. Furthermore, cultural and language dissimilarities are intensified in IT firms (Ram, Corkindale, & Wu, 2013). Although unintentional, some behaviors

entrenched in cultural standards can be construed as intimidation or rudeness. Fostering cultural understanding may improve the success of projects.

In one particular study, Rezvani et al. (2016) determined that cultural differences adversely affected a project. The results—taken from 13 participants, most of whom exposed the negative effects on project operations regarding budget and time overruns, higher costs, and lower system caliber—were revealing. Some of the project team members from different countries had dissimilar views on issues and diverse ways of conveying and resolving the conflict.

Team members in Rezvani et al.'s (2016) study had trouble sympathizing with other members' performances and operating as one team. Significantly, the study demonstrated that an absence of understanding due to cultural breaches requires more effort and time to resolve. According to Rezvani et al., some actions that otherwise would probably get resolved within a 5-minute phone call take a longer time to resolve when dealing with cross-cultural differences.

Time separation remains a problem for project managers (Rezvani et al., 2016). Teams need to develop daily or weekly meetings, balance conference calls, and schedule predictable reporting of the project in order to address time separation. Some teams should also alternate sending stakeholders to different locations and promote on-site meetings. In this manner, project team members may be able to avoid some of the problems that come from a geographic distance and time separation.

The undesirable effects of cultural differences on a project's operation appear in the initial phase of projects, making it imperative to address cultural differences within

teams early on in the project. Rezvani et al. (2016) noted that early acknowledgment of cultural differences might help project team members avoid potential risks. As team members complete action items with team members from other cultures, they become better suited to deal with cultural diversity.

Functional differences. Shimizu, Park, and Choi (2014) noted that the influence of the top management team's (TMT) functional dissimilarities on the organizational operation is unknown. However, Shimizu et al. studied the personalities of CEOs and suggested that a CEO's expertise and background characteristics affect the TMT's functional difference and organizational operation. Using an exhaustive dataset of 33 Dutch and Belgian IT firms, Shimizu et al. observed the personality characteristics (status as founder, functional background, and shared experience) of three sets of CEOs with other TMT members in order to define the connection between TMT functional differences and operational operation. Shimizu et al. concluded that CEO and TMT characteristics do influence the functional expertise of distributed TMTs, and these findings on CEO and TMT characteristics might also apply to other industry leaderships.

According to Takey and Carvalho (2015), some difficulties in a global workplace attributed to functional differences may exist between sites when multiple areas of functional proficiency exist within a team. Takey and Carvalho also suggested that functional differences could form team processes, which can affect the group's operation. In addition, Tampieri (2013) noted that functional dissimilarities play a role when team members are functionally distinct and geographically dispersed (virtual). To conclude, this global diversity regarding job function affects the amount of trust within the team.

Tampieri (2013) established that both trust and functional dissimilarities had a direct effect on team member ratings. To address diversity, organizations must comprehend the difference between functional and social diversities and treat diversity differently in functional and innovative teams (Todorovic, Petrovic, Mihic, Obradovic, & Bushuyev, 2015). Hence, business leaders need to recognize diversity, particularly when managing these teams.

One advantage of project teams is that they can connect diverse experts from around the world in an effective way (Too & Weaver, 2014). Consequently, for the project team to work at maximum effectiveness, the leader must encourage the diversity of the team by creating a culture of information sharing, cooperation, and functioning entrenched in shared respect and trust (Too & Weaver, 2014). Leaders can also encourage diversity by promoting input from all team members, launching a shared PM team setting, and instituting a common language to establish that each team member defines terms in the same way.

Organizational differences. Researchers found that organizational dissimilarities were noteworthy when organizational leadership establishes coalitions for endorsing new market strategies and connecting with customers. J. B. Smith and Barclay (1997) suggested that building alliances to connect customers are among the new marketing strategies that managers' use for competitive advantage. These alliances, comprised of sales representatives, form organizations to function effectively as selling partners in order to create success.

Winch (2014) created a trust-rooted model to display effective selling partner strategies in the framework of the computer industry. Winch discovered that organizational dissimilarities were predictors of three dimensions of commonly perceived attributes of trustworthiness. Organizational dissimilarities in goals and strategic prospects have an indirect impact on partnership satisfaction.

Team knowledge. Team knowledge can be a great accompaniment to traditional coordination mechanisms (Ziek & Anderson, 2015). Ziek and Anderson (2015) examined three types of team cognition: building trust, shared cognition, and cognition and cognition management. Espinosa, DeLone, and Lee (2006) found that sharing knowledge has a positive effect on IT project results. Shared knowledge offers mutual grounds for efficient communication with less complex messages and a mutual cognition base that helps team members tap into expert cognition sources within the team (Ziek & Anderson, 2015), which also helps overall team performance.

Building trust. In a project environment, establishing strong trust with all team members at the beginning can have a positive effect on team project performances and an organization's operating efficiency. According to Zoogah, Noe, and Shenkar (2015), trust in the organizational setting characterizes the reciprocal faith in other stakeholders' conduct. Zoogah et al. noted that one gives what one gets: trust begets trust and distrust begets distrust. The importance of increased trust is a vital component in the successful operation of organizations and businesses' professional and employment relationships.

Trust resides because of successful cooperation among stakeholders within and between organizations. Trust is necessary for the operation of an organization and the

units functioning within it. Zoogah et al. (2015) noted that a high level of trust within a business firm improves creativity, efficiency, operation, productivity, and the overall outcomes.

The creation of trust involves other avenues rather than through traditional face-to-face (F2F) communication. Too and Weaver (2014) stated that three elements of trust—ability, integrity, and benevolence—must be present on project teams. Without trust, effective connections between team members diminish; it is vital to the success of a project for a leader to establish a climate that is conducive to trust (Winch, 2014).

A leader can establish trust by having an initial in-person meeting with the team, but if that is not possible, the leader should encourage members to post a picture of themselves and their biographical data so that each team member can see the human face behind the username (Winch, 2014). Other ways that leaders can create trust within a team include designating tasks and promoting open and honest communication by establishing a safe, noncritical climate (Winch, 2014). Managers can also develop trust by meeting the goals created by the constituents, appearing credible and legitimate with followers, and ensuring that each member of the team is performing.

In software development teams, it takes time to establish trust among team members. Distance also makes it more difficult to develop trust between remote colleagues, but the development of trust is important for the success of project-based software development (Winch, 2014). Winch (2014) stated that webs of technology and trust are pivotal in order to alleviate the high level of mistrust indigenous to the global and technologically rooted climate.

Cooperation between team members is necessary for the successful operation of PM teams. The term *team* relates to the ability of stakeholders to collaborate and work effectively as a team (Zvingule et al., 2013). The loss of teams is one of the five negative centrifugal forces that affect outcomes for team operation (Zvingule et al., 2013). Distance has a negative effect on the degree of teams between remote colleagues (Zvingule et al., 2013); it is not easy to incorporate geographically remote and culturally various individuals or groups into a single team.

Trust is an important element of numerous interactions involving virtual and F2F teams. Members of high operation teams have high degrees of trust in one another (Valentine & Edmondson, 2014). However, developing trust in project teams, which consist of members who have little experience working together and sometimes few opportunities of working together again, is a challenge (Valentine & Edmondson, 2014). Drob and Zichil (2013) examined the growth of trust in temporary project teams. Drob and Zichil discovered that with short deadlines and no F2F time to build trust, the team members relied on trust through other avenues. Trust-building actions like fulfilling deadlines and communicating effectively assisted in strengthening initially weak feelings of trust.

Drouin and Jugdev (2014) studied perceptions about team results and processes given by members of 43 culturally diverse global teams. Employing a student-rooted sample, Drouin and Jugdev examined the connection between global project team members' collectivistic and individualistic orientations and their measurements of trust, communication, information sharing, interdependence, and disputes during team tasks.

Drouin and Jugdev advised that the collectivist orientation should link to a global project team's processes, and the cultural differences should remain evident by virtual communication.

Knowledge sharing. Garel (2013) analyzed the key concerns in knowledge management, including the challenges of nurturing knowledge sharing by encouraging the interaction of stakeholders within an organization. Garel noted that knowledge management scholars have underscored the need for communities that enable knowledge sharing. A knowledge activist in a project team encourages knowledge sharing among all knowledgeable stakeholders within a geographically dispersed, multinational, and multicultural organization.

Various researchers have explored the challenges linked to knowledge sharing in the context of geographically dispersed organizations. For instance, Garel (2013) concluded that knowledge sharing includes a reliance on cohesive social ties, dialogic practices, F2F encounters, shared norms, and trust. However, the physical distance between stakeholders diminishes the number of chances for F2F interaction. According to Garel, the absence of F2F interaction leads to diminished trust and cohesion among stakeholders and compromises knowledge sharing. This issue complicates the fact that, in addition to geographical impediments, multinational firms must also reduce cultural and functional impediments to their internal knowledge sharing.

Project teams are one solution to the challenges facing knowledge sharing in multinational companies. Garel (2013) argued that processes that support knowledge synergy and shared understanding make project teams a potentially powerful new

organizational form. According to Garel, overcoming challenges in handling project teams and the practices of project team leaders to meet those challenges were pivotal to a project's success. Garel emphasized that teamwork can take place anytime, anywhere, and either in real space or through technology, thereby overcoming key challenges faced by global organizations. As technology has improved and collaborative software has been developed, project teams, whose stakeholders are spread across diverse physical geographic locations, have become increasingly prominent.

Multidimensional culture. The PM practitioner's acknowledgment and supervision of multidimensional cultural diversity may sway the success or failure of a project (Khalema, van Waveren, & Chan, 2015). As noted by Mathur et al. (2013), within an international knowledge-based economy, cultural diversity has many stages, and the PM practitioner may need to be mindful of the cultural dimensions from a global, national, regional, organizational, and project standpoint. Based on the organizational context, the PM practitioner should recognize corporate cultures and sub-cultures in order to work successfully within this environment (Stare, 2012). Omorede, Thorgren, and Wincent (2013) advocated that a competent PM practitioner might apply social awareness while leveraging cultural diversity in order to accomplish project success.

Within a knowledge-driven PMO, projects provide the content for change and serve as the process of the change (Mir & Pinnington, 2014). As illustrated in Adesi, Owusu-Manu, and Badu's (2015) study, a robust, organized corporate culture provides an environment that embraces and supports change; otherwise, in a patchy, disorganized culture, the change may be repellant and problematic to implement. Ahlemann, Arbi,

Kaiser, and Heck (2013) recommended that a PM practitioner's ability to achieve successful project outcomes within a conflicting, unsupportive, multidimensional culture be a critical competency.

Alawneh and Sweis (2016) suggested that a PM practitioner practice social, cultural, and organizational awareness. Concurrently, a sympathetic organizational culture provides the environment for the PM practitioner to employ his or her competencies and attain project success (Brocke & Lippe, 2015). The use of strategic thinking, investigative questioning, and cross-cultural knowledge can support the PM practitioner in effecting change (Izmailov, Korneva, & Kozemiakin, 2016). Furthermore, Izmailov et al. (2016) submitted an inventive, holistic approach in order to identify resistance to strategic change, and this approach has a basis in a multidimensional behavior.

Transition

In Section 1, I introduced the study, the problem statement, and an overview of the lack of strategies for completing IT projects on time and within budget. Within the section, I covered some key elements for the study, including the problem statement, purpose statement, nature of the study, research question, conceptual framework, significance of the study, and literature review. Section 2 includes a description of my study's qualitative method research approach, including the populations and sampling, data collection, data analysis, and reliability and validity. Section 3 includes the doctoral study findings, including applications to professional practice, implications for social change, and recommendations for future study.

Section 2: The Project

A well-constructed single case study requires the researcher to prioritize participant confidentiality and safety before, during, and after the study by following strict guidelines. In this study, I used thought-provoking interview questions to elicit relevant information from a large IT company's IT managers to assist other large IT managers in strengthening their ability to complete IT projects on time and within budget. In this section, I discuss the details of how I designed the case study to best achieve the goals of the study, including (a) the purpose statement, (b) the role of the researcher, (c) participants, (d) research method and design, (e) population and sampling, (f) ethical research, (g) data collection, (h), data analysis technique, and (i) reliability and validity.

Purpose Statement

The purpose of this qualitative single case study was to explore strategies that IT managers in large IT organizations use to complete IT projects on time and within budget. The sample population consisted of two managers employed by one IT company in Central Texas, who had led successful IT projects within the last 3 years. The results of this study may contribute to management practices that maximize organizational performance by identifying strategies that may lead to IT projects being completed on time and within budget. The implications for social change include the potential to reduce IT project failure rates and increase the sustainability of IT businesses, thereby increasing jobs, increasing sales revenue, increasing tax revenue, and reducing unemployment.

Role of the Researcher

The primary role of the researcher for a qualitative study involves data collection, data organization, and analysis of the data results (Collins & Cooper, 2014). Researchers achieve insight into experiences and behaviors of the participants in the research (Corti & Van den Eynden, 2015). Sanjari, Bahramnezhad, Fomani, Sho-ghi, and Cheraghi (2014) noted that the researcher's role involves listening, staying involved and interested, refraining from judgement, and questioning participants without making them feel as though they are under interrogation.

I was familiar with the topic of this study because I am a manager in IT who has completed IT projects. I conducted the doctoral study in the metropolitan area where I live but not in my place of employment because avoiding backyard research is vital to the integrity of data collected (Abildgaard, Saksvic, & Nielsen, 2016). My role involved collecting data in a trustworthy manner as described in the Belmont report (Tamar & Myron, 2010). My role also involved mitigating bias throughout the data collection process (Hernandez-Hernandez & Sancho-Gil, 2015). I asked the participants questions and bracketed my views. In addition, I sought to analyze and interpret the data ethically. I set aside my personal views of the phenomenon, referred to as *bracketing*, to reach a deeper understanding of reflection throughout the data collection, data analysis, and reporting processes (Henriques, 2014).

I used semistructured interviews to gain an understanding of the strategies used by IT business leaders to complete IT projects on time and within budget. Novak (2014) defined three interview formats for qualitative research: structured, unstructured, and

semistructured. Structured interviews are similar to questionnaires except that the interviewee asks the questions rather than allowing the participants to complete and return the questionnaire (Nicolaides, 2016). Unstructured interviews are in-depth and allow the researcher to present a topic and let the participants cultivate ideas (Hyett, Kenny, & Dickson-Swift, 2014). The role of the researcher in unstructured interviews is to listen (Hyett et al., 2014). Semistructured interviews allow for varying numbers of questions and varying degrees of revision to questions to accommodate the participant (Onwuegbuzie & Byers, 2014). By using semistructured interviews, I was successful in collecting data to answer the research question.

I established an interview protocol (see Appendix A) to conduct the exploratory interviews. At the conclusion of each interview, I explored themes and meanings that emerged to verify the interpretations and meanings expressed in participants' responses. I captured the responses of the participants through written notes and an audio recorder. I used two software applications to transcribe data and assist with data manipulation. I stored the material on a flash drive and will keep the data for 5 years, after which I will delete it.

Participants

A researcher may conduct a qualitative study using a single unit with multiple participants within the same setting (Yin, 2014). I selected two participants working from one IT company in Central Texas, who had experience using successful strategies that led to IT projects' completion on time and within budget. The selection criteria for participants included IT leaders who had completed at least two IT projects on time and

within budget within 5 years of commencement of the interviews. Each participant's experience had to be within the most current year in the industry to contribute to the current and effective experiences addressed in this study.

The database of potential participants included two IT business managers from my network of ITPMs from the local PM organization. To gain access to each participant, I sought written permission from a selected company in central Texas. According to Yin (2014), a working relationship between participants and the researcher must occur to address the case study protocol. I established a working relationship with each participant by constant communication via site visits.

After identifying possible participants, I visited the location. I had an in-depth conversation with each participant. Building trust and establishing a respectable relationship are imperative because the participants need to be at ease to respond to questions honestly (Malterud, Siersma, & Guassora, 2015).

Research Method and Design

During the review of my research methods and designs, I determined the best approach to answer the research question was a qualitative case study. Yin (2014) advised that qualitative research is a beneficial approach in order to learn from personal work experiences. I used the qualitative approach to explore strategies managers use to complete IT projects on time and within budget.

Research Method

Qualitative research supports investigation of the strategies relating to IT business managers completing IT projects on time and within budget because it allows participants

to express their perceptions of the phenomenon in their own words (see Branham, 2015). Qualitative researchers explore a person's behavior in a descriptive way (Anney, 2014). Providing insight into what the person has experienced is the core of this research method (Starr, 2014).

A researcher uses qualitative research to emphasize the meaning of the participants' perspectives and collects data through participant conversation (Bailey, 2014). Through qualitative research, researchers can collect data from the perspective of the participant in the form of interviews, conversations, or observations (Guercini, 2014). A qualitative researcher may best ask *how* instead of *how many*, which is the focus of quantitative research (Branham, 2015). Because the focus of this study was to ask *how* and not *how many*, a qualitative research method was appropriate.

Qualitative researchers gather more information on one topic to enhance the understanding of an experience (Roulston & Shelton, 2015). The qualitative method was the best choice for this study. The objectives of the two research methods are not the same (Onwuegbuzie & Corrigan, 2014). Quantitative researchers collect numerical data to prove or disapprove a hypothesis (Guercini, 2014). The quantitative method is appropriate for testing hypotheses through measurement of specific variables (Guercini, 2014). Qualitative researchers do not measure phenomena or report quantities, amounts, intensities, or frequencies (Staller, 2010). Thus, a quantitative method was not suitable for this study.

I considered a mixed-methods approach for this study. Mixed-methods researchers include a combination of qualitative and quantitative methods (Starr, 2014).

This is an appropriate approach when neither a quantitative nor qualitative approach is adequate by itself to address the research topic or when a study requires one method to inform or clarify another (Bailey, 2014). A mixed-methods study includes quantitative data (Bailey, 2014). My intent, however, was to understand what strategies IT leaders need to complete IT projects on time and within budget, so neither a quantitative nor mixed-methods approach was appropriate for this study because the qualitative method was sufficient to satisfy the purpose.

Research Design

A research design is a methodical plan to unite the essentials of research in the process of answering research questions and drawing conclusions from the findings (Guercini, 2014). The research design serves as a balanced plan to collect and analyze data pertinent to the research question to strengthen the validity and accuracy of the findings (Palinkas et al., 2015). The nature of a case study inquiry is precisely suited for addressing research questions that require a thorough understanding of social or organizational processes (McIntosh & Morse, 2015). Case study researchers also explore events and programs over an extended period. Case study research is most appropriate when a researcher is conducting evaluations, studying a phenomenon in a natural setting, or defining what happened or why it happened (Yin, 2011a, 2013).

Using a case study approach, a researcher has an opportunity to consider the issues within the context of work (Lang et al., 2012), which was the intent of this study. The advantage of a case study is the opportunity to get close to the individuals and collaborate

on a day-to-day practice (Lang et al., 2012). Case studies are a popular choice in business research (Yin, 2014), so I chose a case study approach for the study.

Qualitative researchers conduct research through other research designs (Davison & Martinsons, 2016). Qualitative researchers use a phenomenological approach to examine lived experiences of a sample population (Gummesson, 2014). A larger sample size can aid the phenomenological researcher in describing a deeper perspective on a situation or event (Yin, 2014). Although using phenomenology is suitable when the purpose is to understand a lived experience (Higgins & Hamilton, 2014), the phenomenological design is not the most appropriate method to explore a program such as IT project strategies in its natural environment, which was the intent of this study. Dresch, Lacerda, Cauchick, and Augusto (2015) contended that a researcher selects a case study design to explore a smaller sample using multiple approaches to gather data. A qualitative case study was the appropriate method to research how IT business managers of large firms can use formal strategies to complete IT projects on time and within budget for their businesses in Central Texas.

The main goal of the grounded theory design is to develop a theory from data collection (McIntosh & Morse, 2015). Grounded theory permits researchers to develop a theory based on communications with a large number of people (McIntosh & Morse, 2015). In this approach, researchers gather data to ground a developing theory by discovering the actions and social interactions of participants (McIntosh & Morse, 2015). The primary goal of the present study was not to develop a theory but rather to explore the experiences of IT business leaders. Researchers should use the grounded theory design

when developing a theory (Morse, Lowery, & Steury, 2014), so grounded theory was not the most suitable approach for this study.

Ethnographic researchers study cultural groups in a natural environment over an extended time frame (Wilson, 2012). The ethnographic research design necessitates that researchers become a part of a cultural group to study people of that culture (Boddy, 2011). Boddy (2011) also described ethnographic research as the comprehensive evaluation of individuals in a routine manner, which requires ongoing participant surveillance for data collection. Ethnographic research can be time-consuming and costly (Boddy, 2011). The emphasis of ethnographic research is not to understand the phenomenon from the viewpoint of the participants but to comprehend the behaviors of a culture. For this reason, ethnography was not the most applicable method for this study.

Morse et al. (2014) described *saturation* as a technique to ensure adequate and quality data in a study. To ensure data saturation, I asked participants to expand on answers, and I asked additional questions to explore meanings until no new information was added. McIntosh and Morse (2015) affirmed that saturation is determined by many factors that are not under the researcher's guidance, such as whether the population is homogenous or heterogeneous and the competence level of the researcher to define data saturation. A researcher attains data saturation when adding more participants to the study does not result in additional perspectives or information (Dresch et al., 2015).

Population and Sampling

Qualitative researchers provide a validation for all sampling decisions because poor decisions may compromise the credibility of the data (Saunders & Townsend,

2016). Though anticipating every variable influencing the outcome of a study is difficult, the researcher must avoid the arbitrary selection of participants (Fugard & Potts, 2015). Malterud et al. (2015) noted that every participant might add value to a qualitative study by providing information relevant to the phenomenon of interest. Transparency of the sampling method and all ancillary choices is imperative to ensure credibility of the data (Morse et al., 2014).

Population

The population for this qualitative single case study consisted of IT business leaders in IT project services located in Central Texas. Given the preponderance of large IT companies situated in Central Texas, the population was adequate to secure study participants. I selected two participants working from one IT company in Central Texas, who had experience using successful strategies that led to IT projects' completion on time and within budget. Leaders were directors, managers, supervisors, or team leaders.

The criteria for participants were that they had to be IT leaders who had completed at least two IT projects on time and within budget within 5 years of commencement of the interviews. Each participant's experience had to be within the most current year in the industry in order to contribute to the current and effective experiences captured by this study. The study's population contained approximately two participants that met the study's criteria. Further, soliciting IT business leaders of a large IT company was conducive for interviewing in person rather than by phone.

Sampling

Purposeful sampling was the sampling method for the study. An assortment of other sampling methods is also available to researchers, such as convenience sampling, snowball sampling, random sampling, criterion sampling, and stratified sampling, among others (Eitkan, Musa, & Alkassim, 2015). However, the sampling strategy is suited to address the research question appropriate for the study (Robinson, 2014). One of the most shared sampling methods for qualitative researchers is purposeful (also known as purposive) sampling (Eitkan et al., 2015). Purposeful sampling necessitates that all participants meet certain eligibility criteria and have the ability to answer the research question (Palinkas et al., 2015).

Palinkas et al. (2015) noted that purposive sampling is a common choice for qualitative studies because of the emphasis on rich data collection and minimal requirement for resources, largely because of a small sample size. Barratt, Ferris, and Lenton (2015) also emphasized the savings in time and money resources. A weakness of purposive sampling is that while achieving data saturation, the analysis of the data does not lead to empirical generalizability (Mikkonen, Kyngäs, & Kaariainen, 2015). For example, just because two IT business leaders in Central Texas, report on IT project strategies does not mean additional strategies are nonexistent.

Random sampling is also an option for qualitative studies (Eitkan et al., 2015). However, unless the researcher interviews a statistically pertinent number of samples, a random sample may not be worthwhile; in-depth interviewing of a large sample may stress finite resources (e.g., time, money) available to the researcher (Robinson, 2014). A

random sample was inappropriate for this study because the number of hours spent interviewing, transcribing, coding, and analyzing the data would have been far too massive for a limited doctoral study (Mikkonen et al., 2015). When the researcher has a list of the entire population for a sample, a representative randomized sample (also known as a purposeful random sample) is the choice for qualitative researchers (Eitkan et al., 2015).

A snowball sample would be adequate because the possibility exists that one person who experienced the phenomenon might share experiences with someone else who experienced the same phenomenon (Palinkas et al., 2015). In a study involving a diverse population, Perez, Nie, Ardern, Radhu, and Ritvo (2013) used snowball sampling to capitalize on the number of participants. Snowball sampling is useful in populations in which obtaining participants is particularly challenging (Perez et al., 2013); finding IT business leaders willing to go on record (despite assurances of confidentiality) could create such a challenge.

Stratified purposeful sampling is suitable for research studies in which identifying variability in a phenomenon is paramount (Barratt et al., 2015). For example, Kerski, Demirci, and Milson (2014) used stratified purposeful sampling to discover how secondary schools in various regions of the world taught using geographic information systems. Eitkan et al. (2015) used stratified purposeful sampling to cultivate the conceptual framework for a study on qualitative research synthesis.

Eligible candidates for the study received a confirmation to participate in order of expressed interest to take part in the study, and the order in which any leader responded

to the study was random. Such an approach allowed a purposeful sample to be random (Eitkan et al., 2015; Robinson, 2014). Purposeful random sampling offers additional credibility to a study (Eitkan et al., 2015). One final issue to resolve after identifying who participated was how many participated.

Data Saturation and Sampling

The objective of determining sample size in a qualitative study is to achieve data saturation, the point at which new data cease to provide additional insights to the problem under investigation (Mikkonen et al., 2015; Morse et al., 2014). Depending on the quality of the data attained, a sample size of as few as one may be useful (Eitkan et al., 2015). However, Yin (2014) emphasized that having at least two would be beneficial with respect to analysis. Having multiple cases facilitates replication, which strengthens the study (Yin, 2014).

The minimum sample was two, with the goal of capturing data from any combination of IT business leaders from a large IT company in Central Texas. After interviewing the first two individuals, I reviewed the data for themes. Increasing the sample size to achieve saturation may be necessary in qualitative studies (Robinson, 2014), and ultimately, additional IT leaders could have participated; however, the total sample could consist of only two IT business leaders. The segmented sample reflected Yin's (2013) sampling suggestions regarding replication and analytical robustness.

A debate persists regarding sample size in qualitative studies because some qualitative researchers aim to mirror the sampling requirements consistent with quantitative studies (focusing on statistical relevance), while some qualitative researchers

assert that the question of sample size is unrelated because the focus is on a full understanding of the topic, not the sample number (Eitkan et al., 2015; Robinson, 2014). The suitability of determining sample size prior to commencement of research is also a subject of debate in the qualitative research literature because doing so preemptively assumes meeting data saturation with an arbitrary, predetermined number of samples (Mikkonen et al., 2015). However, as the field of qualitative research is developing, an expectation is becoming apparent for researchers to propose a sample size in advance of conducting the study despite the emphasis on data saturation (O'Reilly & Parker, 2013).

Normally, researchers base the number of participants in a purposeful sample on precedence (sample size used in similar studies; Robinson, 2014). For example, Richardson (2014) acquired data saturation with a sample of 20 participants in a case study regarding strategies to improve workplace performance. Notwithstanding the contrasting opinions of what establishes a proper qualitative sample size, researchers tend to agree data saturation is the priority (Barratt et al., 2015; Mikkonen et al., 2015; Palinkas et al., 2015). In contrast to Richardson, Faokunla (2012) only required eight participants for saturation in a case study. Snyder's (2012) case study comprising school teachers had only four participants.

Researchers consider practicality in sample size with respect to time management and resources (Barratt et al., 2015; Fugard & Potts, 2015; Saunders & Townsend, 2016). The sample size affords for the collection of sufficient information to address the research question, but too much data might compromise the researcher's ability to engage in an in-depth analysis (Robinson, 2014). In other words, qualitative researchers are

troubled with theoretical generalizability rather than empirical or statistical generalizability, a concern of quantitative researchers (Palinkas et al., 2015; Robinson, 2014; Yin, 2014). Demonstrating that data collection is adequate to support the study objectives is a question of rigorous research, a major tenet of qualitative studies (Mikkonen et al., 2015).

Interview Setting

Determining a potential interview setting is an essential step in the study planning process because site selection may influence the comfort level of the interviewees and influence how interviewees respond in the interview (Jordan, 2014; Wallace & Sheldon, 2015). The best sites for conducting interviews are where the researcher may secure entry and where interview candidates may access the site (Jordan, 2014). Furthermore, researchers select sites where marginal risk to the quality or credibility of the data is present (Jordan, 2014).

Interviews for the study occurred within the large IT company footprint. Gaynor (2017) endorsed public libraries because of typical low noise levels and because private or semiprivate locations in the library may exist in which to conduct an interview. In their opinion, the use of libraries was preferable, though it was not consistently chosen as a location; the interviews in their study took place at mutually agreed upon settings convenient for the interviewees.

As an alternative to meeting in person, interviewees could request a telephone interview, although useful information might be lost in phone interviews, such as facial expressions and body language (Jordan, 2014). Phone interviews do have some

advantages, such as convenience for the participant (Romme et al., 2015). Another interview alternative is online chat. Pearce, Thøgersen-Ntoumani, and Duda (2014) contended online chatting is an effective method of data collection. Foe and Larson (2016) utilized online chat and noted the utility of the method for interviewing participants on sensitive topics. However, eye contact and other types of body language are not apparent in online chatting (Pearce et al., 2014). Eliminating the possibility to observe emotions (via online chats) is challenging because of the strong feelings the research question may evoke.

A crucial responsibility of researchers is to protect participant confidentiality and to avoid imposing any harm (Griffiths, 2014; Tsan & Tsan, 2015). Accordingly, each interview took place in a different location, which mitigated any risk of loss of confidentiality. The concept of imposing no harm to participants was a matter of ethical protection.

Ethical Research

In this research study, I acquired permission from each research participant to conduct an interview (Wallace & Sheldon, 2015). As Wallace and Sheldon (2015) directed, participants had to sign the consent form as well as e-mail it to me before interviews, per the stipulated agreement for participants participating in this research study. I expected IT business managers in the IT business industry to give their consent through e-mail and indicate that they agreed to participate in the research study (Jordan, 2014). I documented each participant's reply to e-mails in order to verify agreement to contribute in the research study (Yin, 2014). Before the live interviews, I asked

participants for permission to use a tape recorder to record the interviews for later analysis.

Participants must recognize the purpose of the research study and their right to withdraw voluntarily at any time (Knepp, 2014). As stated in the consent form, participants could withdraw from the study verbally or in writing without penalty. Participants understood that they would not receive any incentive to participate in this research study. I worked to ensure the confidentiality of participants as a fundamental guide in ethical research (Jordan, 2014).

Before the start of data collection, the Walden University Institutional Review Board (IRB) ensured that the proposal met ethical protection guidelines. Upon receiving IRB approval, I continued with data collection and addressed all ethical concerns throughout the study, taking care to ensure that the study demonstrated trustworthiness while maintaining standards for a quality research practice (Romme et al., 2015). I learned the guidelines of the National Institute of Health Office of Extramural Research and successfully completed the NIH Web-based training course *Protecting Human Research Participants*.

I have stored all interview transcripts, data, and information—electronic and paper—in a locked file cabinet, where they will remain for 5 years in order to protect the rights of all participants. I will destroy all research interview files, transcripts, and raw data after 5 years. Because I was the sole interviewer to record, collect, analyze, and transcribe for this research study, no one else signed agreement documents.

I delivered participants a copy of the interview transcript after the interview (Foe & Larson, 2016) in order to proofread and review for accuracy (Tsan & Tsan, 2015). After the conclusion of the research study, participants received a one-page summary of the study's research report. I allocated a number for each participant throughout the research study, such as P1, P2, or P3, in order to guard the identity of each participant (Griffiths, 2014). I did not and will not reveal participants' names or the names of the companies for which they work (Griffiths, 2014).

Data Collection Instruments

I was the main instrument of data collection in this research. When the researcher is the main instrument in research, the researcher's competencies and experience improve the qualitative research outcomes (Fjellstorm & Guttormsen, 2014). Pearce et al. (2014) asserted that researchers use interviews as a data collection instruments. Rosetto (2014) stated that researchers gather data from information, perceptions, and interviews through video or audiotape to gain insight into a phenomenon and the environment. The research instruments for this study included the researcher, semistructured interviews with open-ended questions, and other archival documents.

Semistructured interviews require the development of questions from established themes prepared to extract in-depth insight of the participant about his or her perception of a phenomenon (Guercini, 2014). The use of semistructured interviews with open-ended questions for this study was the data collection approach used to capture the opinions of participants on IT project strategies IT business leaders need to complete IT projects on time and within budget. Semistructured interviews facilitate in-depth

responses by participants to research questions (Guercini, 2014). The main approach in a qualitative study is the use of semistructured interviews through the utilization of organized and unorganized explorations to facilitate in-depth insight from the participants on the research topic (Guercini, 2014).

For this study, I conducted semistructured interviews with open-ended questions on site to provide an environment conducive to participants comfortably describing individual experiences as IT business leaders. Trangkanont and Charoenngam (2014) used semistructured interviews to capture the perception of participants on risk delay project output, results, and business performance. Silic and Back (2014) used semistructured interviews with open-ended questions on security experts, along with archival documents on information management, to develop a deep-rooted understanding of information governance in an organization.

Walker and Jones (2012) conducted semistructured face-to-face interviews with open-ended questions with senior management and purchasing specialists to explore factors that influence sustainable supply-chain management and future best practices. Christopher, Mena, Khan, and Yurt (2011) used semistructured interviews with open ended questions to gain in-depth understanding of how managers assess global sourcing risks across the entire supply chain. As demonstrated by those examples, the use of semistructured interviews with open ended questions in this study provided the opportunity to elicit detailed information about IT project strategies.

The use of multiple sources of data collection is vital to confirm triangulation of data (Rohrbeck & Gemünden, 2011). I used multiple data collection approaches for this

study in order to triangulate data. The data collection plan involved using semistructured interviews to collect information about participants' perception and in-depth understanding of IT project strategies in the IT industry and a request for documents relating to the topic of discussion. Adegbite (2012) triangulated data by collecting secondary data along with semistructured interview details in a corporate governance study in Nigeria.

In this study, I collected archival data related to IT projects from top IT business leaders, which I then triangulated with semistructured interview data. Using different sources of archival data in this study was suitable for triangulating data to give in-depth details on the research topic. The use of various archival documents is appropriate for triangulating data to provide in-depth detail on the topic of study (Pearce et al., 2014). Triangulation of data sources allowed me to analyze participants' responses adequately and detect possible contradictions. Bommel (2014) noted that triangulation of data sources enables a researcher to analyze participants' responses appropriately and identify potential differences in the data available.

In a qualitative study, interview methods involve interviewing participants and translating the responses (Saunders, Kitzinger, & Kitzinger, 2015). In the development of semistructured interviews with open-ended questions, the efforts made help to minimize, reduce, and eliminate any form of bias likely to emerge (Pickering & Kara, 2017; Yin, 2014). The participants may respond to the semistructured interviews with open-ended questions. Yin (2011b) stated that to gain in-depth understanding and explanation of an

event, data collected through interviews, records, and observations is appropriate in a qualitative research.

Interviews are widely used in qualitative research (Pickering & Kara, 2017). Yin (2011b) recommended triangulation of documents and interviews to establish validity and reliability of the results. Bogers (2011) used such documents as annual reports and corporate and technical journals to collect data for triangulation with semistructured interview data.

In this study, I used methodological triangulation to ensure validity and reliability. Kornbluh (2015) stated that the process of ensuring reliability in qualitative research includes the use of various sources of data known as the triangulation method. Methodological triangulation includes the use of several sources to explore an event or a situation (Spadafino et al., 2016). I used methodological triangulation to improve the reliability and validity of research outcomes from the semistructured interviews and archival documents related to the study.

White, Parry, and Puckering (2016) used methodological triangulation to enhance the reliability of the outcome of their research on information knowledge acquisition in the information system. I employed methodological triangulation through the use of multiple sources, which include semistructured interviews with open-ended questions, financial reports, and other archival documents to improve the reliability and validity of the research. Researchers can use triangulation to enhance the reliability and validity of qualitative studies (Wallastedt, Grossi, & Almguist, 2014).

Corti and Van den Eynden (2015) indicated that the process of ensuring reliability in qualitative research includes sharing the emerging themes and interview outcomes with the participant, a process known as *member checking*. To improve the reliability and validity of this research, I sent the emerging themes generated from the data, my interpretations of the data, and conclusions to both participants for comparison to their responses in order to ensure credibility.

Enosh and Ben-Ari (2016) stated that member checking should take place after the analysis of the interview instead of after coding to enable participants to identify their own words. I allowed the participants to have access to the research analysis from the interview process before coding and shared the themes and conclusions generated from the data collected after coding for reliability and validity of the research findings. Conducting member checking with the participants gives an opportunity to share the outcomes, thereby improving credibility and participant participation (Chandler, 2013).

Qualitative researchers use an interview protocol as a planning process in conducting research. Interview protocol includes the use of the same semistructured interview with open-ended research questions and guidelines for all participants (Sooniste, Granhag, Strömwall, & Vrij, 2015). In this study, preparation of an interview protocol consisted of semistructured interviews with open-ended research questions and a log to detail the interview procedures in order to safeguard and prevent losing important data. The preparation of an interview protocol was necessary for the analyses of data regarding the research objective, accuracy, and uniformity in data collection.

In studying the staff perceptions on patient motives for seeing general practitioners, Greenfield et al. (2016) developed an interview protocol consisting of semistructured interviews with open-ended questions to safeguard the reliability of the research by ensuring uniformity in data collection. Van der Sanden, Bos, Stutterheim, Pryor, and Kok (2015) adopted an interview protocol that consisted of semistructured interviews with open-ended questions to guide the interviews by ensuring consistency, reliability, and validity of the data collected from the research. Likewise, I adopted an interview protocol by using a semistructured interview with open-ended questions to ensure consistency in the interview with the participant for reliability and validity of the data collected from their responses (see Appendix A: Interview Protocol).

Data Collection Technique

The data collection technique for this study included interviews with two IT managers and review of data on IT project management in the IT industry. I conducted semistructured interviews with open-ended questions to explore IT project strategies IT business leaders use to complete projects on time and within budget. I conducted two face-to-face semistructured interviews with open-ended questions with IT management leaders who had 5 years of IT project experience. The use of semistructured interviews with opened-ended questions was appropriate for data collection in this qualitative study.

Haak-Saheem and Darwish (2014) used semistructured interview and data to gain in-depth understanding of managers in the role of knowledge management in creating culture learning. Haak-Saheem and Darwish adopted the use of the interview and data to maintain quality control of the information from the experts and documents and to

prevent bias. Adegbite (2012) used interviews and documents in the study of corporate governance in Nigeria. The primary data collection for this study consisted of the review of data and use of semistructured interviews on IT business leaders in this study of IT project management.

In a qualitative case study, a researcher must avoid bias to understand the perception of the participant on the research topic (Fusch & Ness, 2015). Bias may arise from the manner in which the interviewer presents the questions (Weinbaum & Onwuegbuzie, 2016). According to Collins and Cooper (2014), an interviewer can regulate the topic and the settings of the interview. However, the process of listening without any interjection may reduce the bias of the researcher (Irvine, Drew, & Sainsbury, 2013).

Choudrie and Culkin (2013) stated that the triangulation of semistructured interviews and documents reduces likely bias by using one source of data collection. I developed interview questions appropriate for the study to foster deeper-level insights from participants. Irvine et al. (2013) noted that nonvisual cues could affect the quality of data collected in an interview. The use of semistructured interviews was appropriate to elicit and solicit information from experts on IT project management.

The use of the interview modality has both advantages and disadvantages (Mojtahed, Baptista, Tiago, & Peng, 2014). The advantage of using an interview to collect information in research includes the presence of the researcher, which enables interviewees to respond to difficult questions (Clanak, 2014). Elo et al. (2014) noted that

one disadvantage of conducting an interview is the duration of data collection. Interviews can only be conducted with one participant at a time (Elo et al., 2014).

In this study, I recorded the interviews, listened to the recordings, and transcribed data to capture the responses of the participants accurately. I documented my encounter with each participant and the data collected after the interviews. Recorded interviews and data were transferred to my protected computer and stored in a password-protected folder. I also stored the recorded data on a flash drive kept locked in a box for adequate protection.

Collecting data also involves gathering information from publications, reports, and other such documents solicited from study participants (Baskarada, 2014; Paine, 2015; Yin, 2014). I requested in advance for participants to bring relevant data to the interviews, which aided in triangulating the interview data with various current documents from IT leaders in order to enhance the reliability of the data. The use of different sources, triangulation, may remove possible biases arising from interviewees or the researcher's own experiences (Trangkanont & Charoenngam, 2014).

The combination of multiple methods, perspectives, and observers in a single study is a strategy that adds rigor, breadth, and depth to any investigation (Flick, 2015). The benefit of member checking is to decrease the chance of incorrect data interpretation through participant verification (Brayda & Boyce, 2014). The benefit of triangulation is the use of multiple data sources to enhance the accuracy, validity, and confirmability of the study's findings (Brayda & Boyce, 2014).

Both member checking and methodological triangulation suited the needs of instilling and ensuring rigor in exploring the problem under study. The disadvantage of using data as a source is that the information could be incomplete and inaccurate (Brayda & Boyce, 2014). In addition, collecting and analyzing the records can be time consuming and inconvenient (Collins & Cooper, 2014).

I used member checking to improve the credibility of this study. The use of member checking allows all participants to review the analysis of their responses to confirm the correct meaning of their words (Harvey, 2015). I allowed the participants to review the analysis of their interview for confirmation of their responses to the research questions before importing the textual transcript into NVivo 10.

I kept the transcript as originally written and made notes regarding how the participants changed their responses. The advantage of using member checking provides opportunity for participants to preview the analysis of their individual interviews to ascertain contextual interpretation of words expressed (Harvey, 2015). The use of member checking also validates research ethics in a qualitative case study (Simpson & Quigley, 2016).

Data Organization Technique

The storage, collection, and retrieval of data during and succeeding the research study period are the sole responsibility of the qualitative researcher (Thomson, Petty, Ramage, & Moore, 2011). I used detailed interviews to capture the data. An assignment of codes protected the confidentiality of the participants (e.g., P1, P2). I was the only person with knowledge of the participants' identification.

In addition, I took notes with pencil and paper to back up any audio device malfunction that might happen during the live interview. At the conclusion of the interview process, I transcribed the recorded interview and checked note-taking data for accuracy. I utilized paper and pencil to transcribe the recorded interviews. Secondary sources of information, such as documentation that relates to the IT business managers, were kept confidential. I used a Microsoft Excel spreadsheet to categorize, draw, and record themes discovered from note-taking and recording interviews.

I manually typed all data into an Excel spreadsheet. I reviewed all data collected and highlighted themes and patterns for analysis. The process of reviewing data, as Yin (2014) stated, establishes a quality analysis. I will store all the data files in a locked file cabinet for 5 years to protect the rights of participants (Perry, 2012). As directed by Walden University (2013), on the anniversary of the fifth year, all data will be destroyed by an electrical paper shredder.

Data Analysis

Data analysis is a tedious process in a qualitative research study (Weinbaum & Onwuegbuzie, 2016). Researchers formulate, interpret, and analyze data for meaning (Yin, 2014). Analyzing the responses underlined the performance of the participants and was the foundation of this study. Data based on human experience are effective and occasionally more trustworthy than quantitative data (Eitkan et al., 2015). Methodological triangulation uses more than one method to analyze a phenomenon (Elo et al., 2014).

I analyzed data using Yin's (2011b) data analysis method. This process includes the following five steps: (a) compiling the data, (b) disassembling the data, (c)

reassembling the data, (d) interpreting the meaning of the data, and (e) concluding the data. Buchanan et al. (2013) used this method for data analysis for qualitative single-case studies and confirmed its appropriateness.

Compiling the Data

After I collected the data, I analyzed the data. Data analysis encompasses working through data to determine meaningful themes, patterns, and descriptions that answer the central research questions of the study (Yin, 2011a). Initially, I organized the collected data in categories related to IT project strategies. I derived the initial categories based on the findings from the literature review.

Other categories could have emerged as I analyzed the data. If new information did not fit the initial categories but emerged during subsequent interviews, I established additional categories and reviewed previous interviews for information to be included in any new categories. I imported the textual transcripts into NVivo 10 from Microsoft Word. After this process, I compiled the data. Compiling is the procedure of organizing the data (Yin, 2011b).

Disassembling the Data

After compiling the data, I started disassembling the data. Disassembling data encompasses a formal procedure of coding data (Yin, 2011b). Coding is the procedure of tagging segmented data with category names or descriptive words and then grouping the data (Fugard & Potts, 2015). Coding of data is vital in identifying patterns and themes (Ando, Cousins, & Young, 2014). The qualitative data analysis of my research involved labeling and coding all data that arose from the participants' interviews.

During the qualitative analysis, I broke data up into manageable pieces, which I reconstructed to reflect back to a view of reality. My initial step involved reading the interview transcripts, observational notes, and any other relevant documents that led to the development of preliminary notes or memos. I used these to formulate initial categories, themes, and relationships. Memos entail research notes that may contain interpretations of patterns found in the data or general comments on issues revealed during the analysis; they are coded similarly to the way interviews transcripts are coded (Baškarada, 2014).

Coding and exploring data with NVivo are the initial processes of further in-depth analysis through the recognition of patterns and themes (Roulston & Shelton, 2015). I used the node attributes in NVivo 10 software to identify similar data and common themes occurring in participants' comments on each of the interview questions. I developed and arranged the similar data on nodes in NVivo to generate codes and commence categorization to generate the emerged themes.

Reassembling the Data

Once I dissembled the data, I started the process of reassembling the data. Reassembling is the data analysis process that includes considering the data under several arrangements until emerging themes are satisfactory (Yin, 2011b). After I reviewed the organization of the data in NVivo, I conducted a further-in-depth analysis of the data to identify themes and relationships. Coding was the iterative and incremental process that I performed at differing levels of abstraction.

Data coding and analysis leads to the identification of dominant themes (Mayer, 2015). I removed data that were irrelevant to the research topic and questions and left the

unchanging elements and textual meanings of those elements to address the research question. Successful reassembling is apparent in the emergence of themes in data analysis (Yin, 2011b).

Interpreting the Meaning of the Data

The next step in data analyzing is interpreting the meaning of the data (Yin, 2011b). Interpreting the meaning of the data is the process of making sense of the data (Turner, 2010), and interpreting the data includes the researcher giving his or her own meaning to the data (Yin, 2011b). I interpreted the reassembled data to provide meaning to the research.

The process involved interpretation of the data based on the understanding of the researcher. I expressed my understanding of the data collected based on my competence in the subject matter. The researcher's ability to understand and describe the data is vital during data interpreting (Bailey, 2014).

Concluding the Data

The final step in the data analysis is concluding the data (Yin, 2011b). Concluding the data is the development of a sequence of statements that observe the findings of a study from the viewpoint of a larger set of ideas (Buchanan et al., 2013; Yin, 2011b). Concluding themes and patterns derived from the central research question are fundamental to comprehending the findings of a qualitative research study (Yin, 2011b).

Researchers can utilize data analysis software to create themes (Oliveira & Panyik, 2015). I used NVivo 10 software to input, store, code, and explore themes and patterns. The NVivo 10 software is suitable for identifying themes (Garrett-Howard, 2012).

Advantages of utilizing NVivo 10 include the ability to keep data in a single location with easy access to information and the ability to use a continuous coding scheme (Bergin, 2011). I used NVivo to increase the rigor in my qualitative research (Leech & Onwuegbuzie, 2011). It helped me in aligning the collected data with previous literature (Woods, Paulus, Atkins, & MacKlin, 2016).

The conceptual framework is the establishment of a link between the literature, methodology, and results of the study (Borrego, Foster, & Froyd, 2014). I analyzed data through the lens of Lewin et al.'s (1939) situational leadership theory. I used this framework to help me in interpreting the meaning of data collected. By exploring IT project strategies through the perspective of Lewin et al.'s theory, I was able to compare the data collected with established theories relevant to the phenomenon. I also used member checking to verify data.

Reliability and Validity

The following sections discuss reviewing the reliability and validity of the process used in the study. The sections contain the criteria of dependability, credibility, transferability, and conformability. Transparency of the processes helped to ensure reliability and validity.

Reliability

A researcher uses dependability to guarantee the clear identification of all research design and operations (Finfgeld-Connett, 2014). In addition, validity, reliability, and data quality will confirm the dependability of a case study (Yazan, 2015). Research has recognized a range of relevant data quality dimensions, including accuracy,

objectivity, believability, reputation, interpretability, ease of understanding, concise and consistent representation, and relevancy (Baškarada, 2014).

By recognizing those steps, a researcher can allow for replication of the methodology with a larger population or by future researchers. However, a researcher must distinguish between the dependability of a method to produce similar interpretations and the reliability of a method to construct identical results (McIntosh & Morse, 2015). To enhance the dependability of my case study, I followed Stake's (1995) four triangulation strategies: data source, investigator, theory, and methodology. Finally, to enhance the dependability of my study, I utilized Merriam's (1998) strategies for member checking and disclosure of researcher bias.

Validity

Creditability. Research validity and reliability are mutual concepts in quantitative research but also pertinent in qualitative research because both types of studies must establish *creditability* using either method (Olsen, Lund, Ellingsen, & Hartvigsen, 2012). To maintain creditability, or authenticity, Bengtsson (2016) and Hussein (2015) acknowledged that researchers must adhere to methods accepted as scientifically sound in the qualitative and informational sciences. The use of methodological and data source triangulation increased the internal validity and creditability of my case study (Alley, Jackson, & Shakya, 2015; Baškarada, 2014).

Transferability. *Transferability* refers to whether particular findings can be transferred to a similar context or situation while still preserving the meanings and inferences from the completed study (Chowdhury, 2015). Transferability is not whether

the study includes a representative sample but rather how well the study made it possible for a reader to choose if similar methods could succeed in his or her setting by understanding in an in-depth fashion how it occurred in the conduct of my research. The richness and level of the amount of detail about the background and the context of the findings aids the reader in making these decisions. Achieving transferability takes place when another researcher decides to follow the same methods that were used in this study and whether he or she found similar or different findings of the phenomenon among similar or different respondents (Robinson, 2014).

One method to achieve transferability is to assure that the findings include enough thick descriptions for readers to assess the prospective transferability appropriateness for their setting (Robinson, 2014). Describing the details of the context of the case study and providing rich descriptions help to improve the transferability for someone to replicate the study (Chowdhury, 2015). I employed transferability to compare the context of the study to determine its applicability through reflective note-taking. Study planning aided in confirming that participants understood that the questions and methods of communication were clear, concise, and simple to comprehend.

Confirmability. A researcher should maintain personal and reflective notes during the interview research process to combat occurrences of bias and ensure *confirmability* (Kemparaj & Chavan, 2013). Confirmability in research ensures that the results of the study are a product of the research and not the researcher's bias (Camfield & Palmer-Jones, 2013). Researchers use reflexivity to disclose their personal experiences and biases

that could influence the study (White, Oelke, & Friesen, 2012). To ensure confirmability, I documented the procedures.

Data saturation. Saturation is an important methodological concept in qualitative research (J. L. Walker, 2012). Yin (2014) contended that the size of the sample should be big enough for the researcher to obtain redundancy of responses, or saturation, and Elsawah, Guillaume, Filatova, Rook, and Jakeman (2015) asserted that data collection should conclude when the researcher trusts that no new concepts can be obtained (saturation). To ensure saturation, I explored the participants' responses until no new information emerged from the discussion.

Transition and Summary

Section 2 included a discussion of the research design, method, data collection, and ethical theory of this qualitative research study in detail and precisely described how to select the sample from the population and protect the participants in the selection and interview processes. In this section I highlighted concepts, data analysis techniques, data collection techniques, and data organization. Finally, I analyzed the reliability and validity of this qualitative research study, which are critical to solidifying the results of qualitative research. The next section included the doctoral study findings, including applications to professional practice, implications for social change, and recommendations for future study.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of the qualitative exploratory single case study was to explore strategies some IT managers use to successfully complete IT projects on time and within budget. The findings indicated that businesses should implement IT project strategies that have qualities of good customer focus and a standard project methodology. The findings from interview data provided by the participant company (hereafter referred to as Company ABC) and document review indicated that a successful IT project completion results from a combination of these factors.

Providing good customer focus and providing a standard methodology were the themes related to successful IT projects. Numerous techniques were identified as approaches to customer focus and standard methodology. Listening, customer focus, customer needs, customer information, and delivery were strategies for providing good customer focus at Company ABC. Standard methodology approaches at Company ABC included project completion, milestones, budget, and project strategy. In Section 3, I describe the research problem and discuss the study findings. I also include applications to professional practice, implications for social change, recommendations for action and further research, reflections, and conclusions.

Presentation of the Findings

The research question for this study was the following: What strategies do some IT managers in large IT organizations use to complete IT projects on time and within budget? The purpose of the study was to identify successful IT project strategies. The

themes I identified were (a) providing good customer focus and (b) providing a standard methodology for IT projects.

The themes from this study corresponded with those identified in the literature review. Vecchio's (1987) situational leadership theory was a useful lens for interpreting the data on successful IT project strategies for IT organizations. The findings from the current study supported the core concept of situational leadership theory regarding realizing the benefits of cooperation with agents while minimizing productivity losses due to the costs of mechanisms employed to mitigate such behavior. Situational leadership theory can serve as the basis for assessing the usefulness of IT project strategies in the evaluation process of completing IT projects on time and within budget (El Yamami et al., 2017).

Many of the participants' responses and documents from the company supported situational leadership theory. The findings aligned with Vecchio's (1987) situational leadership theory by indicating that IT managers used methods to complete IT projects on time and within budget. Although the results indicated that customer focus and standard project methodology measures result from affirming the successful completion of IT projects, several of the decisions resulted from the various stakeholders' needs and a general desire to make ethical business decisions. The findings confirmed the themes presented in the literature review pertaining to effective IT project strategies, particularly in terms of making decisions that impact the long-term health of the business (Cooper, 2016). Cheng, Ioannou, and Serafeim (2014) noted that long-term success is driven by relationships with stakeholders such as customers and business partners. Company ABC

has received a global endorsement related to IT project standards since 2015, which according to its annual report provides evidence to stakeholders, particularly customers, of respect for environmental sustainability.

Interview responses and document review indicated that the management at Company ABC seeks opportunities to make customer focus and standard project methodology a priority while considering the impact on profit. Company ABC's management also recognizes that benefits exist to providing customer focus and using a standard project methodology that reach beyond the short term. Company ABC's overall project approach reflects a combination of strategies that include good customer focus and standard project methodology.

The company management's view of the importance of providing customer focus and standard methodology was noted during the interviews and during analysis of the website and annual report, as shown in Table 1 and Table 2. The first column specifies the words/phrases of responses to the interview questions and documents in the archival company records. The second column indicates the source of the words/phrases that tied into the themes and was contained in the archival company records.

Table 1

Theme 1: Providing Good Customer Focus

Good customer focus	Source
Listening	Interview responses—IQ1, IQ2, IQ3, IQ4, website, other documents
Customer focus	Interview responses—IQ1, IQ2, IQ3, IQ4, website, annual report, other documents
Customer needs	Interview responses—IQ1, IQ2, IQ3, IQ4, website, annual report, other documents
Customer information	Interview responses—IQ1, IQ2, IQ3, IQ4, website, other documents
Delivery	Interview responses—IQ5, IQ7, website, other documents

Table 2

Theme 2: Providing Standard Project Methodology

Standard project methodology	Source
Standard methodology	Interview responses—IQ1, IQ2, IQ3, IQ4, website, other documents
Project completion	Interview responses—IQ1, IQ2, IQ3, IQ4, website, other documents
Meet milestones	Interview responses—IQ1, IQ2, IQ3, IQ4, website, other documents
Within budget	Interview responses—IQ1, IQ2, IQ3, IQ4, website, annual report, other documents
Project strategy	Interview responses—IQ1, IQ2, IQ3, IQ4, website, annual report, other documents

Theme 1: Providing Good Customer Focus

Successful IT managers use a clearly defined strategy to engage consumers in the decision-making process (Bathallath et al., 2016). Palshikar et al. (2016) added that the net effect of resolution time on quality also depends on the customers' perceived level of significance of the issue. Dai, Luo, Liao, and Cao (2015) and Liu, Chang, and Tsai (2015) posited that customer satisfaction is a combination of perceived value and trust. Developing customer-focused, process-based approaches to PM improves innovation and project flexibility through quality services (El Yamami et al., 2017). Customer focus helps to impact customer retention (Peppers & Rogers, 2016).

Customer focus was apparent in the interview process as well as document review of Company ABC. The findings indicated that the management at Company ABC considered every opportunity to provide good customer focus during the project process. Interview responses included statements such as "customer focus must start on day one to get a clear understanding from all the stakeholders regarding (a) scope, schedule, and quality of performance; (b) identification of the deliverables; and (c) a detailed project plan" and "nowadays, our focus has actually shifted to customer satisfaction." Hirzel and Moormann (2017) stated that a customer-focused strategy is a core element of IT project initiatives. The ABC company leaders' view of the importance of building relationships with customers was noted throughout the interviews, website, and annual report.

As Cheng et al. (2014) noted, better relationships with customers drive the long-term focus needed for sustainability. Relationships with customers are a key aspect of the sustainability strategy at Company ABC and compel their long-term focus, which is

necessary for a successful project completion, and Ooi (2015) noted that customer focus remains an essential component for improving the success of IT projects. Interview responses such as “our senior VP has been driving us to start focusing on the customer” and “drive towards getting quality to the customer” indicated that Company ABC benefits from long-term customer focus.

Mihalcin, Mazzuchi, Sarkani, and Dever (2014) indicated that how well team members support a product or service is another aspect that affects customers’ perception of quality. Huckabee (2015) explained that technical and functional specifications for a product or service define what the product or service should do from the customer’s perspective. Interview responses, including “deliver a quality product to the customer” and “always get the customer input,” affirmed this point. This theme also aligned with Vecchio’s (1987) situational leadership theory principle of realizing the benefits of cooperation with agents while minimizing productivity losses due to the costs of mechanisms employed to mitigate such behavior. Member checking did not yield any additional information for Theme 1.

Document review, specifically information gleaned from the company website, indicated that Company ABC provides support and contributes “to all drivers of project development including strong leadership, organizational maturity, business-driven approach, executive backing, user adoption, and visibility.” As shown in Table 1, document review and interview responses indicated Company ABC provides customer focus to the project stakeholders and customers. This type of customer focus leads to improved transparency, compliance, and long-term focus that ultimately lead to the

completion of IT projects on time and within budget (Cheng et al., 2014). The interview response "customer input is the success of your program" supported this point. The themes from this study aligned with the literature showing customer focus as an important variable (see Ford, 2014; Mathew & Gupta, 2015).

Customer focus is an important factor from the beginning of a project throughout its life cycle. Shanmugasundaram and Vikram (2015) concluded that customers view conformance to specifications as one of many aspects of a product that drive their satisfaction. According to interview responses and the company's website, ABC management is aware that customer focus during the completion of projects has real short-term and long-term ramifications to the company. The company's management indicated that listening to and recognizing a customer's needs help to make the project process easier, and this approach encourages the customer to be an active participant in the project. Interview responses such as "I sit with them (customers) to decide what their top priority is" and "knowing what the customers want and need makes the process easier for all parties involved" supported this point. According to Kroll and Moynihan (2015), project managers must have a communication aspect working effectively to inform customers and stakeholders regarding schedules and timelines.

Interview responses, company documents, the company's website, and the company's annual report indicated the ways Company ABC works diligently with customers during a project. The company strives to make customer focus a part of its trademark and highlights project strategies throughout its website. According to the website, management at ABC attempts to be sustainable through every business practice

and puts customer focus at the center of project completion. Interview responses such as "sit with them (customer) to decide what their top priority is" and "some are easy wins and some take longer" supported this point. Exceptional customer service can elevate a company above the competition. Dissatisfied customers cost businesses millions of dollars in profits each year (Clinning & Marnewick, 2017). Aviles (2015) stated that customer focus is an enabler of collaborative relationships, which aligned with the findings in my study.

Theme 2: Providing a Standard Project Methodology

Standard project methodology relates to a project-standardized methodology and a PM plan (Winter & Silveira Chaves, 2017). Pimchangthong and Boonjing (2017) noted how important it is for IT PMs to keep track of the planning process for a global IT project and organize the resources needed to stay on time and on budget with a standard project methodology. It was evident from interview responses and the corporate website, as shown in Table 2, that the management at Company ABC uses a standard methodology and clear and concise PM plan that is vital to helping managers successfully complete IT projects. The theme of providing a standard project methodology was consistent with situational leadership theory because the system includes leadership methods to prevent IT projects from failing, which can result from a desire to legitimize business decisions.

Interview responses indicated various ways of completing IT projects effectively by having a standard methodology and project plan that involves listening to the consumer's needs and developing project milestones. Company ABC interview responses included the statements "the methodology and project plan are important because it

effects the bottom line of the company" and "the methodology and project plan allows the projects to stay on time and within budget." Information on Company ABC's website indicated the company's management's role in completing IT projects. As Panas, Pantouvakis, and Lambropoulos (2014) pointed out, organizations implementing global IT projects must ensure the adaptation of their structures and project management methodologies. Results of the interviews in the current study, as noted in Table 2, indicated that management at Company ABC considers all aspects of IT projects in their IT project strategy. A standard methodology is important when developing and aligning IT projects with a business mission (Diaz Piraquive et al., 2015).

Interview responses indicated the importance of a project standard methodology at Company ABC in the specific initiatives within its IT project strategy, such as completing IT projects on time and within budget. Review of the corporate website further revealed the concept that management at Company ABC understands the successful completion of IT projects depends on a standard methodology, and they view their project methodology as essential to their long-term sustainability. Managers at Company ABC regard their project methodology as a valuable contributor to completing projects. IT managers in organizations achieve superior performance when determining a standard project methodology (Soderlund & Muller, 2014).

This second theme on the importance of project plans and a standard methodology also aligns with the literature, as revealed in the interview responses "This process lets me know I am working efficiently and staying within the scope of the project" and "we define a roadmap." Likewise, Petrou, Demerouti, and Schaufeli (2016) suggested that

methodology and project plans are important, and that establishing milestones and budgets are an essential part of IT project success. Bengesi and Rouz (2014) concluded that managers who have strategies focused on methodologies and project plans tend to have the most success. Other researchers have also found that project plans and a standard methodology are crucial to making a project successful (Pimchangthong & Boonjing, 2017). Member checking did not yield any additional information for Theme 2.

The review of archival document showed that Company ABC's leadership have strategies in place, such as standardized instructions and template, to create a standard methodology for the project team members to follow when completing projects. In addition, it showed that Company ABC's leadership values the importance of having a clear and concise methodology and plan because it helps to eliminate any questions, concerns, or confusion stakeholders may have regarding the various types of project timelines and budgets. One interview response also stated that "establishing project broader timelines and milestones is key." Moreover, the second theme aligned with Vecchio's (1987) situational leadership theory by demonstrating that the IT managers used leadership methods to prevent IT projects from failing to sustain the organization's profits. A growing number of managers in organizations are using a standard project methodology to implement new products, processes, and other types of change to maintain a competitive advantage (Teller, Kock, & Germunden, 2014). This finding indicates that the leadership at Company ABC included in this study are not only great leaders within their organization but also with stakeholders outside of the organization.

Applications to Professional Practice

This research is meaningful to the successful completion of IT projects in many ways. The main objective of the study was to explore participants' views about the strategies IT leaders use to successfully complete IT projects. The failure rates of IT projects have been an increasing concern for IT leaders (Sobragi, Gastaud Macada, & Oliveira, 2014). The findings from this study align with situational leadership as it pertains to the usefulness of technological innovations in the evaluation process of successfully completing IT projects in an organization (Bathallath et al., 2016; Weiss et al., 2016). Strategies to successfully complete IT projects benefit professional practices by (a) adding to business agility, (b) creating new business models, (c) reducing operational issues, (d) improving utilization of resources, and (e) reducing capital expense requirements to support IT organizations (Neves et al., 2016; Park & Kim, 2014).

The results of this study can be applied to IT PM strategies to successfully complete IT projects among IT professionals. Business and government leaders may gain a better understanding of why IT projects succeed or fail, and as a result can implement strategies to improve project success rates. For example, participants indicated that having the end user present throughout the entire PM process always ensured project success. Participants also stated that a project's life cycle as a subfactor of interactive communication with the customer was a critical success factor for the project. Developing an in-house training plan to improve the project life cycle among project leaders and applying those skills to a process that improves the persistent presence of the

end users in the PM plan is an inexpensive method of collaboration to improve project success.

Project success is attributable to the people executing the project in the most efficient way possible and having a clear focus on the customer and the customer's project requirement. Chen et al. (2016) suggested that customer involvement leads to project success, while Yao (2015) maintained that an absence of collaboration in the traditional PM process creates project isolation and leads to a lack of enterprise innovation. Tams and Hill (2015) noted that PM offers an organizational culture that contributes to project success. A culture of PM in the organization reinforces that a clearly defined requirement, in conjunction with the customer vision of the outcome up front, will lead to project success.

The IT project leaders who participated in this study identified standardized PM methodology as an important element of the PM process. PM describes different kinds of processes that can provide clarity to project and process efficiency and effectiveness, and improve time, cost, and quality (Sundqvist, Backlund, & Chronéer, 2014). Adopting PM methodologies from existing organizations, such as PMI, is a simple means of implementing this valuable component to improve PM processes within an organization.

Interactive communication with key stakeholders and customers is another soft skill needed to improve the overall project plans and goals at all levels of management. Eun Joo et al. (2015) reported that project life cycle as a social competency had a positive effect on strategic and economic outcomes because of the ability to perceive, effectively manage, and work with the emotions of others. Too and Weaver (2014) posited that a

clear link is necessary between project output and the requirements of the organization's business or operational strategy, as indicated through effective communication between the project leaders and customers. Developing a strategy to engage the key stakeholders throughout the PM process and getting the end users embedded into the process early is as simple as improving the project life cycle processes through internal training.

The project office structure should apply standardized PM processes and methodologies to improve rapid decision-making processes and speed product delivery, facilitated through the appropriate organizational structure to enhance operational support. Further, implementing rigorous PM strategies reinforces acquisition rigor. Diaz Piraquive et al. (2015) characterized a project by a set of coordinated actions involving diverse skills and resources to achieve a specific outcome in a defined time interval. Improving PM process areas surrounding PM review enhances value for the end users and project stakeholders through active participation and improves project performance as a function of performance, time, and scope.

Standard methodology enforces review and ongoing development of the existing processes and PM procedures. Standard methodology is an optimized process level of the PM model. Optimization is due to customer focus as a function of benchmarking, capturing lessons learned, and sharing knowledge gained. Many ways are available to capture and share lessons learned, track benchmark indices, and improve existing processes and procedures. One method noted was identifying a team within the project office to conduct standard methodology operations; another was sharing best practices at

a lunch-and-learn for project leaders. Using standard methodology was noted as one of the single most effective means of improving PM processes in the project office.

Implications for Social Change

The research study findings can be applied in numerous ways to effect social change in any organization. Investing in the IT project strategies to improve the success of completing IT projects on time and within budget within an organization may positively contribute to social change (Spalek, 2014). However, the investment could be as simple as time and effort expended to create improved PM situations. Too much variability among the current PM models in the market inhibits relying on one specific model. Mullaly (2014) found that PM models are not universal, and projects are not always linear. Project stakeholders within academic institutions, small and large businesses, government, and non-governmental organizations often do not have allocated funds to invest in PM process development (Mullaly, 2014). However, for example, an NFPO that does not have a commonly defined project office can identify and utilize best practices gleaned from other project offices and could adopt (a) IT PM methodologies and (b) interactive communication strategies to raise the PM culture of the organization (Rivera-Ruiz & Ferrer-Moreno, 2015). This should be conceivable without having to invest internal resources in a formal project office in order to realize the paybacks of repeatable project success (Coombs, 2015).

This simple aspect of this study can generate cost efficiencies and performance effectiveness through improved PM processes and justifiable development in PM, even if the increase is minimal (Sundqvist et al, 2014; Thompson, 2015). This could result in

positive structural changes to the organization, produce positive changes in project performance, and increase the probability of project success across the PM enterprise (Sundqvist et al., 2014). Some small businesses and marginally resourced organizations such as churches, charitable organizations, and educational foundations have realized economic benefits overall and have contributed to positive economic transference in the communities in which they provide support (Lappe & Spang, 2014). The result could be that any organization could extend larger amounts of resources and services to the recipients of such benevolent acts to improve the social conditions of the global society.

Recommendations for Action

IT managers in any organization should consider if the strategies revealed in this study align with their current IT project strategies to complete IT projects on time and within budget. Improving IT PM processes and inculcating a culture of PM within the greater organization increases value to the project sponsors and end users by improving performance as a function of performance, time, and scope. I recommend that project leaders and key stakeholders develop strategies to improve PM processes that precisely target (a) adopting a customer-focus culture by integrating the end user in the process to develop strong requirements, and (b) establishing a standardized methodology developed through the PM plan. The leaders of organizations that operate in unsettled environments have to make quick decisions to oversee and manage current and future operations. A project office that is poised to react within a fast decision-making sequence is in a better competitive position to survive the turbulent times (Albrecht & Spang, 2014; Spalek, 2014).

These recommendations apply correspondingly to a federal government acquisition office, a for-profit PMO, or an NPO portfolio management office that is managing projects to do charitable works. According to Wysocki (2014), the steps needed to reach useful action are through a classification of activities and events that have a singular purpose, goal, or objective, bound by time, budget, and specifications. Thus, project leadership should recognize a goal to inculcate the organization with a culture of PM and develops the steps necessary to withstand quality, deliver on time, and manage cost effectively.

IT managers at all levels in an organization who desire to increase the success of IT projects should pay attention to the results of this study. IT managers who are interested in finding strategies to complete IT projects on time and within budget should also consider the findings of this study. A student completing research may find the results from this study beneficial as well. Results from this study are disseminated through Walden University scholarly works for academic purposes. In addition, I might disseminate the results of this study to the stakeholders of the participant organizations of this study, my place of employment, and other interested parties via conferences, training seminars, journal articles, and other professional and peer-reviewed literature.

Recommendations for Further Research

The results from this study merit further exploration of strategies that IT leaders use to successfully complete IT projects for their organization to sustain productivity, growth, and competitive advantage (Nanavati, Colp, Aiello, & Warfield, 2014). The findings of this study warrant exploration of successful IT PM strategies needed from the

view of consumers of IT services and not just from those in IT leadership positions. Similarly, because this study was focused on the Central Texas, area, I recommend exploring the necessity for and impact of the strategies that IT leaders use to successfully complete IT projects within a different geographic location. I additionally suggest the exploration of strategies to successfully complete IT projects with a larger sample size or larger organization. I also propose conducting a study to compare the strategies that IT leaders use to successfully complete IT projects in for-profit versus non-profit organizations. A comparison between for-profit and non-profit business types may expose IT project strategies most appropriate for the budget allocations and operations for each business classification. The findings of this study merit additional exploration to study critical strategies for all businesses to explore the seminal factors for measuring the effectiveness of different IT project strategies. In addition, assessing the effect of IT project strategies on an organization's productivity and viability may be explored.

Future research may address the availability of the targeted group limitation of this study by leveraging a video conferencing service such as Skype. By leveraging a video conferencing service, the researcher can observe the visual aspects of data collection, such as facial expressions of the participant during an interview. Further research may also address the limitation of this study related to the inclusion of only IT leaders. In addition, future research may address the population size limitation of this study by expanding the geographical boundaries of the population sample. The results may also support IT leaders with the formulation strategies to successfully complete IT projects.

Reflections

This study provided me with an opportunity to work closely with IT leaders who are working with IT project strategies and to gain insights into their business and operations. I reviewed various organizational documents such as company policies, technical reports, and implementation documents for managing IT projects. This study also helped me learn about IT project management. This process was rigorous and time consuming, but ultimately rewarding.

I work for a global IT organization. Almost all products that the leaders in my company build, develop, and sell interface with an IT project. IT leaders in my organization also leverage IT projects to our internal customers. Because of the use of IT projects in my organization, I had the experience of working with IT projects mainly as a stakeholder of technical services. I did not design or implement IT projects for my organization. Also, I did not outline the processes related to strategies that IT leaders in my organization use to successfully complete IT projects. The discovery of strategies that IT leaders use to complete IT projects was a good learning experience for me. I remained very objective and reported information only by data collected. I made a conscious effort to ensure my personal experience and preconceived ideas were not reflected in the study. My background in IT and IT project management made it easier to understand the terminology and context in which participants spoke. My background also helped me analyze the technical documents collected during this research.

Particular reflections on the findings made me recognize that successful completion of an IT project may cause additional attenuations in staff in the organization.

IT leaders have to realize that they need to invest in marketable program management job training. This vocational training may provide employees with job skills that may benefit them in other roles that may or may not be within the employees' current organizations.

Additionally, I learned that costs associated with IT projects might not be obvious from hearing some participants' narratives about continuous operation of certain strategies being too costly during an IT project. IT leaders may find it reasonable to add other milestones and strategies to IT project management. However, IT leaders have to outline precisely what they want to accomplish using IT project strategies and determine how the costs could inhibit certain initiatives.

The interview participants were passionate during interviews. All participants gave me permission to call them in the future for further inquiries and explanation. They were looking forward to seeing the results of the study.

This research work was different from my job at the place of my employment. In my workplace, I have never collected and analyzed qualitative data of this volume. I now have a good understanding of the research process, and I may use these skills at my place of employment in future projects.

Summary and Study Conclusions

I used this qualitative single case study to explore the attitudes and opinions of participants about the strategies that IT leaders use to successfully complete IT projects on time and within budget for their organization. Two participants (IT leaders) who have experience with designing and deploying IT project solutions at their organization located in Central Texas, participated in interviews, and a review of company documents

augmented the interview data. Data analysis consisted of using NVivo 11, a qualitative analysis software tool. I conducted member checking to confirm the responses of the interview recordings. Member checking reduces the risk of misunderstanding (Morse & McEvoy, 2014). I achieved data saturation when no new themes emerged.

After collecting and analyzing data, two themes emerged from the data related to strategies affecting completion of IT projects: (a) providing good customer focus and (b) having a standard project methodology. My findings of the study indicated that IT leaders need strategies such as customer focus and standard methodology. The findings also indicated that IT leaders should understand the effective strategies and address any strategies preventing the success of IT projects.

References

Abildgaard, J., Saksvic, P., & Nielsen, K. (2016). How to measure the intervention process? An assessment of qualitative and quantitative approaches to data collection in the process evaluation of organizational interventions. *Frontiers in Psychology, 7,* 1-10. doi:10.3389/fpsyg.2016.01380

Adegbite, E. (2012). Corporate governance regulation in Nigeria. *Corporate Governance: International Journal of Business in Society*, *12*, 257-276. doi:10.1108/14720701211214124

Adesi, M., Owusu-Manu, D., & Badu, E. (2015). Rethinking methodology in project management consulting context. *International Journal of Construction Project Management, 7*(2), 79-100.

Ahlemann, F., Arbi, F. E., Kaiser, M. G., & Heck, A. (2013, January). A process framework for theoretically grounded prescriptive research in the project management field. *International Journal of Project Management, 31*(1), 43-56.

Ahmad, Z., Thaheem, M. J., & Maqsoom, A. (2018). Building information modeling as a risk transformer: An evolutionary insight into the project uncertainty. *Automation in Construction, 92,* 103-119. doi:10.1016/j.autcon.2018.03.032

Ajmal, M. M. (2015). Cultural effects on trust building in international projects' stakeholders. *International Journal of Information Technology Project Management (IJITPM), 6*(3), 41-57. doi:10.4018/IJITPM.2015070103

Alawneh, A., & Sweis, R. (2016). The relationship between the emotional intelligence level and the effectiveness of a project manager: The case of Jordan. *International Journal of Information, Business and Management*, *8*(3), 13-27.

Albrecht, J. C., & Spang, K. (2014). Linking the benefits of project management maturity to project complexity: Insights from a multiple-case study. *International Journal of Managing Projects in Business, 7*, 285-301. doi:10.1108/IJMPB-08- 2013-0040

Alilyyani, B., Wong, C. A., & Cummings, G. (2018). Antecedents, mediators, and outcomes of authentic leadership in healthcare: A systematic review. *International Journal of Nursing Studies, 83*, 34-64. doi:10.1016/j.ijnurstu.2018.04.001

Alley, S., Jackson, S., & Shakya, Y. (2015). Reflexivity: A methodological tool in the knowledge translation process? *Health Promotion Practice, 16*, 426-431. doi:10.1177/1524839914568344

Ameyaw, E. E., & Chan, A. P. C. (2015). Evaluation and ranking of risk factors in public-private partnership water supply projects in developing countries using fuzzy synthetic evaluation approach. *Expert Systems with Applications, 42*(12), 5102-5116. doi:10.1016/j.eswa.2015.02.041

Ando, H., Cousins, R., & Young, C. (2014). Achieving saturation in thematic analysis: Development and refinement of a codebook. *Comprehensive Psychology, 3*, 3-14. doi:10.2466/03.CP.3.4

Anney, V. (2014). Ensuring the quality of the findings of qualitative research: Looking at trustworthiness criteria. *Journal of Emerging Trends in Educational Research and Policy Studies,* 5, 272-281. Retrieved from https://www.questia.com/library /p439538/journal-of-emerging-trends-in-educational-research

Asl, I. M., Chavoshi, N., & Hosseinabad, M. H. (2015). Collectivism and customer orientation among nurses: A case study in Iran. *Asian Social Science, 11*, 221-226. doi:10.5539/ass.v11n13p221

Aubry, M., Müller, R., & Glückler, J. (2011). Exploring PMOs through the community of practice theory. *Project Management Journal, 42*(5), 42-56. doi:10.1002/pmj.20259

Aviles, M. E. (2015). *The impact of cloud computing in supply chain collaborative relationships, collaborative advantage and relational outcomes* (Doctoral dissertation). Retrieved from http://digitalcommons.georgiasouthern.edu/

Bailey, L. (2014). The origin and success of qualitative research. *International Journal of Market Research, 56,* 167-184. doi:10.2501/IJMR-2014-013

Barnham, C. (2016). Quantitative and qualitative research: Perceptual foundations. *International Journal of Market Research, 57*, 837-854. doi:10.2501/ijmr-2015-070

Barnwell, D., Nedrick, S., Rudolph, E., Sesay, M., & Wellen, W. (2014). Leadership of international and virtual project teams. *International Journal of Global Business, 7*(2), 1. Retrieved from http://www.gsmiijgb.com/Documents/IJGB%20V7%20N2%20P01%20Dwayne%20Barnwell%20 -International%20and%20Virtual%20Project%20Teams.pdf

Barratt, M. J., Ferris, J. A., & Lenton, S. (2015). Hidden populations, online purposive sampling, and external validity: Taking off the blindfold. *Field Methods, 27*, 3-21. doi:10.1177/1525822X14526838

Baskarada, S. (2014). Qualitative case study guidelines. *Qualitative Report, 19*, 1-18. Retrieved from http://nsuworks.nova.edu/tqr

Bathallath, S., Smedberg, Å., & Kjellin, H. (2016). Project interdependency management in IT/IS project portfolios: From a systems perspective. *Procedia Computer Science, 100,* 928. doi:10.1016/j.procs.2016.09.250

Bayiley, Y. T., & Teklu, G. K. (2016). Success factors and criteria in the management of international development projects: Evidence from projects funded by the European Union in Ethiopia. *International Journal of Managing Projects in Business, 9*(3), 562-582. doi:10.1108/IJMPB-06-2015-0046

Bengesi, K. M. K., & Roux, I. L. (2014). Strategic entrepreneurial response of small and medium enterprises in development economies. *International Journal of Business and Management, 9*, 153-165. doi:10.5539/ijbm.v9n2p153

Bengtsson, M. (2016). How to plan and perform a qualitative study using content analysis. *NursingPlus Open, 2*, 8-14. doi:10.1016/j.npls.2016.01.001

Bergin, M. (2011). NVivo 8 and consistency in data analysis: Reflecting on the use of a qualitative data analysis program. *Nurse Researcher, 18*(3), 6-12. Retrieved from https://www.researchgate.net/publication/51115895_NVivo_8_and_consistency_in_data_analysis_Reflecting_on_the_use_of_a_qualitative_data_analysis_program rseresearcher.rcnpublishing.co.uk

Bhatti, N., Maitlo, M. G., Shaikh, N., Hashmi, M. A., & Shaikh, F. M. (2012). The impact of autocratic and democratic leadership style on job satisfaction. *International Business Research, 5*, 192-201. doi:10.5539/ibr.v5n2p192

Binder, J. (2016). *Global project management: Communication, collaboration and management across borders*. Boca Raton, FL: CRC Press.

Bindrees, M. A., Pooley, R. J., Ibrahim, I. S., & Bental, D. S. (2014). How public organisational structures influence software development processes. *Journal of Computer Science, 10*, 2593-2607. doi:10.3844/jcssp.2014.2593.2607

Boddy, C. R. (2011). "Hanging around with people": Ethnography in marketing research and intelligence gathering. *Marketing Review, 11*, 151-163. doi:10.1362/146934711X589381

Boehm, B. W. (1989). *Software risk management tutorial*. Washington, DC: IEEE Computer Society.

Bogers, M. (2011). The open innovation paradox: Knowledge sharing and protection in R&D collaborations. *European Journal of Innovation Management, 14*(1), 93-117. doi:10.1108/14601061111104715

Bommel, V. K. (2014). Towards a legitimate compromise? An exploration of integrated reporting in the Netherlands. *Accounting, Auditing & Accountability Journal, 27*, 1157-1189. doi:10.1108/AAAJ-04-2013-1309

Borrego, M., Foster, M. J., & Froyd, J. E. (2014). Systematic literature reviews in engineering education and other developing interdisciplinary fields. *Journal of Engineering Education, 103*, 45-76. doi:10.1002/jee.20038

Botsford Morgan, W., Perry, S. J., & Wang, Y. (2018). The angry implications of work-to-family conflict: Examining effects of leadership on an emotion-based model of deviance. *Journal of Vocational Behavior*, *108,* 13-27. doi:10.1016/j.jvb.2018.05.009

Branham, C. (2015). Quantitative and qualitative research. *International Journal of Market Research, 57*, 837-854. doi:10.2501/IJMR-2015-070

Brayda, W., & Boyce, T. (2014). So you really want to interview me? Navigating "sensitive" qualitative research interviewing. *International Journal of Qualitative Methods*, *13*(1), 318-334. doi:10.1177/160940691401300115

Brocke, J., & Lippe, S. (2015). Managing collaborative research projects: A synthesis of project management literature and directives for future research. *International Journal of Project Management, 33*(5), 1022-1039.

Brown, P., Fraser, K., Wong, C. A., Muise, M., & Cummings, G. (2012). Factors influencing intentions to stay and retention of nurse managers: A systematic review. *Journal of Nursing Management, 21*, 459-472. doi:10.1111/j.1365-2834.2012.01352.x

Brutus, S., Aguinis, H., & Wassmer, U. (2013). Self-reported limitations and future directions in scholarly reports analysis and recommendations. *Journal of Management, 39*, 48-75. doi:10.1177/0149206312455245

Buchanan, D. A., Denyer, D., Jaina, J., Kelliher, C., Moore, C., Parry, E., & Pilbeam, C. (2013). How do they manage? A qualitative study of the realities of middle and front-line management work in health care. *Health Services and Delivery Research, 1*. doi:10.3310/hsdr01040

Buvik, M. P., & Rolfsen, M. (2015). Prior ties and trust development in project teams: A case study from the construction industry. *International Journal of Project Management, 33*(7), 1484-1494. doi:10.1016/j.ijproman.2015.06.002

Camfield, L., & Palmer-Jones, R. (2013). Improving the quality of development research: What could archiving qualitative data for reanalysis and revisiting research sites contribute? *Progress in Development Studies, 13*, 323-338. doi:10.1177/1464993413490481

Cârstea, C. (2014). IT project management—cost, time and quality. *Economy Transdisciplinary Cognition, 17*(1), 28.

Carvalho, M. D., Patah, L. A., & de Souza Bido, D. (2015). Project management and its effects on project success: Cross-country and cross-industry comparisons. *International Journal of Project Management, 33*(7), 1509-1522. doi:10.1016/j.ijproman.2015.04.004

Carvalho, M. M. D., & Rabechini Jr., R. (2015). Impact of risk management on project performance: The importance of soft skills. *International Journal of Production Research, 53*(2), 321-340. doi:10.1080/00207543.2014.919423

Cecez-Kecmanovic, D., Kautz, K., & Abrahall, R. (2014). Reframing success and failure of information systems: A performative perspective. *MIS Quarterly, 38,* 561-588. Retrieved from http://misq.org/

Chandler, J. (2013). Seven pillars of wisdom. *International Journal of Market Research, 55,* 627-650. doi:10.2501/IJMR-2013-042

Chemuturi, M. (2013). *Mastering IT project management: Best practices, tools and techniques*. Plantation, FL: J. Ross.

Chen, C., Lee, G., & Chou, T. (2016). A process model for bricolage-based resource co-management for a resource-constrained government IT project. *Information Technology & People, 29*(1), 200. doi:10.1108/ITP-05-2014-0099

Chen, H. L. (2011). Predictors of project performance and the likelihood of project success. *Journal of International Management Studies, 6*(2), 101-110. Retrieved from http://www.jimsjournal.org

Chen, P. S., Yen, D. C., Lin, S., & Chou, C. S. (2018). Toward an IT investment decision support model for global enterprises. *Computer Standards & Interfaces, 59,* 130-140. doi:10.1016/j.csi.2018.04.001

Cheng, B., I. Ioannou, & G. Serafeim. (2014). Corporate social responsibility and access to finance. *Strategic Management Journal, 35*(1), 1-23. doi:10.1002/smj.2131

Chipulu, M., Ojiako, U., Gardiner, P., Williams, T., Mota, C., Maguire, S., . . . Marshall, A. (2014). Exploring the impact of cultural values on project performance. *International Journal of Operations & Production Management, 34*(3), 364-389. doi:10.1108/ijopm-04-2012-0156

Choudrie, J., & Culkin, N. (2013). A qualitative study of innovation diffusion: The novel case of a small firm and KTP. *Journal of Small Business and Enterprise Development, 20*, 889-912. doi:10.1108/jsbed-03-2012-0047

Chow, A. F., Woodford, K. C., & Lambe, N. (2014). Using project deliverables and project management for timely completion of student projects. *Journal of Emerging Trends in Economics and Management Sciences, 5*, 323-329. Retrieved from http://jetems.scholarlinkresearch.com

Chowdhury, M. (2015). Coding, sorting and sifting of qualitative data analysis: Debates and discussion. *Quality & Quantity, 49*, 1135-1143. doi:10.1007/s11135-014-0039-2

Christopher, M., Mena, C., Khan, O., & Yurt, O. (2011). Approaches to managing global sourcing risk. *Supply Chain Management: An International Journal*, *16*, 67-81. doi:10.1108/13598541111115338

Clanak, I. (2014). "What's wrong with my company?" Sociological answers from unstructured interviewing. *Scientific Journal for Theory and Practice of Socioeconomic Development, 3*, 21-36. doi:10.12803/SJSECO.357614

Clinning, G., & Marnewick, C. (2017). Incorporating sustainability into IT project management in South Africa. *South African Computer Journal*, *29*(1), 1. doi:10.18489/sacj.v29i1.398

Collins, C. S., & Cooper, J. E. (2014). Emotional intelligence and the qualitative researcher. *International Journal of Qualitative Methods, 13*, 88-103. doi:10.1177/160940691401300134

Coombs, C. R. (2015). When planned IS/IT project benefits are not realized: A study of inhibitors and facilitators to benefits realization. *International Journal of Project Management, 33*, 363-379. doi:10.1016/j.ijproman.2014.06.012

Cooper, M. (2016). *The economic and institutional foundations of the Paris agreement on climate change: The political economy of roadmaps to a sustainable electricity future*. Retrieved from http://wwwassets.vermontlaw.edu/Assets/iee /Economic_and_Institutional_Foundations_of_the_Paris_Agreement.pdf

Corti, L., & Van den Eynden, V. (2015). Learning to manage and share data: Jumpstarting the research methods curriculum. *International Journal of Social Research Methodology, 5*, 545-559. doi:10.1080/13645579.2015.1062627

Curtis, E. A., de Vries, J., & Sheerin, F. K. (2011). Developing leadership in nursing: Exploring core factors. *British Journal of Nursing*, *20*, 306-309. doi:10.12968/bjon.2011.20.5.306

Dai, H., Luo, X., Liao, Q., & Cao, M. (2015). Explaining consumer satisfaction of services: The role of innovativeness and emotion in an electronic mediated environment. *Decision Support Systems, 70,* 97-106. doi:10.1016/j.dss.2014.12.003

Davis, K. (2014). Different stakeholder groups and their perceptions of project success. *International Journal of Project Management, 32*(2), 189-201. doi:10.1016/j.ijproman.2013.02.006

Davison, R., & Martinsons, M. (2016). Context is king! Considering particularism in research design and reporting. *Journal of Information Technology, 341,* 241-249. doi:10.1057/jit.2015.19

De Luna, O. (2011). *Administrator development from transactional to transformational leadership under the federal and state accountability mandates* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3465166)

de Montigny, G. (2018). Social workers' peculiar contribution to ethnographic research. *Qualitative Social Work, 17*(3), 452-468. doi:10.1177/1473325016678310

Dede, C., & Ho, A. (2016, August 22). Big data analysis in higher education: Promises and pitfalls. *EDUCAUSE Review, 51*(5). Retrieved from https://er.educause.edu/articles/2016/8/big-data-analysis-in-higher-education-promises-and-pitfalls

Derue, D. S., Nahrgang, J. D., Wellman, N. E. D., & Humphrey, S. E. (2011). Trait and behavioral theories of leadership: An integration and meta-analytic test of their relative validity. *Personnel Psychology, 64*, 7-52. doi:10.1111/j.1744-6570.2010.01201.x

Díaz, C. R. R., Agdas, D., & Alvarado, C. A. B. (2014). Megaprojects managements in Ecuador: Challenges and opportunities. *Twelfth LACCEI Latin American and Caribbean Conference for Engineering and Technology*, 1-2.

Diaz Piraquive, F. N., Gonzalez Crespo, R., & Medina Garcia, V. H. (2015). Failure cases in IT project management. *IEEE Latin America Transactions*, *13*(7), 2366. doi:10.1109/TLA.2015.7273799

Dresch, A., Lacerda, D., Cauchick, M., & Augusto, P. (2015). A distinct analysis of case study, action research and design, science research. *Revista Brasileira de Gestão de Negócios, 17*, 1116-1133. doi:10.7819/rbgn.v17i56.2069

Drob, C., & Zichil, V. (2013). Overview regarding the main guidelines, standards and methodologies used in project management. *Journal of Engineering Studies and Research, 19*(3), 26-31.

Drouin, N., & Jugdev, K. (2014). Standing on the shoulders of strategic management giants to advance organizational project management. *International Journal of Managing Projects in Business, 7*(1), 61-77. doi:10.1108/IJMPB-04-2013-0021

Eitkan, S., Musa, S., & Alkassim, R. (2015). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics, 5*, 1-4. doi:10.11648/j.ajtas.20160501.11

El Yamami, A., Ahriz, S., Mansouri, K., Qbadou, M., & Illousamen, E. H. (2017). Representing IT projects risk management best practices as a metamodel. *Engineering, Technology & Applied Science Research, 7*(5), 2062.

Elnour, G. A. A. (2016). Project management system (PMS), set up and development for DAL property development company. *Journal of Building and Road Research, 14*(1). Retrieved from http://ejournals.uofk.edu/index.php/JBRR/article/view/751/767

Elo, S., Kaariainen, M., Kanste, O., Polkki, T., Utriainen, K., & Kyngas, H. (2014). Qualitative content analysis: A focus on trustworthiness. *Sage Open, 4*, 1-10. doi:10.1177/2158244014522633

Elsawah, S., Guillaume, J. S. A., Filatova, T., Rook, J., & Jakeman, A. J. (2015). A methodology for eliciting, representing, and analyzing stakeholder knowledge for decision making on complex socio-ecological systems: From cognitive maps to agent-based models. *Journal of Environmental Management, 151*, 500-516. Retrieved from www.elsevier.com

Enosh, G., & Ben-Ari, A. (2016). Reflexivity: The creation of liminal spaces—Researchers, participants, and research encounters. *Qualitative Health Research, 26*, 578-584. doi:10.1177/1049732315587878

Erez, A., Schilpzand, P., Leavitt, K., Woolum, A. H., & Judge, T. A. (2015). Inherently relational: Interactions between peers' and individuals' personalities impact reward giving and appraisal of individual performance. *Academy of Management Journal, 58*(6), 1761-1784. doi:10.5465/amj.2011.0214

Espinosa, J. A., DeLone, W., & Lee, G. (2006). Global boundaries, task processes and IS project success: A field study. *Information Technology & People*, *19*, 345-370. doi:10.1108/09593840610718036

Esquierro, J. C., Bittencourt do Valle, A., Pereira Soares, C. A., & Castro Vivas, D. (2014). Implementation of a project management office in a public sector organization: A case study involving a sanitation institution. *International Review of Management and Marketing, 4*, 1-12. Retrieved from http://www.econjournals.com

Eubanks, D. L., Palanski, M., Olabisi, J., Joinson, A., & Dove, J. (2016). Team dynamics in virtual, partially distributed teams: Optimal role fulfillment. *Computers in Human Behavior, 61*, 556-568. doi:10.1016/j.chb.2016.03.035

Eun Joo, J., Ji Hwan, B., & Seung Ryul, J. (2015). Guidelines aimed at reducing the risks of user acceptance delay in the context of an IT service project management plan. *International Journal of Electrical & Computer Engineering (2088-8708), 5*(4), 832.

Faokunla, O. A. (2012). *Government-to-government E-government: A case study of a federal financial program* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3498055)

Finfgeld-Connett, D. (2014). Use of content analysis to conduct knowledge-building and theory-generating qualitative systematic reviews. *Qualitative Research, 14*, 341-352. doi:10.1177/1468794113481790

Fjellstorm, D., & Guttormsen, D. (2014). A critical exploration of "access" in qualitative international business field research. *Journal of Business Research, 11*, 110-126. doi:10.1108/QROM-05-2014-1225

Flick, U. (2015). Developments, trends, and challenges for the politics of research. *Qualitative Inquiry, 21*, 599-608. doi:10.1177/1077800415583296

Foe, G., & Larson, E. (2016). Reading level and comprehension of research consent forms: An integrative review. *Journal of Empirical Research on Human Research Ethics, 11*, 31-46. doi:10.1177/1556264616637483

Ford, R. C. (2014). Prime time: The strategic use of subconscious priming to enhance customer satisfaction. *Business Horizons, 57*, 269-277. doi:10.1016/j.bushor.2013.11.010

Franken, M., Branson, C., & Penney, D. (2018). A theory-to-practice leadership learning arrangement in a university context. *International Journal of Leadership in Education*, *21*(4), 491-505. doi:10.1080/13603124.2016.1247196

Fugard, A., & Potts, H. (2015). Supporting thinking on sample sizes for thematic analyses: A quantitative tool. *International Journal of Social Research, 8*, 669-684. doi:10.1080/13645579.2015.1005453

Fusch, P., & Ness, L. (2015). Are we there yet? Data saturation in qualitative research. *Qualitative Report, 9*, 1408-1416. Retrieved from http://www.nova.edu/ssss/QR

Garel, G. (2013). A history of project management models: From pre-models to the standard models. *International Journal of Project Management, 31*, 663-669. doi:10.1016/j.ijproman.2012.12.011

Garrett-Howard, C. (2012). *Factors influencing advancement of women senior leaders in aerospace companies* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3495166)

Gaynor, B. D. (2017). *Success strategies of Latin American immigrant small business entrepreneurs* (Doctoral dissertation). Retrieved from https://ezp.waldenulibrary.org/login?url=https://search-proquest-com.ezp.waldenulibrary.org/docview/1972605682?accountid=14872

Gemünden, H. G., & Aubry, M. (2015). Success, learning, and risk. *Project Management Journal, 46*(4), 3-5. doi:10.1002/pmj.21519

Germain, M. (2012). Traits and skills theories as the nexus between leadership and expertise: Reality or fallacy? *Performance Improvement, 51*, 32-39. doi:10.1002/pfi.21265

Getz, L. M., & Roy, M. M. (2013). Student leadership perceptions in South Africa and the United States. *International Journal of Psychological Studies*, *5*(2). doi:10.5539/ijps.v5n2p1

Gill, C., Gardner, W., Claeys, J., & Vangronsvelt, K. (2018). Using theory on authentic leadership to build a strong human resource management system. *Human Resource Management Review, 28*, 304-318. doi:10.1016/j.hrmr.2018.02.006

Golini, R., Kalchschmidt, M., & Landoni, P. (2015). Adoption of project management practices: The impact on international development projects of non-governmental organizations. *International Journal of Project Management, 33*(3), 650-663. doi:10.1016/j.ijproman.2014.09.006

Gonzales, M. (2012). *The role of emotional intelligence (EI) in project management over the next five years*. Retrieved from http://www.projectmanagement.com/white-papers/254888/The-Role-of-Emotional-Intelligence-in-Project-Management-Over-the-Next-Five-Years

Greenfield, G., Ignatowicz, A., Gnani, S., Bucktowonsing, M., Ladbrooke, T., Millington, H., . . . Majeed, A. (2016). Staff perceptions on patient motives for attending GP-led urgent care centres in London: A qualitative study. *BMJ Open, 6*(1), e007683. doi:10.1136/bmjopen-2015-007683

Griffiths, M. (2014). Consumer acquiescence to informed consent: The influence of vulnerability, trust and suspicion. *Journal of Consumer Behavior, 13,* 207-235. doi:10.1362/147539214X14103453768741

Gu, V. C., Hoffman, J. J., Cao, Q., & Schniederjans, M. J. (2014). The effects of organizational culture and environmental pressures on IT project performance: A moderation perspective. *International Journal of Project Management, 32*(7), 1170-1181. doi:10.1016/j.ijproman.2013.12.003

Guercini, S. (2014). New qualitative research methodologies in management. *Management Decisions, 52,* 662-674. doi:10.1108/MD-11-2013-0592

Guillaume-Joseph, G., & Wasek, J. S. (2016). Improving software project outcomes through predictive analytics: Part 1. *IEEE Engineering Management Review, 43*(3), 26-38.

Gummesson, E. (2014). Service research methodology: From case study research to the case theory. *Iberoamerican Journal of Strategic Management (IJSM), 13*, 9-17. doi:10.5585/riae.v13i4.2180

Guzys, D., Dickson-Swift, V., Kenny, A., & Threlkeld, G. (2015). Gadamerian philosophical hermeneutics as a useful methodological framework for the Delphi technique. *International Journal of Qualitative Student Health and Well-Being, 10*, 262-291. doi:10.3402/qhw.v10.26291

Haak-Saheem, W., & Darwish, T. (2014). The role of knowledge management in creating a culture of learning. *Management Decision, 52*, 1611-1629. doi:10.1108/md-08-2013-0427

Harris, J., & Mayo, P. (2018). Taking a case study approach to assessing alternative leadership models in health care. *British Journal of Nursing, 27*(11), 608-613. doi:10.12968/bjon.2018.27.11.608

Harvey, L. (2015). Beyond member-checking: A dialogic approach to the research interview. *International Journal of Research & Methods in Education, 38*, 23-38. doi:10.1080/1743727X.2014.914487

Heeks, R., & Stanforth, C. (2014). Understanding development project implementation: An actor-network perspective. *Public Administration and Development, 34*(1), 14-31. doi:10.1002/pad.1671

Henriques, G. (2014). In search of collective experience and meaning: A transcendental phenomenological methodology for organizational research. *Human Studies, 37*, 451-468. doi:10.1007/s10746-014-9332-2

Hepworth, A., Misopoulos, F., Manthou, V., Dyer, R., & Michaelides, R. (2017). Exploring ad-hoc portfolio management: Does it work, and is it the flexibility that supports project portfolio management? *Procedia Computer Science, 121,* 345. doi:10.1016/j.procs.2017.11.047

Hernandez, M., Eberly, M. B., Avolio, B. J., & Johnson, M. D. (2011). The loci and mechanisms of leadership: Exploring a more comprehensive view of leadership theory. *Leadership Quarterly, 22,* 1165-1185. doi:10.1016/j.leaqua.2011.09.009

Hernandez-Hernandez, F., & Sancho-Gil, J. (2015). A learning process within an education research group: An approach to learning qualitative research methods. *International Journal of Social Research Methodology, 18,* 651-667. doi:10.1080/13645579.2015.1049468

Hidding, G. J., & Nicholas, J. M. (2017). A new way of thinking about IT project management practices: Early empirical results. *Journal of Organizational Computing & Electronic Commerce, 27*(1), 81. doi:10.1080/10919392.2016.1263113

Higgins, L., & Hamilton, K. (2014). Faith, hope and love: Doing family through consuming pilgrimage. *Journal of Marketing Management, 30,* 1577-1596. doi:10.1080/0267257X.2014.929162

Hirzel, A., Leyer, M., & Moormann, J. (2017). The role of employee empowerment in the implementation of continuous improvement: Evidence from a case study of a financial services provider. *International Journal of Operations & Production Management, 37,* 1563-1579. doi:10.1108/IJOPM-12-2015-0780

Hoon, S. J., Kolb, J. A., Hee Lee, U., & Kyoung Kim, H. (2012). Role of transformational leadership in effective organizational knowledge creation practices: Mediating effects of employees' work engagement. *Human Resource Development Quarterly, 23*(1), 65-101. doi:10.1002/hrdq.21120

Huckabee, W. A. (2015). Requirements engineering in an agile software development environment. *Defense Acquisition Research Journal, 22*, 394-415. Retrieved from http://www.dau.mil/publications/DefenseARJ/default.aspx

Hughes, D. L., Dwivedi, Y. K., Simintiras, A. C., & Rana, N. P. (2015). *Success and failure of IS*. New York, NY: Springer.

Hussein, A. (2015). The use of triangulation in social sciences research: Can qualitative and quantitative methods be combined? *Journal of Comparative Social Work, 4*, 21-35. Retrieved from http://journal.uia.no/index.php/JCSW

Hwang, B. G., & Ng, W. J. (2013). Project management knowledge and skills for green construction: Overcoming challenges. *International Journal of Project Management, 31*(2), 272-284. doi:10.1016/j.ijproman.2012.05.004

Hyett, N., Kenny, A., & Dickson-Swift, V. (2014). Methodology or method? A critical review of qualitative case study reports. *International Journal of Qualitative Studies on Health and Well-Being, 9*, 1-13. doi:10.3402/qhw.v9.23606

Idoine, C., & Herschel, G. (2016, November 28). *Combine predictive and prescriptive analytics to drive high-impact decisions*. Retrieved from Gartner website: https://www.gartner.com/doc/3527018/combine-predictive-prescriptive-analytics-drive

Ika, L. A., & Hodgson, D. (2014). Learning from international development projects: Blending critical project studies and critical development studies. *International Journal of Project Management, 32*(7), 1182-1196. doi:10.1016/j.ijproman.2014.01.004

Ikemoto, M. N., Gantman, S., & Chaves, M. S. (2017). Use of social media in IT project management: A literature review based on hermeneutics and a research agenda. *Iberoamerican Journal of Project Management, 8*(1), 87-107.

Irvine, A., Drew, P., & Sainsbury, R. (2013). Am I not answering your questions properly? Clarification, adequacy and responsiveness in semistructured telephone and face-to-face interviews. *Qualitative Research, 13*(1), 87-106. doi:10.1177/1468794112439086

Izmailov, A., Korneva, D., & Kozemiakin, A. (2016). Project management using the buffers of time and resources. *Social and Behavioral Sciences, 235,* 189-197.

Javani, B., & Rwelamila, P. D. (2016). Risk management in IT projects—A case of the South African public sector. *International Journal of Managing Projects in Business*, *9*(2), 389. doi:10.1108/IJMPB-07-2015-0055

Jiang, J. J., & Klein, G. (2014). Special section: IT project management. *Journal of Management Information Systems*, *31*(1), 13. doi:10.2753/MIS0742-1222310101

Jordan, S. (2014). Research integrity, image manipulation, and anonymizing photographs in visual social science research. *International Journal of Social Research Methodology, 17*, 441-454. doi:10.1080/13645579.2012.759333

Joslin, R., & Muller, R. (2015). Relationships between a project management methodology and project success in different project governance contexts. *International Journal of Project Management, 33*(6), 1377-1392. doi:10.1016/j.ijproman.2015.03.00

Kairys, M. R. (2018). The influence of gender on leadership in education management. *International Journal of Educational Management, 32*(5), 931-941. doi:10.1108/IJEM-04-2017-0094

Kamisan, P. A., & King, B. E. M. (2013). Transactional and transformational leadership: A comparative study of the difference between Tony Fernandes (Airasia) and Idris Jala (Malaysia Airlines) leadership styles from 2005-2009. *International Journal of Business and Management, 43*, 4-23. doi:10.1002/pmj.21267

Kappagomtula, C. L. (2014). A study on Chinese management style for projects-recipe for growing economies of the world. *Asian Education and Development Studies, 3*(2), 150-162. doi:10.1108/AEDS-08-2012-003

Keil, M., Smith, H. J., Iacovou, C. L., & Thompson, R. L. (2014). The dynamics of IT project status reporting: A self-reinforcing cycle of distrust. *Journal of the Association for Information Systems, 15*, 879-912. Retrieved from http://aisel.aisnet.org/jais/

Kemparaj, U., & Chavan, U. (2013). Qualitative research: A brief description. *Indian Journal of Medical Sciences, 67*, 89-98. doi:10.4103/0019-5359.121127

Kerski, J. J., Demirci, A., & Milson, A. J. (2014). The global landscape of GIS in secondary education. *Journal of Geography, 112*, 232-247. doi:10.1080/00221341.2013.801506

Khalema, L. S., van Waveren, C. C., & Chan, K. Y. (2015). The relationship between project management office maturity and organizational project management maturity: An empirical study of the South African government infrastructure departments. *South African Journal of Industrial Engineering*, *26*(3), 12-26. doi:10.7166/26-3-1021

Kim, C., Kim, J., Hong, T., Koo, B., Jeong, K., & Park, H. S. (2015). A program-level management system for the life cycle environmental and economic assessment of complex building projects. *Environmental Impact Assessment Review*, *54*(1), 9-21. doi:10.1016/j.eiar.2015.04.005

Knepp, M. (2014). Personality, sex of participant, and face-to-face interaction affect reading of informed consent forms. *Psychological Reports, 114*, 297-313. doi:10.2466/17.07.PR0.114k13w1

Kornbluh, M. (2015). Combatting challenges to establishing trustworthiness in qualitative research, *Qualitative Research in Psychology, 12*, 397-414. doi:10.1080/14780887.2015.1021941

Koskinen, K. U. (2010). *Autopoietic knowledge systems in project-based companies*. London, England: Palgrave Macmillan.

Krajčík, V., & Vlček, P. (2018). The Papris methodology verification: Using the implementation of specific information system for public administration. *Creative & Knowledge Society*, *6*(2), 1. doi:10.1515/cks-2016-0009

Kroll, A., & Moynihan, D. (2015). Does training matter? Evidence from performance management reforms. *Public Administration Review, 75*, 411-420. doi:10.1111/puar.12331

Kubilus, N. J. (2016). Avoiding failure with higher education technology project. *EDUCAUSE Review*, *51*(4). Retrieved from https://er.educause.edu/~/media/files/articles/2016/6/erm1645.pdf

Kukreja, S., Singhal, A., & Bansal, A. (2015). A critical survey on test management in IT projects. *International Conference on Computing, Communication & Automation*, *791*. doi:10.1109/CCAA.2015.7148481

Lang, D. J., Wiek, A., Bergmann, M., Stauffacher, M., Martens, P., Moll, P., . . . Thomas, C. J. (2012). Transdisciplinary research in sustainability science: Practice, principles, and challenges. *Sustainability Science, 7,* 25-43. doi:10.1007/s11625-011-0149-x

Lappe, M., & Spang, K. (2014). Investments in project management are profitable: A case study-based analysis of the relationship between the costs and benefits of project management. *International Journal of Project Management, 32*(4), 603-612. doi:10.1016/j.ijproman.2013.10.005

Laslo, Z., & Gurevich, G. (2014). Enhancing project on time within budget performance by implementing proper control routines. *Management—Journal for Theory and Practice of Management, 19*(72), 53-69. doi:10.7595/management.fon.2014.0019

Leech, N., & Onwuegbuzie, A. (2011). Beyond constant comparison qualitative data analysis: Using NVivo. *School Psychology Quarterly, 26*, 70-84. doi:10.1037/a0022711

Lemaire, R. H., & Provan, K. G. (2018). Managing collaborative effort: How Simmelian ties advance public sector networks. *American Review of Public Administration, 48*(5), 379. doi:10.1177/0275074017700722

Lewin, K., Lippitt, R., & White, R. K. (1939). Patterns of aggressive behavior in experimentally created social climates. *Journal of Social Psychology, 10*, 271-299. Retrieved from http://www.tandfonline.com/toc/vsoc20/current#.VLM0Pntmrmd

Lin, K. H., Huang, K. F., & Peng, Y. P. (2014). Impact of export market orientation on export performance: A relational perspective. *Baltic Journal of Management, 9*(4), 403-425.

Liu, J. W., Chang, J. Y. T., & Tsai, J. C. A. (2015). Does perceived value mediate the relationship between service traits and client satisfaction in the Software-as-a-Service (SaaS)? *Open Journal of Social Sciences, 3*(7), 159-165. doi:10.4236/jss.2015.37026

Lo, J. Y., & Li, H. (2018). In the eyes of the beholder: The effect of participant diversity on perceived merits of collaborative innovations. *Research Policy, 47*, 1229-1242. doi:10.1016/j.respol.2018.04.006

Lu, F., Bi, H., Huang, M., & Duan, S. (2017). Simulated annealing genetic algorithm based schedule risk management of IT outsourcing project. *Mathematical Problems in Engineering, 1*. doi:10.1155/2017/6916575

Maina, C., & Gathenya, J. (2014). Influence of economic factors on performance of project management among petroleum marketing firms in Kenya. *International Journal of Academic Research in Business and Social Sciences, 4*(6), 146-173. doi:10.6007/IJARBSS/v4-i6/933

Malterud, K., Siersma, V., & Guassora, A. (2015). Sample size in qualitative interview studies: Guided by information power. *Qualitative Health Research*, 1-8. doi:10.1177/1049732315617444

Martin, J., & Desmond, A. (2013). Organisational culture of construction project managers in the GCC countries. *Engineering, Construction and Architectural Management, 20*(5), 461-473. doi:10.1108/ECAM-01-2012-0004

Mathew, M., & Gupta, K. (2015). Transformational leadership: Emotional intelligence. *SCMS Journal of Indian Management, 12*, 75-89. Retrieved from http://www.scmsgroup.org/scmsjim/journals-2013.html

Mathur, G., Jugdev, K., & Fung, T. S. (2013). Project management assets and project management performance outcomes: Exploratory factor analysis. *Management Research Review, 36*(2), 112-135. doi:10.1108/01409171311292234

Mayer, I. (2015). Qualitative research with a focus on qualitative data analysis. *International Journal of Sales, Retail & Marketing, 4*, 53-67. Retrieved from http://www.ijsrm.com/ijsrm/

Mazur, A., Pisarski, A., Chang, A., & Ashkanasy, N. M. (2014). Rating defence major project success: The role of personal attributes and stakeholder relationships. *International Journal of Project Management, 32*(6), 944-957. doi:10.1016/j.ijproman.2013.10.018

McAdam, R., Miller, K., & McSorley, C. (2016). Towards a contingency theory perspective of quality management in enabling strategic alignment. *International Journal of Production Economics*. doi:10.1016/j.ijpe.2016.07.003

McIntosh, M., & Morse, J. (2015). Situating and constructing diversity in semistructured interviews. *Global Qualitative Nursing Research, 5*, 1-12. doi:10.1177/2333393615597674

Meng, X., & Boyd, P. (2017). The role of the project manager in relationship management. *International Journal of Project Management, 35*(5), 717-728. Retrieved from http://www.sciencedirect.com/science/journal/02637863

Merriam, S. B. (1998). *Qualitative research and case study applications in education.* San Francisco, CA: Jossey-Bass.

Metzger, L., & Guenther, I. (2015). How to assess the effectiveness of development aid projects: Evaluation ratings versus project indicators. *Journal of International Development, 27*(8), 1496-1520. doi:10.1002/jid.3189

Michie, J., & Zumitzavan, V. (2012). The impact of "learning" and "leadership" management styles on organizational outcomes: A study of tyre firms in Thailand. *Asia Pacific Business Review, 18,* 607-630. doi:10.1080/13602381.2012.694724

Mignerat, M., & Rivard, S. (2012). The institutionalization of information system project management practices. *Information and Organization, 22,* 125-153. doi:10.1016/j.infoandorg.2012.01.003

Mihalcin, M. J., Mazzuchi, T. A., Sarkani, S., & Dever, J. R. (2014). Quality control: An approach applying multivariate control charts during the operation of systems involving human processes. *Systems Engineering, 17,* 204-212. doi:10.1002/sys.21263

Mikkonen, K., Kyngäs, H., & Kaariainen, M. (2015). Nursing students' experiences of the empathy of their teachers: A qualitative study. *Advances in Health Sciences Education, 20,* 669-682. doi:10.1007/s10459-014-9554-0

Miller, L., & Kelber, J. W. (2015). Using options pricing theory to value safety & ergonomics projects: A case study. *Review of Business & Finance Studies, 6*(2), 75-84. Retrieved from http://www.theibfr2.com

Mir, F. A., & Pinnington, A. H. (2014). Exploring the value of project management: Linking project management performance and project success. *International Journal of Project Management, 32*(2), 202-217. doi:10.1016/j.ijproman.2013.05.012

Mohamed, N., & Kaur a/p Gian Singh, J. (2012). A conceptual framework for information technology governance effectiveness in private organizations. *Information Management & Computer Security, 20*, 88-106. doi:10.1108/09685221211235616

Mojtahed, R., Baptista, N., Tiago, M., & Peng A. (2014). Interviews and decision making maps. *Electronic Journal of Business Research Methods, 12*, 87-95. Retrieved from: http://www.ejbrm.com/

Morabito, M. S., & Shelley, T. O. (2018). Constrained agency theory and leadership: A new perspective to understand how female police officers overcome the structural and social impediments to promotion. *Feminist Criminology, 13*(3), 287. doi:10.1177/1557085118763104

Morse, A., & McEvoy, C. D. (2014). Qualitative research in sport management: Case study as a methodological approach. *Qualitative Report, 19*(31), 1-13. Retrieved from http://nsuworks.nova.edu/tqr

Morse, W., Lowery, D., & Steury, T. (2014). Exploring saturation of themes and spatial locations in qualitative public participation geographic information systems research. *Society and Natural Resources, 27*, 557-571. doi:10.1080/08941920.2014.888791

Moustakas, C. E. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage.

Mullaly, M. (2014). If maturity is the answer, then exactly what is the question? *International Journal of Managing Projects in Business, 7*, 169-185. doi:10.1108/ijmpb-09-2013-0047

Murphy, K., Lyytinen, K., & Somers, T. (2016). Does steering committee information processing capacity influence project success in enterprise-wide system implementations. *2016 49th Hawaii International Conference on System Sciences (HICSS)*. doi:10.1109/hicss.2016.613

Muzio, D., Hodgson, D., Faulconbridge, J., Beaverstock, J., & Hall, S. (2011). Towards corporate professionalization: The case of project management, management consultancy, and executive search. *Current Sociology, 59*, 443-464. doi:10.1177/0011392111402587

Nair, H. C. (2011). *External factors based on work location that influence information technology project success* (Doctoral dissertation). Available from ProQuest Dissertation and Theses database. (UMI No. 3444196)

Namey, E. E., & Trotter II, R. T. (2015). Qualitative research methods. In G. S. Guest & E. E. Namey (Eds.), *Public health research methods* (pp. 443-482). New York, NY: Sage.

Nanavati, M., Colp, P., Aiello, B., & Warfield, A. (2014). Cloud security: A gathering storm. *Communications of the ACM, 57*(5), 70-79. doi:10.1145/2593686

Näsman, Y. (2018). The theory of caritative leadership applied to education. *International Journal of Leadership in Education*, *21*(4), 518-529. doi:10.1080/13603124.2017.1349183

Neves, F. G., Borgman, H., & Heier, H. (2016). Success lies in the eye of the beholder: The mismatch between perceived and real IT project management performance. *2016 49Th Hawaii International Conference on System Sciences (HICSS)*, 5878. doi:10.1109/HICSS.2016.745

Newman, A., Tse, H. H., Schwarz, G., & Nielsen, I. (2018). The effects of employees' creative self-efficacy on innovative behavior: The role of entrepreneurial leadership. *Journal of Business Research.* doi:10.1016/j.jbusres.2018.04.001

Ng, C., Walker, D. H., & Levin, G. (2014). IT project management capabilities enhancement impacts of contingent employment policy in Hong Kong organisations. *International Journal of Managing Projects in Business*, *7*(1), 144. doi:10.1108/IJMPB-08-2013-0035

Nicolaides, A. (2016). Bioethical considerations, the common good approach and some shortfalls of the Belmont report. *Medical Technology SA, 30,* 15-24. Retrieved from http://www.mtsaj.co.za/

Novak, A. (2014). Anonymity, confidentiality, privacy, and identity: The ties that bind and break in communication research. *Review of Communication, 14,* 36-48. doi:10.1080/15358593.2014.942351

Oliveira, E., & Panyik, E. (2015). Content, context, and co-creation: Digital challenges in destination branding with references to Portugal as a tourist destination. *Journal of Vacation Marketing, 21,* 53-74. doi:10.1177/1356766714544235

Olsen, B., Lund, N., Ellingsen, G., & Hartvigsen, G. (2012). Diversity stakeholders. *Journal of Documentation, 68,* 100-126. doi:10.1108/00220411211200347

Omorede, A., Thorgren, S., & Wincent, J. (2013). Obsessive passion, competence, and performance in a project management context. *International Journal of Project Management, 31*, 877-888. doi:10.1016/j.ijproman.2012.09.002

Onwuegbuzie, A., & Byers, V. (2014). An exemplar for combining the collection, analysis, and interpretations of verbal and nonverbal data in qualitative research. *International Journal of Education, 6*, 183-246. doi:10.5296/ije.v6i1.4399

Onwuegbuzie, A., & Corrigan, J. (2014). Improving the quality of mixed research reports in the field of human resource development and beyond: A call for rigor as an ethical practice. *Human Resource Development Quarterly, 25*, 273-299. doi:10.1002/hrdq.21197

Ooi, K. (2015). TQM practices and knowledge management: A multi-group analysis of constructs and structural invariance between the manufacturing and service sectors. *Total Quality Management & Business Excellence, 26*, 1131-1145. doi:10.1080/14783363.2014.914642

O'Reilly, M., & Parker, N. (2013). Unsatisfactory saturation: A critical exploration of the notion of saturated sample sizes in qualitative research. *Qualitative Research, 13*, 190-197. doi:10.1177/1468794112446106

O'Sheedy, D. (2014). Can action research improve project results? Results from a study of an agile project management framework for an SME IT environment. *ALAR Journal, 20*(2), 42-70.

Ostovar-Namaghi, S. A., & Gholami, M. (2018). Exploring language teachers' perceptions of cyclical presentation of materials in an EFL context: A grounded theory. *English Language Teaching, 11*(3), 60-66.

Oye, N. D., Salleh, M., & Iahad, N. A. (2011). E-learning barriers and solutions to knowledge management and transfer. *Information Management & Business Review, 3,* 366-372. Retrieved from http://www.ifrnd.org

Paine, G. (2015). A pattern-generating tool for use in semistructured interviews. *Qualitative Report, 20*, 468-481. Retrieved from http://nsuworks.nova.edu/tqr

Palinkas, L., Horwitz, S., Green, C., Wisdom, J., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration & Policy in Mental Health & Mental Health Services Research, 42,* 533-544. doi:10.1007/s10488-013-0528-y

Palshikar, G. K., Pawar, S., & Ramrakhiyani, N. (2016). Role models: Mining role transitions data in IT project management. *2016 IEEE International Conference on Data Science & Advanced Analytics (DSAA),* 508. doi:10.1109/DSAA.2016.62

Panas, A., Pantouvakis, J. P., & Lambropoulos, S. (2014). A simulation environment for construction project manager competence development in construction management. *Procedia—Social and Behavioral Sciences, 119,* 739-747. doi:10.1016/j.sbspro.2014.03.083

Pandya, K. D. (2014). The key competencies of project leader beyond the essential technical capabilities. *IUP Journal of Knowledge Management, 12*(4), 39-48. Retrieved from http://ssrn.com/abstract=2637233

Park, E., & Kim, K. J. (2014). An integrated adoption model of mobile cloud services: Exploration of key determinants and extension of technology acceptance model. *Telematics and Informatics, 31*, 376-385. doi:10.1016/j.tele.2013.11.00

Parris, D., & Peachey, J. (2013). A systematic literature review of servant leadership theory in organizational contexts. *Journal of Business Ethics, 113*, 377-393. doi:10.1007/s10551-012-1322-6

Pearce, G., Thøgersen-Ntoumani, C., & Duda, J. L. (2014). The development of synchronous text-based instant messaging as an online interviewing tool. *International Journal of Social Research Methodology*, *17*, 677-692. doi:10.1080/13645579.2013.827819

Pemsel, S., & Wiewiora, A. (2013). Project management office a knowledge broker in project-based organizations. *International Journal of Project Management, 31*, 31-42. doi:10.1016/j.ijproman.2012.03.004

Peppers, D., & Rogers, M. (2016). *Managing customer experience and relationships: A strategic framework*. New York, NY: John Wiley & Sons.

Perez, D. F., Nie, J. X., Ardern, C. I., Radhu, N., & Ritvo, P. (2013). Impact of participant incentives and direct and snowball sampling on survey response rate in an ethnically diverse community: Results from a pilot study of physical activity and the built environment. *Journal of Immigrant and Minority Health*, *15*(1), 207-214. doi:10.1007/s10903-011-9525-y

Perry, A. S. (2012). *Determining the keys to entrepreneurial sustainability beyond the first five years* (Doctoral dissertation). Retrieved from ProQuest Digital Dissertations and Theses database. (UMI No. 3552549)

Petrou, P., Demerouti, E., & Schaufeli, W. B. (2016). Crafting the change: The role of employee job crafting behaviors for successful organizational change. *Journal of Management, 24*, 65-69. doi:10.1177/0149206315624961

Pickering, L., & Kara, H. (2017). Presenting and representing others: Towards an ethics of engagement. *International Journal of Social Research Methodology, 20*, 299-309. doi:10.1080/13645579.2017.1287875

Pimchangthong, D., & Boonjing, V. (2017). Effects of risk management practices on IT project success. *Management & Production Engineering Review (MPER), 8*(1), 30. doi:10.1515/mper-2017-0004

Pollack, J., & Adler, D. (2015). The relationship between project management and small to medium enterprise profitability. *Global Conference on Business & Finance Proceedings*, *10*(1), 344-354. Retrieved from http://www.theibfr.com

Pollack, J., & Adler, D. (2016). Skills that improve profitability: The relationship between project management, IT skills, and small to medium enterprise profitability. *International Journal of Project Management, 34*(5), 831-838. doi:10.1016/j.ijproman.2016.03.004

Prasad, S., Tata, J., Herlache, L., & McCarthy, E. (2013). Developmental project management in emerging countries. *Operations Management Research, 6*(1), 53-73. doi:10.1007/s12063-013-0078-1

Project Management Institute (PMI). (2013). *A guide to the project management body of knowledge* (5th ed.). Newtown Square, PA: Author.

Raja, U., Bouckenooghe, D., Syed, F., & Naseer, S. (2018). Interplay between P-O fit, transformational leadership and organizational social capital. *Personnel Review, 47*(4), 913-930. doi:10.1108/PR-07-2016-0161

Ram, J., Corkindale, D., & Wu, M. L. (2013). Implementation critical success factors (CSFs) for ERP: Do they contribute to implementation success and postimplementation performance? *International Journal of Production Economics, 144*(1), 157-174. doi:10.1016/j.ijpe.2013.01.032

Ramkissoon, A. (2013). A preliminary investigation of the applicability of situational leadership in other cultures. *International Journal of Business Strategy, 13*, 43-48. doi:10.18374/ijbs-13-1.5

Rast III, D. E., Hogg, M. A., & van Knippenberg, D. (2018). Intergroup leadership across distinct subgroups and identities. *Personality & Social Psychology Bulletin*, *44*(7), 1090-1103. doi:10.1177/0146167218757466

Raszka, J., & Jamroz, L. (2015). Reducing human resources in management of information technology (IT) projects. *2015 8th International Conference on Human System Interaction (HSI),* 115. doi:10.1109/HSI.2015.7170653

Rehman, S. (2012). A study of public sector organizations with respect to recruitment, job satisfaction and retention. *Global Business and Management Research: An International Journal, 4*(1). Retrieved from http://gbmr.ioksp.com

Rezvani, A., Chang, A., Wiewiora, A., Ashkanasy, N. M., Jordan, P. J., & Zolin, R. (2016). Manager emotional intelligence and project success: The mediating role of job satisfaction and trust. *International Journal of Project Management, 34*(7), 1112-1122. doi:10.1016/j.ijproman.2016.05.012

Riaz, A., & Haider, M. H. (2010). Role of transformational and transactional leadership with job satisfaction and career satisfaction. *Business and Economic Horizons, 1*, 29-38. Retrieved from http://www.academicpublishingplatforms.com

Richardson, F. W. (2014). *Enhancing strategies to improve workplace performance* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3669117)

Rivera-Ruiz, I., & Ferrer-Moreno, E. (2015). The relationship between strategic leadership, human IT infrastructure, project management, project success, and firm performance. *International Journal of Information, Business & Management, 7*(2), 77.

Robinson, O. (2014). Sampling in interview-based qualitative research: A theoretical and practical guide. *Qualitative Review in Psychology, 11*, 25-41. doi:10.1080/14780887.2013.801543

Rohrbeck, R., & Gemünden, H. G. (2011). Corporate foresight: Its three roles in enhancing the innovation capacity of a firm. *Technological Forecasting and Social Change, 78*, 231-243. doi:10.1016/j.techfore.2010.06.01

Rolfe, P. (2011). Transformational leadership theory: What every leader needs to know. *Nurse Leader, 9*(2), 54-57. doi:10.1016/j.mnl.2011.01.014

Romme, A., Avenier, M., Denyer, D., Hodgkinson, G., Pandza, K., Starkey, K., & Worren, N. (2015). Towards common ground and trading zones in management research and practice. *British Journal of Management, 26*, 544-559. doi:10.1111/1467-8551.12110

Rossetto, K. (2014). Qualitative research interviews: Assessing the therapeutic value and challenges. *Journal of Social & Personal Relationships, 31*, 482-489. doi:10.1177/0265407514522892

Roulston, K., & Shelton, S. (2015). Reconceptualizing bias in teaching qualitative research methods. *Qualitative Inquiry, 21*, 332-342. doi:10.1177/1077800414563803

Russell, Z. A., Steffensen, D. S., Ellen, III, B. P., Zhang, L., Bishoff, J. D., & Ferris, G. R. (2018). High performance work practice implementation and employee impressions of line manager leadership. *Human Resource Management Review*, *28*(3), 258-270. doi:10.1016/j.hrmr.2018.02.003

Sanders, T. J., & Davey, K. S. (2011). Out of the leadership theory jungle: A proposed meta-model of strategic leadership. *Academy of Strategic Management, 10*(1), 41. Retrieved from http://www.alliedacademies.org/academy-of-strategic-management-journal/

Sanjari, M., Bahramnezhad, F., Fomani, F., Sho-ghi, M., & Cheraghi, M. (2014). Ethical challenges of researchers in qualitative studies: The necessity to develop a specific guideline. *Journal of Medical Ethics and History of Medicine, 7,* 2-6. Retrieved from https://www.ncbi.nlm.nih.gov/labs/journals/j-med-ethics-hist-med/

Saunders, B., Kitzinger, J., & Kitzinger, C. (2015). Anonymizing interview data: Challenges and compromise in practice. *Qualitative Research, 15,* 616-632. doi:10.1177/1468794114550439

Saunders, M., & Townsend, K. (2016). Reporting and justifying the number of interview participants in organization and workplace research. *British Journal of Management, 27*(4), 836-852. doi:10.1111/1467-8551.12182

Schwalbe, K. (2015). *Information technology project management*. Boston, MA: Cengage Learning.

Shanmugasundaram, P., & Vikram, P. (2015). Total quality management, process analytical technology, five basic principles and pharmaceutical industry: An overview. *International Journal of PharmTech Research, 8*(6), 178-185. Retrieved from http://sphinxsai.com/pharmtech.php

Sheffield, J., Sankaran, S., & Haslett, T. (2012). Systems thinking: Taming complexity in project management. *On the Horizon, 20,* 126-136. doi:10.1108/10748121211235787

Shimizu, T., Park, Y., & Choi, S. (2014). Project managers and risk management: A comparative study between Japanese and Korean firms. *International Journal of Production Economics, 147*(B), 437-447. doi:10.1016/j.ijpe.2013.07.007

Silic, M., & Back, A. (2014). Shadow IT—A view from behind the curtain. *Computers & Security, 45,* 274-283. doi:10.1016/j.cose.2014.06.007

Silva, P., Moreno, A. M., & Peters, L. (2015). Software project management: Learning from our mistakes [voice of evidence]. *IEEE Software, 32*(3), 40-43. doi:10.1109/ms.2015.71

Simpson, A., & Quigley, C. (2016). Member checking process with adolescent students: Not just reading a transcript. *Qualitative Report, 21,* 376-392. Retrieved from http://nsuworks.nova.edu/tqr

Singh, H. (2016). *Project management analytics: A data-driven approach to making rational and effective project decisions*. Old Tappan, NJ: Pearson Education.

Smith, J., Bekker, H., & Cheater, F. (2011). Theoretical versus pragmatic design in qualitative research. *Nurse Researcher*, *18*(2), 39-51. doi:10.7748/nr2011.01.18.2.39.c8283

Smith, J. B., & Barclay, D. W. (1997). The effects of organizational differences and trust on the effectiveness of selling partner relationships. *Journal of Marketing, 61*(1), 3-21. doi:10.2307/1252186

Smith, K. (2016, August 22). Predictive analytics: Nudging, shoving, and smacking behaviors in higher education. *EDUCAUSE Review, 51*(5). Retrieved from https://er.educause.edu/articles/2016/8/predictive-analytics-nudging-shoving-and-smacking-behaviors-in-higher-education

Snyder, C. (2012). A case study of a case study: Analysis of a robust qualitative research methodology. *Qualitative Report, 17*(26), 1-21. Retrieved from http://www.nova.edu/ssss/QR/

Sobragi, C. G., Gastaud Macada, A. C., & Oliveira, M. (2014). Cloud computing adoption: A multiple case study. *Base, 11*, 75-91. doi:10.4013/base.2014.111.06

Söderlund, J., & Müller, R. (2014). Project management and organization theory: IRNOP meets PMJ. *Project Management Journal, 45*(4), 2-6. doi:10.1002/pmj.21442

Sooniste, T., Granhag, P. A., Strömwall, L. A., & Vrij, A. (2015). Statements about true and false intentions: Using the cognitive interview to magnify the differences. *Scandinavian Journal of Psychology, 56*, 371-378. doi:10.1111/sjop.12216

Spadafino, J. T., Martinez, O., Levine, E. C., Dodge, B., Muñoz-Laboy, M., & Fernandez, M. I. (2016). Correlates of HIV and STI testing among Latino men who have sex with men in New York City. *AIDS Care, 28*, 695-698. doi:10.1080/09540121.2016.1147017

Spalek, S. (2014). Does investment in project management pay off? *Industrial Management & Data Systems, 114*, 832-856. doi:10.1108/IMDS-10-2013-0447

Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.

Staller, K. M. (2010). Qualitative research. In N. J. Salkind (Ed.), *Encyclopedia of research design* (Vol. 1, pp. 1159-1164). Thousand Oaks, CA: Sage.

Stare, A. (2012). The impact of a project organisational culture and team rewarding on project performance. *Journal for East European Management Studies*, *17*(1), 40-67. Retrieved from https://www.econstor.eu

Starr, M. (2014). Qualitative and mixed-methods research in economics: Surprising growth, promising future. *Journal of Economic Surveys, 28*, 238-264. doi:10.1111/joes.12004

Sundararajan, S., Vijayaraghavan, P. K., & Bhasi, M. (2014). Case study on risk management practice in large offshore-outsourced Agile software projects. *IET Software, 8*, 245-257. doi:10.1049/iet-sen.2013.0190

Sundqvist, E., Backlund, F., & Chronéer, D. (2014). What is project efficiency and effectiveness? *Procedia—Social and Behavioral Sciences, 119*, 278-287. doi:10.1016/j.sbspro.2014.03.032

Takey, S. M., & Carvalho, M. M. (2015). Competency mapping in project management: An action research study in an engineering company. *International Journal of Project Management, 33*(4), 784-796. doi:10.1016/j.ijproman.2014.10.013

Tamar, W. C., & Myron, P. G. (2010). The limits of autonomy: The Belmont report and the history of childhood. *Journal of the History of Medicine and Allied Sciences, 66*(1), 82-115.

Tampieri, L. (2013). The governance of synergies and conflicts in project management: The case of IPA project RecoURB. *Journal of the Knowledge Economy, 4*(4), 370-386. doi:10.1007/s13132-011-0074-3

Tams, S., & Hill, K. (2015). Information systems project management risk: Does it matter for firm performance? *Journal of Organizational & End User Computing, 27*(4), 43. doi:10.4018/JOEUC.2015100103

Targiel, K. S. (2017). Zarządzanie projektami w projektach technicznych i informatycznych (Polish). *Seria Organizacji I Zarzadzanie*, *108*, 403.

Taylan, O. (2014). IT project risk assessment of learning organizations by fuzzy set and systems. *International Journal of Organizational Analysis, 22*, 161-180. doi:10.1108/IJOA-10-2010-0456

Teller, J., Kock, A., & Germunden, H. G. (2014). Risk management in project portfolios is more than managing project risks: A contingency perspective on risk management. *Project Management Journal, 45*(4), 67-80. doi:10.1002/pmj.21431

Thompson, K. J. (2015). "What if I break it?": Project management for intergenerational library teams creating non-MARC metadata. *Code4lib Journal*, *28*, 1.

Thomson, O. P., Petty, N. J., Ramage, C. M., & Moore, A. P. (2011). Qualitative research: Exploring the multiple perspectives of osteopathy. *International Journal of Osteopathic Medicine, 14*, 116-124. doi:10.1016/j.ijosm.2011.06.001

Todorovic, M., Petrovic, D., Mihic, M., Obradovic, V., & Bushuyev, S. (2015). Project success analysis framework: A knowledge-based approach in project management. *International Journal of Project Management, 33*(4), 772-783. doi:10.1016/j.ijproman.2014.10.009

Too, E. G., & Weaver, P. (2014). The management of project management: A conceptual framework for project governance. *International Journal of Project Management, 32*(8), 1382-1394. doi:10.1016/j.ijproman.2013.07.006

Trangkanont, S., & Charoenngam, C. (2014). Critical failure factors of public-private partnership low-cost housing program in Thailand. *Engineering, Construction and Architectural Management*, *21*, 421-443. doi:10.1108/ECAM-04-2012-0038

Tsan, M., & Tsan, L. (2015). Assessing the quality of human research protection programs to improve protection of human subjects participating in clinical trials. *Clinical Trials*, *12,* 224-231. doi:10.1177/1740774514568688

Turner III, D. W. (2010). Qualitative interview design: A practical guide for novice investigators. *Qualitative Report, 15*, 754-760. Retrieved from http://nsuworks.nova.edu/tqr/

U.S. Government Accountability Office. (2012, June). *Employment for people with disabilities: Little is known about the effectiveness of fragmented and overlapping programs* (Publication No. GAO- 12-677). Retrieved from http://www.gao.gov/assets/600/592074.pdf

Valentine, M. A., & Edmondson, A. C. (2014). Team scaffolds: How mesolevel structures enable role-based coordination in temporary groups. *Organization Science, 26*(2), 405-422. doi:10.1287/orsc.2014.0947

Van der Sanden, R. L. M., Bos, A. E. R., Stutterheim, S. E., Pryor, J. B., & Kok, G. (2015). Stigma by association among family members of people with a mental illness: A qualitative analysis. *Journal of Community & Applied Social Psychology, 25*, 400-417. doi:10.1002/casp.2221

Vecchio, R. P. (1987). Situational leadership theory: An examination of a prescriptive theory. *Journal of Applied Psychology, 72*(3), 444-451.

Voss, M., & Kock, A. (2013). The impact of relationship value on project portfolio success—Investigating the moderating effects of portfolio characteristics and external turbulence. *International Journal of Project Management, 31*, 847-861. doi:10.1016/j.ijproman.2012.11.005

Vrîncuț, M., & Lungu, A. (2015). Qualitative techniques for project management VI.b. Particularities of Romanian project management. IT projects. *Quality—Access to Success, 16*(145), 82.

Walden University. (2013). *Institutional review board for ethical standards in research*. Retrieved from http://researchcenter.waldenu.edu/Institutional-Review-Board-for-Ethical-Standards-in-Research.htm

Walker, H., & Jones, N. (2012). Sustainable supply chain management across the UK private sector. *Supply Chain Management: An International Journal, 17*, 15-28. doi:10.1108/13598541211212177

Walker, J. L. (2012). The use of saturation in qualitative research. *Canadian Journal of Cardiovascular Nursing, 22*(2), 37-46. Retrieved from http://www.cccn.ca

Wallace, M., & Sheldon, N. (2015). Business research ethics: Participant observer perspectives. *Journal of Business Ethics, 128*, 267-277. doi:10.1007/s10551-014-2102-2

Wallastedt, N., Grossi, G., & Almgvist, R. (2014). Organizational solutions for financial sustainability: A comparative case study from the Swedish municipalities. *Journal of Public Budgeting, Accounting & Financial Management, 26*, 181-218. Retrieved from https://www.highbeam.com/publications/journal-of-publicbudgeting-accounting--financial-management-p436477

Wang, N., Liang, H., Zhong, W., Xue, Y., & Xiao, J. (2012). Resource structuring or capability building? An empirical study of the business value of information technology. *Journal of Management Information Systems, 29*, 325-367. doi:10.2753/MIS0742-1222290211

Webster, G. (2017). Impact of agile and workflow management systems on straight-through processing: IT project manager's perspective. *Software Quality Professional*, *20*(1), 22.

Weinbaum, R., & Onwuegbuzie, A. (2016). Getting more out of your interview data: Toward a framework for debriefing the transcriber of interviews. *Journal of Educational Issues, 2*, 248-263. doi:10.5296/jei.v2i1.9216

Weiss, J. W., Newell, S., & Swan, J. (2015). Introduction to the IT/project management minitrack. *2015 48th Hawaii International Conference on System Sciences*, 4386. doi:10.1109/HICSS.2015.525

Weiss, J. W., Newell, S., & Swan, J. (2016). Introduction to the IT/project management minitrack. *2016 49th Hawaii International Conference on System Sciences (HICSS)*, 4930. doi:10.1109/HICSS.2016.611

Wells, H., Dalcher, D., & Smyth, H. (2015). The adoption of agile management practices in a traditional project environment: An IT/IS case study. *2015 48th Hawaii International Conference on System Sciences*, 4446. doi:10.1109/HICSS.2015.532

White, D., Oelke, N., & Friesen, S. (2012). Management of a large qualitative data set: Establishing trustworthiness of the data. *International Journal of Qualitative Methods, 11*, 244-258. Retrieved from https://us.sagepub.com/enus/cab /international-journal-of-qualitative-methods/journal202499

White, G. R. T., Parry, G. C., & Puckering, A. (2016). Knowledge acquisition in information system development: A case study of system developers in an international bank. *Strategic Change, 25*(1), 81-95. doi:10.1002/jsc.2048

Wilson, K. E. (2012). *Financing high-growth firms: The role of angel investors* (SSRN Working Paper Series). Paris, France: OECD. doi:10.2139/ssrn.1983115

Winch, G. M. (2014). Three domains of project organising. *International Journal of Project Management, 32*(5), 721-731. doi:10.1016/j.ijproman.2013.10.012

Winter, R., & Silveira Chaves, M. (2017). Innovation in the management of lessons learned in an IT project with the adoption of social media. *International Journal of Innovation, 5*(2), 156. doi:10.5585/iji.v5i2.155

Woods, M., Paulus, T., Atkins, D., & Macklin, R. (2016). Advancing qualitative research using qualitative data analysis software (QDAS)? Reviewing potential versus practice in published studies using ATLAS.ti and NVivo, 1994-2013. *Social Science Computer Review, 34,* 597-617. doi:10.1177/0894439315596311

Wysocki, R. K. (2014). *Effective project management: Traditional, agile, extreme* (7th ed.). Indianapolis, IN: John Wiley & Sons.

Yao, Y. (2015). Spot prices in China Plastic City (Yu Yao) quoted on March 13, 2015. *China Chemical Reporter*, *26*(6), 31-34.

Yazan, B. (2015). Three approaches to case study methods in education: Yin, Merriam, and Stake. *Qualitative Report, 20,* 134-152. Retrieved from http://nsuworks.nova.edu/tqr

Yazid, Z. (2015). Exploring conflict management using qualitative approach. *Gadjah Mada International Journal of Business, 17,* 65-82. Retrieved from https://journal.ugm.ac.id/index.php/gamaijb

Yin, R. K. (2011a). *Applications of case study research* (3rd ed.). Thousand Oaks, CA: Sage.

Yin, R. K. (2011b). *Qualitative research from start to finish* (3rd ed.). Thousand Oaks, CA: Sage.

Yin, R. K. (2013). Validity and generalization in future case study evaluations. *Evaluation, 19*, 321-332. doi:10.1177/1356389013497081

Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.). Thousand Oaks, CA: Sage.

Yukl, G. (2012). Effective leadership behavior: What we know and what questions need more attention. *Academy of Management Perspectives*, *26*(4), 66-85. doi:10.5465/amp.2012.0088

Ziek, P., & Anderson, J. D. (2015). Communication, dialogue and project management. *International Journal of Managing Projects in Business, 8*(4), 788-803. doi:10.1108/IJMPB-04-2014-0034

Zoogah, D. B., Noe, R. A., & Shenkar, O. (2015). Shared mental model, team communication, and collective self-efficacy: An investigation of strategic alliance team effectiveness. *International Journal of Strategic Business Alliances, 4*(4), 244-270. doi:10.1504/IJSBA.2015.075383

Zvingule, L., Kalnins, S. N., Blumberga, D., Gusca, J., Bogdanova, M., & Muizniece, I. (2013). Improved project management via advancement in evaluation methodology of regional cooperation environmental projects. *Environmental and Climate Technologies, 11*, 57-67. doi:10.2478/rtuect-2013-0008

Appendix A: Interview Protocol

The purpose of the interview is to explore strategies that are relevant to IT business leaders completing IT projects on time and within budget. Two IT business leaders from large IT companies are interviewed, and each participant is asked the same questions in the protocol below:

1. Introduce self to the participant as a doctoral student at Walden University and explain the purpose and time of the interview.
2. Give a copy of the consent form to the participant to read and sign prior to the interview process.
3. Remind the participant the interview will be audio-recorded. Begin interview by collecting the following background information:
    a. Education background.
    b. When did you start your business?
    c. How many employees do you have?

The research questions follow:

1. What strategies did you use to complete IT projects on time and within budget?
2. What goals did you set for completing an IT project on time and within budget?
3. What financial strategies did you use to complete an IT project on time and within budget?
4. What behaviors exhibited by an IT leader in the workplace are the most critical to completing an IT project on time and within budget?
5. How did you use personal motivations to complete an IT project on time and within budget?
6. How did you determine the overall project timelines to complete IT projects on time and within budget?
7. What else can you share that is pertinent to your strategies for completing IT projects on time and within budget?

Thank the interviewer for participating, stop the audio recording, and conclude the interview.

The interview lasts from 30 to 60 minutes.

Appendix B: Interview Questions

1. What strategies did you use to complete IT projects on time and within budget?
2. What goals did you set for completing an IT project on time and within budget?
3. What financial strategies did you use to complete an IT project on time and within budget?
4. What behaviors exhibited by an IT leader in the workplace were the most critical to completing an IT project on time and within budget?
5. How did you use your personal motivations to complete an IT project on time and within budget?
6. How did you determine the overall project timelines to complete IT projects on time and within budget?
7. What else can you share that was pertinent to your strategies for completing IT projects on time and within budget?

Appendix C: Letter of Cooperation

LETTER OF COOPERATION

Community Research Partner Name Contact Information

Date

Dear,

Based on my review of your research proposal, I give permission for you to conduct the study entitled "Strategies for Managing IT Projects of the Organization." within the Insert Name of Community Partner. As part of this study, I authorize you to collect company documents, conduct face to face interviews with employees from this organization, perform member checking, and publish the results of the research. Individuals' participation will be voluntary and at their own discretion.

We understand that our organization's responsibilities include: allow sufficient time to participate in the interview and provide a safe and private room on site for approximately an hour. No local supervision of the research activities will be provided. We reserve the right to withdraw from the study at any time if our circumstances change.

I understand that the data collected will remain entirely confidential and the researcher, nor any reviewers who have access to the project, will not use your personal information for any purposes outside of this research project. The data collected may not be provided to anyone outside of the student's supervising faculty/staff without permission from the Walden University IRB. Data will be kept secure by storage on an external hard drive kept in a locked cabinet. Data will be maintained for a period of at least 5 years, as required by the university.

I confirm that I am authorized to approve research in this setting and that this plan complies with the organization's policies.

Sincerely, Authorization Official Contact Information