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The Role of Project Leadership in Global Multicultural Project Success

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This is to certify that the doctoral dissertation by

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Abstract

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Abstract

Global projects have a high failure rate, with many project failures attributed to lack of effective leadership. A knowledge gap about leadership requirements and complexities in a global project management environment has increased the risks in global projects. The problem is evident in the increasing project failure rate and the struggling national strategies in the oil and gas industry in the Arabian Gulf Cooperation Council (GCC). The purpose of this study was to explore the role of leadership in project success and adaptation complexities in GCC. The conceptual framework consisted of complex adaptive systems and contingency theories. A qualitative approach was used to capture common understandings of project leaders' role and the opportunities and challenges in a multicultural global project environment. Personal interviews were conducted with 25 participants from the oil and gas industry in GCC who were selected using a purposive sampling method. Six themes emerged from an exploratory and comparative analysis, including: adaptable project structure with team and environment dynamics; leadership role and the impermanent multicultural environment; project success definition and the success criteria; aligned performance and governance systems; changing organizational strategy; and team building and the project complexity management. Based on study findings, a framework was created for leading 4 organizational processes in global projects, which includes the environment, team building, leadership selection, and setting of project success criteria. Higher efficiency in leading these processes may contribute to positive social change and support practitioners to promote a project environment for active knowledge integration.

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Dedication

This dissertation is dedicated to my wife, Noelle, for here love, patience, and understanding during the long years of my journey to achieve this milestone. Thank you for your support through the demanding time spent on my studies. I would also like to dedicate my work to my two kids, Kevin and Lady-Lynn, who were behind my courage to complete this program. Thank you for your understanding when I had to commit more time on my academic work. Finally, I dedicate my work to the soul of my mother who always desired the best for me, and my father who never stopped believing in my abilities.

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I would like to extend my sincere thanks to all the professional participants who shared their precious experience in support of this study. Your knowledge was of great value to me in completing a credible research work. I am also genuinely grateful for all those who assisted me from Walden University's academic, administrative, and support teams.

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Chapter 1: Introduction to the Study

Cultural diversity in the global environment includes different leadership competencies and organizational requirements. Project-based organizations with global expansion objectives have organizational cultures that challenge the project innovation environment, team efficiency, and project success opportunities in foreign contexts (Caligiuri & Tarique, 2012; Thamhain, 2013b). Environmental and cultural challenges increase the risks involved with the team-building process and with aligning teams to organizational strategies. Cultural diversity challenges scholars and practitioners to reach consensus regarding the project leadership role and the appropriate leadership style within various cultural contexts. Each organization with a project structure that includes project owners, consultants, a project management office, and execution firms has distinct success criteria. Individual members' cultural backgrounds within their performing organizations challenge the consensus between scholars on unified success criteria in global projects (Müller & Turner, 2010a & b).

My focus in conducting this study was to explore the impact of global projects on economic, social, and cultural environments. The study contributed to the literature in several ways. First, the findings enhanced the understanding of the additional constraints that affect success in global projects. Second, the focus on the complex adaptive systems theory (Wang, Han, & Yang, 2015) and the contingency theory (Van de Ven, Ganco, & Hinings, 2013) contributed to the literature by providing practical implications of the theories on structuring temporary organizations. Finally, the study results provided essential knowledge of stakeholders' requirements in the selection of project leadership.

The study included a review on stakeholders' requirements presented from a global perspective with considerations given to cultural diversity in global projects environment. The study scope included a focus on the competing factors that affect the selection process of project leadership and project team.

Leaders of organizations with global expansion strategies, as well as stakeholder groups hosting global organization projects, may benefit from study findings. Leaders in charge of policy making in institutes providing international accreditation and certifications for projects and project management teams, such as Project Management Institute (PMI), the U.S. Green Building Council, and local project-management training providers, may also benefit from study results and recommendations. Stakeholders include local authorities in control of development projects with an interest in multiple bottom-line efficiency measures. Project owners' representatives have an interest in, and an influence on, the project leadership and project team selection process are potential groups with an interest in this study. The study results advanced understanding of these organizations' current processes, the knowledge required for managing the project environment, the challenges involved in building a project team in a global multicultural environment, the requirements in the project leadership and team selection process, and the adoption of a project's success evaluation criteria.

The background section of this chapter includes information on project leadership, project management teams, project constraints, and the nature of global projects leadership. The problem statement and the purpose of the study follow. The following three sections of Chapter 1 include a discussion of the significance of the

study, the theoretical foundation I used, and the nature of the study. The remaining sections of Chapter 1 include definitions of key terms; a consideration of assumptions and the scope, limitations, and delimitations of the study; and a summary and transition to the next chapter.

Background of the Study

With an increased interest in the project-based organization structure for conducting business, especially in foreign environments (Turkulainen, Kujala, Artto, & Levitt, 2013), global project-based organizations have emerged with strategic business objectives that extend beyond the traditional operational efficiency goals (Eweje, Turner, & Müller, 2012). The multicultural environment of global projects and other forces that shape the global project environment challenge traditional project management requirements for meeting the project constraints of time, scope, and quality (Thamhain, 2013b). With clearly defined stakeholders and objectives, projects in a multicultural environment require a focus on project leadership and a project's predefined efficiency measures, a process that embraces a variety of stakeholders' satisfaction (Thamhain, 2012). Challenges in the technical side in global project-based structures can be traced to social, psychological and organizational issues (Thamhain, 2013b, p. 146).

The project-based organization structure has emerged as an organizational tool to increase efficiency in defined endeavors with a temporary nature (Keegan, Huemann, & Turner, 2012; Maylor, Brady, Cooke-Davies, & Hodgson, 2006). Corporate leaders use project structures to conduct internal changes, as well as to penetrate new markets. For leaders who adopted project-based organization structures in various industries and

environments, the challenge of identifying the role of project leadership in a global context with high cultural diversity is increasing (Müller, Geraldi, & Turner 2012; Thamhain, 2012, 2013b).

Project Leadership and Project Management Team

Bird, Mendenhall, Stevens, and Oddou (2010) discussed the process complexity of global leader selection and the challenge involved in defining leaders' required competencies for coping with cultural diversity. Bird et al. identified a literature gap in the global leadership content domain of intercultural competence. Chiocchio et al. (2010) and Yang, Huang, and Wu (2011) discussed the main objective of adopting a project-based organization or projectized structure and attested that improved efficiency and the improved performance of employees are the main drivers for the project-based firms. Chiocchio et al. studied the difference between project tasks and conventional organizations and framed a vision of the characteristics of a projectized organization. In the projectized form of organizations adopted in global expansion strategies, the process of selecting project managers is critical due to the increased need for project efficiency and improved individuals' performance (Müller & Turner, 2010a & b).

Analysts at the PMI view team building as a critical feature of project success. In the *Project Management Body of Knowledge* (*PMBOK*), they identified many challenges faced by project managers in fostering team building. The *PMBOK* includes a discussion on team building as a key to satisfying stakeholders' needs (PMI, 2013). J. R. Turner and Müller (2005), who were commissioned by the PMI, wrote a conceptual paper in which they identified and defined the competencies required for a project leader. J. R. Turner

and Müller focused on the challenge of implementing conventional project management processes, as well as on identifying adequate leadership competencies to cope with particular environmental and cultural challenges.

Project Constraints, Team Interest, and Stakeholder Interest

The temporary nature of projects creates additional tension between the three significant projects' constraints, time, cost, and quality, that make the selection process for project leadership and project teams more challenging (Yang et al., 2011). A projectized form of organization is a tool for increasing organizations' efficiency, especially in global expansions, and a way for team independence in decision-making (Chiocchio et al., 2010; PMI, 2013). Seeking emancipation from corporate domination, stakeholders are increasingly attempting to interfere with the process of selecting project teams and project leadership (Ahola, Ruuska, Artto, & Kujala, 2014). The competing interests in organizations' sustainability, social responsibility, bottom lines, and different efficiency measurement approaches have resulted in various approaches to stakeholder management, especially to stakeholders' interest in the selection process of project leadership.

Hyvari (2006) focused on the opportunity a projectized structure provides to project managers for interacting with top management directly, in addition to the independence and authority of project managers. Hyvari collected information from project-based organizations in several industries, such as information technology and software, investment, staff development and training, business change and reorganization, research and development, business reallocation, engineering, and

construction projects. The variation of the interests between the project team and the project stakeholders has been attracting the scholars' attention to understand the challenges impacting the overall performance of the project. Researchers considered the three project constraints, time, cost, and quality, to understand the competing interests within the project environment and its impact on the project success and failure.

Global Project Leadership and the Literature Gap

Thamhain (2013b) described the changing dynamics of team leadership in global project environments in one of the few articles I found that included a discussion of project leadership in a global context. Thamhain identified an apparent gap in the literature and academia about global project leadership: "Yet, relatively little is known about the effectiveness of team leadership styles and the organizational conditions most conducive to team performance in project environments" (p. 147). Thamhain considered geographically dispersed project team across national borders, technological complexity of the project, cultural diversity of the team, and the multi-national environments of the project. The focus of Thamhain research included the information technology and technology-intensive projects.

I found little literature to be available for addressing the importance of leadership in the global project environment. According to my review of the literature, project leadership in the oil and gas industry, as in many other sectors, remains underdeveloped and lacks a serious amount of research. Moreover, development and construction projects in the oil and gas industry in the Middle East and the Gulf Cooperation Council (GCC) oil-rich countries remain under-researched. Fatal mistakes have occurred in oil and gas

industry projects in GCC countries, (see the research problem section under the literature review), and a lack of research on these mistakes occurs with a struggling development process in the oil and gas production and the national objectives (Ernst & Young, 2014a; PwC, 2014).

Problem Statement

The general problem was that, in 2011, over 62% of projects either failed or faced challenges meeting predefined project success criteria (PMI, 2014). In a global environment where almost 70% of organizations experienced at least one project failure in 2010 (PMI, 2014), interest in defining essential factors for conducting projects successfully is increasing. In 2012, the rate of failures attributed to the people in charge of the project leadership was 39% (Kloppenborg, Tesch, & Manolis, 2014).

The specific problem was in the inability to meet time, cost, and quality constraints in oil and gas industry projects in GCC countries. The problem is manifested in the global and local organizations failure to achieve government and corporate predefined strategic objectives. Mir and Pinnington suggested a link between project failures and project management performance, with over 49.7% of the failures occurring in the construction sector (Mir & Pinnington, 2014). In the GCC region, 65 to 90% of the exports earnings depend on the oil and gas sector which is the main driver of the development plans published by GCC governments (Hvidt, 2013). The market is attracting construction conglomerates from the United States of America, Europe, and Asia, which increases the challenge for project leadership of managing cultural diversity.

Although the GCC governments' capital expenditure in projects exceeded US$2.3 trillion in 2013 (Zawya, 2013), international organizations executed over 75% of projects (Meed, 2013). In the highly globalized GCC work environment, the cultural diversity in the project environment is challenging the currently applied practices for the selection of the project leadership and project management team. Researchers on project management widely questioned project leaders' performance in the oil and gas projects with respect to the project predefined success criteria (Eweje, Turner, & Müller, 2012). Eweje et. al. contested the decision-making process from the perspective of the challenging information flow process and a relationship management with the hosting environment in the large oil and gas projects. According to Eweje et. al. (2012), the project profitability tend to be the major driver in the decision-making process with more focus on the project cost and less attention given to the project impact on the hosting economy.

Purpose of the Study

The purpose of this qualitative exploratory multilayered case study was to gain a robust understanding of leadership requirements within the multicultural project environment of locally conducted projects by global organizations in the Arabian GCC countries. I conducted semistructured interviews with 25 participants from the oil and gas industry located in two GCC member countries: 15 (60%) participants were in the United Arab Emirates (UAE) and 10 (40%) participants were in Kuwait. A case study approach was appropriate, I believe, for exploring the perceptions of owners, consultants, and executing organizations regarding leadership requirements for projects conducted by international organizations on a local scale. The semistructured interviews were

questionnaire-based and followed the logical structure of nested case studies (De Massis & Kotlar, 2014). I considered the flexibility to interfere with predefined follow-up questions during the interview. My objective from the follow-up questions was to capture additional insights that may emerge throughout the discussion. I considered the variation between in nature of each project layer – owners, consultants, and executers.

Significance of the Study

One of the concerns for international organizations' leaders, with expansion plans across the boarders' is bridging global skills as they develop and deploy staff globally (Caligiuri & Tarique, 2012). The findings of the study may meet the immediate needs of practitioners in the global project environment for guidance to support their concerns in bridging the global skills gap. The research focus was on project organization structure as a strategy adopted by organizational leaders for conducting business globally. A review of the literature reinforced the significance of the study with respect to the foreseen requirements at three layers of a global project structure hierarchy. The hierarchy includes (a) the project owner or sponsor and end users, (b) project consultants, and (c) project-executing organizations. Executing organizations in oil and gas construction projects are the construction contractors of different disciplines, suppliers, and other service providers. The discussion of the study urgency with respect to the identified literature gap is from a theoretical perspective and is meant to provide a comprehensive framework for project practitioners to use in developing and deploying staff globally.

Significance to Practice

The study is significant because of the increased adoption of project-based organization structure in global multicultural environments (Mossolly, 2015, p.128). When defining project objectives and success criteria, the project owner, project consultant, and executing disciplines should focus on building a suitable project structure to avoid various pitfalls. As noted in the problem statement section of this chapter, over 39% of project failures are the fault of people in charge of projects (Kloppenborg et al., 2014). Mir and Pinnington linked 44.9% of project failures to project management performance in the construction industry in United Arab Emirates (UAE) (Mir & Pinnington, 2014). This research study was an attempt to respond to the project practitioners increasing concerns in bridging the global competencies gap by focusing on the management role, at various project layers, in developing and deploying staff globally. Specifically, the research focus was on the leadership role in project success, the team-building process, and the team creativity and innovation management process.

The focus of my research efforts was on collecting data and producing knowledge that supports practitioners in the early identification of challenges and pitfalls in global projects structures in GCC. The findings contributed to current human development systems by offering essential material to incorporate into current awareness and training programs oriented to develop global project leadership competencies. The practical implications of the study extend to the selection and development process of project management teams. My major research focus was on providing the tools to support aligning the corporate strategy objectives with the project management processes that

concern human issues. My research focus included promoting opportunities to understand the development process of project success criteria from different stakeholders' perspectives.

Significance to Theory

In addition to identifying potential challenges and pitfalls and recommending a framework for human selection and development, I explored a knowledge-based approach to the adoption of project-based organization structures. With this approach, I attempt to provide various opportunities for scholar-practitioners in the project management arena to enhance the understanding of the challenges and opportunities in multicultural global project environments. Accordingly, scholars and practitioners can identify the significance of integrating local social and cultural needs with the social obligations of global organizations. This alignment is important for meeting predefined project objectives. The findings may increase the opportunities for project success by removing cultural barriers between local and international players. Global project structure from this perspective is a knowledge-exchange opportunity and a mean for cultural interaction with the possibility to align global efforts for higher efficiency in world resource use. A need exists for a paradigmatic shift within the system to think beyond the business objectives of global projects conducted within the oil and gas industry in the GCC region.

Significance to Social Change

The study involved exploring and defining the boundaries of various constructs in the theoretical framework and the actual requirements of a project environment, which

included two theoretical lenses; the complex adaptive systems theory and the contingency theory. The urgency of this approach evolved from a lack of literature on global project environments in the oil and gas industry in the GCC region. The increasing domination of global organizations has led to a neglect of the needs in local society and increased the gap between global players and local communities. Considering the high rate of project failure and its threat to the development process, the study involved exploring the various cultural barriers at the individual, group, and organizational levels. The urgency for conducting this research existed in the immediate need to increase efficiency in the project environment to promote equity in global human development through an active knowledge exchange process. Exploring the global project environment served as an opportunity to enhance global system efficiency.

The value of this research in promoting positive social change is derived from an expanded vision in addressing the competing factors to define the project success criteria. An initial literature review revealed the misalignment between global organization objectives and local social and cultural values as a critical factor that results in project failure (Bird et al., 2010; Thamhain, 2013a; Turner, 2005). In this research, I explored various factors to enhance alignment between project success criteria and local social needs. The study attempt was to respond to the literature gap by introducing an approach to conducting global projects beyond the traditional project management processes to increase efficiency.

The focus of the research study included exploring various aspects required to define adequate project success criteria. A broad definition of project success criteria

beyond the traditional bottom line includes social development processes from a knowledge exchange perspective. Stakeholders' needs that sustain the development process at the local scale receive a lot of attention. Redefining the criteria for global project success to include local social and cultural needs within the system complexities may serve as a starting point to establish consensus on the positive social change process. Global organizations objectives and local national objectives intersect in the global project environments. By deploying aspects of the complex adaptive systems theory and the contingency theory as the adopted theoretical lenses, the focus of the exploratory nature of the study was on promoting the project environment as a comprehensive approach to conduct positive social change. The change opportunities are explored at the project level as a structure that requires adaption to the local environment. The study involved an attempt to explore the project internal environment to learn from the hosting environment and to act as a positive social change vehicle rather than an investment vehicle.

Research Questions

Global projects occur at the intersection of the global organization culture and the impermanent nature of project structure. My objective in undertaking this research was to answer the central research question by analyzing specific organizational dynamics and social processes. The central research question was, How does project leadership support the success of global multicultural projects in the oil and gas industry in the GCC countries? In addition, the study involved exploring specific areas related to the project environment and project leadership through the following two research subquestions:

1. What is the role of project leadership in managing the project's cultural and environmental complexities?

2. How can leadership contribute to project success in a challenging global multicultural impermanent project environment?

The research questions were suitable for gathering robust information related to global project leadership role to promote a project environment that supports project success criteria. Project success criteria represented a process of interactions between various stakeholders at different levels in the project structure. In my perspective, the central research question was suitable for exploring the alignment between various aspects of project organization. The explored project aspects were the project environment, project nature, project governance, project team building, project leadership, and project complexity.

Theoretical Foundation

Theoretical lenses support the critical analysis and the literature review to probe into the historical approaches of a topic. I used two theoretical lenses in my research (a) the complex adaptive systems theory and (b) the contingency theory. The lenses I adopted were consistent with the objective of this research, and in my perspective, they were suitable for (a) discussing the project organization environment as a system with dynamics influenced by the factors related to the internal and external environments of the project and (b) analyzing project leadership requirements within an ever-changing project environment influenced by various types of stakeholder groups.

Complex Adaptive Systems Theory

The theory of complex adaptive systems is a methodology to understand how order emerges in complex, nonlinear systems such as galaxies, ecologies, markets, social systems, and neural networks (Wang et al., 2015). The origins of the complex adaptive systems theory relate to physics, chemistry, and mathematics and describe systems as living and open with the ability to exchange matter, energy, or information across its boundaries and to use that exchange of energy to maintain its structure (Cleveland, as cited in Wang et al., 2015). The exchange process caused by interactions within a system creates a balance point often called the edge of chaos that supports the emergence of new ideas and innovative genotypes (Bertalanffy, Waddington, Waldrop, & Cleveland, as cited in Wang et al., 2015). Wang et al. (2015) compared the outcome balance between stability and turbulence in the system to the concept of the edge of chaos that maintains the system as dynamically stable, healthy, and innovative. Complex adaptive systems are diverse agents that learn, interact with each other in nonlinear ways, self-organize, have emergent properties, and coevolve with the environment (McDaniel, 2007). Wang et al. identified fundamental attributes in relation to the complex adaptive systems: complexity, self-organization, adaptability, and the ability to coevolve.

Complex adaptive systems served as the theoretical base to explore the evolution of the project structure and the project leadership challenges in complex multicultural global project environments. The basis of the literature review in Chapter 2 was the theoretical foundation that supported exploring how to define project structure and environment with respect to the notion of complex adaptive systems theory. Complex

adaptive systems theory was suitable for exploring the complexities that occur within and around project structure.

Contingency Theory

With an emphasis on the broad abilities of the contingency theory, Hanisch and Wald (2012) asserted that within the underrepresented research on project management, researchers did not consider the contingency theory sufficiently as a theoretical base to understand the project environment. Hanisch and Wald stressed the benefits of this perspective in studying different types of projects from various industries. The approach is aligned with a research trend in identifying social, cultural, cross-cultural, leadership, and organizational factors to enhance the understanding of the complexities in social network interactions within the project structure.

The evolved models of contingency theory indicated the interaction between an organization and its environment or context as a critical factor for defining a suitable organization structure (Müller et al., 2012). Aligned with the principles of the contingency theory that focused on the organization, other models discussed the congruence of people's behavior to the environment or the context (Hanisch & Wald, 2012). Applications of the contingency theory evolved in literature to study organizations as systems and subcultures as internal subsystems with continuous interactions with the internal and external environment. The focus of the early adopters of this academic approach was on studying the impact of the changing external environment on the internal dynamics of the organization. This perspective progressively challenged the

traditional approaches to a universalistic model of organization and leadership (Hanisch & Wald, 2012; Müller et al., 2012; Van de Ven et al., 2013).

The contingency theory approach served as a theoretical foundation with three focus areas to respond to my study problem and purpose statements. The first is the emphasis on the environment in which the organization and the project exists. In this study, global projects existed in various environments with cultural differences. The second focus area is the interrelated subsystems that represent the organization and its various projects as well as its subcultures. The third focus is the attempt to establish congruencies or alignments between different organizational subsystems to identify and eliminate potential dysfunctions.

Contingent Leadership

Contingent leadership is a people-oriented model of the contingency theory that includes studying leaders' behavior toward cultural differences (Dickson, Castaño, Magomaeva, & Den Hartog, 2012). The leader-focused approach of the contingency theory also emphasizes situational and contextual factors (Frederick Littrell, 2013; Müller et al., 2012) in recommending a successful leadership style. Contingent leadership includes leader–member exchange theory (Müller et al., 2012). Müller et al. (2012) emphasized the people-oriented approach of the contingency theory to explore project leadership competencies in challenging multicultural contexts.

Theoretical Foundation Linkage to the Study

I integrated the concepts of the complex adaptive system, the contingency theory, and the culturally contingent leadership in a comprehensive theoretical foundation to

drive the research study activities. Researchers' observations, data collection, data

analysis, and final interpretations were suitable to explore the projection of the

contingency theory models on the selected sample of projects in the study. A key to the

research activities was focusing the literature review on exploring various themes derived

from previous research studies, which included studying the project leadership, project

team-building process, project success criteria identification and alignment, and

leadership role in promoting an environment for innovation. I developed Figure 1 to

present the link between the adopted theoretical foundation and the explored concepts of

my study.
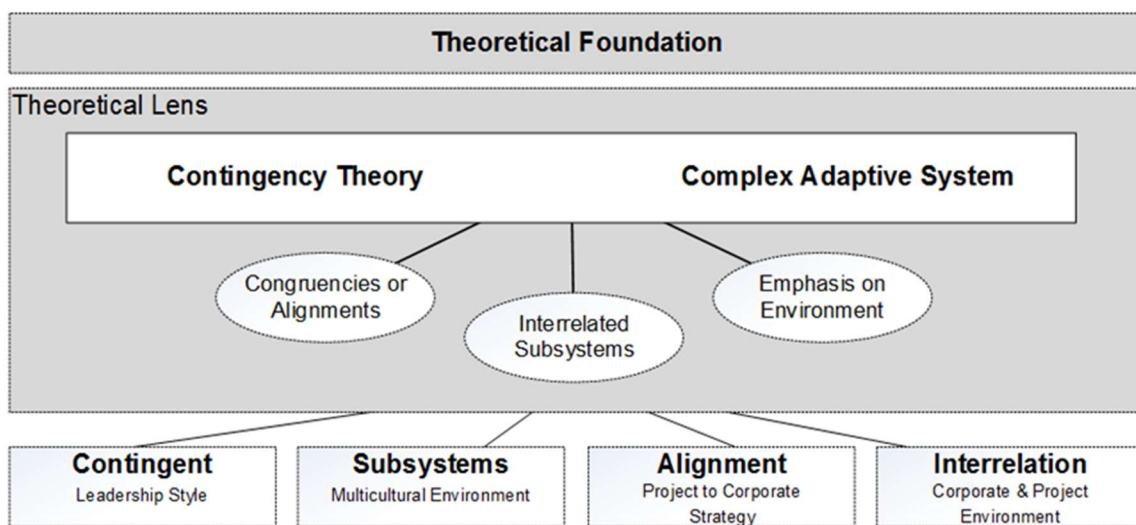
Figure 1. The adopted theoretical framework used in guiding the research activities.

The theoretical foundation supports the exploration of the dynamics behind the

trend to adopt a project-based organization structure in global expansion strategies. The

organization-oriented model provides guidance to explore the nature of project-based

organizations and the opportunities they provide for the emancipation from a centralized

corporate control (Chiocchio et al., 2010; Yang et al., 2011). Under the people-oriented

model, the framework supports exploring the absolute power given to project leadership to deploy critical resources in a temporary project structure.

From this perspective, complex adaptive systems theory and contingency theory were suitable for studying organizations as an open system affected by its environment. The objective was to explore management efforts to align strategies to face external challenges through quick-learning temporary project structures. The research focus was on project structure strengths to achieve the concept that, within the same organization, different approaches of leadership and management may be necessary with different species suitable for changing environments (Müller et al., 2012). Different project structures on a global scale were explored with regard to the complex adaptive systems theory and contingency theory approaches. Chapter 2 includes a detailed review on the origins and association of the complex adaptive systems theory and contingency theory. The developed theoretical foundation and the link to the adopted research method and research design appear in Chapter 3.

Nature of the Study

Qualitative Approach: Case Study Research Method

The exploratory case study approach was suitable to explore how specific organizational dynamics and social processes affect the perceived role of project leadership. The study attempt was to explore the role of project leadership within the challenged processes of building the project team and promoting a project culture of innovation. The study also explored the influence of project leadership in developing global project governance systems and the definition of the project success criteria. The

case study approach supported defining the boundaries between the theoretical framework of project structure as a temporary organization with a specific endeavor and local practices specifically in oil and gas industry projects in GCC countries. The study included a multilayered and nested case studies design to compare a conventional corporate structure and the temporary project environment, understand the difference between project management and project leadership, and explore various factors to consider when adopting global project structures. In the case study approach, researchers and practitioners can study the project environment in natural settings, support the learning process from success stories, and generate theories from practice (Cao & Hoffman, 2011).

Case study is a qualitative strategy for empirical research that supports an in-depth investigation of a contemporary phenomenon within its real-life context (De Massis & Kotlar, 2014). Case study is particularly relevant to organization and management studies because it promotes understanding the dynamics present within single setting (Eisenhardt, as cited in De Massis & Kotlar, 2014). The multilayered and nested case study approach was suitable for revealing and understanding multiple facets of the phenomenon by using a variety of theoretical lenses (De Massis & Kotlar, 2014).

Cross-compared mini case studies supported exploring various aspects through an in-depth exploratory approach to define the boundaries of various addressed themes in the construction and engineering projects environment in the oil and gas industry in the GCC region. Adopting the multilayered and nested case studies approach within the multilayered project structure enhanced the understanding of the complexities in global

projects in multicultural environments. Kapsali (2011) noted that, "Comparative case studies are suitable for exploratory research, when investigating causal mechanisms within complex circumstances where a phenomenon is dynamic, not yet settled and calls for an applied orientation directed at improving practice" (p. 401). I summarized the methodology approach in Figure 2 to present the adopted multilayered and nested case study approach and the focus on various project layers.

Methodology Approach
Multilayered and Nested Case Studies
Exploratory: How Organizational Dynamics are Implemented?

Explored Aspects

| **Project Environment** | **Project Success** |

Oil & Gas — Global — Multicultural — Complexity

| **Project Leadership** | **Project Team Building** |

Explored Layers

Project Owner / Sponsor and End User or Operations and other key project stakeholders at the strategy formulation level

Project Consultants (Specialized, Technical, and Management)

Executers (Contractor, Suppliers, and Service Providers)

Comparative: How Process Implementation is Different?

| **Corporate vs. Project Systems** | **Local vs. Global** |

Structure — Governance Systems — Performance & Success — Management & Leadership

Figure 2. The adopted multilayered and nested case study approach.

Case-Study Approach Objectives

The purpose of the in-depth exploratory approach was to understand the role of global project leadership in the oil and gas industry in the GCC countries in setting the project success criteria, the project governance system, the project team building, and the project environment. The approach supported exploring the aspects contributing to the development process of global project leadership and global project management teams. The study results contributed to the literature through a response to practitioners' needs in revealing leadership requirements in a global project context, in addition to setting the project environment that supports a successful team-building process. Benefits from the case study approach for both researchers and practitioners are substantial, and provide an opportunity to understand the nature and complexity of the process, and increase the likelihood to gain an in-depth understanding of the phenomenon under study (Cao & Hoffman, 2011). The multilayered exploratory case study approach supported the in-depth exploration of various identified themes. The exploration of these themes, (see Figure 2), occurred at the project-owner layer, the consultant layer, and the project-executor layer. The second and third layers include various types of global organizations whose staff execute projects as consulting firms, project management firms, and contracting firms. Project owners were mostly local government or semi-government organizations.

Unit of Analysis and Data Collection Process

The research design stimulated the understanding of project practices to address the gap in the current theories regarding the effectiveness of current project management

practices in the global project environment. The selected unit of analysis for this research were projects conducted by international project management teams in global organizations. The approach considered local stakeholders at the project owner layer and the executers layer, who had competing interests that influence the project leadership and project-management team selection process.

By engaging in a series of multilayered and nested case studies with intersecting and overlapping units of analysis (Patton, 2002), data collection included interviews conducted with groups of team members at three project-structure layers: the owner organization, the consultant organization, and executing organization. Figure 3 depicts the main case study and the nested mini case studies in this research approach with an emphasis on the multilayer approach.
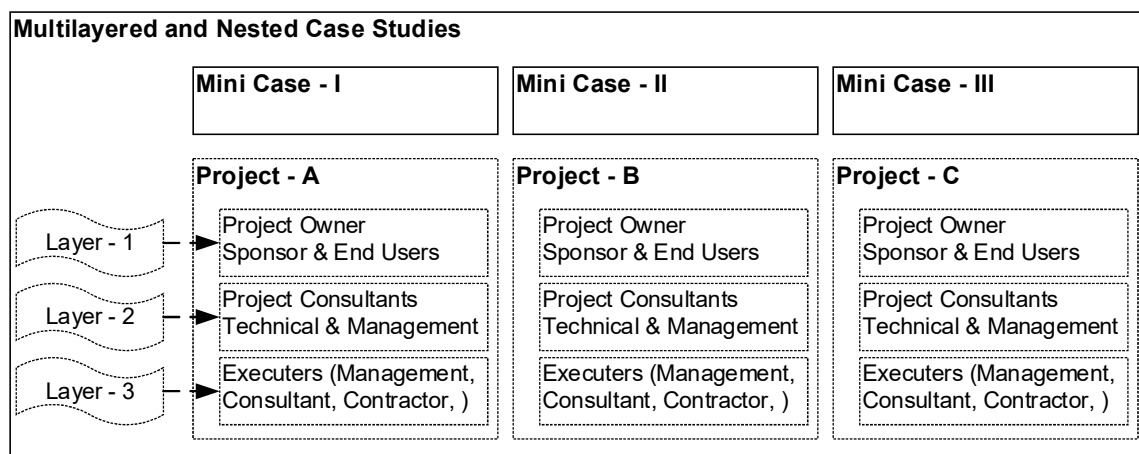
Figure 3. Relationship between the nested case studies and the addressed layer.

In addition to data collected through a direct interaction with the members of the main project management team, the study included data collected from reports and other publications about project objectives and project success. Published industry reports

about related types of projects to benchmark from different geographical areas. The study incorporated the published reports and statistics of project-management standards providers in similar studies.

Definitions

The following are essential definitions of key concepts and constructs related to various concepts in the study. The concepts were used for indicating and aligning the various concepts of the study. Chapter 2 includes detailed descriptions for the defined concepts.

Innovation: "The outcome of a series of interrelated activities on a continuum, starting with creative discovery, then entrepreneurship, and, finally commercial exploitation" (Pellissier, 2011, p. 55).

Project-based organizations: "Various organizational forms that create temporary systems for carrying out their work" (PMI, 2013, p. 14). According to analysts at PMI (2013),

> PBOs [Project-based organizations] can be established by different types of organizations (i.e., functional, matrix, or projectized). The use of PBOs may diminish the hierarchy and bureaucracy inside the organizations as the success of the work is measured by the final result rather than the position politics. (p. 14)

Projectized organization structure: "Any organizational structure in which the project manager has full authority to assign priorities, apply resources, and direct the work of persons assigned to the project" (PMI, 2013, p. 556).

Project success: "The success of the project should be measured in terms of completing the project within the constraints of scope, time, cost, quality, resources, and risk as approved between the project managers and senior management" (PMI, 2013, p. 34).

Project team: "The project manager and the group of individuals who act together in performing the work of the project to achieve its objectives" (PMI, 2013, p. 34).

Project team members: "In a projectized organization, team members are often collocated. Most of the organization's resources are involved in project work, and project managers have a great deal of independences and authority" (PMI, 2013, p. 25).

Assumptions

The following assumptions applied to the conducted study. The first assumption was that the interviewed project team members were aware of project management processes and understood the questions I presented to them in English. English was the official communication language in the selected sample of participants, and the assumption was that the language and communication skills of participants are sufficient to understand the objective of the discussion. The second assumption was that participants were knowledgeable of the project environment's temporary nature, had experience in project management from current and previous projects, and understood that the ultimate role of the project team is to meet the project objectives.

The third assumption built on industry standards for a project structure and the relationship between the three layers of the project structure. The first layer includes the project owner identified by the project sponsor and the end users or operators. The

second layer includes the project consultants for technical and management aspects. The third layer includes the project executors identified by the contractors, suppliers, and other service providers. The owner or the owner representative is responsible for the strategy implementation and the alignment with the end users or operators in the same layer. The end users are mostly from owners' operations teams. The consultant's layer includes technical consultants and project management consultants who are generally responsible for providing the standards to execute and manage the project activities and scope. The executor's layer includes the main contractor, subcontractors, suppliers, and other service providers. At the third-layer level, the supplier and service providers might receive an appointment by the main contractors or by the owner.

Following the exploratory case study approach introduced in this chapter, and the objective to explore the identified concepts within the natural setting, the research design entailed the following assumptions. The close collaboration between the researcher and the participating sites was to enhance the understanding of the phenomenon under study (Cao & Hoffman, 2011). The next assumption was that the targeted natural setting will be accessible and "allows the researchers and practitioners alike to understand the nature and complexity of the process that is taking place and gain an in-depth understanding of the phenomenon under study" (Cao & Hoffman, 2011, p. 157). The final assumption was that the strength of this inductive approach was not possible using a quantitative approach to study the phenomenon.

Scope and Delimitation

The scope of the study built on the assumption that global projects supported the emergence of a projectized organization structure and that most project teams must function in an environment that interacts with joint ventures, alliances, multinational sourcing, and intricate vendor relations (Thamhain, 2013a, b, a & c). The scope of this study was to explore how team-building processes in global projects are different from traditional team-building activities. The study included exploring the challenges faced by project leadership to implement project management processes in global multicultural project environments.

Project leadership, project team building, project environment, and project success criteria were four constructs integrated in a comprehensive framework and concluded the main concepts in this study. The framework included the complex adaptive systems theory and the contingency theory. The focus areas were the subsystems interactions and interrelations, contingent approaches, and alignment between various levels in the project as a system. The exploratory case study design supported this structure through the data collection, classification, and analysis into mini case studies and layers within the project structure. The mini-case-studies approach involved studying the nature and type of each project, and the layered approach supported distinguishing between various layers within the project structure to explore the interaction process between the subsystems. The scope included the selection of 25 participants from different layers in the structure.

The oil and gas industry is suitable for this study in the GCC region because of the developments occurred in this sector after the Second Gulf War between 2003 and 2016. The project organization structure, business and operational objectives, and complexities associated with the competing stakeholders' interests were some of the areas considered to study global project leadership within the scope of this study. The study involved exploring the specific actions generated within and around the project environment from the interactions between these forces in the selected sample and location. The adopted research design was flexible enough to adapt the study to the selected location's cultural and professional challenges to fulfill the scope requirements of the study. The following section includes a description of the limitations related to the study design and methodology.

The adopted study involved exploring the global project environment, leadership, team-building process, and applied methods for setting project success criteria at different levels of the project structure. The focus was on the oil and gas construction and development projects in the GCC region, where projects have a national value and project funding is not a concern throughout the project life. The impact of the recent 2015-2016 declined oil prices on development projects budget is neglected and is not the focus of this study. The prequalified consortiums for these projects invited by the project owner had a global presence with extensive experience in international business. The countries of the GCC host various nationalities and are a meeting point between Eastern and Western cultures. The selected project type is typical for a focus on the complexities of the multicultural environments hosted in these projects.

The exploratory case study approach helped to define the boundaries of this research study to include a specific industry development and construction project. the approach was flexible to explore various project types within this category of projects. The approach included exploring the environments generated from the temporary structure of each project and supported the comparative approach between these environments. The comparative approach between the various projects environments supported the definition of the research boundaries within certain explored themes and constructs. These constructs had a direct or indirect impact on the project opportunities to meet their defined objectives.

Limitations

The selected participants for the study were involved in executing projects in the oil and gas industry. The projects were mostly owned by local national oil companies and executed by local or international organizations. Team members at different levels of the project structure may had competing personal interests that may have contradicted with the project objectives. In this regard, the study included means for qualitative data collection based on direct semistructured interviews and the researcher's notes and memos. The approach included indirect questions to avoid challenging participants' personal objectives rather than exploring their experience about the research purpose and problem statement. Furthermore, triangulation was appropriate in the selected research design and data collection strategy through the comparative approach between the project layers and cases. The adopted multilayered and nested case study involved probing deeply into the selected environment. My role in this area was to understand the structure

and allow for cross-checking the results at various project layers. In addition, my role as the researcher was leading the exploratory and comparative analysis for the data collected from different project environments.

Summary and Transition

In the oil and gas industry, project failures attributed to people in charge of project leadership (Kloppenborg et al., 2014) may threaten the development process at the organizational or the national levels. Misalignment between global organizations and the hosting environment is creating social, psychological, and organizational issues (Thamhain, 2013b) that may have caused technical problems that threatened the success of projects. Leadership of organizations whose objective is to expand into foreign environments must consider the challenges and opportunities at various levels of the project structure. Especially during the initial steps of setting the project environment and the selections of the project leadership and throughout the project team-building process.

This research involved exploring various challenges imposed in the multicultural environment to establish a successful project structure. The scope included studying the project environment from the project-sponsor or owner-representative level through various international consultants' organizations, to the global executing organizations level. The focus on the oil and gas industry in the GCC region provided the opportunity to cope with global organizations from the Far East to the Far West. This stage in the industry includes a high intensity of government expenditure in the oil and gas development projects after the Second Gulf War of 2003 and the 2008 global recession.

This study did not cover the impact of the recent crash in the oil prices on the oil and gas projects.

In responding to the research problem, purpose statement, and research design, a literature review strategy in Chapter 2 reflected the history of the problem. The literature review also covered the history of the complex adaptive systems theory, the complexity theory, and the contingency theory and its impact on the development process of various project management and leadership models. The literature review methodology provided essential grounds for understanding the dynamics around various themes of the global project environment.

Chapter 2: Literature Review

Introduction

The rate of project failure globally exceeded 62% in 2011, according to PMI (2014). In the global environment, 70% of organizations experienced at least one project failure in 2010 (PMI, 2014). Considering the nature of the project structure as a defined endeavor with a temporary nature (Keegan et al., 2012), project success is measured against predefined success criteria at the project initiation stage. Thirty-nine percent of project failures are the result of people in charge of the project leadership (Kloppenborg et al., 2014). In GCC project failure has a high risk on the national economy where 65 to 90% of the exports earnings depend on the oil and gas sector which is the main driver of the development plans published by GCC governments (Hvidt, 2013).

The purpose of this study was to exploring leadership requirements within the oil and gas multicultural project environment of the GCC. My focus was on locally conducted projects by global organizations. Oil and gas participants from two GCC members, the UAE and Kuwait, were deemed suitable for the study. A case study approach was appropriate, I believe, for exploring the perceptions of leaders from the project owners, consultants, and executing organizations regarding leadership requirements as well as answering the central research question: How does project leadership support the success of global multicultural projects in the oil and gas industry in GCC countries? The study involved exploring specific areas related to the project environment and project leadership through two research subquestions:

1. What is the role of project leadership in managing the project's cultural and environmental complexities in projects? and

2. How can leadership contribute to project success in a challenging global multicultural impermanent project environment?

Complex adaptive systems theory (Wang et al., 2015) and contingency theory (Van de Ven et al., 2013) served as the conceptual framework for the study. The complex adaptive systems theory supported a better understanding of the project environment as a complex adaptive system while contingency theory provided an understanding of the project leadership requirements in an ever-changing global environment. This chapter includes information on my literature review strategy and the history of project organizations and the increasing trend of adopting project structure in global business organizations. The review of project leadership role and requirements includes a focus on studying the environmental factors that shape the project environment using the aspects of the complex adaptive systems theory and contingency theory.

In the chapter, project structure undergoes a review with respect to conventional organizational structure. The objective of this literature review was to enhance understanding of the project environment and develop a series of exploratory questions that were used as part of my exploratory case study approach. The goal of the data collection process with face-to-face interviews was to explore the association between the problem statement and the defined literature gap. The goal included the establishment of a link between the adopted data collection approach and the problem and purpose

statements. Doing so supported the development of the exploratory semistructured interview questions.

Literature Search Strategy

In this section, I present my literature search strategy and the engines I used to search in the existing literature. I included key terms, concepts, and combination of keywords I used in the process. I summarized the key terms and concepts in Figure 4 to present how the literature search strategy supported the depth and breadth of the research.

Industry-Published Research

I developed a literature search strategy to focus the review on the oil and gas industry. The review included industry-published research papers on project organizations and literature on project and global project leadership. Because of the lack of literature on the topic within the focus geographical zone of the oil and gas industry in the GCC countries, I considered other sources of information. These sources are sponsored third-party industry reports by business consultants such as Pricewaterhouse Coopers (PwC) (PWC, 2014) and Deloitte (Deloitte, 2015) which are accredited and considered to be reliable, to add emphasis to the literature gap and the problem statement rather than the collection of information on the topic. These sources included published reports from national and international oil companies working in the focus industry, published white papers on industry challenges, and annual reports that include industry achievements and progress in development projects.

Project Management Institute Research

As a member in the PMI, I had access to the *Project Management Journal*, which specializes in publishing peer-reviewed articles on project management and project leadership. In my perspective, the published statistics sponsored by PMI were suitable for highlighting the problem and support the literature review strategy. Peer-reviewed articles published in the *Project Management Journal* helped me to understand the problem and to focus the literature review efforts. These articles assisted me in tracking a chain of focused research efforts on project leadership and supported the research depth and breadth. The literature review includes the role of leadership in driving project organization structure and project success.

Online Databases and Search Engines

The search engines used were mainly Walden University Library and Google Scholar with a link created to Walden University Library. The process included tracking and alerting for newly published peer-reviewed articles using Google Scholar capabilities. The Create Alert option influenced some changes in the literature review direction in the late stages of the review. Walden University Library included various databases used to access peer-reviewed journal articles provided by SAGE Journals Online, EBSCO databases, ProQuest databases, and ScienceDirect.

Keywords and Concepts Grouping

The keywords and main search concepts appeared in Figure 4 represented the literature review strategy and the concept map for the relationship between the main concepts. Searched keywords included *project management, project leadership, global*

organization, organization change, global business environment, global projects, project-based organizations, temporary organizations, project success (criteria), project performance, project evaluation and assessment, project governance, project complexity, complexity theory, complex adaptive systems, contingency theory, and *contingent leadership.* Expanded research considered the keywords *global projects, organization change, project leadership, project governance, project complexity, project success, and project evaluation and assessment.*

Hosseini & Chileshe (2013)
Pellissier (2011)

Engineering / Construction
Oil & Gas Projects

PMI (2013)
PMI (2014)
Keegan, Huemann & Turner (2012)
Killen & Hunt (2010)
Liu & Fang (2006)

Framework, Processes, and
Approaches

Project Management

Cao & Hoffman (2011)
Merrow (2012)

Project Evaluation & Assessment
Methods

Cao & Hoffman (2011)
Kloppenborg, et. al. (2014)
Mir & Pinnington (2014)
Hyvari (2006)

Project Success Factors

Project Success

Aarseth et al. (2013)
Mossolly (2015)
Anantatmula & Thomas (2010)

Org. Global Expansion Strategies

Caligiuri (2006)
Gabrielsson et al. (2009)
Irving (2010)

Global Business Environment

Jacobsson & Söderholm (2011)

Organization Change Management

**Corporate / Organization
Theory**

Davis (2014)
Turner & Zonlin (2012)
Nixon et al. (2012)

Project Stakeholders Management

Caligiuri & Tarique (2012)
Clarke (2010)
Gundersen et al. (2012)

Project Multicultural Environment

Rekveldt et al. (2011)
Vidal et al. (2011)

Project Complexity Types

Project Complexity

Hanisch and Wald (2012)
Van de Ven et al. (2013)

Organization Uncertainties /
Differentiation and Integration

Contingency Theory

Review Depth

Review Breadth

Temporary / Project Based
Organizations

**Projectification
Process**

Global Projects Environment

Global Project Leadership

Theoretical Lens

Project Leadership

Project Management
Vs. Project Leadership

Anantatmula (2010)
Müller & Turner (2010)
Nauman, et. al. (2010)
Shenhar (2004)
Yang, Huang & Wu (2011)

Intercultural Leadership
Competencies

Avolio, et. al. (2009)
Bird et. al. (2010)
Caligiuri & Tarique (2005 to 2012)
Di Marco, Taylor & Alin (2010)
Irving (2010)
Lloyd-Walker & Walker (2011)
Thamhain (2013)

Leadership Style

Leban & Zulauf (2004)
Lloyd-Walker & Walker (2011)

Project Environment

Projectification
Project Based Organizations

Chiocchio, et. al. (2010)
Maylor, et. al. (2006)
Turkulainen, et. al. (2013)

Project Nature & the Temporary
Environment

Turner, & Müller (2002)
Jacobsson & Söderholm (2011)
Lundin & Söderholm (2013)

Project Governance

Ahola et al. (2014)
Pitsis et al. (2014).
Williams et al. (2010).

Learning Organization

Cotae (2010)
Eweje, Turner, & Müller (2012)
Koskinen (2012)

Project Team / Global Team
Building & Management

Gabrielsson, et. al. (2009)
Hosseini (2013)
Jarvenpaa & Keating (2012)
Thamhain (2013)

**Complex Adaptive
Systems**

Complex Adaptive Systems

Wang et al., (2015)
McDaniel (2007)
WestHorp (2012)
Singh and Singh (2002)

System Thinking

Kapsali (2011)
Vroom & Jago (2007)
Hanisch & Wald (2011 - 2014)

Figure 4. Literature review keywords grouping and concept map.

Theoretical Foundation

Reviewing the project-management conceptualization history involves many challenges, including the researcher's ability to differentiate an intentional misinterpretation of an idea or phenomenon from a critical understanding of the development of thoughts (Söderlund & Geraldi, 2012). The theoretical lens in academic research serves as a measuring technique in single or multiple forms. I adopted a theoretical framework that supported the critical analysis and the literature review to probe the historical approaches of the topic.

Complex adaptive systems, and the contingency theory served as the theoretical lenses because they are consistent with the objective of this research in two ways. The first is in discussing the project organization environment as a system with dynamics influenced by the factors related to the internal and external environments of the project. The second is in analyzing project leadership requirements within an ever-changing project environment influenced by various types of stakeholder groups.

Complex Adaptive Systems Theory Origins and Associations

Complex adaptive systems theory emerged from the chaos and complexity theory. The principles of the chaos theory describe the events that have random unpredictable consequences and complexity theory defines the emergence of non-linear behavior and the simple effects that might be produced from certain interventions in the system (Janssen, Van Der Voort & van Veenstra, 2015). The system has the tendency for self-organizing and evolving to reach an order and adapt with the internal and external interventions and changes (Anderson, as cited in Janssen et al., 2015). Under the complex

adaptive systems theory, management acknowledge the effect of both planned and emerging parts of the situation. Even with well planned projects where certain parts can be controlled to a high extent, other parts remain hidden and detailed planning process fails to control the effect of the changes not captured in the planned (Janssen et al., 2015).

The origins of complexity theory are the general systems theory adopted by Ludwig von Bertalanffy, Kenneth Boulding, Anatol Rapoport, and Ralph Gerard in the 1954 establishment of the foundation of the Society for General Systems Research (SGSR) (Adams, Hester, Bradley, Meyers, & Keating, 2014). The complex adaptive systems theory is a methodology to understand how order emerges in complex, nonlinear systems such as galaxies, ecologies, markets, social systems, and neural networks (Wang et al., 2015). The principles of complex adaptive systems related to physics, chemistry, and mathematics and researchers widely used them to describe systems as living and open with the ability to exchange matter, energy, or information across their boundaries and use that exchange of energy to maintain its structure (Cleveland, as cited in Wang et al., 2015).The exchange process caused by the interactions within the system creates a balance point often called the edge of chaos that supports the emergence of new ideas and innovative genotypes (Bertalanffy, Waddington, Waldrop, & Cleveland, as cited in Wang et al., 2015). Wang et al. (2015) compared the outcome balance between stability and turbulence in the system to the concept of the edge of chaos that maintains the system as dynamically stable, healthy, and innovative. Complex adaptive systems are diverse agents that learn, that interact with each other in nonlinear ways and therefore self-organize, that have emergent properties, and that coevolve with the environment

(McDaniel, 2007). Wang et al. (2015) identified fundamental attributes in relation to complex adaptive system which include complexity, self-organization, adaptability, and the ability to coevolve.

In differentiating between simple, complicated, and complex problems, Westhorp (2012) reported that complicated refers to having many parts, whereas complex refers to the principles of complexity theory, including emergence and uncertainty. Westhorp discussed the differences between the realist philosophy and complexity theory, noting that realist philosophy tends to describe outcomes from a cause-and-effect, more linear approach, and complexity is the approach of studying multiple factors and layers that influenced the outcome. Westhorp asserted that realism can adequately relate to complexity theory when discussing multiple causes in an evaluation process of multiple effects. Reflecting on the system interactions at the higher order and on the secondary interactions between the interactions is necessary (Westhorp, 2012). Wang et al. noted that system-thinking researchers can establish a link with the nature of a system consisting of multiple subsystems that interact with one another in a nonlinear fashion. Subsystems identify themselves in layers, and interactions exist between the systems and vertically between the layers (Wang et al., 2015).

Based on the early works of Singh and Singh (2002) on the principles of complexity and chaos theory in project execution, Müller et al. (2012) contended that the complexity theory exists in project management literature to understand the difficulties encountered in project contexts. Müller et al. related the increasing attention of academics and practitioners in project management to the ability of the complexity theory to explain

the challenging project environment. Singh and Singh focused on defining the parameters of the paradigm shift in management from a linear cause-and-effect philosophy to the nonlinear complex philosophy and related this paradigm shift to the need for innovative ideas and advancements in the objectives of adopting a project structure. The chaos in complexity theory explains the embedded linear systems within a system that is not chaotic at all. The basis of adopting the complex adaptive systems theory in this literature review is the concept that the project structure as a system that consists of smaller systems and agents that interact horizontally internally and externally and vertically between layers formed by the nature of the multiple stakeholders.

From a different approach focused on the Arab countries in the Middle East, Rihani (2013) discussed the factors that interrupt the interaction process between the system elements in the region. The lack of free interactions between the system's elements resulted in a rigid process (Rihani, 2013). Focusing on the nested complex adaptive systems in the region, Rihani identified factors such as cultural barriers, education, and the freedom to interact as basic challenges to system evolvement. Full stakeholder engagement, considerations given to cultural and ethnic groups, and cooperation between nations are critical factors for a complex system to perform (Rihani, 2013).

Complex adaptive systems theory was the theoretical basis selected to explore the evolution of the project structure and the project leadership challenges in the complex, multicultural, global project environment. The literature review provided in this chapter includes an exploration of the definition of project structure and environment with respect

to the notions of complex adaptive systems. In addition, complex adaptive systems comprise part of the discussion on the complexities that occur within and around the project structure.

Contingency Theory Origins and Association

Contingency theory links to organization design and behavior trace back to the early works of Lawrence and Lorsch in 1967, who challenged the concept of the one best organizational design (Van de Ven et al., 2013). Lawrence and Lorsch, as cited in Van de Ven et al. (2013), introduced the concept of differentiation and integration in response to the greater environmental uncertainties in the organization environment. Lawrence and Lorsch established concepts on differentiation and integration are the bases for the three critical principles of the contingency theory. The first principle includes an analytical description of the organizations; the second principle defines the external circumstances that produce particular organizational designs; and the third principle involves an exploration of the idea that an appropriate linkage exists between external, internal, and organizational performance.

The development of the contingency theory since then included works on three perspectives: organization configuration, complementarity, and complexity (Van de Ven et al., 2013). The configuration perspective includes a description of the holistic nature of a system looking at the subsystems differentiation and distinguishing features that form a pattern or the work system (Meyer et al., as cited in Van de Ven et al., 2013). Configuration relates to the organizational pursuit to achieve internal and external fit; however, with attention given to the institutional forces on the system which is linked by

Van de Ven et al. to the institutional theory and the exploration of the institutional

contingencies in organizational design (Van de Ven et al., 2013). Complementarity is the

identification process of the main components in the configuration of adaptation and

change to achieve the required fit and performance (Van de Ven et al., 2013). Complexity

perspective is a generalization of complementarity and involves looking at nonlinear

dynamics in changing organization design configuration (Anderson, as cited in Van de

Ven et al., 2013).

The emergence of the complexity perspective from the early notions of the

contingency theory involved a continuous effort to identify and define the

interdependencies between the subsystems, which include the organization of these

interdependencies in creative forms of organization designs and configurations to

distinguish between and achieve the internal and external fit (Van de Ven et al., 2013). In

the emergence of the contingency theory, Hanisch and Wald (2012) contended that

despite the early notions of contingency theory in organization design, it only recently

become a consideration in the project management and project structure literature due to

the fragmented and inconsistent use of the terminology and perspective. With an

emphasis on the broad abilities of the contingency theory, Hanisch and Wald noted that

within the underrepresented research on project management, researchers did not

consider the contingency theory as a sufficient theoretical base to understand the project

environment. Hanisch and Wald stressed the benefits of this perspective in studying

different types of projects from various industries, which supports a research trend in

identifying social, cultural, cross cultural, leadership, and organizational factors to

enhance the understanding of the complexities in social networks interactions within the project structure.

Literature Review

This review included insights to understand the project environment as a temporary organization. The focus was on reviewing the literature on the active forces in shaping the project environment and the project nature. I tried to track the sources of these forces with an objective to differentiate between a project structure and an organization structure. The review also covered global projects as an opportunity wherein the organizational leadership gather multiple organizational cultures in multicultural global environments.

Research Problem

The general problem is that in 2011, over 62% of projects either failed or faced challenges to meet predefined project success criteria (PMI, 2014). In a global environment where almost 70% of organizations experienced at least one project failure in 2010 (PMI, 2014). Researchers in the project management arena are showing an increased interest in defining the factors that are essential for conducting projects successfully. In 2012, the rate of project failure was 39%, with the failures attributed to the people in charge of the project leadership (Kloppenborg et al., 2014).

The specific problem is in the inability to meet time, cost, and quality constraints in oil and gas industry projects in GCC countries. The problem emerges in the failure to achieve government and corporate predefined strategic objectives. A link exists between project failures and project management performance, with over 49.7% in the

construction sector (Mir & Pinnington, 2014). In the GCC region, 65 to 90% of the exports earnings depend on the oil and gas sector which is the main driver of the development plans published by GCC governments (Hvidt, 2013).   This market is attracting American, European, and Asian construction conglomerates, which increases the challenge of project leadership coping with cultural diversity. Although government capital expenditure in projects exceeded US$2.3 trillion in 2013 (Zawya, 2013), the staff of international organizations execute more than 75% of projects (Meed, 2013). In the highly globalized business environment in GCC, the applied practices in the selection process of project leadership are yet to meet the project's cultural challenges.

Kuwait is second in the GCC in project's market after the Kingdom of Saudi Arabia [KSA] (National Bank of Kuwait [NBK] Economic Research, 2015), and over 90% of government revenue comes from oil exports (Bertelsmann Stiftung's Transformation Index [BTI], 2016). Delayed projects in Kuwait led to a GDP development rate below 1.7% (Economist Intelligence Unit, 2015, June 25). An example is the delay on the Al Zour Refinery, or the project known as The Fourth Refinery, in Kuwait. The researchers of Economist Intelligence Unit's 2015 report defined project delay as a major factor that restricts the country's oil and gas industry development and oil production. The Economist researchers reported that the continuous delays in the project for over five years were due to several reasons, including price increases, the gap between the project budget and the bids value, and the continuous change in regulations. The BTI authors reported that the complex decision-making process in the country and the political tension between stakeholders against the bidding international companies

were some of the main factors behind the delay. Other reasons in the BTI's *Kuwait*

Country Report 2016 included the reliance on foreign labor, bureaucracy, and the

growing unemployment rate among citizens as the primary reasons for the delay in oil

and gas development projects in Kuwait (BTI, 2016). The downgraded rank of Kuwait to

111th out of 144 countries in the level of innovation linked to the stalled process of

development (BTI, 2016).

The delay of the national development projects in Kuwait was a topic of

discussion in the third workshop of the Municipal Council's reform and development

committee. Minister of Social Affairs and Labors and Minister of State for Development

and Planning Hind Al-Subaih linked the delay in 70% of the country's development

projects to the executors' performance and efficiency ("Delay of Developmental

Projects," 2016). The workshop emphasis was on the importance of the cooperation

between the leadership of various governmental bodies and the executors to overcome the

obstacles and support the project execution plans.

The October 2015 report published by NBK estimated the project market value in

the Kuwait with US$30 billion awarded during 2015 (NBK Economic Research, 2015),

(see Figure 5). The oil and gas projects categorized under strategic projects awarded in

the same year worth US$21.7 billion, accounted for over 70% of the project expenditure

in the country (NBK Economic Research, 2015). The report noted that any further delay

in these strategic projects will not only affect the development process but will negatively

affect the investors and executors' confidence in the country.

GCC Project Market - 2015
($ billion)

Country	Value
KSA	36.00
Kuwait	31.00
UAE	26.50
Qatar	22.50
Oman	23.00
Bahrain	2.50
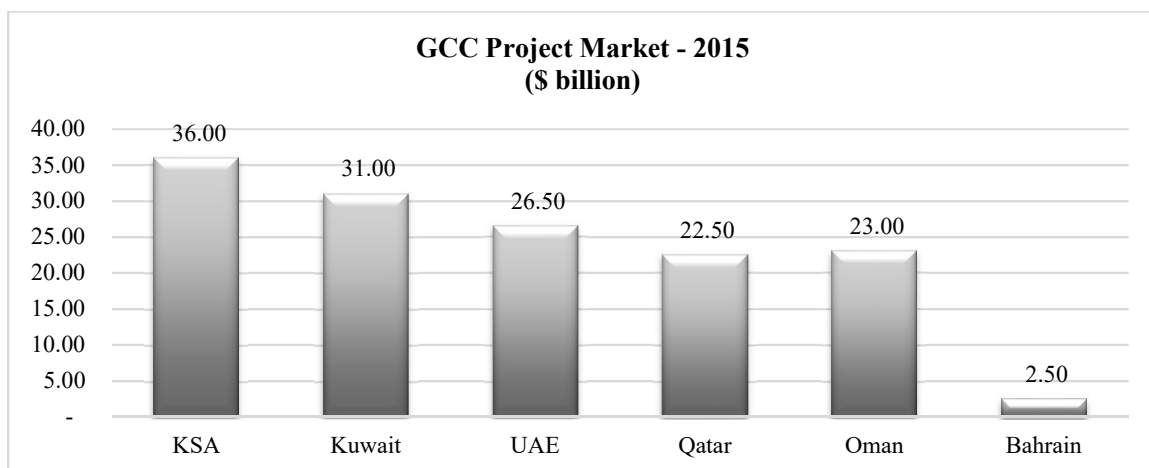
Figure 5. Gulf Cooperation Council project market in 2015.

Adapted from "Economic update," by National Bank of Kuwait Economic Research,

2015, October 22. Copyright 2015 by NBK.

      The accountability report of 2015 for Abu Dhabi, the oil-rich capital city of the

United Arab Emirates (UAE), admitted to an underspent amount of US$24.5 million in

city development projects. The report linked the underspent amount to delays in various

development projects, including the oil and gas industry (Abu Dhabi Accountability

Authority, 2015). Over US$6.5 million of this amount related to the decision-making

process in recruiting key project-management team members and the internal tension

within this process (Abu Dhabi Accountability Authority, 2015). Abu Dhabi National Oil

Company, a state-owned enterprise, is one of the main contributors to state public

projects. Abu Dhabi National Oil Company sponsors Abu Dhabi Petroleum Institute to

develop local nationals' skills. The institute's objective is to supply skilled manpower

requirements for industry needs (Deloitte, 2015). The authors of the Deloitte (2015)

report addressed coaching and leading in development programs as one of the major

factors challenging the Abu Dhabi National Oil Company nationalization process. Although identified as a global phenomenon, researchers at Ernst & Young (2015) indicated the skills required to cover the oil and gas industry needs are a major challenge in the GCC region. The leadership quality of local employees is a major challenge among new hires for the top 100 employers in the GCC region (Ernst & Young, 2014a).

The Ernst & Young Oil and Gas Capital Projects Series published in 2014 highlighted project delay as an international problem and indicated that the majority of projects face delays and cost escalations. These overruns occur in all oil and gas segments and geographies, with 64% of the projects having cost overruns and 73% of the projects having schedule delays. In the Middle East, where GCC oil-rich countries represent the majority of the region, 89% of the projects face cost overruns, 87% of projects face schedule delays, and the average project budget overrun is 68% (Ernst & Young, 2014b). Oil and gas megaprojects are under intense and growing stakeholder scrutiny because of the increased technical and commercial complexity, along with the commercial, environmental, and political cost and risk (Ernst & Young, 2014b, p. 2). Poor project performance results from an inefficiency of project management team to understand the scope complexity and inability to manage change in the project activities and schedule (Ernst & Young, 2014a). A root-cause analysis of project failure in the oil and gas industry indicated 65% of project failures resulted from softer aspects such as people, organization, and governance; 21% of the failures resulted from management processes, contracting, and procurement strategies; and 14% of the failures resulted from external factors such as government intervention and environment-related mandates

(Ernst & Young, 2014b). The role of owner organizations whose leaders are responsible for setting high-level strategies is critical to project success. The role of owner organization leaders specifically involves setting clear strategic directions in the project selection criteria, aligning project portfolios to avoid overstretching resources, and considering the potential value of interproject linkage (Ernst & Young, 2014b).

In KSA, public spending in the form of capital projects averaged over 11% of the country's GDP, depending exclusively on revenues from oil exports (IMF, 2015). The International Monetary Fund (IMF) raised concerns about the ability of KSA public investment to meet the country's development goals (IMF, 2015, p. 27). The IMF measured efficiency in public projects in KSA using the standard indicators that measure project output against capital expenditure's monetary value. The efficiency in KSA capital expenditure, in general, was below most advanced economies such as Canada, Chile, Norway, and Australia (IMF, 2015). The IMF analysis indicated investment management processes in KSA must include more cost-saving opportunities in public projects to meet the government's predefined strategies and objectives (IMF, 2015). This general view of the major projects management processes in KSA is an indication of a consistent challenge in various industries in the country, including oil and gas (IMF, 2015).

The PwC's 2014 Middle East Capital Projects & Infrastructure survey indicated two primary reasons in the GCC region for the inefficiency in capital projects: people and financial resources (PwC, 2014). The results of the survey, conducted periodically by PwC researchers, emphasized the negative impact of the challenge to employ skilled

project team members with a specific challenge in KSA resulted from the quality of the team members (PwC, 2014, p. 7). Respondents on the PwC 2014 survey indicated that 95% of projects suffered a delay in 2014, and over 44% of projects faced delays of more than 6 months (PwC, 2014, p. 14). The same report indicated that 71% of the projects were over budget compared to 63% in 2013 (PwC, 2014, p. 14). The survey is not specialized in the oil and gas industry and reports overall project market conditions. However, the report indicated that the continued investment in oilfields, petrochemicals, and power production facilities drives the capital projects in KSA (PwC, 2014, p. 7). The complexity of the oil and gas and petrochemicals projects is adding to the challenge of employing skilled labors.

The blame game between contractors and project owners was one of the focus points of the PwC 2014 survey and indicated a gap in defining the real cause of the project delay (PwC, 2014, p. 16). Owners representative reported that contractor's project team capabilities represent 15% of the reasons behind the projects' failures and contractors reported that project management team capabilities represent 25% of the reasons behind the projects' failures (PwC, 2014, p. 16). The primary causes for project delays appear in Figure 6, with a comparison between project owner and contractor views. A general recommendation included the need to rethink how organization leaders govern and oversee project delivery to build delivery units focus groups that are agile, empowered, and able to make decisions effectively (PwC, 2014, p. 16). With an alert raised for increasing disputes in 2016 and 2017, the PwC 2016 Capital Projects & Infrastructure Survey indicated that the trend toward increased reliance on public–private

partnership projects may narrow the gap between owner organizations and contractors (PwC, 2016). The 2016 PwC report included expectations for a direct impact on higher efficiency in project governance, inquiry effectiveness in communication, and decision-making processes that are more efficient.

Primary Causes for Delay - the Owner's View

Cause	Percentage
Force Majeure Events	5%
Project Team Capabilities	15%
Performance of Material and Equipment Suppliers	22%
Realism of overall Timescale	24%
Contracting Strategy and Risk Transfer	27%
Scope Definition	41%
Changes in Scope	51%
Contractor or Subcontractor Performance	63%

Primary Causes for Delay - the Contractor's View

Cause	Percentage
Force Majeure Events	10%
Contracting Strategy and Risk Transfer	20%
Scope Definition	20%
Project Team Capabilities	25%
Realism of overall Timescales	35%
Contractor or Subcontractor Performance	40%
Performance of Material and Equipment Suppliers	45%
Changes in Scope	55%

Figure 6. The primary causes for project delays in the Middle East region.

Adapted from "Middle East Capital Projects & Infrastructure (CP&I) Survey: Building beyond ambition" by PwC, 2014. Copyright 2014 by PwC. Reprinted with permission.

Project Environment Versus Corporate Environment

Project nature. Only few of the reviewed research initiatives on the project environment included a focus on the challenges generated by the cultural differences as a risk to the project success (Thamhain, 2013a). Other approaches involved exploring the project-environment-related challenges focused on the consistency between a project's set of objectives and the corporate strategy (Eweje et al., 2012), but with a focus on the leadership competencies of the project management team and the project leadership (Müller et al., 2012; Thamhain, 2013b). Thamhain (2012) and Thamhain (2013b) included a discussion on how the forces shape team dynamics within the team and between project teams and their environment. This section includes a synthesis of project definitions to understand the project nature and the forces that shape the project work environment.

Projects as an organizational change tool. An early definition of project organization differentiated a project from routine operations with a focus on three constraints: time, cost, and quality. J. R. Turner and Müller (2003) recalled their early definition of a project:

> An endeavor in which human, material and financial resources are organized in a novel way, to undertake a unique scope of work, of given specification, within constraints of cost and time, so as to achieve beneficial change defined by quantitative and qualitative objectives. (p.1)

Researchers on the project leadership gave less attention to the complexity within the project environment generated from the beneficial change (J. R. Turner and Müller,

2003). These pressures, represented by uncertainty, integration process of resources, and urgency to achieve the project change objectives, were three of the main points that stressed the urgency for an update in the project definition (J. R. Turner & Müller, 2003).

In their efforts to define the project nature within the boundaries of the temporary organization theory, Lundin and Söderholm (2013) established a link between a project environment and its context. This approach recognized the project theory as a change tool with internal and external pressures assessed by the end state within the project context. With a focus on the main drivers for constructing a theory, Jacobsson and Söderholm (2011) reviewed the existing research streams on project organization to support the rethinking of the project theory as a phenomenon with a strong relationship to its context. Beyond the classical task, time, team, and transition elements J. R. Turner and Müller (2003) met with Jacobsson and Söderholm (2011) in considering the end state after the project completion. This trend of redefining a project as a temporary organization as a change tool creates a strong perspective on the interactions between the internal and external environment of a project. A project's external environment includes interactions with other projects within the same program or portfolio, the mother organization environment, the resources, the stakeholders, and other external forces that define the project governance.

Project governance and uncertainty. Project governance is receiving increased attention as a research line to differentiate between internal and external governance mechanisms. Project governance refers to the level of risk to manage within the uncertainty and instability of a project's internal and external environments (Ahola,

Ruuska, Artto, & Kujala, 2014; Pitsis, Sankaran, Gudergan, & Clegg, 2014). The governance structure of the project is a topic within the project applied internal performance management systems and the systemic institutional level that governs the relationship between a project and its stakeholders (Ahola et al., 2014). Understanding the complexity of project systems within current management and organizational theories entails the recognition of (a) the relationship to the organization environment at the program, portfolio, and strategic levels and (b) the impact of other government policies, laws and regulations, financial markets and institutional frameworks, political environments, and power in direct and indirect stakeholder relationships (Pitsis et al., 2014).

A shared and universally accepted definition for project governance is missing. Researchers use the term project governance in the literature to describe a project's internal and external relationships to address various views on project temporality. From a narrow economic viewpoint, project governance simply refers to a contract used to govern the relationship with individuals at the level of the project management team. Other views consider the principles to respond to project stakeholders' demands, documentation procedures, communications, and contractual arrangements. A wider vision includes the decision-making process and the mechanisms that govern the relationship between various firms participating in a project (Ahola et al., 2014). In this study, the focus is on project governance as an approach to understand the complexity around the project environment as a temporary organizational system with impacts generated from multiple forces in the internal and external project's environments.

From an external perspective, the project's ability to align with the parent's project-based firm (PBF) strategy governs the relationship between the project and its PBF. The challenge of the project management team is to align the competing PBF interests, project interests, and self-interests. Accordingly, a unique decision-making process is necessary to prioritize the allocation of resources between projects within the same portfolio (Ahola et al., 2014). Political processes that dominate decision making in public projects add to the uncertainty around any specific project and at various stages of the project (Williams, Klakegg, Magnussen, & Glasspool, 2010).

An internal perspective to the impact of governance includes two concepts. The first is the interdependency between the firms gathered under a project structure to achieve the project objective; the second is the alignment of various project activities to achieve the goal (Ahola et al., 2014). In this respect, a project refers to an organization factor with the power to achieve the goal. Challenges conducive to this internal perspective include the conflict between the short- and long-term objectives of the participating firms with the project objective. Here, project governance includes the joint efforts to align project activities to achieve the project goal. The governance structure of a project must align between the internal capabilities and the external contingencies such as the regulatory practices (Ahola et al., 2014; Ruuska, Artto, Aaltonen, & Lehtonen, 2009).

Irrelevant to its many other effects, the focus of this review is the effect of project governance on the project environment and project complexity. Specifically considered is the decision-making process in a project environment and some of the factors that add to

the complexity of a project structure. The conflicting interests of the culture of the firms participating in a project, the teams' personal interests, and the challenges of the external environment are forces that define project governance. A gap in the literature is the lack of a standard and unified approach to defining project governance. Understand the complexity of the internal and external environment of a project is important in the development process of a project governance structure. Governance structure includes the organization of the internal and external independencies between individuals and firms participating in a project.

   Complexity and the project environment. A project is a unique endeavor undertaken to deliver a result, and is an organizational change tool that acquired a unique nature from the different targets, resources, and environments of each specific project. Larger projects with more sophisticated technologies in the oil and gas industry with an increased number of contractors and partners add to project complexity, and increased complexity in the project environment increases project risks (Vidal, Marle, & Bocquet, 2011). Hanisch and Wald (2014) identified a gap in the literature on the lack of sufficient studies on the effect of complexity in temporary organizations compared to permanent organizations. Although complexity is a challenge to success in permanent organizations at the organizational and individual levels, temporary organizations increase immunity against complexity. Hanisch and Wald (2014) identified two types of complexity in the project structure including task complexity and environment complexity, which are the main reasons for adopting a temporary organization structure in the form of projectized organizations, in the projectification process, and project-based organizations or firms.

Despite the lack of a commonly accepted definition, temporary organizations are

"aggregates of individuals temporarily cooperating for shared cause" (Hanisch & Wald,

2014, p. 198). This definition includes teams, task forces, projects, and programs wherein

the impending termination of the temporary organization continues to be in the collective

awareness of the team.

Project success, traditionally measured by time, cost, and quality or scope, is not a

valid comprehensive indication with the increased complexity of temporary

organizations. Although scarce in the literature, the research on the complexity of

temporary organizations consented on the degree of success in aligning project objectives

to corporate strategy as a measuring indication of the project success. There is an

increasing trend to include (a) efficient use of project resources and (b) effectiveness in

meeting corporate objectives in measuring projects' complexity and success. Efficiency

includes the successful implementation of project management processes (Eweje et al.,

2012; Hanisch & Wald, 2014).

A gap exists in the literature on the lack of consensus on defining project

complexity (Vidal et al., 2011). The definition adopted for project complexity for the

purpose of this study was the one provided by Vidal et al. (2011):

> Project Complexity is the property of a project which makes it difficult to
>
> understand, foresee and keep under control its overall behavior, even when given
>
> reasonably complete information about the project system. Its drivers are factors
>
> related to project size, project variety, project interdependence and project
>
> context. (p. 5390)

A systems-thinking-based approach to describe projects includes the four aspects of a system defined in Figure 7 and adapted from Vidal et al. (2011). The four aspects are teleological aspects represented by the project goals and values, genetic aspects that reflect the evolution of a project phases, ontological aspects represented by project elements such as resources and actors, and a functional aspect that describes the project tasks and processes.
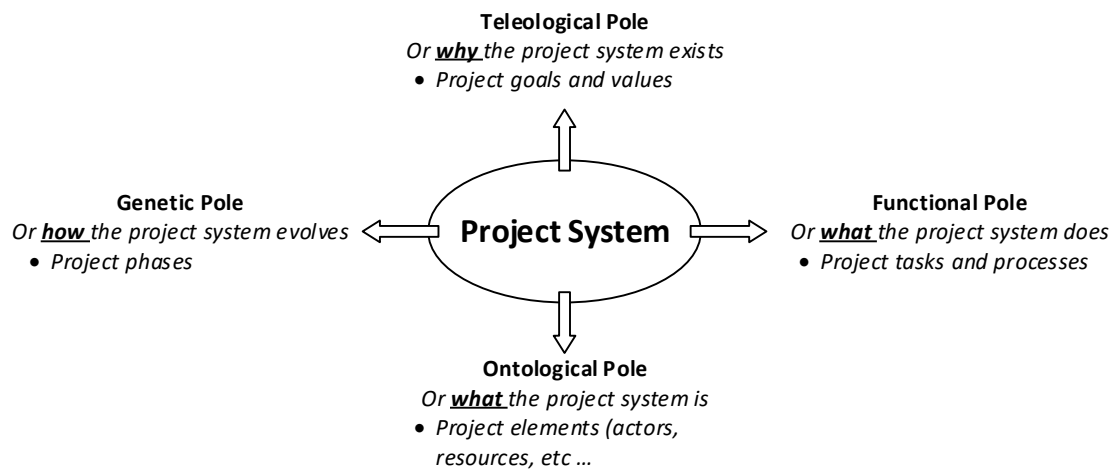
Figure 7. A systems thinking-based approach to describe projects. Adapted from "Using a Delphi process and the analytic hierarchy process (AHP) to evaluate the complexity of projects," by L. A. Vidal, F. Marle, and J. C. Bocquet, 2011. *Expert Systems With Applications*, 38, 5388-5405. Copyright 2010 by Elsevier Ltd.

Accordingly, Vidal et al. (2011) described project complexity from a systems thinking approach with four groups of factors. The four groups relate the various factors in project complexity to its origins from complexity theory. First, the project size group includes the instant time scale and the cardinal scale and relates the project to its ontological aspects. Second, the project variety group includes the emergent properties of

project phases, which is close to the ontological aspects in the systems-thinking approach. Third, project interdependence includes the interfaces and interdependencies or interrelationships within the project context, categorized under the functional aspects of project complexity. Vidal et al. contended that this group of factors are the main drivers of project complexity and represent the most problematic group, as each element of the project depends and influences the others. Fourth, the context-dependence group refers to the project environment and contextuality as essential features of project complexity. Contextuality as defined here is not a transferable feature to other projects with different institutional and cultural configurations (Vidal et al., 2011).

In a separate inductive approach, Bosch-Rekveldt, Jongkind, Mooi, Bakker, and Verbraeck (2011) discussed the characteristics of project complexity from in current research. Existing literature lacks both theory and practice to support a generalized framework for measuring project complexity (Bosch-Rekveldt et al., 2011). Bosch-Rekveldt et al. and Vidal et al. (2011) indicated that different projects with different complexity levels and natures will require different and more tailored project management approaches. Bosch-Rekveldt et al. (2011) differentiated between complex and complicated projects, project complexity and project management complexity, and complexity dynamics during different project phases. In this regard, Bosch-Rekveldt et al. (2011) emphasized on identifying project complexity elements on three levels: "structural elements, dynamics elements, and the interaction elements" (p. 730). A project, accordingly, entails a broader perspective as a "complex adaptive system(s) or socially constructed entity(ies)" (Bosch-Rekveldt et al., 2011, p. 730).

In their technology, organization, and environment (TOE) framework, Bosch-Rekveldt et al. (2011) recognized the impact of the project environment on project complexity. This section of the literature review includes highlights of the environmental factors that affect project complexity. Bosch-Rekveldt et al. (2011) appreciated Vidal et al. (2011) approach that considered complexity as a source of risk, however argued that the project risk itself contributes to the project complexity with the increase in the number of identified risks. Bosch-Rekveldt et al. (2011) identified the increased interactions and interfaces with the higher number of risks as a requirement to manage the project. Bosch-Rekveldt et al. give more attention to project uncertainty, especially the uncertainties that occur due to technological complexity and the project environment. The TOE framework defined elements contributing to project complexity on technical, organizational, and environmental levels.

To be consistent with the objective of this review, I considered the elements from the three groups with their 14 subcategories in a separate model as depicted in Figure 8. Over 50 elements contribute to project complexity, according to Bosch-Rekveldt et al. (2011), and 28 elements may be suitable to establish a link between the TOE model and the problem statement of the study. The focus was on the elements that contributed to project complexity from a cultural and environmental perspective that conducive to the global project environment, which contributed to increasing the understanding of challenges in a multicultural project environment. Within the technical group, the goal of project leadership is to align with corporate strategic objectives and manage uncertainties. At the organizational level, project size, scarce resources, and diversity of the project

team create additional complexity. Based on the nature of the project, assigned leadership must cope with the trust complexity either within the project team or between the project and the organizational structure. Also, conducive to this review and to understand the project environment were the factors identified in the model under environmental group. This group includes elements contribute to increasing complexity in the global environment. Elements such as stakeholder diversity, required local content, and political pressures are dynamics with a high probability for additional complexity.

Researchers agree on the importance of reviewing existing project definitions to consider the increased complexity in and around the project environment (Eweje et al., 2012; Hanisch & Wald, 2014; Vidal et al., 2011). The challenge of the project leadership is to understand various projects environmental complexities to cope with the insufficiency and shortfalls of project management practices (Bosch-Rekveldt et al., 2011; Vidal et al., 2011). I developed Figure 8 below to illustrate the three groups of elements under the TOE framework.
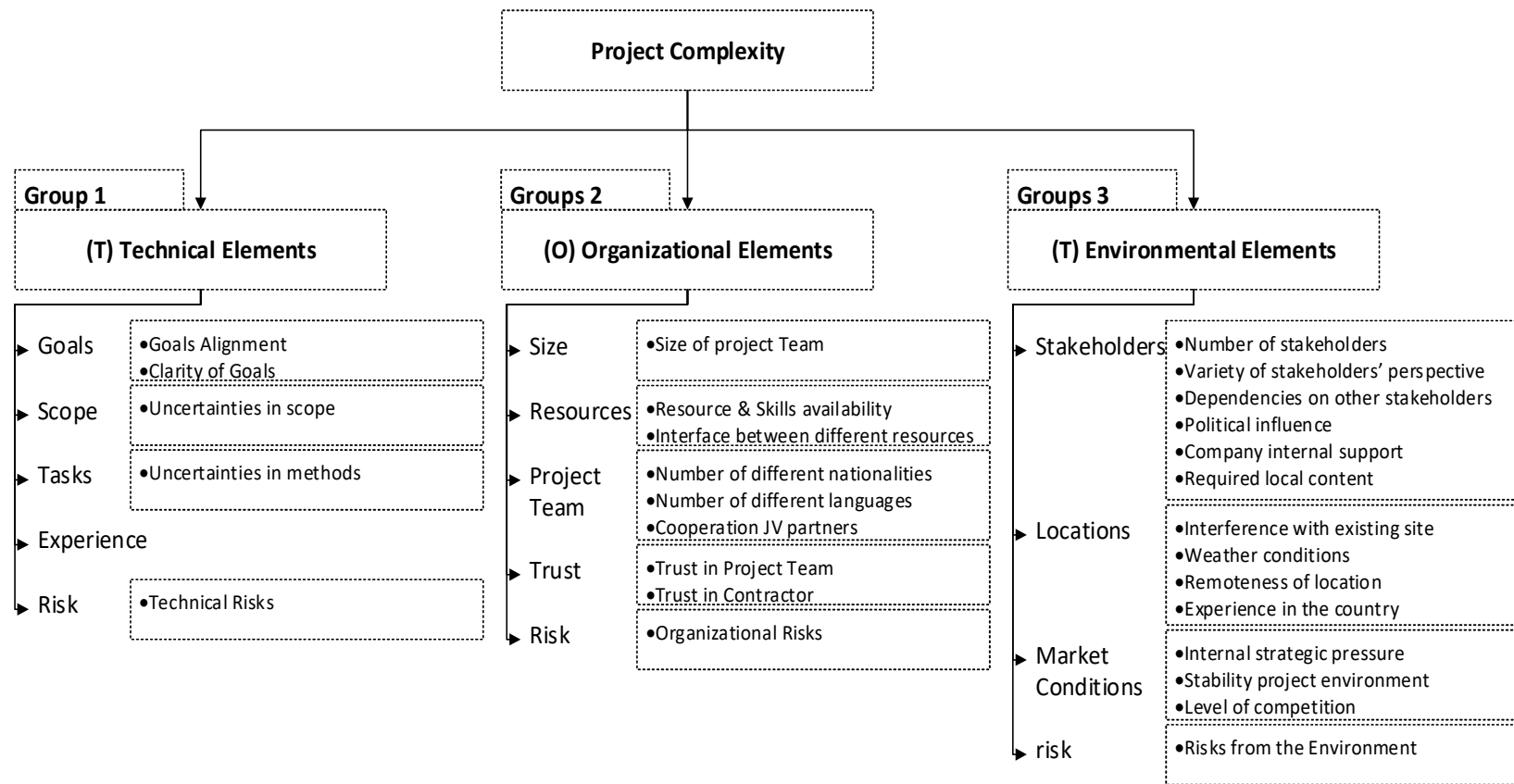
Figure 8. Elements that contribute to project complexity illustrated under the three groups of the TOE framework.

Adapted from "Grasping project complexity in large engineering projects: The TOE (Technical, Organizational and

Environmental) framework" by M. Bosch-Rekveldt, Y. Jongkind, H. Mooi, H. Bakker, and A. Verbraeck, 2011, *International*

Journal of Project Management, 29, 728-739. Copyright 2010 by Elsevier Ltd.

In a separate approach, Wiek, Ness, Schweizer-Ries, Brand, and Farioli, (2012) described projects as complex systems and focused on complex systems thinking in temporary organizations. Complex systems-thinking-based research is necessary to understand the learning process in a project environment (Wiek et al., 2012). The gap remains in addressing the process to move from complex systems thinking research to transformational change for a sustainable project environment. Wiek et al. indicated that establishing a collaborative partnership with sustainability researchers in developing countries is a research obstacle. I summarized the interaction of various contextual agents in the project environment in Figure 9 below.
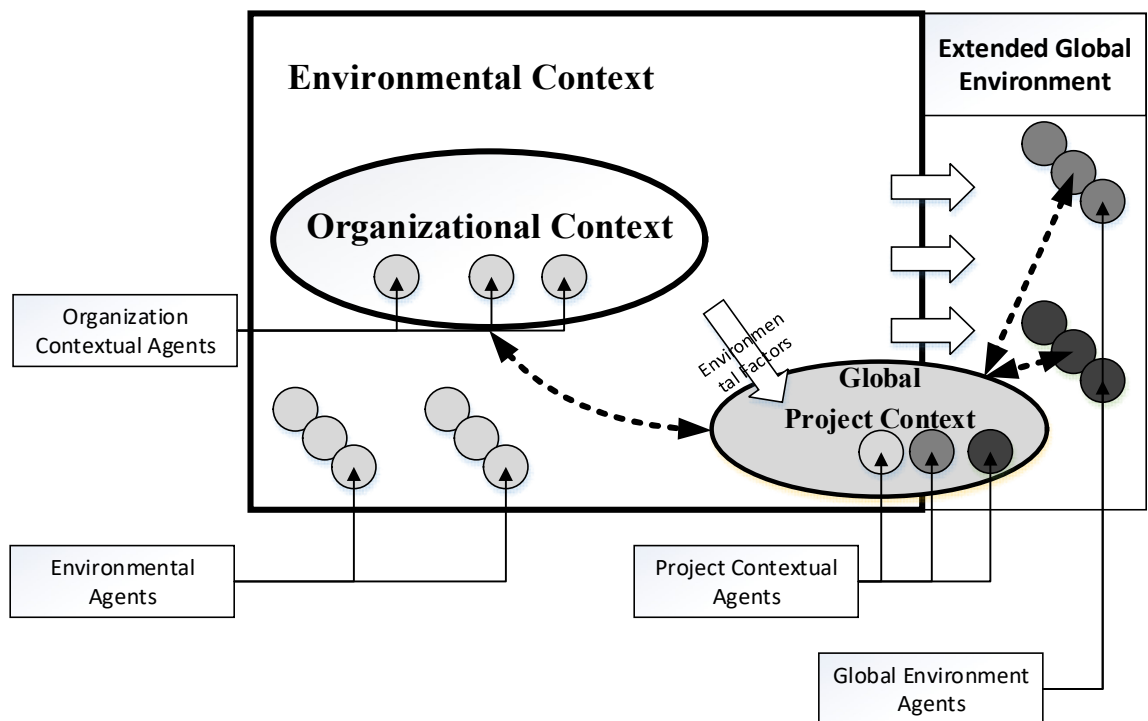
Figure 9. Diverse interacting contextual agents in a global project environment.

Kapsali (2011) contended that adopting systems thinking as a conceptual framework is more suitable to provide reliable theoretical and practical approaches to

project management. A systems' thinking based conceptual framework responds to the flexibility required in implementing project methodologies and in aligning project objectives in diversified environments of different types of users and different markets. Even with lower level of technological uncertainty, complexity remains higher due to diversity. The systems thinking approach was a suitable strategy to understand the project environment; improve the project success opportunities; and manage projects for innovativeness, complexity, and uncertainty (Kapsali, 2011). Uncertainty and increased complexity in a nonlinear and unpredictable project environment calls for giving more attention to define projects equifinality. Kapsali (2011) approach is meeting with Lundin and Söderholm (2013) and J. R. Turner and Müller (2003) to define project environment by the end-state approach. Kapsali (2011) linked the notion of project equifinality to the systems thinking approach by recognizing the flexibility of choices in the available alternative paths with a focus on the project system independency from the project initial state and contingencies within and around the system. The concept of project equifinality from this perspective challenged the contingency theory (Kapsali, 2011). The focus of this approach called for flexibility in implementing project management practices to explore alternative paths and different trajectories that lead to the desired end-state.

Regardless of whether the project is in engineering, construction, innovation, or information technology, a project in this research stream refers to an organizational tool used to implement change. Equifinality and boundary management from a systems-thinking perspective support the effectiveness of project leadership and serve as an opportunity to emancipate from organizational rules and the dictated processes of project

management. Increased project failure relates to weak project leadership, intragroup miscommunication, and task coordination problems. Kapsali (2011) introduced systems-thinking-based equifinality and boundary management as an opportunity to improve project leadership creativity, to manage relationships, and to balance uncertainty with interdependencies.

Project Leadership and the Project Management Approach

 Project management: A dynamic notion with increased complexity. Consistent with their early definition of a project as:

> "an endeavor in which human, material and financial resources are organized in a novel way, to undertake a unique scope of work, of given specification, within constraints of cost and time, so as to achieve beneficial change defined by quantitative and qualitative objective" (J. R. Turner & Müller, 2002, p. 1),

J. R. Turner and Müller (2002) identified three project features: (a) unique, as no project is the same before and after; (b) using novel processes that no other project will be exactly using; (c) and transient with a beginning and an end. These three project features create three pressures, as advanced in the project environment discussion: (a) uncertainty, (b) integration process of resources, and (c) urgency to achieve the project change objectives (J. R. Turner & Müller, 2002). J. R. Turner and Müller (2002) recognized that the focus of project management is the efforts to manage these three pressures.

 Cost, time, and quality management are management requirements shared with routine operational works. From this perspective, an additional requirement for project management is to manage project-specific pressures created from unique project features.

Project management in this regard refers to the "process by which a project is successfully completed, and its objectives successfully delivered" (J. R. Turner & Müller, 2002, p. 2). In this respect, a project manager is responsible for defining the project objectives, deciding the process to deliver success, leading the delegation process, guiding the team, and limiting their options. A competent project manager acts as a chief executive for projects with a focus on delegating specific process management. A project manager's role is to limit the options for the team to align with the principal organization's strategic objectives. I summarized the development of the project definition and the evolution of the project management in Figure 10 below to synthesize this section of the literature review.

Development of Project Definition   **Evolvement of Project Management**

Project Constraints		
Endeavor — Time, Cost, Quality	**Constraints Management** — Scheduling, Coordination	
Project Features		
Temporary Organization — Impermanency, Novelty, Uniqueness, Transient	**Processes Management** — Planning, Team Building, Stakeholders Management	
Project Pressures		
Complex Adaptive System — Change, Complexity, Leadership Competences	**Risk and Complexity Management** — Internal / External Change, Technical, Organizational, & Environmental Complexisties, Emotional, Intellectual, and Managerial Intelligence	

Figure 10. Schematic of the development of the project definition and evolution of project management theory.

J. R. Turner and Müller (2002) redefined a project to align with this approach as a "temporary organization to which resources are assigned to undertake a unique, novel, and transient endeavor managing the inherent uncertainty and need for integration in order to deliver beneficial objectives of change" (p. 7). The update to the project definition in this 2002 article included a wider perspective for the role of the project manager and offered a vision about a project as an agency, rather than a vehicle, created by the leaders of the principal organization to manage pressures from project uncertainties and project complexities as defined in the previous section.

With the development of the definition of a project and the evolution of the understanding of project management, new lines of research have evolved regarding the challenges in recruiting project managers. The focus of these trends is on the leadership competencies of project managers, with more consideration given to project complexity. This includes, for example, exploring the relationship between leadership style and project type (Müller et al., 2012), expanding the vision about leadership requirements in global projects (Clarke, 2010; Gundersen, Hellesøy, & Raeder, 2012), and investigating project team leadership in a complex global project environment (Thamhain, 2013b). The focus of this section of the literature review is to differentiate between the traditional approach to project management and the evolving vision of project leadership. As noted in the introduction of this section and in Figure 8, the increased requirements of project leadership developed from the increased complexity of the project environment (Clarke, 2010; Gundersen et al., 2012), specifically in multicultural global or multinational projects (Caligiuri & Tarique, 2012; Thamhain, 2013b).

Project management: The early focus and conceptual development.

Acknowledging the shortfalls of project-management accreditation systems, Morris and Geraldi (2011) introduced the three levels of the conceptual development of project management. Morris and Geraldi (2011) employed the institutional level to conceptualizing a project organization building on the early works of Parsons (1951-1960), and conceptually aligned with J. R. Turner and Müller (2002, 2005, 2007, 2010, 2012) and Morris and Geraldi (2011). The three levels identified by Morris and Geraldi (2011) review the historical development of the project management with the development of the complexity in and around the project environment.

Level 1 is the technical level that includes a strong emphasis on managing the technical issues of a project. The trend emerged in the early 1950s with increased complexity in defense projects. Level 2 is the strategic level that involves integrating a project with the parent organization and the various stakeholders with a stake in the project. Level 2 mainly emerged in the 1960s and 1970s, with a greater focus given to public projects, technology complexity, and the need for more complex team-building and resource-allocation processes. Levels 1 and 2 reflect the project management trend to avoid project failure from a technical or strategic point of view that includes time, cost, quality, and organizational objectives. Level 3 is the institutional level that describes projects from a holistic point of view with a greater focus on integration with the parent organization's general ability to manage and deliver various projects efficiently (Morris & Geraldi, 2011).

The third level includes more attention to the institutional factors, including factors such as experiences from past activities; politics; and institutional norms, values, and routines. While respecting the hard mechanisms for project management such as processes, standards, and guides, soft aspects of institutional contexts such as social contracts, behaviors, and culture become the focus (Morris & Geraldi, 2011). The institutional approach seems to be consistent with a trend to overcome the literature gap by studying project management from a narrow perspective that includes the parent organization's institutional capabilities, the environment, and the cultural variable of project leadership and project team. The broader perspective is relevant to the focus of the research and is consistent with the purpose statement to understand the project leadership role in a complex project structure.

Morris and Geraldi (2011) acknowledged the role of project management accreditation and certification in the development process of project management but addressed the inability to cope with the increasing percentage of project failures in the offered certification when benchmarked to time, cost, and quality or customer satisfaction. The emphasis is on the need for redefining project success, project front-end, and project management (Morris & Geraldi, 2011; Pinto & Winch, 2015). Project management processes defined by the PMBOK lack a clear definition for what should occur at the project front-end phase (Edkins, Geraldi, Morris and Smith (2013). Edkins et al. (2013) included an understanding for the project-frond end stage with expanded responsibility of the project leadership represent ted at the three levels of the project structure. A literature review by Edkins et al. revealed that project front-end stage includes

diverse inconsistent visions about the activities and responsibilities of the project leadership. The diverse vision to defining project front-end activities and responsibilities includes setting the governance and strategy of the project, defining the project requirements and technology to use, engagement with the stakeholders, establishment of project targets and estimates, the identification, and the people who will be involved in the project execution (Edkins et al., 2013).

The main objective of this research trend was to broaden the perspective of the notion of project success to include additional aspects at the project definition stage where the organizational leadership believe to support project success. Project failure in this respect is due to the lack of an adequate definition of a project objective since inception at the project initiation phase. The lack of clear identification of the project front-end activities and responsibilities entails a "strategic misrepresentation" (Pinto & Winch, 2015, p. 5) for the business objectives behind the project development. Pinto and Winch (2015) highlighted two additional factors: the decision-making process under uncertainty and the behavioral aspects at both the sponsoring organization and the project side.

The line of research that focused on the project initiation or front-end stage discriminated between an execution-based project management model and a business- and strategy-oriented approach and provided an objective criticism to the currently available project management accreditation and certification system by the U.S.-based PMI and United Kingdom-based Association for Project Management (APM). Pinto and Winch (2015) identified shortfalls in the current models and offered an alternative

approach to look at the earlier works developed by Morris (2000). The shortfalls related

to an alignment with the sponsoring organization's strategy and lack of focus on the

project definition at the early stages. Shortfalls also included the ability of the current

models to cope with the complexities of stakeholder management. Project managers and

project team members' abilities to communicate with and manage a complex network of

stakeholders receive specific attention. The stakeholders' identification process is an

activity that requires more attention at the early stages of the project with sufficient

amount of interaction to occur and an attention to stakeholders' power of different

natures Pinto and Winch (2015).

Project management is expanding to include more organization activities such as

strategic development projects, expansion projects, and internal change projects.

Temporary organizations or project structures no longer include only the naturally

projectized industries, as in the case of construction projects (Chiocchio et al., 2010).

Organizational leaders' increasing tendency to projectize activities is threatening the

work environment and the ability of organizational leaders to cope with an increasing

number of projects. With a focus on the applied project management practices, a formally

adopted project-based organization structure emerged as being more efficient and as

providing a healthier work environment. The higher efficiency in a project-based

structure is compared to conventional organizational structures where leaders involved

their employees in multiple projects and activities that resulted in overstretching their

capacities and negatively affecting their mental health (Chiocchio et al., 2010). Project

management techniques are useful in managing resource allocation and in defining job

boundaries, objectives, and the strategic direction of the involved team in project activities. This clarity of strategy helps organizational leaders to take advantage of the opportunity to increase the human resources abilities and their knowledge base. This discussion introduces the need for organizational leaders to think beyond project management to portfolio management and program management. The natural development of a project-based organization in this direction supports the ability of organizational leaders to cope with this challenge (Chiocchio et al., 2010).

Project management in the Gulf Cooperation Council. Project management and construction management started in Kuwait and the GCC countries in the mid-1980s as an independent discipline in the government- and semi-government-owned development projects (Kartam, Al-Daihani, & Al-Bahar, 2000). Kartam et al. (2000) reported that semi-government-owned oil and gas companies were the leader in adopting the project management processes with the objective to (a) improve the project execution time, (b) control cost, and (c) control the quality (Kartam et al., 2000). Kartam et al. reported a problem in the continuous failure of projects to meet their time and budget objectives, despite the involvement of globally recognized project management firms in the process (Kartam et al., 2000).

Kartam et al. (2000) wrote one of the few articles that covered the project management discipline in the GCC region and reported that the available literature did not sufficiently cover the industry in the region. Researchers in the project management in GCC did not discuss the reasons behind the failures to implement an adequate strategy for project management. However, Kartam et al. attributed most of the failures to the

relationship management between the owner, the contractor, and the consultant. The continuous political intervention, the lack of authority given to the project managers, and the missing link with key stakeholders are reasons for most of the changes that occur during the project life cycle. The lack of literature on the problem and the discontinuity of research efforts in this area since Kartam et al.'s (2000) article supported the literature gap in this study.

Project success in oil and gas, engineering, and construction projects. When addressing a literature gap on major projects review, Winch (2012) recognized that the increasing projectification process has a link to an increased interest in infrastructure projects in developed and developing countries. Major engineering and construction projects in this regard are driving the global development process. In a review of the literature on major projects, Winch indicated that the sparse literature on this topic did not sufficiently cover leadership challenges, specifically with regard to defining project success requirements and leadership-related challenges. Eweje et al. (2012) included a discussion on the lack of literature covering mega projects success measurement with respect to an organization's strategic objectives. Different approaches to evaluating project success include the degree of deviation from the initial financial investment decision (Winch, 2012), shortfalls in the financial performance of the delivered assets, social acceptability, regulatory compatibility, and future business opportunities (Eweje et al., 2012).

The review of project success in the following section promoted an advanced understanding of the organizational objectives in adopting a project-based approach. This

review includes a differentiation between various industry approaches to defining project objectives with a focus on major projects and on engineering and construction projects in the oil and gas industry.

Project success: Definitions and dynamics. Project management training traditionally included an emphasis on time, cost, and quality as the measures for project success (Eweje et al., 2012; Merrow, 2012). At the program management level, the training approach of the PMI involves encouraging additional values to measure project success, which includes measuring the benefits from projects, the successful management of stakeholders, and the effectiveness of project governance. A program management paradigm framework advances project managers' competencies to differentiate risks from opportunities, to identify change objectives of a project, and to manage uncertainties within a cause-and-effect structure (Eweje et al., 2012). Redefining project objectives within a wider perspective to include adherence to organizational change strategy and to meet stakeholders' expectations is key to understanding project success. Identifying risks associated with the host community supports the early identification of a project's key success factors (Eweje et al., 2012).

In a separate approach, Cao and Hoffman (2011) contended that the traditional system based on the schedule as the sole project performance evaluation may result in project delays and budget overrun. Cao and Hoffman (2011) proposed an alternative productivity-based project performance evaluation approach benefits from a cross-project learning as the theoretical basis. The productivity-based approach integrates an organization's continuous improvement objectives with the ability to measure project

performance based on the outcome. The ability to measure and audit the outcome leads to an incentive scheme that accepts projects' special characteristics in different project contexts. The productive based approach introduced in Cao and Hoffman (2011) is aligned with the general thoughts in Kapsali (2011) on understanding project equifinality. A prerequisite to Cao and Hoffman (2011) productivity based approach is understanding a project's key success factors at three levels: (a) project multidimensional success factors such as project size and urgency, (b) the project manager and project team that include individual competencies and leadership, and (c) external environment factors related to customers and the market environment (Cao & Hoffman, 2011).

Industrial and oil and gas project success. Project performance measurement is attracting increased attention in literature that recently accepted the shortfalls of the traditional methods (Cao & Hoffman, 2011; Eweje et al., 2012; Merrow, 2012). From a client perspective, these shortfalls include the missing link to key input variables in the performance measurement method that adds value for clients. From an organizational perspective, most of the problems that challenge the implementation of the project performance measurement process link to project team members' dysfunctional behaviors and the lack of commitment by top management.

In this section of the literature review, the objective is to establish a systematic link between project leadership and project success where project success criteria in the oil and gas projects is multidimensional. Measuring project success in the oil and gas industry is as complex as the project type, environment, and technical requirements. Project outcome is more sensitive to changes in project leadership in oil and gas projects

than in other engineering and construction projects (Merrow, 2012). This sensitivity is evident in the increased project failures associated to project directors' turnover (Merrow, 2012).

The basis of the measures considered in Merrow (2012) is the criteria derived from the traditional measures of time, cost, and quality by adopting a critical analysis approach to clarify the increasing rate of failure in mega projects in the oil and gas industry when compared to projects of the same scale in other industries. The approach confirms a bias in the process at the planning stage as well as in the implementation of the performance measurement process. A link exists between this bias and a tendency in the oil and gas industry toward setting aggressive time schedules with an objective to complete the scope faster with overoptimistic financial investment decisions (Merrow, 2012). Related schedule and cost results drive decisions to make changes in project leadership. Merrow's conclusions supported the problem statement of this research study, which is the increasing failure rate in oil and gas projects that reached 78% in 2012. Merrow (2012) analyzed this percentage into 33% real cost overruns and execution schedule slip of 30%. For the successful 22% of the projects included in Merrow (2012) study, 64% of the projects that resulted into disappointing prosecution level when compared to forecast production at the project initiation stage. Merrow recognized an association between the increasing project failure rate and project leadership turnover. Decisions to turn over a project director or project manager position may have devastating results on project success and the general project outcome (Merrow, 2012).

Davis (2014) identified a gap between the literature and practices in the project management field. Not limited to the lack of literature on project management, which is yet to be satisfactorily mature as a research field, the gap includes business management practitioners unconvinced about the importance of project management as a discipline. As evidenced from the limited number of studies in project management in the top management journals, "only 3% of 3000 studies were published and only 2% of the 7000 Harvard Business School case study collection mention projects" (Davis, 2014, p. 1). This gap adds to the challenge of unifying the vision on project performance review methods and hence the judgment of project success. Supported by an inconsistency in "the perception of success by project's stakeholders" (R. Turner & Zolin, 2012), specifically when project leaders misidentify the stakeholders (Cao & Hoffman, 2011; Davis, 2014; Eweje et al., 2012; Nixon, Harrington, & Parker, 2012; R. Turner & Zolin, 2012).

In defining project success factors, R. Turner and Zolin (2012) contended that a more comprehensive project evaluation system is complex due to the increased number of factors to consider. Davis (2014) differentiated between project success factors and factors to consider in the project evaluation process based on predefined success criteria. With a focus on the multiple stakeholder approach (R. Turner & Zolin, 2012), there is a consensus that organizational leaders should not assess project success from project managers' or project executives' side only (Davis, 2014). A multiple-stakeholders approach to the evaluation of project success includes project executives, project owners, project sponsors, contractors, suppliers, and in some cases the public. A multiple-time-

scale project assessment differentiates between project success during the life of the project, which is the execution stage, and after the project's completion. Focusing on project assessment during execution supports project executives in the decision-making process and includes assisting in project planning and in project stakeholders' engagement, whereas the assessment of project success after completion involves looking at the project output, the project outcome, and the project impact (R. Turner & Zolin, 2012).

To be consistent with the main objectives of the research study, the review of the project evaluation methods was for the purpose to discuss the implications of the implementation of a project evaluation process on project leadership. It is imperative to understand how project leadership can influence the implementation of an evaluation method to determine project success. Project leadership can drive project management processes to avoid classical pitfalls that challenge the decision-making, relationship-management, and communication processes. The literature indicated the importance of understanding project stakeholders and their influence in the project environment. Project leadership is a key success factor during the project planning stage, the project execution stage, and managing and evaluating stakeholders' perception of the project output, outcome, and impact upon completion (Davis, 2014; Nixon et al., 2012; R. Turner & Zolin, 2012).

Nixon et al. (2012) conducted an extensive critical analysis and acknowledged the gap in the lack of literature on the relationship between project leadership and project success. Nixon et al. emphasized the development of the project success evaluation

process from the 1970s approach that included time, cost, and scope to quality-based methods in the 1980s and 1990s. Researchers have addressed additional factors such as stakeholder satisfaction, product success, business and organization benefit, and team development (Nixon et al., 2012), but have focused less on the influence of leadership performance. In their research efforts, Nixon et al. asserted that project leadership evaluation and development is important in defining project success or failure. Nixon et al. reviewed the prospective impact of transformational leadership in a project environment and asserted that the leader's emotional intelligence can positively influence the process of building a strong project team, increase team awareness toward project success, motivate a team to prioritize project interest on self-interest, and identify and expand individuals' needs to increase team member satisfaction.

Nixon et al. (2012) acknowledged the debate on the effect of leadership and leadership style on project success and related project success and failure to internal and external factors by introducing the key performance questions (KPQs) approach. The KPQs approach is an early identification for a project's end goals, stakeholders, strategy, and the expected preferred project environment. The list of proposed KPQs also supports the identification of the internal and external factors expected to influence project success. Understanding the project environment that supports a project environment for innovation, competency building, talent retaining in a continuous improvement process, and the amount of investment devoted to this purpose is critical within this context. In the project team-building process, the KPQs should measure the team's passion, engagement, trust, and motivation. Nixon et al. (2012) emphasized the impact of project leadership and

leadership style at different stages of the project lifetime that intersected with other researchers, including R. Turner and Zolin (2012), Eweje et al. (2012), Müller et al. (2012), and Thamhain (2013b). Leadership is an important tool to lead the KPQ process, derive the key performance indicators accordingly, and influence the internal and external factors to lead the project successfully. Project leadership style is an "effective tool used by project managers to influence a project outcome, [and] it can be established that a lack of leadership performance monitoring can be directly associated with project failure" (Nixon et al., 2012, p. 214). Nixon et al. (2012) also established that project leadership requirements are dynamic with the specific project nature and throughout the project stages in different situations. Transformational and transactional leadership styles, with a combination of personality traits, emotional intelligence, contingency, and behavior, are attributes to consider in managing situations.

The ambiguity in defining project success, and the uncertainty in attributing project failure to specific factors, challenged the project leadership researchers over the last decade (Davis, 2014; Eweje et al., 2012; Hyvari, 2006; Nixon et al., 2012). Project leadership linked to project success or failure is also debatable within the context of the identification process of project critical success factors. There is a consistency in the literature that emphasizes defining situational factors and project-specific environmental concerns for each project separately. The selection process of project leadership is as important as the early identification of the project-specific situational and environmental factors. The following section of this review includes an exploration of the literature on

the global project environment with an objective to develop an understanding for the specific situational and environmental factors of this type of project.

Global Project Environments and Leadership Challenges

In this section of the literature review, the focus was on identifying the additional challenges that emerged during the increased globalization process on the project environment. A definition for the globalization process within this context is "a process by which regional economies, societies, and cultures have become integrated through a global network of communication, transportation, and trade" (Bhagwati, as cited in Aarseth, Rolstadås, & Andersen, 2013). The review includes an exploration of the impact of the organization projectification process on the increased challenges and expectations on project leadership within the global environment. A relevant definition for a global project is "a temporary collaboration between organizations across nations and cultures with the intention to jointly deliver a unique product or service in a complex external context requiring relationship management" (Aarseth et al., 2013, p. 103).

Jacobsson and Söderholm (2011) identified four main streams driving the research on project management in a meta-analysis conceptual paper: in search of best practice, in search of legitimacy, in search of inspiration, and in search of contribution. Jacobsson and Söderholm identified a gap in studying the project environment in isolation from social science and management theories. Most research streams are limited to responding to the need to improve efficiency within the project environment, with less attention given to the project context. A gap exists between project management models and project management practices due to a research focus on the direct implementation of

the models for a better project outcome (Jacobsson & Söderholm, 2011). Jacobsson and

Söderholm acknowledged that ambiguities exist in defining project success and in

understanding the project environment and project context in the four research streams

through two levels of gaps: implementing project management models in project

management and decreasing the gap between the project management literature and the

social science and management theories expectations. Canonico, Söderlund, De Nito, and

Mangia (2013) addressed the lack of research on knowledge creation in project context.

With a focus on inter-organizational knowledge creation in project-based organizations,

Canonico et al. discussed the project as an environment for knowledge integration. The

project environment provides a media for knowledge exchange and inspiration and an

opportunity to cope with the challenge of information exchange between actors at various

levels of project structure. The knowledge exchange process includes project specific

technical information and other essential to know cultural aspects of the participating

entities in the project.

Global organization environment. Working globally and bridging the global

cross-cultural skill gap of a company's international staff was the focus of a research

stream conducted by Caligiuri and Tarique between 2006 and 2012. This included

developing global leaders, studying the effectiveness of global leadership, and conducting

cross-cultural competencies of global leadership (Caligiuri & Tarique, 2006, 2009, 2012).

Caligiuri and Tarique focused on leadership personality traits and cross-cultural

experience to promote the importance of efficient leaders at the global scale of a

business. Caligiuri and Tarique (2006) provided a critical analysis to the organization's

offered leadership development programs and recommended a framework for global leaders' development. The framework includes a link to individuals' abilities to learn and benefit from a training program in highly interactive project environment. A literature gap identified by Caligiuri and Tarique (2012) was the lack of research on global leadership development programs and how the development programs can benefit from the project environment to develop the required common knowledge, skills, abilities and other personality characteristics.

From a learning organization perspective, Koskinen (2012) discussed the project-based organization and emphasized individuals' role in the learning process. The continually changing nature of organizations mandates the structure ability for a rapid learning process within an increasingly challenging globalization. Koskinen focused on the dynamics of the learning process within the context of the impermanent and stressing nature embedded in a project's culture. A gap identified by Koskinen (2012) is in the focus of project management literature and practices on single short-term projects and neglecting the mega projects with longer lifetime, which resulted in neglecting the integration of the learning process at the organization level. This gap resulted into the disconnection between projects in multiple-project-based organizations and the disintegration of the learning process at the corporate level. Organizational leaders who pursue business at the global scale and adapt the project-based structure are facing the challenge to learn rapidly and adapt internally to meet the expectations of the external environment.

With a focus on knowledge-intensive organizations, Hotho and Champion (2011) asserted that the interrupted innovation process entails a high risk on business continuity and organizational sustainability. The management challenge becomes encouraging practices beyond the routine project management tools to sustain established organizational practices. With an increased autonomy given to individuals in key innovation contexts, the team sees project management tools as control mechanisms and additional bureaucratic work with no value to the project output. The routines derived from extensive bureaucratic project management tools embraced negative impacts on the relationship between management and team members who risked the trust invested in them (Hotho & Champion, 2011). Between routine performance control tools and project team autonomy, organizations within a global market context face the risk of a lagging or interrupted learning process. Hotho and Champion (2011) recommended that leaders who recognized their organizations' changing reality can deploy innovation to manage the change. However, team autonomy, task complexity, on-the-job challenges, and supportive leadership "are seen as vital for success in knowledge intensive firms" (p. 45).

Management innovation results from management's ability to generate and implement management practices, processes, structures, or techniques that contribute to furthering organizational goals (Vaccaro, Jansen, Van Den Bosch, & Volberda, 2012). A link exists between leadership behavior and this innovation process through the acts of setting directions, making decisions, coordinating activities, motivating people, and specifically managing change. Four perspectives Vaccaro et al. (2012) identified to describe management innovation are "institutional, fashion, cultural, and rational

perspective" (p. 29). With a focus on the rational perspective, Vaccaro et al. (2012) concluded that smaller organizations will benefit from transactional leadership styles. Conversely, adopting transformational leadership that supports management innovation as an essential antecedent in the problem-solving process is more relevant to complex and larger structures (Vaccaro et al., 2012). On a global scale with larger and more complex structures, transformational leadership is suitable for dealing with complex hierarchies and bureaucracies, for managing others remotely, and for mitigating trust risks in the team ability for innovating and implementing new practices and processes. Transformational leadership supports a self-managed team process in smaller project structures with sufficient independency and autonomy but with a higher ability to implement performance management systems that allow leadership to intervene after the team compromises a key performance indicator (Vaccaro et al., 2012).

The global organization environment is a complex environment that requires higher leadership awareness. Leadership awareness refers to a greater awareness about organizational leaders' ability to cope with cultural challenges through their multicultural competencies (Caligiuri & Tarique, 2012). Leadership awareness is leadership's opportunity to manage the organizational learning process quickly and responsively to respond to environment-specific challenges more effectively. high leadership awareness about global project environment allows for extending the benefits horizontally into other projects, and vertically at the organizational level (Koskinen, 2012). Leadership must recognize the complexity of a situation and promote management's ability to develop and implement appropriate practices, processes, and structures (Vaccaro et al., 2012).

Global project objectives and the corporate expansion strategies. This section

of the literature review started with a comparison and analysis for some definitions of

global projects to expand the exploration of challenges in the global project environment.

Aarseth et al. (2013) defined global projects as: "a temporary collaboration between

organizations across nations and cultures with the intention to jointly deliver a unique

product or service in a complex external context requiring relationship management" (p.

103). Orr et al., as cited in Mossolly (2015) defined global project as a "temporary

endeavor where multiple actors seek to optimize outcomes by combining resources from

multiple sites, organizations, cultures, and geographies through a combination of

contractual, hierarchical, and network-based modes of organization" (p. 126). Within the

same context, Mossolly (2015) also cited the definition offered by Anantatmula and

Thomas, who defined a global project as a transnational project that is a "temporary

endeavor with a project team made up of individuals from different countries; working in

different cultures, business units, and functions; and possessing specialized knowledge

for solving a common strategic task" (p. 126). Within the same context, Mossolly (2015)

adopted the virtual team definition from Powell, Piccoli, and Ives (2004) as "Groups of

geographically, organizationally and/or time dispersed workers brought together by

information technologies to accomplish one or more organizational tasks" (Mossolly,

2015, p.128). Global project virtual teams in this regard includes three dimensions: (a) no

common past or future, (b) culturally diverse and geographically dispersed, and (c)

communicating electronically (Anantatmula & Thomas, 2010).

Aarseth et al. (2013) focused on collaborative efforts across borders in a global project environment, whereas the central focus of the definition provided by Orr et al.'s (as cited in Mossolly, 2015) was on resource optimization. Both definitions meet in the complexity and challenge of communication and relationship management. Distinctions in global project definitions resulted from the differences in project types, which ranged from knowledge based to resource based, and most important the different integration requirements in both cases. Perceived complexity in a multicultural foreign environment added to the distinctions in the developed definitions.

With a focus on exploring the complexity of global project structures within the globalization process, Aarseth et al. (2013) identified a literature gap in the body of literature to address "an in-depth and practical understanding of the organizational challenges in global projects" (p. 104). An embedded objective of Aarseth et al.'s approach is to explore project leadership and team dynamics within the interactions of multiple economies, societies, and cultures, as well as to understand the efficiency requirements in deploying different interaction means and their impact on project output and performance.

In characterizing global projects, Aarseth et al. (2013) noted that project team members in traditional project structures are from the same mother organization and mostly collocated. In contrast, in international projects, team members are in different countries. In virtual projects, teams include members who usually work for different organizations and who are in different geographic locations. Global projects may include a combination of international project and virtual project challenges, where the project

manager should expect cross-cultural and language differences and teams located in different time zones. For global projects that take place in institutionally demanding environments that include political instability and unfamiliar laws and regulations, the involvement of unfamiliar suppliers is an expectation, as is higher government demand for local content that involves hiring local companies.

When focusing on knowledge integration in the global project environment, Baxter, Goffin, and Szwejczewski (2013) identified seven factors that characterize the perception of global project challenges. Individual capability included individual knowledge and competence, feeling valued, and unfamiliar areas. Working together included social aspects, cultural differences, negotiation skills, and better results through working with others (Baxter et al., 2013). Within the same context, Baxter et al. differentiated between knowledge integration and knowledge transfer to enhance the understanding of the contribution between teams and individuals within a multicultural project environment. The ability to integrate knowledge within an organization, referred to as the absorptive capacity of a firm, is an indicator of the ability of the employees in one company to work with employees of other firms using multiple types of knowledge. Baxter et al. introduced two levels of absorptive capacity: a firm's level that indicates the ability to collaborate with other firms with different knowledge and individuals' technical expertise that includes their knowledge of how to work with others. A discussion on individuals' competencies for an advanced global project environment appears later in this part of the literature review.

Conducting business on a global scale has extended beyond large organizations. More than 40% of small to medium enterprise leaders who are looking for sustainability are likely to conduct business globally (Mossolly, 2015). The increased globalization process includes organizations of different scales, knowledge bases, cultures, and objectives in temporary structures of different types and natures. In addition to global growth and wealth allocation, several levels of strategic objectives are behind this process. Objectives include increased work efficiency through using different time zones and higher efficiency in scarce resource allocation (Anantatmula & Thomas, 2010), knowledge exchange and knowledge integration (Baxter et al., 2013), knowledge extraction and organizational learning (Aarseth et al., 2013), and increased competition by multinational corporations (Aarseth et al., 2013) supported by political strategies and government-supported national development projects (Winch, 2012). Global projects are therefore an important challenge with many opportunities and risks that researchers have not yet adequately covered in the literature.

The expansion process affects organizational culture and its business objectives (Latta, 2009). The process also includes the ability to change project management practices to adapt to global project requirements, as recommended by Anantatmula and Thomas (2010) and Baxter et al. (2013). Project structure can serve as a tool to manage these changes (Lundin & Söderholm, 2013). The following section includes a review of literature on various visions to promote project structure as an added value with more opportunities to support organizational objectives.

Nature of global multicultural projects versus traditional projects. As advanced in the previous section, distinctions were found between the global project reviewed definitions. The perceived nature of the project is one of the sources for these distinctions as reported by the authors. This includes the resource-based projects as in the case of the major construction and Oil and Gas industries, the knowledge based projects in the engineering and information technology industry, and the innovation projects in research and development. In its various natures, global project environment embraces complexities in team management, relationship management, communication, and stakeholders' management (Aarseth et al., 2013; Anantatmula & Thomas, 2010; Baxter et al., 2013; Mossolly, 2015).

Mossolly (2015) asserted that the multicultural environment and differences in the regulatory frameworks are inherent characteristics of global projects. Accordingly, Mossolly identified four types of projects beyond the traditional local form. A multicenter project is a project executed by different operating centers and may be within the same country. Employees in geographically dispersed centers execute multicenter projects, in contrast to the employees in collocated or centralized projects. A cross-border project has different rules and regulations between the different operating centers. If two operating centers are in two countries with the same legislative framework or common economic zone, the structure is not a global project. In a multinational project, the project context, including different groups of stakeholders, beneficiaries, and sponsors, do not have one single national identity. Global projects are multicenter, cross-border, and

multinational, with the challenge of a different legislative framework and possibly different economic zones (Mossolly, 2015).

Mossolly (2015) discussed the global virtual project team as a main indicator of project nature. Accordingly, Mossolly offered three distinct dimensions in a global virtual team: (a) no common past or future, (b) culturally diverse and geographically dispersed, and (c) communicating electronically. A global project team is dispersed geographically over multiple project centers, belongs to different cultures, works from different legislative frameworks, and has different cultural backgrounds (Mossolly, 2015). In discussing the interface and interaction between the project's operating centers and the project team members, Baxter et al. (2013) and Mossolly defined two project execution attitudes: integration and coordination. Cooperation between different entities that involves standardizing project-management workflow procedures between operating centers indicates integration. Coordination is more about harmonizing tasks to optimize project performance and meet predefined project objectives. As discussed earlier in this section, knowledge integration is an important factor in a firm's absorptive capacity and ability to work with others and is measurable at the organizational and the individual levels (Baxter et al., 2013).

Global projects experience additional challenges compared to local projects. The nature of the project environment at the global scale includes inherent characteristics added to the traditional forms of projects. The project environment is impermanent, involves task complexity, has unique governance and a unique performance management system, and entails challenging success requirements as basic characteristics in its nature.

Global projects involve additional complexities, including the dynamics of the multicultural environment, different legislative frameworks, a complex stakeholder identification process, advanced qualifications in cooperation, and critical knowledge integration and knowledge exchange requirements. Organizational leaders with the ambition to perform in this environment need to mandate their approach to the team-building process and to individuals' competencies in response to their strategic objectives.

Team-building process in global environments. Koskinen (2012) discussed individuals' cognitive activities within the context of the project environment and the organizational learning process and asserted that sharing people's interpretations is a key enabler in a successful organizational learning process. The three levels identified from the perspective where the learning occurs are the individual level, the team level, and the company level. Organizational learning, which Koskinen identified as project teams' and project-based companies' learning, occurs through sharing people's learning. Process thinking in Koskinen's approach is a key driver for a successful learning process. The learning cycle from this perspective involves the change in individuals and organizational behavior as embraced by the process-thinking and shared-learning activities.

Building high-performance multinational teams for global projects is a key leadership activity (Thamhain, 2013b). Leaders should consider that various processes occur in establishing the team-building process. These processes include "experiential learning, trial-and-error, risk taking, as well as the cross-functional coordination and integration of technical knowledge, information, and components" (Thamhain, 2013b,

p.152). With a gap identified between the management and the project team members on the collective objectives of the team, Thamhain (2013b) identified a bridging mechanism to support in the team-building process structured around a clear identification of personal interest by supporting pride and satisfaction with the work, promoting professional work challenge, and offering accomplishments and recognition tools (Thamhain, 2013b). The ultimate objective is to bridge the gap between organizational goals and personal interests, between central control and local management norms, and between following a project plan and adaptive problem solving (Thamhain, 2013b, p. 154).

In a separate approach with a focus on project leadership in global projects, Thamhain (2013a) emphasized the mediated role of project leaders between top management and the project team. Thamhain (2013a) asserted that the extended role of the project leader includes the support of a collaborative environment that promotes an efficient team-building process. The ultimate responsibility of the project leader is to facilitate a healthy relationship with the stakeholders, including sponsors and owners, and to confirm the availability of all required resources. This principle act is critical in building trust with the team and acquiring team commitment throughout the team-building process and the project lifetime (Thamhain, 2013a).

There is no standard approach for building high-performing teams in global project environments, and the project leader's role includes the careful assessment of the situation to provide adequate support and to facilitate the process (Chen & Messner, 2010; Koskinen, 2012; Thamhain, 2013a, 2013b). Chen and Messner (2010) gave special

attention to team collaboration requirements in engineering, procurement, and construction projects. The analysis provided by Chen and Messner emphasized this collaboration as a "new way of organizing global work forces to harness an information age opportunity for mobilizing hidden manpower through the use of the computer-mediated communication technologies to overcome the barriers created by geographical distance and time" (p. 208). Chen and Messner regarded most of the challenges to the geographical dispersion of the team rather than the cultural barriers, and supported the use of the opportunity provided by the new technology to support an efficient communication and coordination process.

Global Leadership Competencies: Different Perspectives

Globalization and the forces that shape a global work environment

Globalization refers to flows of goods and services across borders, international capital flows, a reduction in tariffs and trade barriers, immigration, and the spread of technology and knowledge beyond borders (Samimi & Jenatabadi, 2014). Globalization does not have a limitation to the trade activities and flow of capital across nations, but indicates the level of integration at the business and intellectual levels. Kose, Otrok, and Prasad (2012) studied the global business cycle to explore the factors affecting business fluctuation on a global scale and identified these factors at three levels: country level, group level, and global level. At the group level, countries with emerging markets were the drivers that attracted international businesses across borders. Interactions between industrial countries, emerging countries, and developing countries define the global business environment. Economic, financial, and trade activities are sensitive to industry

and market shocks that occur in any of the three groups of countries. Investment in global business grew sixfold during 1990s and recorded even higher growth rates in the 2000s (Reilly & Karounos, 2009). A lack of availability of qualified cross-cultural leaders restricts the business growth rate and organizations are struggling to hire and develop leaders who can cope with the ambitious global expansion plans (Reilly & Karounos, 2009).

Organizational change and the development process

Change at the country, group, and international levels caused fluctuations at the global scale of the business. Change establishes for the chaos as an inherent factor in the evolutionary process of organizations and societies (Gabrielsson, Seristo, & Darling, 2009). Progress is the result of change which is the progenitor of all developments (Gabrielsson et al., 2009). Accordingly, without change, organizations will struggle to evolve and face challenges at the internal and external organizational processes.

Disruptions and challenges are the typical by-products of change between individuals and groups. Gabrielsson et al. (2009) emphasized that organizational leaders should consider global leadership at the team level rather than individual level alone. Group or team leadership is a tool to establish purposeful trust and a meaningful response to change. Gabrielsson et al. (2009) asserted that a principle objective of the team leadership is to manage the chaos accompanied to change with collective efforts and team spirit (Gabrielsson et al., 2009). Purposeful trusting is "the ability to find confidence in the natural events and processes that accompany change—and to recognize the risk factor in creative and innovative endeavors—that is, to succeed in such endeavors, one must

first be willing to risk" (Gabrielsson et al., 2009, p. 319). The global leadership challenge, from this perspective, refers to the ability to understand the environment and capture change as an opportunity for the organizational development process. Global leadership includes the ability to create an environment of trust at the individual and team level, in addition to managing leadership at the team level to lead the collective efforts in responding to change.

Organizations' sustainable growth at the global scale is open to a complex and dynamic environment within the global economy. The global environment emerged since the mid-1980s, and a new competitive landscape of business changed how leaders must conduct business and the competencies required for successful global leaders (Caligiuri, 2006). The evolved structure of the one-world unregulated market with a new socioeconomic order, and an increasing number of firms involved in exporting, importing, and global business activities, led to an increased number of managers involved in global leadership (Gabrielsson et al., 2009). There has been a major change in the way leaders approach business that involves factors such as an increase in international travel, advanced transportation means, quantum leaps in global communication introduced by new Internet technology, and the increasingly independent global economy (Irving, 2010).

Change and the role of global leadership

Internal factors related to the structure and culture of the organization challenge a model of successful leadership. Cross-cultural global enterprises are overmanaged and under-led, which prevents leadership from being successful (Gabrielsson et al., 2009).

The substantially varying cultural, political, and legal environments expose management to very different business practices and very difficult managerial tasks. Gabrielsson et al. (2009) identified seven challenges facing global leadership benchmarking on Hofstede's model of cultural dimensions (see Table 1).

Table 1

Seven Areas That Challenge Successful Leadership Benchmarking on Hofstede's Model of Cultural Dimensions

Hofstede's Cultural Dimensions	Areas that create challenges to successful global leadership
Large vs. small power distance	- Lack of commitment to interactive relations
Individualism vs. collectivism	- Tendency to rely on only logical thinking
Masculinity vs. femininity	- Negative responses to external influences
Strong vs. weak uncertainty avoidance	- Lack of expectations for positive results
Long-term orientation vs. short-term orientation	- Tendency towards reliance on sensory input
	- Actions that ignore an inclusive perspective
	- Failure to value and trust in change

Note. Adapted from "Developing the global management team: A new paradigm of key leadership perspectives," by M. Gabrielsson, H. Seristo, and J. Darling, 2009, *Team Performance Management, 15*, pp. 308-325. Copyright 2009 by Emerald Group Publishing Limited.

In their research efforts to develop a foundational framework that defined high-performing global leadership, Bird et al. (2010) offered the definitions required to understand the competency domain of global leadership, which includes intercultural competency as "the ability to function effectively in another culture" (p. 811), the differentiation between stable and dynamic competencies, and the definition of global leadership. Dynamic competencies "are more susceptible to development through training" (Bird et al., 2010, p. 811). Bird et al. adopted the definition of global leadership as "the process of influencing the thinking, attitudes, and behaviors of a global community to work together synergistically towards a common vision and common goal"

(p. 811). It is critical to the general understanding of these definitions to differentiate

between domestic and global leadership and between global leaders and global managers

(Bird et al., 2010). I developed Figure 11 to summarize Bird et. al. 17factors influencing

the global leadership adjustment.
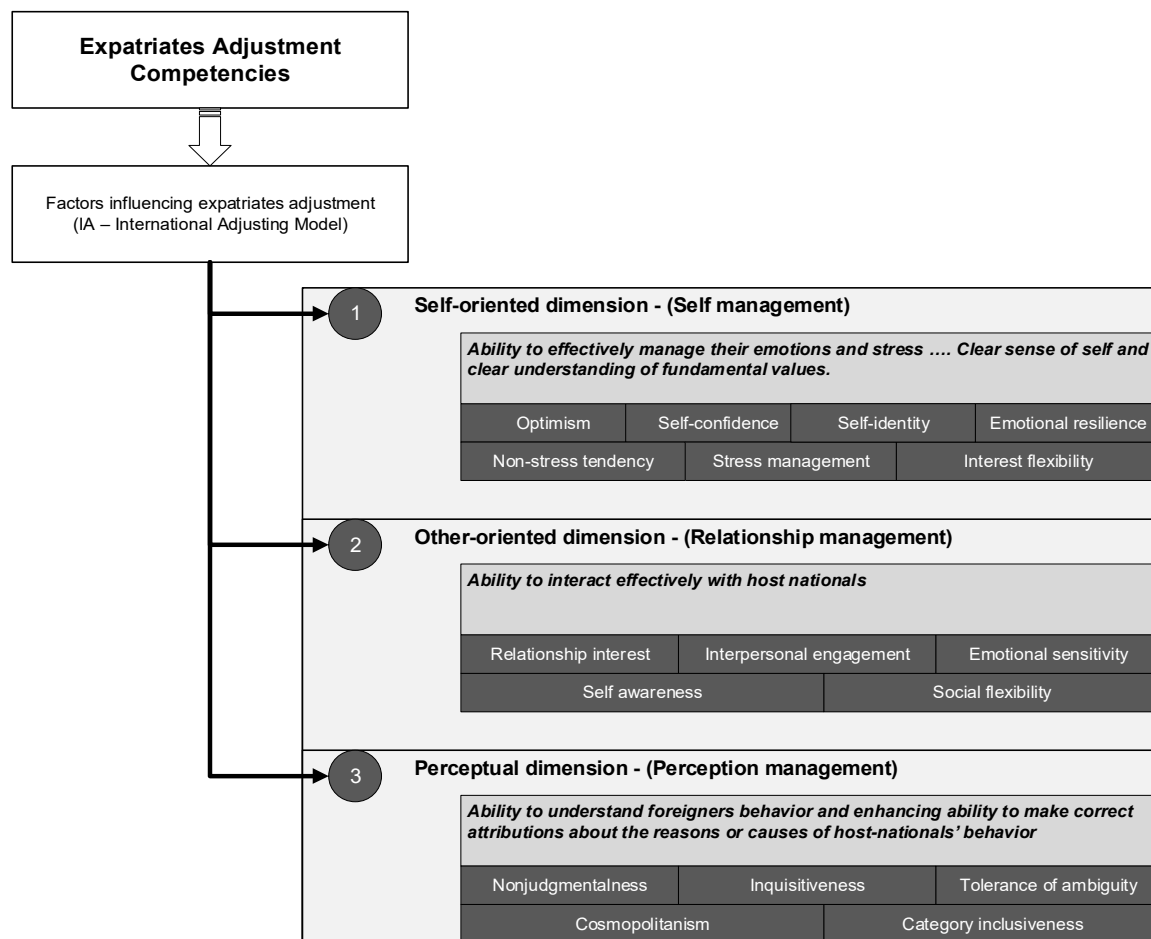
Figure 11. Seventeen factors influencing expatriates' international adjustment.

Adapted from "Defining the content domain of intercultural competence for global

leaders," by A. Bird, M.Mendenhall, M. J.Stevens, and G. Oddou, 2010. Journal of

Managerial Psychology, 25, p. 810-828. Copyright 2010 by Emerald Group Publishing

Limited.

Bird et al.'s (2010) framework includes recommended adjustments for global leaders in three key leadership competencies: (a) self-oriented (self-management) that involves activities of self-esteem, self-confidence, and mental hygiene; (b) others-oriented (relationship management) with the ability to interact with host nationals; and (c) perceptual dimension (perception management) with activities related to understanding host nationals' behavior and competency to adjust accordingly. Under these three categories, Bird et al. reviewed 17 dimensions to develop a foundational framework for practitioners interested in developing their global leadership competencies (see Figure 11).

Literature Gap

The breadth of this literature review included six concepts to explore in global multicultural projects in the oil and gas industry. The concepts were as follows:

1. Studying the project structure from an organizational theory and the social science perspective.

2. Increased complexity in the environment of global multicultural projects that includes technical, organizational, and environmental complexities.

3. The impermanent nature of the project structure and its link to the knowledge integration and exchange process and the successful project team-building process.

4. Challenged project's leadership role in the global project environment that demands leadership competencies beyond the conventional approach of project management.

5. Fragmented approaches to project performance management in the challenge to unify the measurement of project success.

6. The role of the applied project governance practices to manage internal and external risks and uncertainties.

In this review, I aimed to establish a link between the research streams on the phenomenon of the increasing rate of project failure and its association to the acts of the project's leadership and project management team. The lack of published research on the oil and gas industry in the GCC region was the central gap found in the literature review, although researchers addressed many other gaps under these literal categories.

Project success measurement against predefined corporate strategy was the focus of Eweje et al.'s (2012) research. Eweje et al. addressed the variation between different approaches that measure project success as a literature gap that challenged the unified vision on project evaluation. The project success methods discussed by Eweje et al. included shortfalls in financial performance, social acceptability, regulatory compatibility, and future business opportunities. Winch (2012) discussed the degree of deviation from original financial investment decisions and emphasized the need to integrate projects' financial performance with other project aspects, such as project shaping and project sharing approaches, including various stakeholders' input in the project evaluation process.

Davis (2014) identified a gap between literature and practices in the project management field. The business management practitioners who remained unconvinced that project management is an independent discipline that adds value to project success

augmented this gap (Davis, 2014). This gap exists due to limited research in project management published in the top management journals. Davis noted, "Only 3% of 3000 project management studies were published in top management journals . . . and only 2% of the 7000 Harvard Business School case study collection mention projects and only a few dozen are actually dealing with project management issues" (p. 189). The lack of research on project management challenged a unified vision to review project performance and to measure project success (R. Turner & Zolin, 2012). Misidentified project stakeholders increased the challenge to manage project activities adequately (Cao & Hoffman, 2011; Davis, 2014; Eweje et al., 2012; Nixon et al., 2012; R. Turner & Zolin, 2012).

Nixon et al. (2012) acknowledged the gap in the literature on the relationship between project leadership and project success and described the development of the project success evaluation process from the 1970s approach that focused on time, cost, and scope to quality-based methods in the 1980s and 1990s. Researchers have recently addressed additional factors such as stakeholder satisfaction, product success, business and organization benefit, and team development (Nixon et al., 2012), but with less focus on the influence of leadership performance.

Jacobsson and Söderholm (2011) focused on the gap in studying project environment in isolation of social science and management theories. Jacobsson and Söderholm criticized the focus on improving efficiency within the project environment without including project context. Jacobsson and Söderholm associated two additional challenges to his gap: (a) the project management models successfully implemented in

project management processes and (b) an increasing gap between the project management literature and the social science and management theories' expectations.

Canonico et al. (2013) discussed project context and identified a gap in the lack of research on knowledge creation in a project's context. Canonica et al.'s focus was on discussing the project as an environment for knowledge integration. The interrupted learning process between projects was the focus of Koskinen (2012) who identified the gap in the focus of project management literature and practices on single short-term projects. An association exists between this gap and a high risk of an interrupted learning process that stems from the project nature.

Aarseth et al. (2013) studied increased project complexity on a global scale. The gap in the literature discussed by Aarseth et al. was on the interactions that occur at the global level in an environment of multiple economies, societies, and cultures. A direct association existed between this gap in the literature and the challenges that occur in managing the project team dynamics and the project team-building process in global projects (Aarseth et al., 2013).

Researchers widely discussed variations in the applied project governance approaches in the literature, with an identified gap in the lack of a shared and universally accepted definition for project governance (Ahola et al., 2014; Pitsis et al., 2014). The term project governance refers to a project's internal and external relationships that address various views on project temporality (Ahola et al., 2014). From a narrow economic viewpoint, project governance refers to a contract to govern the relationship with individuals at the project-management team level. Project governance refers to the

degree of risk to manage within the uncertainty and instability of a project's internal and external environments (Ahola et al., 2014; Pitsis et al., 2014). The gap in the literature regarding how to understand and implement project governance at the global scale has a link to the development process of project-based firms and the decision-making process at the project level. Project governance in public projects is receiving more attention due to its impact on mitigating the increased risk of uncertainty and the political influence in the decision-making process (Williams et al., 2010).

The literal categories advanced in this section from the literature review and identified gaps in the literature were the primary sources for developing the research methodology and design. I developed the interview questions in Chapter 3 to respond to the identified gaps governed by the research concepts reviewed in this chapter. A link emerged from the data analysis and interpretation phase of the research in response to the main inquiry of this research. The attempt was to focus on the identified research problem and purpose statement.

Study findings association with the literature gap

Six themes emerged from an exploratory and comparative analysis model. From the analysis of Theme 1 "Adaptable project structure with team and environment dynamics" and Theme 6 "Team building and the project complexity management", I grounded the association of project team building to the project environment and project structure. A finding that supported the extension of the existing literature by identifying to the general knowledge of the aspects impact the team building process in the global multicultural project environment in the oil and gas industry in GCC region. In addition, I

recognized from the study findings under Themes 1 and 6 the challenges of the project

impermanency when selecting the project team. I integrated that with the impact of a

changing organization strategy deduced from Theme 5 "Changing organizational

strategy". The analysis of Theme 5 revealed important issues that need to be considered

in making the decision to venture business in GCC region. This includes critical social,

geopolitical, system, and business environment aspects.

Under Theme 2 "Leadership role and the impermanent multicultural

environment", I interpreted the common perception of project leadership role in

managing the complexities of the global project environment. The findings under Theme

2 can be a viable extension for the literature in response to the identified gap on

understanding the impact of the global project aspects, particularly in GCC where the oil

and gas industry is highly dependent on contracted temporary expatriates' workforce. A

key finding in this is related to the project leadership role in promoting the global project

environment as a knowledge integration and exchange environment. The local perception

of the project success is highly influenced by the benefit the global organizations offered

to the local community. A key benefit is identified to be the knowledge acquired from the

hosted organizations team, processes, standards, and exposure to international markets.

From Theme 3 "Project success definition and the success criteria" and Theme 4

"Aligned performance and governance systems", I asserted a gap in defining project

success and alignment to corporate objectives. The challenge of the missing consensus on

a unified definition of the global project success is consistent in GCC region. The source

of the challenge is obvious from the missing alignment between the representatives of the

project layers, and from the complexity of the ownership structure of each of the project layers. I found that the identified literature gap about the fragmented approaches on the project governance is consistent in the oil and gas industry in GCC. I proposed that further research initiatives may be required to understand the impact of an integrated project governance on the project success. However, the current study may contribute to the literature by identifying the critical role of the project leadership to implement a project governance system that support the alignment at the internal and external environments of the project.

Summary and Conclusions

Complex adaptive systems theory is the central theoretical lens adopted to understand various complexity sources in the project environment. When tracing the origins of the theory, a strong link emerges in the evolving nature of the project structure as a contingent approach facing the fluctuations in the ever-changing environment. The literature review included a review of the inception of the contingency theory to understand the theoretical association between a complexity perspective and a systems-thinking approach, as well as their origins from the contingency theory.

The theoretical lens served to facilitate a broad literature review that covered the phenomenon of temporary project structures, the culture of project-based organizations, and the main forces driving the projectification process in the global business environment. The intent for the review was to establish a link between the project environment and the challenges faced by project leadership to achieve success, with a focus on the global multicultural project and the global business environment. The review

expanded to understand project leadership requirements and the reasons behind the evolving project environment in response to increased complexities in the business environment.

The relationships reviewed included the differences between project management and project leadership, links between leadership styles and project structures, and the projectification process and its impact on the learning organization cycle and the team-building process. The review included a discussion on the traditional and evolving project management practices in response to the increasing demand on project success. The intention was to establish a link between how to formulate strategic objectives at the corporate level to manage change using the project structure's capabilities for adaptation; however, an increased demand on efficiency increased the project complexities in and around the project environment.

The increased projectification process, specifically at the global scale, has an association with several gaps in project management and leadership research. The gap emerges from studying the project environment in isolation of the social science and management theories. The gap between project management literature and the expectations of the social science and management theories is increasing, and is challenging the implementation of the advanced project management and leadership models as a result. An in-depth and practical understanding of the organizational challenges in the global environment to support an adequate global leadership development program does not exist in the literature. The reviewed literature identified

challenges in promoting a project governance model due to the challenges in defining the complexities associated with the global project environment.

Researchers of global projects agreed on the difficulty involved in unifying a project-performance evaluation model and understanding success from a unified perspective. Few studies exist on project success and performance evaluation lack the association of project success and project leadership. Research on global project leadership should include different perceptions on what represents project success. Researchers should critically analyze this perception with regard to project type, nature, industry complexity, and diverse factors related to the multicultural global environment. The adopted case study approach for the study, presented in the next chapter, included exploring the perception of current project management practitioners on the association between project leadership and project success. The study included project management practitioners from the oil and gas industry in the GCC countries to bridge the gap of scarce research on this topic.

Chapter 3: Research Method

The purpose of this qualitative exploratory case study was to gain a robust understanding of leadership requirements within the multicultural environment of locally conducted projects by global organizations in GCC countries. The study included projects from the oil and gas industry in two member countries, the UAE and Kuwait, of the GCC. A case study approach was appropriate, I believe, for exploring the perceptions of leaders from the project owners, consultants, and executing organizations regarding leadership requirements for projects conducted by international organizations at a local scale. Construction and field development projects in the study region were the focus of my case study research. The study included semistructured interviews with 25 participants. Interviews were questionnaire-based to follow the logical structure of nested case study approach (De Massis & Kotlar, 2014). I used a semistructured format for interviews in the hope that additional insights might emerge through participants' responses to the interviews' open-ended questions.

The study involved exploring the challenges that organizational leaders face in meeting projects' predefined success criteria in the global multicultural oil and gas projects. The methodology involved gathering perceptions on project leadership's role in achieving success, as defined at the corporate strategy level. The qualitative approach included exploring the determinants of project success and its connection to parent organizations' objectives. The qualitative approach supported my exploration of the applied project performance review and evaluation systems. I used the exploratory and comparative research to understand how organizational dynamics are implemented

considering the project aspects such as the environment, the project success, the project leadership, and the project team building. In addition, the multilayered approach helped me to understand how process implementation is different across the project layers (see Figure 2). My attempt was to reveal the philosophy of the local hosting society in defining project goals and project success. Embedded in the purpose of the study was the objective of exploring how to identify project success criteria and the role and involvement of project leadership in the process. I used the capabilities of the qualitative approach to understand the process of defining project stakeholders with an intention of probing an understanding of project environment complexity at the local scale.

This chapter includes five main sections, starting with a detailed description of the research method and design for the adopted exploratory case study. The focus will be on the rationale of method and design selection. The second section will include a description for my role as the researcher and a comprehensive review of my role in participant selection, data collection, and data analysis. The role of the researcher section includes a discussion of the control measures I considered to control possible personal biases.

The third section of this chapter is the methodology section. I start with a review for the exploratory case study as the selected methodology with a literature review on the implementation and implications of this type of research method. This section includes a description on the adopted participants' selection logic, sampling strategy, and instrumentation. Throughout the first three subsections, I will include a comprehensive review on the connection between the selected method, the problem statement, and the

purpose statement. The review includes a focus on enhancing research trustworthiness, implementing a reliable sample selection strategy, and my credibility as the researcher. In the third section, I will include a discussion of a field test that involved a consultation with qualitative research experts for examining the implementation of the research design. The consultation included an examination of the alignment between the adopted method and the research question, the integrity of the method design, and the alignment between the interview questions as the main data collection instrument and the research questions. I will conclude this section with two subsections on the applied procedures to recruit participants and the adopted data analysis plan.

The fourth section of this chapter indicates the lack of systematically shared grounds for evaluating qualitative research trustworthiness. I provided a literature review to support the approach and the most common strategies that qualitative researchers use to establish adequate procedures and meet the requirements of the credibility, transferability, dependability, confirmability, and ethical procedures, that I reviewed in separate subsections. The chapter concludes with a summary section that highlights the main areas discussed in the chapter and established a link to the data collection and analysis in Chapters 4 and 5.

Research Design and Rationale

Global projects occur at the intersection of global organizational culture and the impermanent nature of project structure. This study included the exploration of a specific organizational dynamics and social processes. The objective of this research was to answer the central research question, How does project leadership support the success of

global multicultural projects in the oil and gas industry in GCC countries? The two research questions I developed to provide guidance for this qualitative exploratory case study are, as follows:

1. What is the role of project leadership in managing the project's cultural and environmental complexities?

2. How can leadership contribute to project success in a challenging global multicultural impermanent project environment?

The research questions were suitable for gathering robust information related to a global project leadership role in promoting project environments that support the project success criteria. A project success criterion in this respect will be a process of interaction among various stakeholders at different levels in the project structure. The central research question was suitable for exploring the alignment between various identified aspects of project organization. The project aspects discussed included project environment, project nature, project governance, project team building, project leadership, and project complexity. The following is a summary of the concepts that were presented in the literature review. I included this discussion to enhance the rationale for my selection of a research method and design.

Study Themes Explored in the Literature Review

With an increased interest in project-based structures for conducting businesses, especially in foreign environments (see Turkulainen et al., 2013), global project-based organizations emerge with strategic business objectives that extend beyond traditional operational efficiency goals (Eweje et al., 2012). The global project multicultural

environment and the forces shaping it challenge traditional project management requirements to meet project constraints of time, scope, and quality (Thamhain, 2013b). Researchers have identified these forces as external forces and internal forces. External forces are the economic, technological, and political changes in a project's external environment. The ever-changing global economy includes a complex and dynamic environment around organizations (Gabrielsson et al., 2009). The improvements in communication technology and transportation, which have a direct impact on the globalization process (Irving, 2010), may lead to continuous organizational processes development. The chaos attributed to change at the individual, group, and country levels impacted the increasing demand for organization innovation (Gabrielsson et al., 2009).

The literature review chapter included a discussion on internal organizational forces that influenced the formation of the global projects environment, which included the multicultural texture of the individuals and groups that challenge, and in some cases, hinder the team-building process (Chen & Messner, 2010; Koskinen, 2012; Thamhain, 2013a, 2013b). The literature review also included a detailed discussion on the adopted project governance methodology and project evaluation criteria and its connection to the project leadership role in guiding the project's activities (Ahola et al., 2014; Pitsis et al., 2014). In addition, the literature review chapter included a review of the notions of knowledge exchange and organizational learning process within the challenge of urgency of the project impermanency (Koskinen, 2012).

Multicultural project environments with clearly defined stakeholders and objectives must include a focus on project leadership and efficiency measures that

embrace a variety of stakeholders' satisfaction measures (Thamhain, 2012). Thamhain

linked the failures occurred in the technical side of the project to social, psychological,

and organizational issues (Thamhain, 2013b, p. 146). The project-based organization

structure emerged as an organizational tool to increase efficiency in defined endeavors

with a temporary nature (Keegan et al., 2012; Maylor et al., 2006). Corporate leaders use

project structures to conduct internal changes, as well as to penetrate new markets. For

the variety of industries and environments whose leaders adopted project-based

organization structures, the challenge for identifying the role of project leadership in a

global context with high cultural diversity is increasing (Müller et al., 2012; Thamhain,

2012, 2013a, b, & c).

Research Design: The Selection Rational

The exploratory case study approach was suitable in a qualitative research inquiry

to explore how specific organizational dynamics and social processes affected the

perceived role of project leadership. The conducted study involved exploring the role of

project leadership within the project team building processes and the need for a project

culture of innovation. The study also involved exploring the influence of project

leadership in the development of a global project governance system and the definition of

project success criteria. The case study approach supported defining the boundaries

between the theoretical framework of project structure as a temporary organization with a

specific endeavor and local practices specifically in oil and gas industry projects in GCC

countries. A multilayered and nested case study approach was suitable to compare

between a conventional corporate structure and the temporary project environment, to

understand the difference between project management and project leadership, and to explore various factors to consider when adopting global project structures. In the case study approach, researchers and practitioners can study the project environment in natural settings, support the learning process from success stories, and generate theories from practice (Cao & Hoffman, 2011).

Case study is a qualitative strategy for empirical research that supports an in-depth investigation of a contemporary phenomenon within its real-life context (De Massis & Kotlar, 2014). The advantage of the exploratory case study was the ability to understand the dynamics that occur within the setting. The nested multicase study design was suitable for revealing and understanding multiple facets of the phenomenon using a variety of theoretical lenses (De Massis & Kotlar, 2014, p. 16). This exploratory case study included a review of the aspects related to the structure, environment, and individuals with respect to two theoretical lenses. Complex adaptive systems theory served as a central theoretical lens. The review included the complex nature of global projects, the project structure, and the project environment from the perspective of a complex adaptive system. The other theoretical lens was the contingency theory, which was suitable for discussing the perceived role of project leadership in shaping project teams and in promoting a learning organization culture.

The goal of the in-depth exploratory approach was to understand local perceptions about the role of global project leadership in the oil and gas industry in the GCC countries. The study involved exploring the perceived role of project leadership in setting the project success criteria, the project governance system, the project team building

process, and the project environment. The approach supported exploring the aspects that contribute to the development process of global project leadership and global project management teams. The study may contribute to the literature by responding to practitioners' needs, revealing leadership requirements in a global project context, and developing the project environment that supports a successful team-building process. Substantial benefits are likely from a case study approach for both researchers and practitioners. A case study includes an opportunity to understand the nature and complexity of the process and may increase the likelihood of gaining an in-depth understanding of the phenomenon under study (Cao & Hoffman, 2011, p. 157).

The qualitative exploratory approach supported the problem and purpose statements of the research. The objective of the study was to address the gap in the phenomenon of increasing project failure rates by exploring the link to project leadership. The study may contribute to published research about the global project environment in the GCC region. Other approaches for a case study were not suitable, as they would not answer the inquiry objective. For example, an explanatory case study is an approach that researchers use to explain the reasons for the occurrence of a phenomenon. In this research, a definition of the existence of the link between various aspects of global project leadership does not yet exist. Descriptive case study approach was inadequate, as researchers have yet to confirm the association between global project success and project leadership aspects. A descriptive case study can be an adequate choice at an advanced stage of research beyond this study. This additional research would be for providing evidence on the explored phenomenon to convince the audience of the

existence of an association between a particular aspect of the project environment and the project leadership.

Role of the Researcher

As a project management practitioner in the oil and gas industry for over 20 years, I have held several positions in various projects structures. The positions included an owner representative and end user, an engineering and project manager, and the contractor representative and coordinator. This experience in the three areas of the project structure exposed me to understand the critical challenges of the relationship management of the project management triangle that includes the owner, consultant, and contractor. I have also served in projects of different technical complexity levels, ownership nature, cultural challenges, and stakeholder types. This exposure included various approaches to project structures, such as in-house designed projects and complex projects that involved multidiscipline engineering consultants and in some cases more than one specialized consultant. The exposure also included single-owner projects, single-department end users, and the ownership of multiple international oil companies that usually involves many departments of different disciplines. The list of projects also included in many cases the involvement of governmental bodies that represent the government in various roles, including the ownership role, the controller role, and the master planner role.

My role as the researcher in this study included a reflection of personal observations from the field and direct engagement in the discussion about the problem. As the observer, I was engaged in reporting the industry challenges that include

reflections about the selected projects' internal and external environment. I focused on identifying general observations from an industry professional point of view. My role as the researcher was to manage the discussion without giving any guidance to the respondents to avoid bias. To control bias, and to increase the value of this research, I selected 25 participants in a nonrandom purposive sampling strategy and I specified the categories of persons to include in the sample (Robinson, 2014). The purposive sampling strategy supported the selection of individuals from the sample universe to confirm the inclusion of representatives from all project layers in the project structure.

Initially selected participants had the opportunity to recommend additional individuals they believed of an added value to the research in a snowball sample selection strategy. The objective of the snowball approach for participant selection was to (a) avoid bias in participant selection, (b) increase the number of participants to an acceptable level of saturation, (c) avoid damaging personal relationships with existing industry players, and (d) enhance research trustworthiness and reflexivity.

I have selected a sample of participants that included project management practitioners who have previous involvement in at least one oil and gas project in the GCC region. The projects were either completed or have a status that allows a discussion without ethical issues arising with the involved parties. To avoid ethical issues, the focus of the interview discussion was the individuals' opinion rather than the project-specific record. The selected participants who are owner representatives are not currently holding any position in the firms they serve. For this, I did not face any issue of conflict of interest, as the focus of the interviews was on the exploration of the participants life

experience in the industry in specific projects they represented. The owner representatives were a useful source for identifying additional participants to support the research inquiry. I asked the new participants to highlight any expected ethical issues. There was no need to approach the leaders of the responsible firms for the approvals and the 25 participants signed the consent form before the interview.

I expected to face challenges in acquiring formal approvals to discuss specific challenges in current projects. I also expected to face challenges to explore formal feedback on parent organizations' strategies. For this reason, the focus of the case study approach was on exploring individuals' personal experiences. Researchers use this method to embrace the establishment of a link regarding how they evaluate project performance with respect to known or unknown organizational objectives. I had an existing relationship with the selected participants at the first stage of the data collection. The relationship was one of three types: (a) colleagues from previous projects or organizations, (b) personal contacts in existing projects or organizations, or (c) former senior instructors in a higher supervisory position than ones I occupied. I was working with any of the selected participants at the time of the study; thus, I expect no bias due to existing relationships. I considered their recommendations to identify additional participants as an approach that may help to manage any bias from an existing relationship.

Methodology

A qualitative exploratory case study was suitable for the multiple mini-case-study approach in this research inquiry. The nested mini-case-study design supported the data

collection, classification, and analysis within the layers of the same project structure in addition to studying multiple projects within the same organization. The mini-case-study approach supported respecting the nature and type of the project case and is suitable for comparing results and generating patterns. Cross-compared mini-case studies supported exploring project aspects related to the research themes. An in-depth exploratory approach is suitable for defining the boundaries of different themes in the selected project environments in the oil and gas industry in the GCC region. I developed Figure 12 to illustrate on the benefit of the adoption of the methodology in serving the study.
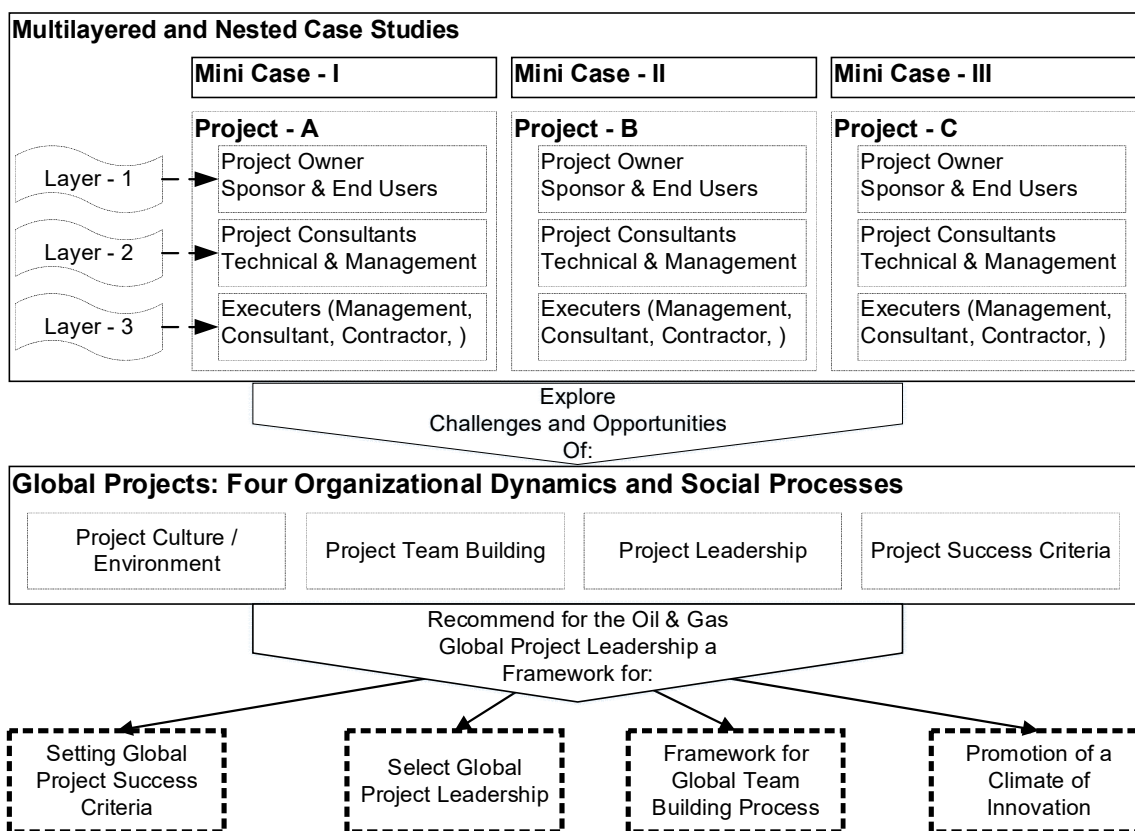
Figure 12. The exploratory nature of the multilayered and nested case-study approach and its link to the research enquiry objectives.

The multilayered and nested case studies approach to the multilayered project structure was suitable for enhancing the understanding of the complexities of the global projects in multicultural environments. Kapsali (2011) emphasized the role of comparative case studies for exploratory research and noted that the research design supports exploring causal mechanisms and dynamics in complex systems, where the phenomenon remains unsettled. The approach supported integrating the efforts of the researcher and practitioners to improve practice. See Figure 2 that illustrates the adopted multilayered and nested case study approach, the focus on various project layers, and the exploratory nature of the research enquiry.

The design of this exploratory method included a combined manifest and latent approach. A combined manifest and latent approach in a qualitative exploratory study can enhances the research consistency, objectivity, validity, and generalizability (Cash & Snider, 2014). The manifest approach supported the role of the researcher as an observer at the data collection phase. The latent approach occurred at both the structure design of the interview questions and at the data analysis stage. A latent pattern approach helped to understand the pattern that occurred between different layers of the project structure. The manifest approach helped to present a better understanding of the global project environment with respect to the aspects of the complex adaptive system. The latent approach helped to define the boundaries of multicultural global project leadership with respect to the aspects of the contingency theory. Figure 13 represents a summary of the logic to adopt the theoretical lens in a latent and manifest approach to structure the data collection and analysis approach.
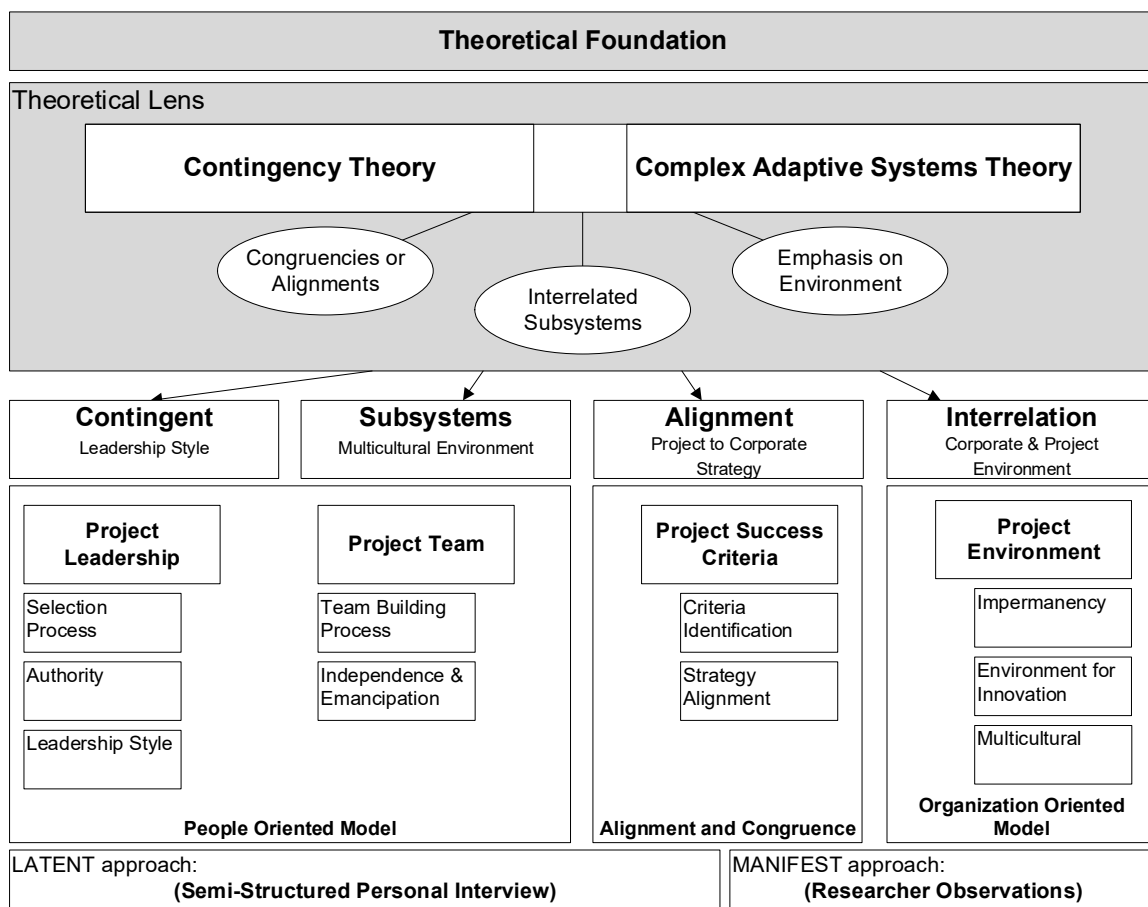
Figure 13. The deployment of the theoretical framework and the adopted theoretical lens in a latent and manifest approach to data collection and analysis.

Participant Selection Logic

The population of this research study included project management practitioners in oil and gas projects. The particular focus was on project practitioners in the oil and gas industry in GCC countries. Leaders of international oil companies have a strong interest in investing in this region. The large number of oil and gas development projects attracts global oilfield operators, contractors, and consultants. The conventional project structure adopted for this research helped to define project structure at three layers: (a) project

owners that included representatives from project sponsors and end users or operations; (b) project consultants that included representatives from the technical and management specialized entities; and (c) project executors that included contractors, suppliers, and other service providers. The population includes practitioners from local and international companies working in the oil and gas industry in GCC countries. Due to the continuous change in the industry and the lack of accurate statistics at the national and regional levels, the population is difficult to quantify. Some formal and informal forums and gatherings organize periodic meetings for project management practitioners who are not specialized oil and gas forums. Attendees for the yearly gathering events vary from 1,000 to 2,000 practitioners in project management. The actual number of the project management practitioners varies with project size and number in the industry.

The governments of the six countries in the GCC own the oil and gas fields in the GCC region. This ownership structure limits the number of owner organizations in the upstream sector to six organizations. The owner organizations are branched locally to cover identified geographical zones or concessions. The private sector consists of international oil companies, local oil companies, oilfield operators, oilfield contractors, oilfield consultants, and specialized project management firms. These organizations are from a wholly owned local organization, foreign direct investments, and different types of consortia and joint ventures. Some special-purpose vehicles are for specific projects or developments with the objective to compile project-specific technical requirements.

Sampling Strategy

I considered a purposive sampling strategy for the qualitative research inquiry to ensure the inclusion all types of targeted individuals in the final sample. A purposive sampling strategy refers to "non-random ways of ensuring that particular categories of cases within a sampling universe are represented in the final sample of a project" (Robinson, 2014, p. 32). Purposive sampling was a subjective nonprobability sampling method used to select representative samples to meet defined criteria.

The basis of participant selection criteria for this study was the personal profiles of project management practitioners. The personal profile included direct experience in executed projects in the oil and gas industry in the GCC region. The following were the selection criteria for qualifying participants:

- Direct experience in oil and gas industry projects at any of the three identified project structure layers.

- Current or previous work experience in a local or international GCC-based organization.

- Directly represented or participated in the project management team of one of the three organization types that represent the project structure. In this research, these project layer organizations are the owner organization; the end-user organization, which might be a different user or operator from the owner; and the executing organization, which includes consultants, contractors, subcontractors, service providers, suppliers, and project management specialized firms.

- No major conflict of interest or bias with the participant's current role in the organization.

- Minimum risk of relationship damage with the researcher in the current role.

The basis of the adopted purposive sampling strategy was to define at least 25 participants who meet the above criteria. I used my personal contacts to identify the participants categorized into the identified layers as in Table 2. A snowball sampling approach supported using additional participants with significant input to the research and replacing withdrawals occurred in three cases during the data collection stage. Snowballing occurred during the initial contact with the initially identified 25 participants and while interviewing the participants. Snowball methodology is useful in exploratory, qualitative, and descriptive research when respondents are few and a high degree of trust is necessary to initiate contact (Baltar & Brunet, 2012).

Table 2

Initially Selected Participants' Profile

ID	Category[a]	Job title	Industry Segment[b]	Current Location[c]	
1.	Owner	Enterprise Project Manager	Downstream	UAE	UAE
2.	Executer	Chief Executive Officer	Mixed	UAE	UAE - Regional
3.	Executer	Chief Executive Officer	Upstream	UAE	UAE - Regional
4.	Executer	Regional Director	Mixed	UAE	UAE - Regional
5.	Executer	Business Solution Manager	Upstream	UAE	UAE
6.	Consultant	Chief Executive Officer	Upstream	UAE	UAE - Regional
7.	Consultant	Regional Director	Upstream	UAE	UAE
8.	Consultant	Managing Director	Upstream	UAE	UAE - Regional
9.	Executer	Technical Director	Upstream	UAE	UAE
10.	Consultant	Project Subject Mater Expertise	Downstream	UAE	UAE
11.	Executer	General Manager	Mixed	UAE	UAE - Regional
12.	Executer	Procurement Manager	Upstream	UAE	UAE
13.	Executer	Senior Project Manager	Upstream	UAE	UAE
14.	Consultant	Director of Projects	Mixed	UAE	UAE - Regional
15.	Consultant	Projects Manager	Mixed	UAE	UAE
16.	Owner	Project Manager - Marine Works	Downstream	Kuwait	Kuwait
17.	Owner	Senior Engineer - Project Manager	Upstream	Kuwait	Kuwait
18.	Owner	Chief Executive Officer	Mixed	Kuwait	Kuwait
19.	Executer	Chief Executive Officer	Upstream	Kuwait	Kuwait
20.	Owner	Project Coordinator	Mixed	Kuwait	Kuwait
21.	Owner	Managing Director	Downstream	Kuwait	Kuwait
22.	Owner	Project Manager - Civil Work	Downstream	Kuwait	Kuwait
23.	Consultant	Project Manager - Mechanical Works	Downstream	Kuwait	Kuwait
24.	Executer	Project and Technical Manager	Mixed	Kuwait	Kuwait
25.	Owner	Project Manager - Well Surveillance	Upstream	Kuwait	Kuwait

Note. [a]Role of participants in the project structure layers (owner, consultant, executor). [b]Industry Segment includes two Oil and Gas Segments: Upstream and Downstream, the Mixed indicated participants who shared project cases from the industry segments. [c]All selected participants are from the GCC countries: Kuwait, Kingdom of Saudi Arabia, United Arab Emirates, Oman, Qatar, and Bahrain. Participants who are currently residents of UAE are of two categories: UAE and UAE Regional. The UAE regional category includes participants who are based in Dubai however for managing regional business only.

The snowball sampling strategy is a technique to find a research subject as a response to overcoming the problems associated with sampling concealed, hard-to-reach populations (Atkinson & Flint, as cited in Baltar & Brunet, 2012). The reason for adopting the snowball approach as a support sampling strategy in this exploratory

qualitative inquiry was to identify participants with a direct relationship to the decision-making process within the selected mini-case studies. The number of participants in the selected sample included 25 members from owners', consultants', and executers' organizations. The participants shared their experience in different project cases located in the GCC region. Figure 14 shows a systematic approach for selecting participants from the three layers of the project structure.

I contacted the selected sample of participants through a formal e-mail message. The selected sample participants had the ability to forward the message to other probable participants who meet the selection criteria. The attempt was to increase the saturation by diversifying the participants to belong to the three project layers. The face-to-face interviews involved traveling and commuting time, as well as a formal appointment for the convenience of participants' schedule.

Participants Selection Logic
Purposive Sampling Strategy
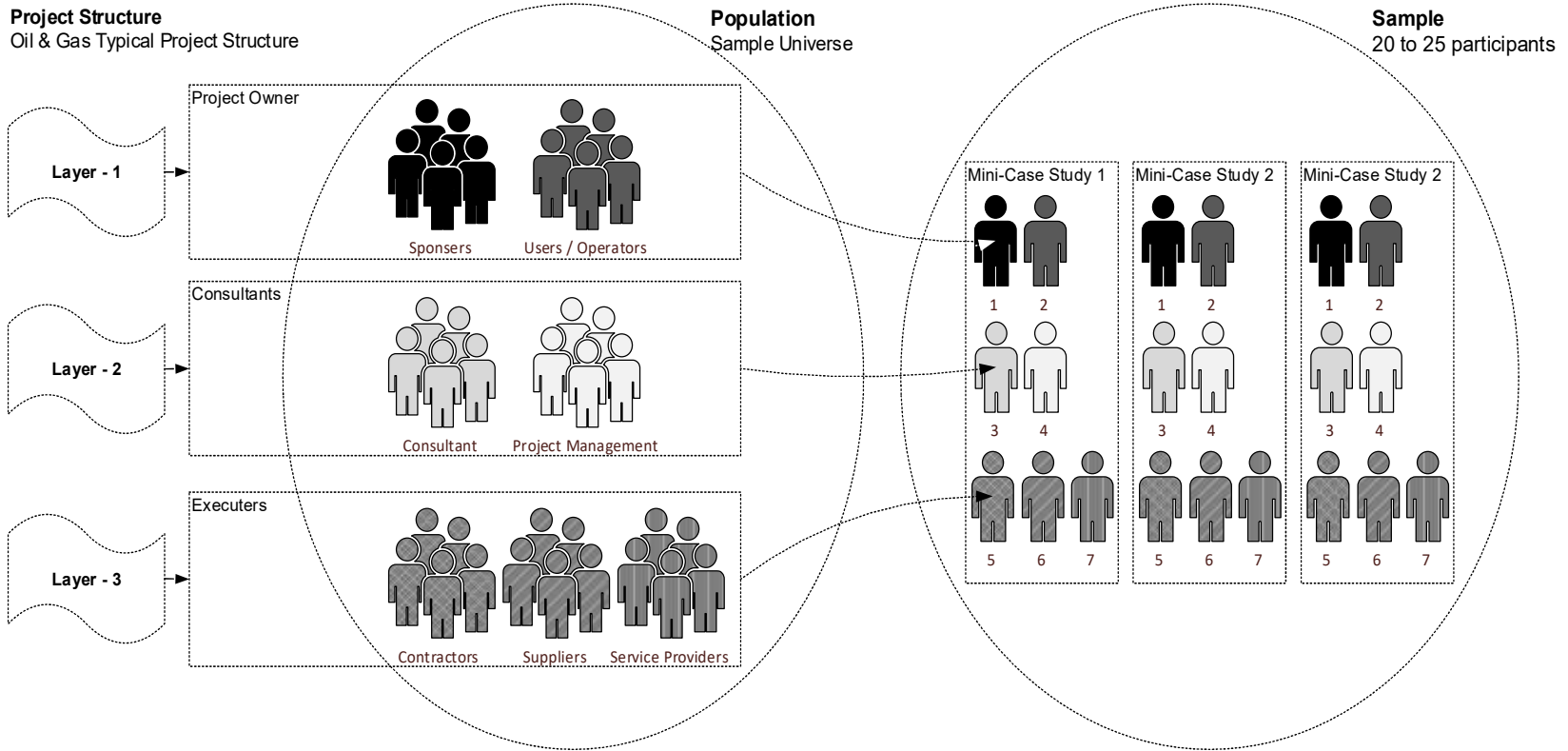
Figure 14. Participants selection logic and purposive sampling strategy.

Instrumentation

The main instruments in the data collection process was semistructured face-to-face personal interviews and my researcher observation sheet. The personal interview was face-to-face with an interpersonal role of the interviewer in the situation. I asked designed questions; the questions were related to the main research question with the aim to elicit answers that serve the objective of the research (Frankfort-Nachmias & Nachmias, 2008, p. 213). The semistructured interview had the power to narrow research areas and is important to focus a discussion on asking only questions related to the main research question (Rabionet, 2011). Unstructured interviews have a risk of not simulating the topics or themes closely related to the research questions under consideration (Rabionet, 2011, p. 564). Semistructured interviews are suitable for both exploring the specific topics a researcher needs to cover in the research enquiry and hearing the stories of the participants (Rabionet, 2011). Rabionet (2011) provided a strategy for conducting semistructured interviews based on a general opening statement on the topic and a few general questions to elicit a conversation. The strategy included additional questions designed to probe for information if it does not come up (Rabionet, 2011, p. 564).

Frankfort-Nachmias and Nachmias (2008) described three types of personal interview: the schedule-structured interview, the focused interview or non-schedule-structured interview, and the nondirective interview. A schedule-structured interview is the least flexible type of personal interview. Frankfort-Nachmias and Nachmias emphasized the importance of having the number, the sequence, and the wording of the questions identical for all participants in this type of interview. Researchers should also

avoid rewording questions or providing additional explanation. The objective is to reduce the risk that changes in the wording elicit differences in responses (Frankfort-Nachmias & Nachmias, 2008, p. 215).

The second type of interview identified by Frankfort-Nachmias and Nachmias (2008) is the non-schedule-structured or focused interview (p. 215). This type is too close to the semistructured interview defined above by Rabionet (2011). The characteristics of the non-schedule-structured interview are (a) participants have involvement in a particular experience; (b) the questions refer to situations analyzed before the interview; (c) the interview follows an interview guide that specifies topics related to the research questions; and (d) the focus of the questions is participants' experiences related to the research question (Frankfort-Nachmias & Nachmias, 2008).

The third type of interview identified by Frankfort-Nachmias and Nachmias (2008) is the nondirective interview. In this personal interview, a researcher encourages the selected respondents or participants to relate their experience from events of their selection, with minimum or no guidance from the researcher. An interview structure is not necessary, and a selection process of participants does not need to be a specific strategy that relates the participants' experience to the topic. This type of interview has a risk of deviating from the main topic and research question.

For this research enquiry, the selected interview type is the semistructured or the focused interview. In this type of interview, the encounter between the researcher and the participants has a structure, where the researcher explains key aspects of the study (Frankfort-Nachmias & Nachmias, 2008) or provides a general statement about the study

background (Rabionet, 2011). Experience plays a significant role in the research process, and participants have considerable liberty in expressing their definition of the situation. The interview structure is malleable enough to follow emergent leads and standardized enough to register strong patterns (Frankfort-Nachmias & Nachmias, 2008, p. 215). Researchers are able to explore the latent reactions from personal reactions, specific emotions, and language used.

The adopted qualitative data collection method was a semistructured focused interview that included open-ended questions related to recent projects managed by the participants. These projects served to provide background knowledge on environmental and leadership challenges in oil and gas multicultural global projects, which evoked further questions that strengthened or opposed the opinions in prior research. The semistructured format of the interviews included predetermined questions with the same wording and order. The aim was to provide the same circumstances that apply for each participant. An assumption was that the participants had a sufficiently common vocabulary such that the interpreted questions were of the same meaning and prevented any preconceived bias.

The face-to-face personal interview was the preferred survey method over the questionnaire and the telephone methods, despite the high cost and low speed (Frankfort-Nachmias & Nachmias, 2008). The advantages of face-to-face interviews included the high response rate, as the participants were of direct interest for the selected topic. The face-to-face situation with the interview protocol provided a greater ability to control the interview situation. The geographical spread of the participants, in the GCC countries,

and the type of the oil and gas selected projects, were challenges within the method and restricted accessibility to some project sites due to the nature of the high security in the industry. The advantage of the method was in the increased level of details in the collected data and the applicability of the method to the target audience and population. The intention of this research was to conduct all interviews with the selected participants using the face-to-face approach.

The secondary data collection instrument selected for this research was the researcher observation sheet and the qualitative content analysis method. The focus of this instrument is analyzing formally published information about the selected projects where applicable. The source of this information was the websites of the project owners and reputable specialized project survey websites that focus on reporting data on project progress in the region. Because I had a personal membership in the project survey websites, I was able to download the required reports and data about the projects. The focus of the researcher observation sheet and the qualitative content analysis was on building the background information to use in the interview protocols. An additional objective for these reports was to facilitate the discussion with participants based on the published information. This approach supported building common ground to unify the interpretation of the interview questions between participants.

Field Test: Interview to Research Questions Alignment

Researchers conduct field tests to examine the alignment of the selected research method and design with the research problem and purpose statement, to strengthen the link between the research question and the research method and design, and to support

the association of the interview questions with the research question. Five faculty members received a request to review the research method and design, the interview questions and protocol, and the research questions through an e-mail invitation that included sufficient information on the study background. The specific role of the field experts was to advise on any misalignment in the research design, provide an academic argument around the research question and interview questions, and recommend adjustments. Details on the field test procedures and activities are in Appendix A, with the research question and interview questions before the field test. The modified research and interview questions in Appendix B reflected the changes from the field test, and a final interview protocol is in Appendix C.

As a result of the field experts' recommendations and directions, I prepared a matrix of alignment (see appendix A Table A1) to emphasize the association between the interview questions and the research question. The matrix of alignment also included the interview strategy selected to explore the main research themes. The initially identified research themes included the participants' insight regarding the problem and its association to project leadership and to the individuals in the project management team. With a focus on the participants' personal experience, the interview questions probed into the applied approaches to measure project success, derived systems for project governance, and the associated project performance management approaches. I developed the interview questions to determine the participants' experience in the global multicultural project environment and the specific challenges faced to build project teams. An area was available during the interview for discussing the participants'

experience on the challenges related to the discussed type of projects where additional themes were likely to arise. The last interview question provided an opportunity for the participants to support the snowball sampling strategy. Modified interview questions appeared in an interview protocol that defined the interview question sequence and objectives as guided by the matrix of alignment. Appendix B included the post field test modified interview questions.

Procedures for Recruitment, Participation, and Data Collection

Personal face-to-face interviews took place with selected participants to collect the required data about the research question. The criteria to identify the participants included their previous experience in large complex oil and gas projects in a global multicultural project environment. The multicultural nature of global projects and the sample selection logic resulted in a culturally heterogeneous sample. This qualitative cross-cultural study included at least 12 nationalities, with some individuals having double nationalities. Heterogeneous sample demographics and geographies was acceptable in this research, despite the variance in participants' feedback (Robinson, 2014). The research involved looking at the similarities and differences within the multicultural working environment of global projects. The sample selection process resulted in the recruitment of local nationals as well as international individuals working for local and global organizations.

During the interview, participants received a request to recommend additional individuals qualified to participate in the research inquiry. This snowball approach helped to increase the credibility of the research and the saturation in covering the three layers of

the project structure. I used the snowball approach to replace withdrawals and to add new participants of high value to the research.

The recruitment procedures for the initial participants started with sending an e-mail invitation that included a general statement about the study (see Appendix D), the interview protocol that included the interview questions (see Appendix C), and the Institutional Review Board (IRB) approved consent form under the number 12-22-16-0339617 (see Appendix E). I informed the potential participants about the selected research method and design, I provided them with sufficient information about the academic objective of the interview. I addressed the main ethical issues in the initial invitation, including the risk of a personal relationship and conflicts with the participant current role. I guaranteed the confidentiality of the discussion and defined the procedures for managing the information exchanged through the university approved consent form. The consent forms were signed by all participants before the interview started.

I prepared for the interview meeting by using a transcript that provided a guidance for asking the interview questions, interfere where required with the follow-up questions, and manage the interview time (see Appendix F). I recorded the interviews using a primary and a backup digital recorder to avoid losing data due to technical challenges. The interview protocol included the recording procedures, and participants received a request to provide approval to record the discussion. Confidentiality procedures for the recorded interviews were a topic discussed to obtain participants' agreement and included the destruction of the recordings after transferring them into transcripts. Transcripts did not include any individual or organization identifications.

During the participants recruitment process, some of the prospective participants declined the invitation due to the risk of ethical issues in their current role. A follow-up plan included a list of additional prospective participants from my network who are qualified based on the participant selection criteria. This approach increased the number of the project cases beyond the initial target. This option involved spending additional time and effort to build the discussion background with the new participants. The increased number of project cases did not have any impact on the research design, as the objective of the study does not include examining specific project aspects. Sharing the particular project aspects with potential participants facilitated the discussion on the global project environment, global project leadership, and the relationship to project success. Issues of identifying project success and failure occurred during the discussion. The aim for the interviews was to understand how each participant perceives the project success and evaluation process.

Member Checking

Member checking process occurred during the data collection phase of the qualitative research. The main objective of the member checking process was to confirm that the researcher was able to accurately report the participants' stories (Koelsch, 2013) to avoid the threat of miscommunication on the research credibility typically arises from the human nature and dynamics (Carlson, 2010). Qualitative research enquiries entail the reporting human experiences, thoughts, memories, and interpretations which are subject to continuous change and transformation by nature (Carlson, 2010). Inaccurate reporting is a major mistake in qualitative research that threats the relationship with the participant,

the researcher's relationship with the participant, and the participant's willingness to complete the study. This type of mistakes is a major risk on the study stability and research credibility. Reflexivity indicates the researcher's recognition of his significant influence on the development of the research and the engagement of the participants and that the researcher has a responsibility to enhance transparent about his influence (Carlson, 2010).

The member checking process was a way of finding out whether the data analysis is congruent with the participants' experiences (Curtin & Fossey as cited in Carlson, 2010). The member checking was an opportunity for members (participants) to check (approve) particular aspects of the interactions of the data they provided (Doyle, as cited in Carlson, 2010). The member checking phase or member validation is defined by Koelsch as a research phase during which the provisional report or case is taken back to the site and subjected to the scrutiny of the persons who provided information (Lincoln & Guba, as cited in Koelsch, 2013). According to Koelsch (2013) the process entails the participants' confirmation that the researcher has accurately reported their stories.

During the member checking process participants were requested to verify the accuracy of a transcript or particles from the narratives they contributed during an interview session. It was recommended that participants are provided with polished interpreted interview report that includes themes and patterns emerging from the data rather than the original interview transcript (Koelsch, 2013). I was consistent with the objective of the member checking process and asked the participants to confirm that I was on the right track. I asked the participants to assert that I understood this in the same

way they meant it. (Koelsch, 2013). In my data collection, to allow for member checking, I provided each interviewee with a digital copy of the interview report summarizing the main interpreted concepts, themes, and patterns. Within 72 hours of each interview, I asked the participants to review the report, provide their remarks, edit, clarify, elaborate, delete their own words from the narratives within. I allowed the participants (interviewees) for 10 business days to respond with their remarks, in which I considered the participant granted his consensus with the contents of the provided material.

Data Analysis Plan

The manifest and latent approaches influenced the instrument design, and data analysis of this exploratory case study aligned with the interpretivist paradigm. The assumption of interpretivism is that human experience is a process of interpretation rather than direct perception (Blaikie, 2003a). Interpretivism is an epistemological stance influenced by symbolic interactions with participants (Patton, 2002). Narrative analysis extends the idea of text to include in-depth interview transcripts, life history narratives, historical memories, and creative nonfiction (Patton, 2002, p. 115).

The adopted holistic approach of data analysis in this research inquiry is aligned with the use of NVivo as the principle computer-aided system for data analysis. One of NVivo's primary functions was the ability to add memos to sections of the data, as a researcher has thoughts and makes connections during the phases of data analysis (Ochieng, Price, Zuofa, Egbu, & Ruan, 2015). Using NVivo involved exploring the global-project-defined aspects while sorting through the data collected from the interviews. Qualitative research is a continuous interconnection of fieldwork and

interpretation (Ochieng et al., 2015). Qualitative research is like a spherical sequence whereby the fieldwork in a dynamic dialectical method continuously alters or refocuses the researcher's original theoretical position (Bryman, as cited in Ochieng et al., 2015). To develop this research data collection and analysis plan, I reviewed two approaches in connection with the data analysis techniques: the Systematic Text Condensation Method presented in Malterud (2012) and the Qualitative Analysis Guide of Leuven presented in de Casterle, Gastmans, Bryon, and Denier (2012).

The Systematic Text Condensation (STC) Data Analysis Method

Malterud developed a data analysis strategy derived from the shared vision in most of the qualitative data analysis methods (Malterud, 2012). Malterud called his approach the Systematic Text Condensation (STC) and defined it as "a descriptive and explorative method for thematic cross-case analysis of different types of qualitative data" (Malterud, 2012). The STC method is a valid data analysis approach for data derived from any qualitative research including interview studies, observational studies, and analysis of written texts (Malterud, 2012). The implementation of the STC method is based on developing knowledge from the experiences generated by interpreting and summarizing the organized empirical data (Malterud, 2012).

The objective of the STC approach is to increase trustworthiness during the data collection and data analysis phases of the research. Malterud believes that data analysis should start early during the data collection stage after the third or fourth interview. An early start of the analysis increases the research trustworthiness and helps in avoiding solipsistic individual experience of the interviewer. A change in the interview protocol is

expected occur in the STC approach with the start of the data analysis to refocus the research on the intersubjectivity between the interviewee and the researcher. Intersubjectivity in this approach increases chances to remove opacity that might occur during the interview and the other data collection methods. Intersubjectivity implies that analysis is conducted and presented so that others can follow procedure and progress, and understand the conclusions (Malterud, 2012).

The theoretical foundation of social constructivism is fundamental in most qualitative method where knowledge is the situated and temporary outcome of dynamic interpretations of several possible versions of reality. Different qualitative researchers describe the procedures for qualitative data analysis differently, however, most of the methods imply decontextualization, coding, synthesis, and recontextualization. According to (Malterud, 2012), the STC is an iterative approach between data collection and data analysis at the early stages of the research and the researcher should expect changes to the data collection protocols. The iterative analysis in the STC approach increases the intersubjective understanding during the data collection process and supports the objective to achieve research saturation. I developed Figure 15 to summarize the methods the coding process derived from the STC method.
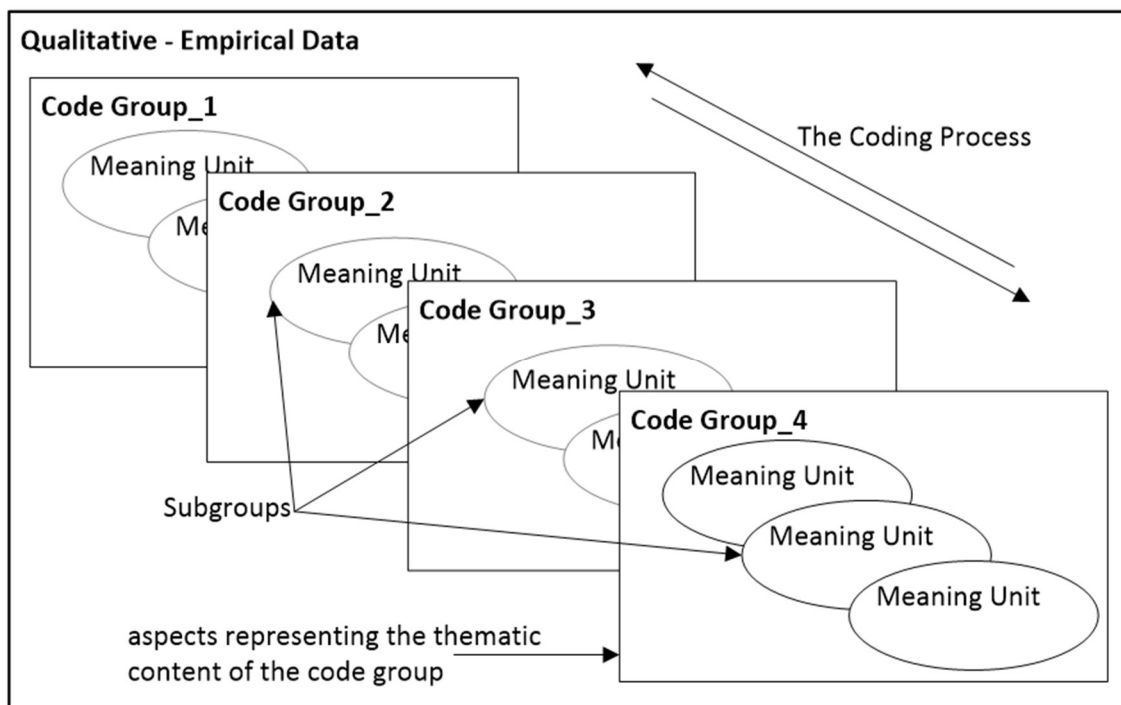
Figure 15. The iterative analysis process of qualitative data through code groups and subgroups of meaning units as described in the Systematic Text Condensation method. Adapted from "Systematic text condensation: a strategy for qualitative analysis," by K. Malterud, 2012, Scandinavian Journal of Public Health, 40(8), p. 795-805. Copyright 2012 by Nordic Societies of Public Health.

According to Malterud (2012), saturation in qualitative research is achieved when nothing more is expected from further empirical data when compared to previous data during the iterative approach. Malterud defined the procedures to implement the STC method with the following four steps: 1) total impression – from chaos to themes; 2) identifying and sorting meaning units – from themes to codes; 3) condensation – from code to meaning; 4) synthesizing – from condensation to descriptions and concepts (p.

796 - 800). Table 3 includes an elaboration in the four-steps procedures and the value of

each step to the research procedures.

Table 3

The Systematic Text Condensation Data Analysis Strategy

Step	Procedures	Objective	Researcher Role
1	Total impression – from chaos to themes	Common sense understanding starting with preliminary themes Establish an overview of data get a general impression of the whole List preliminary themes	Encounter data with an open mind, with a sharp awareness to the participants' voices. Identify preliminary themes associated with participants' worries related to their symptoms.
2	Identifying and sorting meaning units – from themes to codes	Proceeding to code[a] groups Define meaning units[b] – the text fragment containing some information about the research question. Reflect upon commonalities and differences within and across the coding groups.	Systematically review for the transcript line by line to identify meaning units. Identifying and organizing data elements that may elucidate the study question.
3	Condensation – from code to meaning	Split into subgroups Systematic abstraction of meaning units Reduce empirical data to a decontextualized selection of meaning units sorted as thematic code groups across individual participants	Flexibility to adjust with the evolving understanding and change names and borderlines of the code groups.
4	Synthesizing – from condensation to descriptions and concepts	Categories referring to the main outcome of analysis. Statements expressing the specific essence of the condensed meaning units. Data reconceptualization Synthesizing the contents of the condensates.	Develop descriptions and concepts. Provide credible stories that can make a difference by elucidating the study question.

Note. [a]Coding includes: identifying, classifying, and sorting meaning units potentially related to the preliminary identified themes. Coding implies: decontextualization, temporarily removing parts of the text from their original context for crosscase synthesis with the themes as road signs.
[b]Meaning units are the text fragment containing some information about the research question. Identifying meaning units includes: mark the units with a code – a label that connects related meaning units into a code group.

The Qualitative Analysis Guide of Leuven (QUAGOL)

For the purpose to develop an analytic method serves as instructions and guidelines for qualitative researchers to analyze qualitative data, de Casterle et al. (2012) supported the QUAGOL as a method to capture the rich insights of qualitative interview data. The proposed approach by de Casterle et al. (2012) emphasized on the capabilities of the QUAGOL as a method to facilitate the qualitative data analysis process by supporting the researchers to cope with the typical problems in the field. The authors summarized the problems in a typical qualitative data analysis process in six areas: (a) Over-reliance on qualitative software packages, (b) Word overload due to line-by-line approaches, (c) Coding using a preconceived framework, (d) Difficulty of retaining the integrity of each respondent's story, (e) Full potential of data is not exploited, and (f) Data analysis as individual process (de Casterle et al., 2012, p. 362 - 363).

Implementing the QUAGOL method included two phases, the preparation for coding process and actual coding process. Each of the two phases consists of five stages of data preparation and analysis. Similar to the STC strategy, the content analysis method, and other qualitative data analysis; the analytical in a typical QUAGOL approach is characterized by iterative process of analysis in dialogue with the interview data (de Casterle et al., 2012). The objective of dialogue with the data is digging deeper in the phenomena as the researcher moves from one stage to another. At each one of the ten steps process, the researcher is guided by a set of questions prepared to capture the contextual richness of individual interviewee's experience (de Casterle et al., 2012).

Unlike the STC strategy, the QUAGOL method includes a differentiation between paper and pencil phase in the first five steps and a computer software phase in the second five steps. The researcher needs to consider his personal skills to understand the richness of the data in the preparation of the coding process before moving to actual coding process using software capabilities. de Casterle et al. (2012) recommend to initiate the second phase of the data analysis only after few interviews are conducted, this will support the researcher's holistic understanding of the research questions and adjust as required before the actual coding phase starts. Table 4 and 5 included a summary of the two phases and ten steps process, with a link to the related questions guiding the nonlinear iterative process of the QUAGOL method.

Table 4

The Qualitative Data Analysis Guide of Leuven (QUAGOL) Phase I: Preparation of Coding Process (Paper and Pencil Work)

Stages/Steps	Objective of the steps	Guiding questions/Instructions
1. Thorough (re)reading of the interviews	A holistic understanding of the respondent's experience	- What is this interview about? - What does this participant tell me that is relevant for the research question?
2. Narrative interview report	A brief abstract of the key storylines of the interview	- What are the essential characteristics of the interviewee's story that may contribute to a better insight in the research topic?
3. From narrative interview report to conceptual interview scheme	Concrete experiences replaced by concepts	- Which concepts grasp the essence of the interview in response to the research question?
4. Fitting-test of the conceptual interview scheme	Testing the appropriateness of schematic card in dialogue	- Does the content of the conceptual interview scheme actually reflect the most important concepts in answer to the research question? - Are there any other important concepts the researcher overlooks? - Can the concepts of the conceptual interview scheme be linked to the interview data?
5. Constant comparison process	Forward-backwards movement between within-case and across-case analysis	- Why particular decisions were made during the process? - How a concept has been developed?

Table 5

The Qualitative Data Analysis Guide of Leuven (QUAGOL) Phase II: Actual coding process (using computer software)

Stages / Steps	Objective of the Steps	Guiding Questions / Instructions
6. Draw up a list of concepts	A common list of concepts as preliminary codes	- A common list of concepts is drawn up without imposing a hierarchical order - The list of concepts is evaluated - The resulting list of concepts is introduced as preliminary codes in the software program
7. Coding process – back to the 'ground'	Linking all relevant fragments to the appropriate codes	- Does this list help me to reconstruct the story-line? - To which extent the concepts help to identify and classify significant passages in the interviews? - Does the missing concept also appear as an essential concept in other interviews? - Can we explain why the concept is present in some and not in other interviews? - Can we link other interview fragments to the missing concept? - Are concepts sufficiently defined and well-delineated to capture significant ideas, messages in a differentiated way?
8. Analysis of concepts	Description of concepts, their meaning, dimensions & characteristics	- Does every citation fit with the concept? - Is there one common message describing the essence of the concept or can we discern more than one message? - Can we maintain the concept as such, or do we have to split it into several subconcepts? Or, reversely, do the empirical data suggest congregating various concepts into one?
9. Extraction of the essential structure	Conceptual framework or story-line	- to integrate all these concepts in a meaningful conceptual framework or story-line in response to the research question. - formulate a conceptual framework to organize and structure concepts in a meaningful way. - Verify framework against all interviews and interview schemes - Does this framework allow us to describe and explicate all individual interview stories?
10. Description of the results	Description of the essential findings	- Start describing the core category and related concepts. Describe and explicate concepts and their interconnection. - Reread interviews for a final evaluation of storyline to check, discuss and develop theoretical insights - Does the theory fit with all interviews? Are there missing concepts? are they essential? - Are there negative cases (cases that appear to disconfirm earlier findings)? Can the researcher explain these differences or discrepancies?

The Systematic Text Condensation (STC) technique and the Qualitative Analysis

Guide of Leuven (QUAGOL) are two data analysis techniques that accepted the common

stages of the analysis strategies: (a) preparing and organizing the data; (b) reducing the

data into meaning units, segments, and themes through a process of coding and

condensing the codes; and (c) representing the data in figures, tables, or a discussion.

Although common in most qualitative studies, the implementation process at the three

levels represented by these strategies is iterative and requires the researchers' flexibility,

open mind, and skill to change as required in the theoretical framework (de Casterle et

al., 2012; Malterud, 2012). The procedures derived from these strategies include data

collection; data managing; reading and memoing; describing, classifying, and

interpreting; representing; and visualizing. Moving beyond data coding and data

classification, data analysis in qualitative research includes identifying the categories,

themes, meaning units, dimensions of information, and the story-line of each interviewee

(de Casterle et al., 2012; Malterud, 2012). de Casterle et al. (2012) also noted that

interpretation in qualitative research involves abstracting out beyond the codes and

themes to the meaningful conceptual framework or story-line in response to the research

question. Patton (2002) noted, "The challenge of the qualitative analysis lies in making

sense of massive amounts of data" (p. 432).

Every qualitative study is unique, and qualitative data analysis is dependent on a

researcher's creativity, intellectual discipline, analytical rigor, and hard work (Patton,

2002). Qualitative researchers acknowledge the absence of shared ground rules for

drawing conclusions from qualitative data (de Casterle et al., 2012; Malterud, 2012;

Frankfort-Nachmias & Nachmias, 2008; Patton, 2002). Computer-assisted approaches are not sufficient to provide the creativity and intelligence required to distinguish this uniqueness of the study (Patton, 2002, p. 442). Patton (2002) indicated the strategy involves "reducing the volume of raw information, sifting trivia from significance, identifying significant patterns, and constructing a framework for communicating the essence of what the data reveal" (p. 432).

The process for qualitative data analysis is the same for hand coding and for computer-assisted coding. Qualitative researchers can conduct coding in different ways, manually using text marking, coloring, numbering, and piling (Malterud, 2012). Using software will help the qualitative researchers to organize extensive data and not necessarily offer the overview needed to notice distinctive data, original patterns, and capture the richness of the data (Malterud, 2012). de Casterle et al. (2012) noted the over-reliance on qualitative software packages as a challenge to adequately segment the data, assign codes to the segments, and understand the meaning of the data. de Casterle et al. emphasized on the iterative nature of the qualitative data analysis the role of the researcher in the process to create the coding and categorize the data into groups and segments. Researchers use computer-assisted coding and data analysis approaches to organize data storage in files and locate material easily, which encourages the researcher to look into the details more closely. The computer-assisted approach with the additional features of concept-mapping supports in visualizing links and relations and allows the easy retrieval of memos and observations associated with codes, themes, or documents.

For this research enquiry, initial interview questions served to inform the adopted codification system at the first level. The questions, derived from the research question, aligned with the problem and purpose statements of the research. I converted tape-recorded discussions into text transcripts in Word files and prepared to provide the material for analysis using NVivo as the main computer-assisted system. The second coding level served to align the participants' responses to the project's nature and project's identified aspects. At the third level, the coding system involved managing the identified patterns and themes at the vertical level within the same case and at the horizontal level with other project cases. I described my strategy for data analysis in my research inquiry in seven steps as shown in Table 6. The data analysis strategy derived from the recommended procedures of the methods reported by (de Casterle et al., 2012; Malterud, 2012; Frankfort-Nachmias & Nachmias, 2008; Ochieng et al., 2015; Patton 2002).

Table 6

Data Analysis Strategy with Specific Actions Required at Each Stage of the Data

Collection and Analysis

	Procedures	Objective	Analysis Tasks
I	Data collection: Personal face-to-face interviews Telephone interviews Researcher's alternative observation sheet	Develop a transfer strategy from recorded interviews (Tapes, digital recording) to text transcripts	Transcribe interviews
II	Data managing and organization: Digital recording interviews Transcripts and responses in Word files	Create and organize files for data	Narrative interview report
III	Reading and memoing Thorough (re)reading of the interviews	Reduce the volume of raw material Common sense understanding starting with preliminary themes Establish an overview of data Get a general impression of the whole List preliminary themes	Describe background of the case Write memos on the context Systematically review the transcript line by line to identify meaning units and conceptual interview scheme. Identifying and organizing data elements that may elucidate the study question.
IV	Member Checking	the participants' confirmation that the researcher has accurately reported their stories	Provide participants with an editable version of the interview report. Follow-up and control the communication until the confirmation or remarks are received from the participants. Refine the initial themes and patterns.
V	Segmentation and Data classification Describing, classifying, and sifting trivia from significance	Establish link to theory and problem statement	Develop coding schemes Propose coding groups Linking all relevant fragments to the appropriate codes
VI	Interpreting Translating data into themes and patterns Extraction of the essential structure	Description of concepts, their meaning, dimensions & characteristics Conceptual framework or story-line	Use direct interpretation Identify themes Identify significant patterns
VII	Framework for data analysis	Data reconceptualization Synthesizing the contents of the condensates	Construct framework for communicating analysis
VIII	Visualizing data analysis and theme association		Develop tables, figures, and narratives

Issues of Trustworthiness

Trustworthiness represents the set of control measures a researcher considers to monitor the research quality, such as the credibility, transferability, dependability, confirmability, and authenticity of the research data collection and analysis processes. The researcher's role is to identify the issues of trustworthiness in the study and define and implement the qualitative control measures that align with the design concept, methodology, and data collection and analysis decisions made throughout the study. Four main criteria adopted by qualitative researchers to assess the rigor and trustworthiness of case study research are construct validity, internal validity, external validity, and reliability (Campbell & Yin, as cited in De Massis & Kotlar, 2014). There are four alternatives for assessing trustworthiness in qualitative research: credibility, dependability, confirmability, transferability, and authenticity (Lincoln & Guba, as cited in Elo, Kääriäinen, Kanste, Pölkki, Utriainen, & Kyngäs, 2014). Patton (2002) also reported that constructivist inquiry is different from traditional social science in the use of the terms and the related strategy.

With regard to the perspectives and terms used in qualitative research validation, Patton (2002) cited works by Lincoln and Guba on the constructivist criteria as a reference for benchmarking the change in the perspectives. Patton reported the equivalency and analog in the criteria, as summarized in Table 7 (adapted from Lincoln & Guba, as cited in Patton, 2002) which was the quality measure in this research inquiry. The following parts of this section included a detailed research quality strategy to manage trustworthiness issues.

Table 7

The Constructivist Criteria for Research Quality as Adopted in This Research Inquiry

Versus the Traditional Criteria Terminologies

Constructivist criteria approach	Traditional criteria
Research trustworthiness	Research rigor
Credibility	Construct validity
Rigorous methods for fieldwork	Internal validity
Credibility of researcher	
Philosophical belief in the value of qualitative research	
Transferability	External validity
Potential for extrapolation	
Reasoning those findings can be generalized or transferred to other settings or groups	
Dependability	Reliability
A systematic process systematically followed	
Confirmability	Objectivity
Collected data accurately represent the information that the participants provided	
The inquirer does not invent the interpretations of the data	

Note. Adapted from "*Qualitative research and evaluation methods,*" by M. Q. Patton, 2002, (3rd ed.). Thousand Oaks, CA: Sage.

Credibility

Credibility refers to the focus of the research and to the confidence in how well the data address the intended focus (Polit & Beck, as cited in Elo et al., 2014). A researcher's thoughts about how to collect the most suitable data for the study are critical to research credibility. A researcher's thoughts affect the selection of the strategy to ensure the trustworthiness of the analysis and choosing the best data collection method to answer the research questions. The credibility of qualitative research depends on the fieldwork that yields high-quality data; the researcher's training, experience, and presentation of self; and the researcher's holistic thinking about the qualitative research (Patton, 2002, p. 553).

Construct validity, which is a traditional approach to qualitative research credibility, refers to the extent to which a researcher achieves in a study what he claims to investigate; that is, the quality of the conceptualization or operationalization of the relevant concept (Denzin & Lincoln, as cited in De Massis & Kotlar, 2014). De Massis and Kotlar (2014) emphasized the importance of using a well-considered set of quality measures in case study research and avoiding the tendency to use subjective approaches.

In this research enquiry, the multilayered method design within the project structure served to triangulate the collected data between participants from the owner organization, the end users, and the multiple selected participants in the executing organizations. I chose participants for a personal interview from a list of my contacts. This approach toward data collection supported to respond to the demand of study saturation. The focused, open-ended questions directly related to the research question and topic increased the reflexivity of the participants' opinion and worldviews about the problem.

A conscious data analysis and computer-assisted coding system (NVivo) to reflect the interpretation of the themes and patterns supported this approach. A review on the results of the fieldwork occurred in two stages: within the classroom with the participation of other students and with the dissertation chair and committee member for support and guidance. Additionally, and for enhanced credibility, the field test served to increase the association between the interview questions and the research question.

Transferability

In qualitative research from a trustworthiness perspective, an association exists between transferability and the potential for extrapolating findings (Elo et al., 2014; Patton, 2002). Extrapolations are "modest speculations on the likely applicability of findings to other situations under similar, but not identical, conditions. Extrapolations are logical, thoughtful, case derived, and problem oriented rather than statistical and probabilistic" (Patton, 2002, p. 584). Patton (2002) also emphasized specific aspects of information-rich samples and the research method and design in producing relevant information. Qualitative research sample strategies consider stakeholders' desire for extrapolation in mind (Patton, 2002) to support the latent approach in the research method. Transferability includes a reliance on the perception that researchers can generalize or transfer findings to other settings or groups (Elo et al., 2014). The role of the researcher is to convince readers, through strategies for method design and sample selection, of the transferability of the reported results to another context (Elo et al., 2014).

In this research inquiry, the multilayered nested case study supported selecting participants from three layers of the project's structure. The snowball sampling strategy advanced in this chapter included participants initially selected from my network. The selected participants had experience managing oil and gas projects in the GCC countries and played an important role in recommending relevant individuals to the study. The multiple case study approach enriched the data collection process. This design allowed for the selection of additional participants from different project environments. The environment, such as oil and gas, GCC countries, and construction industry, is not

identical between projects. The variation expected between participants' responses is likely to reflect various mind-sets and stakeholders' concerns.

Dependability

Dependability refers to the stability of data over time and under different conditions (Elo et al., 2014). Considering the unique nature of each qualitative study that is heavily dependent on the researchers' skills and creativity, the dependability of a study is high when another researcher can readily follow the decision trail used by the initial researcher (Elo et al., 2014). From a traditional approach to research rigor, De Massis and Kotlar (2014) noted that reliability refers to the extent to which subsequent researchers arrive at the same results if they conduct the study again with the same steps (p. 27). In this regard, De Massis and Kotlar identified a three-step strategy to remedy the issue of minimizing errors and biases in a qualitative case study research, provided a case study reader has sufficient qualifications and is knowledgeable of the method and the problem to provide a judgment on the study. The three-steps strategy included (a) the use of a case study protocol that elaborates on the procedures followed to conduct the case study, (b) increased transparency by explaining the techniques used for data analysis, and (c) develop an accessible study database that allows replication by others.

The above approaches to increasing dependability were suitable for the exploratory case study in the form of the clear procedures provided on data collection, data file development, coding procedures, and data management. The detailed strategy for sampling and data collection provided earlier in this chapter added to the transparency strategy in this qualitative study. The objective was to increase the data collection

stability in the study and respect the uniqueness of the study as a qualitative exploratory enquiry.

Confirmability

Conformability, as in Polit and Beck (as cited in Elo et al., 2014), is a qualitative measure and is the counterpart to objectivity in a traditional research perspective. Confirmability refers to the accurate representation of data to reflect the exact information provided by participants and indicates researchers did not invent their interpretations (Elo et al., 2014). Confirmability occurs when two or more independent analysts agree on the accuracy, relevance, and meaning of data (Elo et al., 2014). In this tradition, researchers follow systematic data collection procedures and tend to cross-check and cross-validate information during fieldwork (Patton, 2002). Patton (2002) emphasized consistency during data analysis using multiple coders to establish the validity and reliability of pattern and theme analysis.

The selected research design for this exploratory case study included a comparison between multiple case study results for different project-based organizations. The intention of this design was to provide a comparative approach for cross-checking results at the horizontal level of the design. Additionally, the selected participants in the multilayered case study provided an approach for vertical cross-checking of the collected data between the three layers of the project structure. At the analysis stage, researchers cross-check patterns that occurred at the horizontal and vertical levels in a computer assisted system (NVivo) and benchmark them to the aspects of the adopted theoretical framework.

Table 8 included the adopted strategy that enhanced the trustworthiness of the

conducted exploratory case study. The strategy included a description of the expected

challenges, key issues related to each challenge, and the identification of the remedy

procedures with respect to the research trustworthiness perspective as described in this

chapter. The objective of the strategy was to be consistent in the data collection

throughout the interviews with the participants and to provide evidences of confirmability

in the data analysis plan.

Table 8

Approach Adopted to Enhance Credibility, Transferability, and Dependability in the

Exploratory Case Study

	Credibility		Transferability External validity	Dependability
	Construct validity	Internal validity	validity	Reliability
Challenges	Identifying correct operational measures for the concepts studied	Seeking to establish a causal relationship whereby certain conditions are likely to lead to other conditions	Defining the domain to which a study's findings can be generalized	Demonstrate that the operations of a study, such as the data collection procedures, can be repeated, leading to the same results
Key issues	To choose an appropriate operational set of measures: subjectivity vs. objectivity	To make inferences in a case study To ensure those participating in research are identified and described accurately	To generalize the study findings (from an analytical point of view) Findings can be generalized or transferred to other settings or groups	To minimize errors and biases in a study To ensure stability of data over time and under different conditions
Research strategies for remedy	Triangulate data from multiple sources Read conclusions with participants Conduct research with other investigators	Explanation building Pattern matching Cross-case comparison Pre-interview field test to assess the method design and confirm suitability for obtaining rich data that answer the proposed research questions	Use replication logic in multiple-case studies Use theory in single-case studies (also rival theories)	Use a case study protocol Use techniques for data preparation Develop a case study database

Note. Adapted from "The case study method in family business research: Guidelines for qualitative scholarship," by A. De Massis, and J. Kotlar, 2014, *Journal of Family Business Strategy*, *5*, 15-29; and "Qualitative content analysis," by S. Elo, M. Kääriäinen, O. Kanste, T. Pölkki, K. Utriainen, and H. Kyngäs, 2014, *SAGE Open*, *4*(1).

In this study, I explored participants' perceptions of human knowledge rather than collecting data related to organization and project performance. Accordingly, there was no ethical concerns that threatened organizations' confidential information. The selected participants were from the oil and gas industry, participated in the project management of one or more of the industry projects, and had a commitment to respond to the invitation to participate. I considered two actions to provide additional control measures to avoid relationship damage. The first was at the invitation to participate stage to confirm no ethical issue or conflict of interest with the participants. The second was at the interview stage when describing the procedures for the face-to-face interview. Participant withdrawal was not a threat to the interview-based qualitative study, as minimal follow-up was sufficient after the interview is complete.

I reviewed and applied Institutional Review Board (IRB) procedures after I consulted my mentor and checking the applied procedures for data collection. I treated both written and audio recorded data confidentially, and I physically secured the data. Upon the approval of the final study, I will reserve the data in a secured location for the period of five years as required by the Walden University IRB.

Summary

This chapter included a detailed description of the research method and design for this exploratory case study. A comprehensive review ensued on the connection between the selected method, the problem statement, and the purpose statement. The adopted exploratory multilayered and nested case study enriched the data collection and data analysis plan to inform the research inquiry. The research design was suitable for

enhancing the research trustworthiness through a reliable sample selection strategy. The snowball sampling strategy increased my credibility by engaging the initially selected participants in the research process. The lack of a systematically shared grounds for research trustworthiness is acknowledged, and the approach of this research enquiry is adopted from the most commonly used strategies by the qualitative researchers. I examined the alignment of this approach with the study problem statement, purpose statement, and research questions by a field-test that involved consulting experts in the field of qualitative research. I consulted experts on the alignment between the interview questions as the main data collection instrument and the research questions. Accordingly, I defined and considered the ethical issues in contacting and interviewing the participants and in collecting and analyzing the data. The selected research method and design were the most suitable approach for the research inquiry, as they provided the flexibility required to explore the breadth and width of the problem. Additionally, the research design was represented in the participants selected from different projects and the layered nature of the project structure that included the owner, end user, and executor layers in organizations.

Chapter 4: Results

The purpose of this qualitative exploratory case study was to gain a robust understanding of leadership requirements within the multicultural project environment of locally conducted projects by global organizations in GCC countries. I selected participants, by using a purposive sampling selection process, from the oil and gas industry located in two countries of the GCC, the UAE and Kuwait. Of the 25 participants, 15 (60%) were from the UAE, and 10 (40%) were from Kuwait. The participants' collective experience included projects located in the UAE, Kuwait, KSA, Oman, and Qatar, which are five of the six Arabian GCC member states. Also, the participants' experience included current or completed projects in Iraq, Iran, India, Egypt, and Europe.

I adopted an exploratory multiple case study approach, with a multilayered nested case study design, to explore how specific organizational dynamics and social processes affected the perceived role of project leadership. In a case study approach, researchers and practitioners can study the project environment in natural settings, support the learning process from success stories, and generate theories from practices (Cao & Hoffman, 2011). A multilayered and nested case study approach is suitable for revealing and understanding multiple facets of a phenomenon by using a variety of theoretical lenses (De Massis & Kotlar, 2014). I selected two theoretical lenses; (a) the complex adaptive systems theory (Wang et al., 2015) and (b) the contingency theory (Van de Ven et al., 2013), to develop a set of exploratory themes from the research mini case studies.

This selection allowed me to align the literature review findings with the adopted research method and design.

I used the exploratory multiple mini-case study design to answer the central research question, How does project leadership support the success of global, multicultural projects in the oil and gas industry in the GCC countries? The study involved exploring specific areas related to the project environment and project leadership through the following two subquestions:

1. What is the role of project leadership in managing the cultural and environmental complexities in projects?

2. How can leadership contribute to project success in a challenging global, multicultural impermanent project environment?

I conducted a literature review that confirmed a gap in research on global, multicultural project leadership and the oil and gas industry in GCC. The literature review revealed six research categories that supported the data collection process. These research categories included; a variation in the process to adopt a global project structure, difficulties to acknowledge project complexities, underestimated impact of the project impermanence, challenged global leadership role, a variation in the practices of the project performance management, and lack of understanding the project governance practices.

In this chapter, I describe conditions that influenced the participants and their experience. This content is followed by a description of the participants' demographics, information on participant selection procedures, and the procedures used in data collection. In the second part of Chapter 4, I report the adopted process for the data

analysis, focus on the evidence of trustworthiness, and elaborate on the study results. In the last section of Chapter 4, I summarize the findings and establish a link with the next chapter that includes the conclusion of this research study.

Research Setting

I initiated this exploratory research in November 2014, and I had IRB approval to initiate the data collection in December 23, 2016. I started the data collection January 1, 2017 and completed the face-to-face interviews on March 23, 2017. During the data collection, I interviewed 25 oil and gas professionals based in two countries in GCC and involved in projects in five GCC countries. During this period, the oil and gas industry was suffering from a sharp decline in the oil prices from the average of US$100 per barrel to a low price of US$40 per barrel (PwC, 2016). This sharp decline in the revenues of the national oil companies in the GCC resulted in a severe cut in the development projects budget. The sharp decline in oil prices exceeded 60% in the oil producers' proceeds and impacted the oil and gas-based economies of the GCC countries (PwC, 2016).

A drop in the economy resulted in a drop in the development process in the upstream and downstream segment of the oil and gas sector. This change created a turbulence in the labor market and threatened the presence of several organizations. The impact was manifested in the suspension of some of the major projects, a reduction in the scope of some other projects, and the renegotiation of the prices for most of the projects depends on its importance in the economic cycle (PwC, 2016). I have observed a change in the scope of some major projects that resulted in a change in the number of employed

engineers, subject matter expertise, and project management team members. At least four of the GCC countries, the United Arab Emirates, Kuwait, the Kingdom of Saudi Arabia, and Oman in addition to Iraq faced a change in its national oil companies' strategies.

The sharp drop in the oil prices resulted in a global slowdown in the economy. However, the impact on GCC countries was perceived with high concern due to the high dependence on the oil proceeds in the national development process. Additionally, the labor market that is heavily dependent on the expatriate expertise is impacted with the budget cut and change in the development process. This impact of the oil price fluctuation on the development process in the oil and gas industry is not the scope of this research. However, it was discussed with some of the interviewed participants as one of the external factors that impacted the project environment.

Demographics

In the purposive sampling approach for this research, I the selection criteria was based on the participants experience in the oil and gas industry. A typical participant is an individual who has a current or previous experience in the oil and gas industry in the project environment in GCC at any of the three defined project layers – the owner layer, the consultant layer, or the project executors layer. The project owner layer is defined by the owner's representatives in the project who might be involved directly or indirectly in the project management process. The project consultant is any third-party entity hired by the project owner to perform any of the consultation services including technical consultation, project management (PM), project construction management (PMC), site management and performance management. The executor layer includes the general

contractor directly hired by the project owner or any of its subcontractors and service providers hired to perform its services during the project execution stage.

The population of this research included those who worked in the oil and gas industry in GCC and has a direct involvement in any oil and gas projects. I focused on the major projects that include in the upstream segment of the industry the oilfield development projects, major construction projects, and off-shore and marine construction projects. From the downstream segment of the industry, I included contacts from the refinery construction projects, the retail distribution projects, and from storage and handling facilities construction projects. I included disciplines such as project management professional from the owner, the consultant, the main contractor, and the subcontractor layers. I also contacted possible participants from different nationalities including the local GCC nationals, Middle Eastern, Far Eastern, European, American, and many other nationalities.

I developed the participants' profile (see Table 9) to elaborate on the specifics of each participant. I included in profile the nationality of the participant, gender, total years of experience, experience in the oil and gas industry, total experience in GCC, the current location, the countries they worked in during their professional career, and details about the participants' professional involvement in the oil and gas projects layer and discipline. I expected the diversity in the participants' experience in different project layers and different disciplines with the change of the project nature and types they served in.

Table 9

Selected Participants' Profile

ID	Code	Nationality	Sex	Oil & Gas Experience	GCC Experience	Experience Region
1	D 17_01_01	Indian	Male	15	15	UAE / Kuwait
2	D 17_01_02	Germany	Male	15	21	UAE / Kuwait / KSA
3	D 17_01_03	British	Male	30	10	UAE / Iraq
4	D 17_01_04	South Africa	Male	10	19	UAE / Kuwait / Qatar
5	D 17_02_05	Lebanese	Female	15	15	UAE / Qatar
6	D 17_02_06	British	Male	5	12	UAE / Kuwait / KSA
7	D 17_02_07	New Zealand	Male	25	25	UAE
8	D 17_02_08	British	Female	5	7	UAE / Iraq
9	D 17_02_09	Jordan	Male	25	15	UAE / Oman
10	D 17_02_10	British	Male	30	4	UAE
11	D 17_02_11	Greece	Male	13	30	UAE / Iraq
12	D 17_02_12	Lebanese / Canadian	Male	12	12	UAE / Kuwait / Qatar
13	D 17_02_13	Lebanese / British	Male	29	29	UAE
14	D 17_03_14	Turkish	Male	13	9	UAE / Kuwait / Iraq
15	D 17_03_15	Indian	Male	10	14	UAE / KSA
16	D 17_03_16	Egypt	Male	11	26	Kuwait
17	D 17_03_17	Kuwaiti	Male	20	20	Kuwait
18	D 17_03_18	Kuwaiti	Male	28	28	Kuwait / Regional
19	D 17_03_19	British	Male	20	20	Kuwait / KSA / UAE
20	D 17_03_20	Kuwaiti	Male	20	20	Kuwait
21	D 17_03_21	Kuwaiti	Male	5	30	Kuwait
22	D 17_03_22	Egypt	Male	21	21	Kuwait / UAE / KSA
23	D 17_03_23	Egyptian / Canadian	Male	9	23	Kuwait
24	D 17_03_24	Turkish	Male	10	7	Kuwait / Qatar
25	D 17_03_25	Kuwaiti	Male	12	15	Kuwait

Data Collection

I obtained the Walden University Internal Review Board (IRB) approval to commence the data collection phase on December 23rd, 2016 under the approval number 12-22-16-0339617. I prepared a list of 75 possible participants and contacted them between December 23, 2016 and March 23, 2017. These contacts are based in two GCC countries, the UAE and Kuwait. Some of the participants are frequent travelers to or had previously lived in different GCC countries and Iraq. All contacts were approached by a formal email that was reviewed and approved by the IRB during the IRB review stage. Some participants immediately accepted my email invitation, and some other participants requested additional information and clarifications. For those who refused to discuss business related information, they raised concerns about signing the consent form, recording the interview, and/or the possible conflict with their career and the non-disclosure agreement they signed with their current or previous employers.

I used English as the research language during in the invitation email, the general introduction about the research nature, and the interview questions. All participants (100%) were qualified users for the English language as it is the common language in the work environment in the oil and gas industry in GCC. Also, all participants received their university education in English. I prepared for the interview meeting by using a transcript that provided guidance for asking the interview questions, interfere where required with the follow-up questions, and manage the interview time (see Appendix F). I asked all participants to sign the approved IRB consent form that confirmed their acceptance to record the interview. I used a digital audio recorder to record all interview and used this

recording to transcribe the interviews accurately. I transcribed the interviews by myself to avoid second-hand clarifications and double handling of the information. I coded all audio recordings and interviews to avoid the disclosure of the participants' names, organizations, and third parties' names discussed during the interview.

Unusual circumstances encountered in data collection. I expected a higher response rate. However, it seems that the busy schedule of the oil and gas professionals and the expatriates' business and personal travel plans impacted their acceptance to my invitation. Additionally, the highly confidential work environment and the security of the oil and gas industry also challenged the participants' acceptance to discuss their business issues outside the regular work environment. I have been informed that all local employees were strictly instructed not to give any speech to the media as there was a major restructuring process at different organizational level.

Participants location. In total, I interviewed 25 participants, 15 (60%) of them are currently based in UAE between Abu Dhabi, Dubai, and Ras Al-Khaimah. The remaining 10 (40%) participants are based in Kuwait. I visited the participants in their work location whenever the security system allowed visitors, however, 11 (44%) participants preferred to meet in a public place to avoid the complications of the security passes and sometimes for the objective to have higher privacy during the interview. Meeting the participants involved visiting five cities in UAE, a flight to Kuwait and visiting three cities in Kuwait.

Covered projects, industry segment, and geography. I considered the participants' current location versus their business location to compare the responses and

understand the dynamics of the business environments. I interviewed participants who

work in organizations based in UAE and have business for UAE and/or the region,

participants who work for organizations based in UAE (Dubai) for managing regional

business only, and participants who work for organizations based in Kuwait and have

business in Kuwait and/or the region. The participants' responses varied accordingly,

specifically regarding the environmental factors impacting their business (see Table 10).

Table 10

Participants' Organization Location versus Actual Business Location

	Case Group Participant Location	Business Location	# of Participants
1	UAE,	UAE and Regional	8
2	UAE – Regional	Only regional	7
3	Kuwait,	Only Kuwait	10
	Total # of Participants		25

Table 11

The Distribution of the Discussed Projects on the Case Studies

	Case Study Project Locations	# of Projects	% of total cases	# of Participants
1	UAE, ADNOC[1]	12	27.3%	10
2	Kuwait, KOC[2]	16	36.4%	13
3	KSA, RAMCO[3]	2	4.5%	2
4	Oman, OOC[4]	2	4.5%	2
5	Qatar, QP[5]	4	9.1%	4
6	Iraq, SOC[6]	8	18.2%	6
	Total # of Projects[1]	44	100.0%	

Note. [1]Five participants shared experience in two common projects.

I asked each participant to share his experience in two projects to refer to during

the interview questions. The total number of projects shared by the interviewed

participants was 44 project, four participants shared their experience in one common

project. The 44 projects are owned by six of the national oil companies in GCC and one in Iraq and are spread over six countries. Three participants mentioned three projects in Iran, India, and the UK to compare with their experience in GCC. Table 11 and 12 illustrated in the participants' involvement in the selected projects.

Table 12

Projects Distribution per Participant – The Horizontal Comparative Cases

Participant Code	UAE ADNOC	Kuwait KPC	KSA ARAMCO	Oman OOC	Qatar QP	Iraq SOC
17_01_01	■■					
17_01_02[1]		■				■▨
17_01_03						■
17_01_04	■				■	
17_02_05	■				■	
17_02_06[1]						■▨
17_02_07	■			■	■	
17_02_08						■■
17_02_09	■			■		
17_02_10	■					
17_02_11	■		■			
17_02_12	■	■				
17_02_13	■					
17_03_14		■				■
17_03_15	■			■		
17_03_16[1]		▨				
17_03_17		■■				
17_03_18		■■				
17_03_19		■				■
17_03_20		■■				
17_03_21		■■				
17_03_22[1]	■	▨				
17_03_23[1]		▨				
17_03_24		■			■	
17_03_25		■■				
Total Projects	12	16	2	2	4	8

Note. [1]Five participants shared experience in two common projects.

The oil and gas industry is known for its two industry segments, the upstream segment, and the downstream segment. The upstream business is defined with the three main sectors, the exploration, the production, and the gathering of the product. The downstream industry segment starts after the gathering plants with the refining stage and is completed with the distribution of the oil and gas derivatives to the end-users. Throughout the processes of the upstream and the downstream segments, the product in its crude and finished status is traded in various commercial business models. However, trading the crude and finished products in GCC is the responsibility of the National Oil Companies (NOCs) who are mostly owned by the governments. At the projects' level in each of the industry sector, private companies from the local and the global markets participate in the development process as consultants and executors of the projects. Some of the NOCs and due to internal capabilities and the nature of the required development assign professional from the global or the local market to act as the owner representative. The selected participants' experience in the industry segment is illustrated in Table 13.

Table 13

Participants Experience in the Oil and Gas Industry Segment

	Industry Segment Experience	# of Participants
1	Upstream	11
2	Downstream	6
3	Mixed Experience	8
	Total Number of Participants	25

Participants experience. Participants overall experience ranged from 15 to 48 years, their experience in GCC region ranged from five to 30 years, and their expertise in the oil and gas industry ranged from four to 30 years. All participants (100%) had

experience in more than one project, and 20 (80%) of the participants changed organizations at least once during their career path. In addition to their experience with the global organizations, a total of 18 (72%) participants had work experience outside the GCC region, the remaining six participants either had training outside GCC or worked with global organizations based in GCC.

Under different owner organizations, and various projects structure, nine (36%) of the 25 participants had a mixed experience in different project layers. They changed roles more than once between the owner representative, the consultant, and the executor layer. All participants (100%) had an evolved career path from technical responsibility to project management responsibility. At least eighteen participants are currently serving in a matrix organization where they have mixed technical and project responsibilities within their discipline or organization. In some cases, some participants are also representing the top management of the organization and have a direct role in the project management team. At least 18 (72%) participants are involved in more than one project, either from their corporate role or from their technical expertise where they are required to provide technical support for more than one project at a time. The matrix organization and the multiple project support occurred mainly at the owner layer and the consultant layer, and in two cases it occurred at the contractor layer. Table 14 illustrates in the current occupation of participants over the project layers.

Three (12%) participants clarified that their organizations' involvement in the project business includes the execution of a highly specialized project activities. Accordingly, and due to their limited involvement in the project scope, they do not have

internally the project structure, and they are not project based organization. This flexible

structure may lead in different occasions to deploy different types of assets to serve in

multiple projects.

Table 14

Participants Current Occupation in the Project Layers – the Vertical Comparative Cases

	Project Layer	# of Participants	% of Participants
1	Owner	8	32%
2	Consultant	7	28%
3	Executor	10	40%
	Total Number of Projects	25	100%

Variation in Data Collection

My strategy to approach participants was based on providing them with a written

introduction to the research and a copy of the research question with the invitation email.

I initiated the interview by five to 10 minutes presentation about the research, the

problem statement, the purpose, and the research questions. I used the English language

in all written and verbal communication with the participants who were from 11 different

nationalities. Three participants held dual nationalities and lived a part of their lives

between Europe, North America, and the Middle East. Rabionet (2011) provided a

strategy for conducting semi-structured interviews based on a general opening statement

on the topic and a few general questions to elicit a conversation. The strategy includes

additional questions designed to probe for information if it does not come up (Rabionet,

2011).

The variation in data collection occurred in three areas. The first area is the

participants' understanding of the project nature and the definition of the project

constraints. Participants, in this case, requested additional clarifications on the research scope, the required data, and the procedures for the data collection. After building the rapport with the participant, and confirming sufficient understanding of the research scope, I managed the interview by using follow-up questions and support with clarifications to the interview questions in some cases. This variation occurred because some participants did not have sufficient background in scientific research and specifically the nature of the qualitative approach.

The second source of variation occurred in the participants' level of engagement throughout the research process. Participants level of engagement influenced their tendency to elaborate in answering the open-ended questions. For example, the length of the interview varied between 45 minutes and 90 minutes which was also impacted by the number and type of follow-up questions used to encourage the focus on the question objectives. The level of participants' engagement also impacted the member check process. Some participants turned the interview transcript within 48 hours of receiving it with an edited version where in other cases it took few reminders and follow-up with text messages to reply to my member checking email. Some participants accepted the confidentiality undertaken in the consent form and used real names of people, companies, areas, and projects. Other participants, and even though they signed the consent form, they opted to avoid names and figures.

I had three unique cases refused to go for the interview after my five minutes' introduction because they believed they are not ready to discuss this type of information we end up with around 30 to 45 minutes talking about the nature of the research without

conducting the interview. The participants level of engagement was also impacted by the history of relationship we had. Five (20%) of the participants already knew about my research topic and my passion about the scientific research which increased their level of engagement to elaborate in linking their life experience to the research questions.

Participants' educational attainment, experience, and professional position in the organization impacted their level of engagement and the depth of the information they exchanged with me. Participants' who served in various capacities and had experience in different countries and in different project layer had higher ability to understand and contribute to the research question. Their life experience in various work environments supported the depth of their responses, and I required less interference with follow-up questions to guide the focus on the objective.

The third source of variation occurred with three participants who used the Arabic language to answer some questions or to elaborate on some answers. Despite their excellent English language skills, they felt more comfortable to address some areas in Arabic or to use Arabic terminologies. I managed to control this variation by a) summarizing their answers in English, and b) through the member checking process that included the review and confirmation of the interview transcripts I prepared in English. I relied on my dual language capabilities to translate the Arabic conversations.

Data Analysis

I identified my data analysis plan in chapter 3 of this research based on the STC Malterud (2012) and the QUAGOL discussed by de Casterle et al. (2012). The manifest and latent approaches influenced the face-to-face interview questions as the primary

instrument for the data collection continued to influence the data analysis process. I

aligned the data analysis plan in Table 6 of Chapter 3 with the interpretivist paradigm

which is based on the concept that human experience is a process of interpretation rather

than direct perception (Blaikie, 2003b). Interpretivism is an epistemological stance

influenced by symbolic interactions with participants (Patton, 2002).

Accordingly, I derived the procedures for the data analysis that included the data

collection; data managing; reading and memoing; describing, classifying, and

interpreting; representing; and visualizing. Moving beyond data coding and data

classification, data analysis in qualitative research includes identifying the categories,

themes, meaning units, dimensions of information, and the storyline of each interviewee

(de Casterle et al., 2012; Malterud, 2012). de Casterle et al., 2012 also noted that

interpretation in qualitative research involves abstracting out beyond the codes and

themes to the meaningful conceptual framework or story-line in response to the research

question. Patton (2002) noted, "The challenge of the qualitative analysis lies in making

sense of massive amounts of data" (p. 432). I converted the recorded interviews into text

transcripts in Word files and prepared to provide the material for analysis using NVivo as

the main computer-assisted system. I used the NVivo 11 memo capabilities to integrate

the researcher notes with the main data source and support the manifest and latent and

interpretivism approach.

The Process of Data Analysis

Data collection. I started the data collection process with the recording of the first

face-to-face semistructured interview. I reviewed each recording several times to prepare

an accurate interview transcript that I used in the member checking process. I sent the transcripts to each participant by email in an editable Microsoft Word format requesting participants' review and endorsement for the contents and allowing for any modifications or corrections in the transcript. I received remarks from three participants mainly on the used technical terminologies and the spelling of the location names. Overall 25 participants confirmed their consensus with the contents of the transcribed interviews.

Data managing and organization. Guided by the data analysis plan detailed in Chapter 3 Table 6, I imported all interviews in NVivo 11 for the purpose to support the data organization process and integration with my observations during the interview. I used my notes on the researcher observation sheet during the interview to highlight initial themes raised by the participants and integrate them into the same NVivo project platform in the memo section.

Reading and memoing. After I had completed the transcripts for the first three interviews, I initiated the data analysis process that was based on reading the transcripts and memoing essential points raised by the participant. I reviewed each transcript line by line to confirm consistency with the recording and provided the participants with an editable copy of the transcript for review and remarks. I commenced the interviewing process with a clear understanding of the use of the follow-up questions and managing the interviewee perception and understanding of the interview questions. This process supported me to keep the alignment between the research questions, the purpose of the study, and the data collection process.

Member checking. I conducted the interviews and transcribed the recordings in parallel to the reading and memoing and the member checking process. This parallel process occurred because the data collection stage occurred over three months between January and March 2017. The iterative interviewing, transcribing, reading and memoing process improved the quality of the interviews without impacting the objective of each interview question. The improvement of the research quality occurred in the increased participants' engagement during the interview and the increased focus on answering the questions. I achieved the preparation of 18 (72%) transcripts within the given 72 hours' allowance where I had some delays of up to seven days in the remaining transcripts. Participants response to the member checking process varied; 12 (48%) participants responded to my first email within 24 hours from receiving the transcripts. The remaining 13 (52%) participants' response ranged from five to 15 days, and for seven (28%) participants I followed up with a reminder email and text message on their mobile phones.

Segmentation and data classification. The interview questions served to inform the adopted codification system at the first level. The second coding level helped to align the participants' responses to the project's nature and identified aspects. At the third level, the coding system involved managing the comparative case studies vertically within the same case and horizontally between the cases. This step of the data analysis process includes the development of the coding schemes, proposing the categories (code groups) and codes (meaning units), and linking relevant fragments to the appropriate

code. I established a link to the theoretical framework and the research questions with a link to the adopted codes and categories (see Tables 15 and 16).

A priori and emergent codes and categories supported the manifest and latent interpretivism approach to generate emergent themes from the interview questions (see Table 17). I used the direct manifest approach to explore the participants responses conformity or disconformity with the a priori categories I identified earlier during the literature review. I used the latent approach to interpret condensate specific responses under emergent categories to explore additional research concepts emerged during the data collection and analysis.

Table 15

Exploratory Codes and Categories

Research Question (RQ)	Interview Question (IQ)	Codes (Meaning Units)	Categories (Code Groups)	Theoretical Foundation
A Priori Codes and Categories				
RQ 1 & 2	IQ 1, 7	Multicultural Challenges, Organizational Theory and Project Structure, Project Team Building.	1. Structure & Team Building	Contingency Theory
RQ 1	IQ 4, 5, 6	Multicultural Complexities, Oil & Gas specifics, Organizational & Structural Complexities, Perception of Global Organizations, Projects global environment, Stakeholders Management, Technical Complexities.	2. Environment & Complexity	Complex Adaptive Systems
RQ 2	IQ 4, 7	Knowledge Integration and Exchange, Team Building Process.	3. Impermanency	Contingency Theory
RQ 1 & 2	IQ 4, 5	Authority, Global Leadership, Project leadership versus project management, Leadership Style, Multicultural Challenges, Selection Process.	4. Leadership vs. Management	Contingency Theory
RQ 2	IQ 2, 3, 8, 9	Alignment to Corporate Strategy, Critical Success Factors, Performance Management, Project Success Criteria, Success Measures.	5. Project Success	Complex Adaptive System
RQ 2	IQ 4, 5, 8, & 9	Internal risks, External risks, Uncertainty	6. Project Governance	Complex Adaptive System
Emergent Codes and Categories				
RQ 2	IQ 3, 6, 7, 8, 9	Contractor Strategy, Global Organization Strategy, Owner Organization Strategy	7. Organization Strategy	Complex Adaptive Systems
RQ 1	IQ 4, 5, 6, 9	Change Resistance, Client Interface, Communication	8. Organization Leadership Role	Contingency Theory
RQ 1	IQ 6, 7, 8	Business Environment, Inefficiency in the System, Localization & Local Content	9. Local Environment Dynamics	Complex Adaptive Systems
RQ 1	IQ 1, 4, 7, 9	Accepting Females, Accepting Young Generation, Commitment, Delegation, Office Support, Motivation, Team Capabilities, Team Structure, Transparency	10. Team Building Requirements	Contingency Theory
RQ 2	IQ 1, 2, 3, 8, 9	Contractual Relationship, Scope Definition	11. Pre-project Preparation	Complex Adaptive Systems

Table 16

Comparative Codes and Categories

Research Question (RQ)	Case Classification	Attribute	Categories (Code Groups)	Theoretical Foundation
RQ 1 & 2	Participants / Project Cases	Location	1. Structure & Team Building	Contingency Theory
RQ 1	Participants / Country Group	Project Layers	2. Environment & Complexity	Complex Adaptive Systems
RQ 2	Participants / Industry Segment	Project Layers	3. Project Success	Complex Adaptive Systems
RQ 2	Participants / Industry Segment	Project Layers	4. Organization Strategy	Complex Adaptive Systems
RQ 1	Participants / Country Group	Location	5. Local Environment Dynamics	Complex Adaptive Systems
RQ 1	Participants / Project Case	Location	6. Team Building Requirements	Contingency Theory

Table 17

A Priori and Emergent Categories Alignment to Interview Questions

| Interview Questions | Exploratory Analysis | | | | | | | | | | | |
| | Priori | | | | | | Emergent | | | | |
	Introduction & Problem Sensing	1. Structure & Team Building	2. Environment & Complexity	3. Impermanency	4. Leadership vs. Management	5. Success	6. Governance	7. Organization Strategy	8. Organization Leadership Role	9. Local Environment	10. Team Building Requirements	11. Pre-Project Preparation
Introduction & Problem Sensing Questions:												
IQ 1	■	■									■	■
IQ 2	■				■							■
IQ 3	■					■		■				■
Project Management versus Project Leadership:												
IQ 4			■	■	■		■		■		■	
IQ 5			■		■		■		■			
Oil & Gas Global Projects in GCC:												
IQ 6			■					■	■	■		
IQ 7		■		■				■		■	■	
Challenges and Barriers to Global Projects Success:												
IQ 8					■	■		■		■		■
IQ 9					■	■		■	■		■	■
Total Nodes (Aggregated with Child Nodes)	75	237	416	208	343	588	44	256	100	123	121	103
Total Participants Contribution	15	25	25	23	25	25	11	12	14	14	11	14

Interpreting. At the interpreting step of the data analysis process, I interpreted the data into themes and patterns (see Tables 15 and 16). In the study results section, I used the direct interpretation to identify themes and significant patterns. I described the concepts, their meanings, dimensions and characteristics in a conceptual framework in the study results section of Chapter 4. I added further insights on the data on the study results in the interpretation of findings section in Chapter 5.

Framework for Data Analysis. I based the data conceptualization on a thematic approach to provide two analysis approaches. An exploratory approach to inform the depth of the research on how organizational dynamics are implemented. A comparative cases approach to inform the breadth of the research on how process implementation is different between various mini-case-studies in different layers of the cases. I linked the themes to two types of codes and categories – a priori and emergent categories. According to Ryan & Bernard (2003) Themes come both from the data (an inductive approach) and from the investigator's prior theoretical understanding of the phenomenon under study (an a priori approach). Factors considered in a priori category are the characteristics of the global, multicultural projects; already agreed on professional definitions found in literature reviews; local, common sense constructs; and researchers' values, theoretical orientations, and personal experience (Ryan & Bernard, 2003).

Visualizing Data Analysis and Theme Association. I used the tables and figures developed in chapter 4 and 5 to visualize the data analysis and the themes association. I included in the visualization process to the data segmentation, interpreting and translation, and the framework for the data analysis.

Evidence of Trustworthiness

I implemented the research approach described in chapter 3 (see Table 6) to enhance the research rigor and trustworthiness. This exploratory multiple case study was a qualitative constructivist inquiry for research and aimed to explore the participants' knowledge, opinions, and values developed from their life experience in the oil and gas projects in the GCC region. The adopted theoretical foundations, the complex adaptive systems and the contingency theory, supported the control of the dynamic interpretations of several possible versions of reality. I applied the procedures to enhance the research credibility, transferability, dependability, and confirmability without adjustments from the research approach described in chapter 3. I used the field test process to confirm the alignment of the interview protocol and questions to the research questions. I followed the interview protocol during the data collection with follow-up questions when required. Finally, I developed a database for the collected data on NVivo where I applied similar procedures to decontextualize, code, synthesis, and re-contextualize the collected data.

Credibility

Credibility in qualitative research deals with the research focus towards the problem statement, the purpose statement, and the research questions (Elo et al., 2014). Credibility enhancement requires the researcher to accurately select and implement the right operational measures during the data collection and data analysis (De Massis and Kotlar, 2014). According to the method adopted from De Massis and Kotlar (2014) and Elo et al. (2014), (see Table 6 from Chapter 3), data triangulation from multiple sources enhances research credibility.

For this research inquiry, I selected the participants in a purposive sample selection approach from the three project layers, the owner, the consultant, and the executor layer to vertically cross compare the interpretations from the participants' life experience. I selected the participants who are currently based in two GCC countries, UAE 15 participants and Kuwait 10 participants, with experience in projects over the six GCC countries. During the interviews, I asked the participants to share their experience in two projects. At least 44 project stories were discussed during the interviews with the 25 participants. I categorized the 44 projects under six cases (see Table 11 and 12) for the objective to triangulate the findings of this research in a multiple case study approach.

I used the same interview protocol to guide the interview questions with all participants. The field test results in addition to the first three interviews confirmed the suitability of the used interview protocol to collect the required data. I sent a digital copy of the interview transcripts to all participants with a summary of the discussed points. I followed up with the participants until an endorsement of the transcript accuracy is obtained. I adopted an exploratory approach in a comparative cases analysis to generate themes from the participants' statements. I compared the themes vertically across the project layers, and horizontally across the seven cases of the project groups to present a data triangulation approach and support the credibility of the research.

Transferability

Transferability includes a reliance on the perception that researchers can generalize or transfer findings to other settings or groups (Elo et al., 2014). The role of the researcher is to convince readers, through strategies for method design and sample

selection, of the transferability of the reported results to another context (Elo et al., 2014).

I identified the challenge of transferability to be in defining the domain to which a

study's findings can be generalized and to deal with the issue of transferring the study

results to other domains of settings or groups. My applied strategy to deal with

transferability was in the comparative cases approach between various groups of projects

under different geographies (see Table 11). The lessons learned from project management

in one country might be transferred to other countries considering the variation in the

case context. Also, the experience acquired in this study from the project management in

the oil and gas industry might be extrapolated to other industries with the same level of

complexities and challenges.

Dependability

De Massis and Kotlar (2014) noted that reliability refers to the extent to which

subsequent researchers arrive at the same results if they conduct the study again with the

same steps (p. 27). Each qualitative study is unique in nature and is heavily dependent on

the researchers' skills and creativity, the dependability of a study is high when another

researcher can readily follow the decision trail used by the initial researcher (Elo et al.,

2014). To increase dependability, I followed transparent procedures for data collection,

data file development, coding procedures, and data management. To avoid any

adjustment during the data collection, I followed the same protocol for the semi-

structured interview with the same questions and follow-up questions. I imported the

interview transcripts to an NVivo database where I applied the same procedures for

coding and extracting the themes. I used NVivo capabilities to integrate my field notes

and thoughts during the data collection and analysis process in the memo option provided by the software.

Confirmability

Confirmability refers to the accurate representation of data to reflect the exact information provided by participants and indicates researchers did not invent their interpretations (Elo et al., 2014). I selected a research design for this exploratory case study to provide a comparison between multiple case study results from different project-based organizations. I cross-checked the results at the horizontal level between different project groups and at the vertical level between the project layers. I used my field notes integrated into the same database to reflect my thoughts about various studied cases. I compared the results in an iterative, recursive coding process between the coding and meaning groups developed to explore and compare the extracted themes. I developed a codebook that includes sufficient information and description of each coding and meaning group referring to the integrated memos and interview transcripts in the NVivo database project.

Study Results

Different qualitative researchers describe the procedures for qualitative data analysis differently. Most of the qualitative data analysis methods imply the processes for decontextualization, coding, synthesis, and recontextualization. I derived the specific procedures for data analysis as illustrated in Table 6 from a hybrid STC and QUAGOL methods recommended by de Casterle et al. (2012) and Malterud (2012). The procedures allow for moving beyond data coding and data classification to identifying the categories,

themes, meaning units, dimensions of information, and the storyline of each interviewee (de Casterle et al., 2012; Malterud, 2012). I identified three levels of data analysis: (a) preparing and organizing the data; (b) reducing the data into codes (meaning units), categories (code groups), and themes through a process of coding and condensing the codes; and (c) representing the data in figures, tables, and a discussion. I adopted an iterative process for the implementing the data analysis process at the three levels that required flexibility, open mind, and skill to change as required in the analysis framework (de Casterle et al., 2012; Malterud, 2012).

This study was an exploratory multilayered and nested case study across the three layers of the project structure, the owner, the consultant, and the executor layers. The study involved a purposive sample of 25 participants from the oil and gas industry in GCC. Participants are currently based in UAE and Kuwait with regional experience in the GCC countries in the three project layers, the owner representative layer, the consultant layer, and the executor layer. I was engaged in nested mini-case-studies for the story lines of 44 projects from the oil and gas industry from six countries. Five countries are of the GCC oil-rich countries; UAE (12 projects), Kuwait (16 projects), KSA (2 projects), Oman (2 projects), and Qatar (4 projects). Also, seven participants discussed their experience in Iraq (8 projects). The inclusion of Iraq projects occurred during the data collection stage as recommended by the seven participants as the industry at the regional level is heavily integrated into the use of resources and labor market. Most of the IOCs involved in Iraq oil and gas sector are managing their joint ventures with the Iraqi government from a Dubai-based headquarters.

The nested mini-case-study design allowed for the data analysis across the layers of the same case structure in addition to studying multiple projects within the same case. The mini-case-study was suitable for comparing results and generating exploratory patterns. The comparative cases and the in-depth exploratory approach supported the definition of the boundaries of different types of the themes; the a priori preliminary themes and the emergent themes. The mini-case-study design helped to reveal and understanding multiple facets of the phenomenon using a variety of theoretical lenses (De Massis & Kotlar, 2014). Kapsali (2011) noted that "Comparative case studies are suitable for exploratory research, when investigating causal mechanisms within complex circumstances where a phenomenon is dynamic, not yet settled and calls for an applied orientation directed at improving practice" (p. 401).

I used the emergent exploratory themes to organize and structure of the study results section. This structure allowed exploring the cross-contribution of the addressed categories in multiple themes. The theme-based study results section supports the thematic approach to respond to the main research question and the research two sub-questions.

Research Questions

The research questions of this study consisted of a main question: How does project leadership support the success of global multicultural projects in the oil and gas industry in the GCC countries? and two sub-questions:

1. What is the role of project leadership in managing the cultural and environmental complexities in projects?

2. How can leadership contribute to project success in a challenging global multicultural impermanent project environment?

For the purpose to address the research questions, I have addressed six themes emerged from the codification process. I used an analysis framework that included two approaches. An exploratory analysis model to support the in-depth exploration of the study concepts and to discuss how organizational dynamics are implemented. A comparative analysis model to focus the discussion on the breadth of the research and elaborate on how process implementation is different between various mini-case-studies at various layers of the cases.

Emergent Themes

I identified the six themes from 11 exploratory categories. Six of the categories were a priori and generated during the literature review. Five of the categories generated from the iterative analysis and coding process between the codes and the participants' expressions. I identified a priori codes as meaning units to inform predefined literal categories of code groups and then labeled the quotes from the participants' quotes under NVivo nodes represented the codes names. I categorized the codes in NVivo as child nodes under each category which was created as a mother node in the same code book. From the iterative analysis process, I identified emergent codes and code groups under a separate folder in NVivo which I called emergent code groups.

I repeated the process for the exploratory code groups several times for winnowing the emergent themes, the code groups, and the codes. I used the NVivo Case Classifications option to integrate the nodes with the participants' Classification Sheet

and generate comparative queries related to attributes such as Project Layer, Location,

and Industry Segment. The coding process to NVivo nodes occurred at two levels; coding

the quotes and expressions into mothers and child nodes; and coding the source that

represents the transcript with a participant case that allows for the integration with the

participants' classifications as a case. The cross-coding process at the quotes, expression,

and the case levels allowed for the cross-layer and case comparison in addition to the in-

depth exploration of the theme. I summarized the results of the codification and data

condensation process in Tables 15 and 16 and established a link between the codes, the

categories and the interview questions in Table 17. I also established a link between the

emergent themes and the categories in Table 18.

Table 18

Exploratory Themes

RQ	Interview Question (IQ)	Categories (Code Groups)	Informed Categories	Exploratory Themes
Exploratory Analysis				**How organizational dynamics are implemented?**
RQ 1 & 2	IQ 1, 7	1. Structure & Team Building	Category 1, 2,	1. Adaptable project structure with team and environment dynamics
RQ 1	IQ 4, 5, 6	2. Environment & Complexity		
RQ 2	IQ 4, 7	3. Impermanency	Category 3, 4, 8	2. Leadership role and the impermanent multicultural environment
RQ 1 & 2	IQ 4, 5	4. Leadership vs. Management		
RQ 2	IQ 2, 3, 8, 9	5. Success	Category 5	3. Project success definition and the success criteria
RQ 2	IQ 4, 5, 8, & 9	6. Governance	Category 6	4. Aligned performance and governance systems
RQ 2	IQ 3, 6, 7, 8, 9	7. Organization Strategy	Category 7, 9	5. Changing organizational strategy
RQ 1	IQ 4, 5, 6, 9	8. Organization Leadership Role		
RQ 1	IQ 6, 7, 8	9. Local Environment		
RQ 2	IQ 1, 2, 3, 8, 9	10. Team Building Requirements	Category 10, 11	6. Team building and the project complexity management
RQ 1	IQ 1, 4, 7, 9	11. Pre-project Preparation		

Exploratory Analysis

Exploratory themes were six emergent themes from a priori literal and emergent categories organized to answer the main and secondary research questions. I organized the analysis framework to present the themes at the first level and their link to the research question. I followed with introducing the categories supported the emergence of each theme. I then established a link to the interview questions and the codes derived from the participants' responses. The exploratory analysis provides insights on how organizational dynamics are implemented in the global project environment in the oil and gas industry in GCC.

Theme 1: Adaptable Project Structure with Team and Environmental Dynamics

Two categories contributed to the emergence of Theme 1, Category 1 and Category 2. Category 1 "the project structure and team building" supported by participants responses on interview questions 1 and 7. Category 2 "the project environment and complexity" supported by interview questions 4, 5, and 6 (see Table 19 and Appendix C).

All the 25 (100%) participants contributed to the responses under categories 1 and 2. From the analysis of Theme 1, I confirmed the existence of the research problem generated from structural and environmental complexities. The theme responded to the research questions by explaining the role of the project leadership in dealing with the environmental complexities, and in supporting the project success from the adopted leadership practices.

Table 19

Codes and Categories Contribution to Theme 1

IQ	Category Name and Codes	Sources	References	Aggregated References
1, 7	**1. Project Structure & Team Building**	**7**	**7**	
	Multicultural Challenges	20	54	
	Organizational Theory & Project Structure	19	59	
	Project Team Building	25	117	237
4, 5, 6	**2. Project Environment & Complexity**	**5**	**7**	
	Multicultural Complexities	24	101	
	Oil & Gas Specifics	16	39	
	Organizational & Structural Complexities	18	58	
	Perception of Global Organizations Impact	15	36	
	Project Global Environment	25	105	
	Stakeholders Management	14	38	
	Technical Complexity	15	32	416

Category 1: Project Structure and Team Building. A priori category with

contribution from IQ 1 and 7. Category 1 supported the people oriented model (see

Figure 13) to understand the factors influenced the performance and the selection of the

project leadership and the project team from the contingency theory perspective. In IQ 1 I

asked participants to share their experience in two projects and highlight any evidence of

cultural, organizational, or structural challenges. IQ 7 was about the difficulties

encountered to build the project team in the discussed projects. I coded the responses in

this category under three codes (meaning units) created as child nodes in an NVivo

codebook (see Table 18).

I analyzed the responses under the meaning unit "multicultural challenges" that

affirmed the existence of a challenge in the project environment in the oil and gas

industry in GCC, however, with lots of advantages that contribute to the project success.

The evidence of the challenge indicated by: different employees' abilities, commitment,

and dedication; employment restrictions on some nationalities; challenges in the decision-making process; communication efficiency; different ways of tackling issues; building relationship; getting the team to work together; team motivation, challenge to implement a change, and a challenging work environment. The sources of challenge indicated by participants included: nationalities, language, cultural interests, ethnicity, religion, gender, age, the level of confidence, different corporate cultures, multiple disciplines, different living standards and lifestyle in the country of origin, and different abilities to adapt to the local culture.

At least four (16%) participants considered the multicultural challenges as a mix between the individual's cultural values and what they bring of corporate values and backgrounds to the project. Participant 05 (UAE – Executor) asserted that the challenge comes from "managing different backgrounds, different ethnic groups, different ways of tackling things." Participant 06 (UAE – Regional Consultant) in describing the multicultural project environment as "It's all about integrating different cultures, different religions, different abilities, different backgrounds." Participant 09 (UAE – Executor) added that "if you are coming from [… company] and I am coming from [… company] we do have cultural differences. If you studied in the USA and I studied in Egypt, we are both of the same nationality, we have a cultural problem … so it's [cultural diversity] not about nationalities." Participant 18 (Kuwait – Owner) stated that "people come with different backgrounds, different disciplines, different experiences, different competencies."

Despite the challenges, cultural diversity is a part of the project environment in GCC, and at least five of the participants' responses contributed to the concept that diversity is critical to the project success. Participant 17 (Kuwait – Owner) summarized his experience in cultural diversity saying "Diversity is always healthy it's important. If the project team is all Kuwaitis, from one nationality … it will be full of politics …." Participant 18 (Kuwait – owner) believes that cultural diversity was important to understand the market "sometimes you don't know how things work in different countries, because if you don't have this talent in your group, you may not really read the benefit of that country." Participant 21 (Kuwait – Owner) had some conditions to consider the benefits of cultural diversity based on the added values "Multicultural environment is healthy if you are adding a culture that is better than the one we are in." Participants 25 (Kuwait – Owner) believes that "if they [the project staff] are all Kuwaitis … maybe I will find difficulties to motivate the team."

From a careful analysis of the 50 responses generated under the second meaning unit "Organization Theory and Project Structure," I found a variety in the implementation of the notions of the project-based organization. The variety occurred in the adopted structures to execute a project scope. I noted that there were three main approaches to structure the project structure. The first was an extreme project-based organization for executing projects remotely with a fully dedicated project team and limited skeleton corporate staff. The project team in this structure is hired with the project start and terminated with the project handover. The second structure was a project based structure with centralized head office support occurred at the consultant layer as opposed to a

matrix structure at the owner's layer. In the owner model, a specialized staff was brought from different departments or hired of various disciplines to fulfill the project technical complexity requirements. Finally, the third project structure was a traditional model occurred with centralized functions managed by specialized corporate functional teams who attended multi-projects tasks. The team existence in the model was dependent on the organization ability to continuously acquire new projects business to retain its capabilities.

Participant 01 (UAE – Owner) indicated a typical matrix organization for the company's projects "We have something called project sponsor or program sponsor, and we can call him the program leader ... Then we had a steering committee with representatives from all the seniors C-level executive in this organization, and below this committee, we have a PMT – a project management team." He added "Additionally, there is the project champions team or specialists team who are basically from the various functions in the organization – from the HSSE, Engineering, Operations, Marketing, business communication, and the retail business. This team is from such people who will be the operational and business people." Three of the participants stated that they do not have the formal project structure in their organizations. Participant 04 (UAE – Executor) stated that "as a business, we don't have a formal structure for project management, … it's something is missing, and I think it's something we really need to have because we don't execute with excellence we tend to operate in a state of chaos when it comes to project management." Participant 09 (UAE – Executor) described their model by "what we call a project is actually a series of activities that happen repetitively in a certain area … we

have equipment we have personnel we tie-up to the structure that they [the main contractor] have" he also described their activities as a second-tier contractor to the project as "Our scheduling is a lot following what they [the main contractor] do so we normally don't even have Gant charts. … we are little bit far away from a concept of the whole project …. We will be just a single task of this whole project … So essentially yes we are a part of a big project."

Participant 11 (UAE – Regional Executor) differentiated between two applied models in the organization, he stated that "in Iraq our model is a little bit different from the UAE …. the Iraqi government they prefer to deal with us as a manufacturer representative, and they give us the responsibility to select or subcontract a contractor who can perform the installation." He also asserted that their applied model in UAE as a second-tier service provider is impacting their efficiency "Usually when you are taking care of the project from A-Z you are becoming more into the control of the project ... but since we are in control we feel that we can deliver a better job there." Participant 11 added that "When it comes to UAE if you are supplying an EPC [engineering, procurement, and construction] contractor it will always be controlled by EPC contractor."

The third meaning unit under category 1 is "Project Team Building." Basically, IQ 7 was about the challenges faced to build a project team. All the 25 (100%) participants contributed to this node with a total of 117 coded expressions. The challenges in the project team building process were indicated by: project management knowledge, restrictions on some nationalities, political conflicts in the region, employee

retention, interpersonal and cultural challenges, the local perception of a female role, subcultures balance, project size, the organization structure, openness to discuss risks, team engagement, localization, local education, technical expertise and skills, the nature of the expats contracts, information flow, training and development strategy, cultural awareness, language barriers, owner interference, contractual restrictions. I used the emergent indications from this category to create new meaning units where I coded additional expressions from all participants in the second coding round. The emerging codes and meaning units resulted in emergent themes; "Theme 6: Team building and the project complexity management".

A careful analysis of the responses under the meaning unit: project team building included a consolidation participants' experience in building project teams of different natures. Participant responses indicated different levels of challenges depending on the labor market cycle at the time, the country hosting the project, the project complexity requirements, and the cultural complexity of the organization that trickled the project complexity. Participant 01 (UAE – Owner) stated that "Most of the project management team staff were hired from within the organization based on their skills and competency in project management and their ability to differentiate between a project and the normal operation"; he indicated that "The challenge was sustaining the team … and Managing the cultural interests in different seasons." Participant 02 (UAE – Regional Executor) affirmed that the challenge is to "build a project team and staff this team with team members that have individually or jointly make decisions and recommendations outside the confines of their culture."

Participant 11 (UAE – Regional Executor) complained from the low commitment of "the guys who are usually politically employed and they didn't have the experience in the field … they don't really care" that usually occur because of the localization requirements. Participant 22 (Kuwait – Owner), clarified that; "from the very beginning, the way the contract was prepared and the overall environment didn't support the freedom in the selection of the project team." Participant 13 (UAE – Executor), added a new type of challenge "this is a particular problem for the offshore oil and gas industry in that the pool of people available to it is very limited because it's a very limited industry a difficult industry and very few people go for it."

Category 2: Project Environment and Complexity. Category 2 represented the second set of meaning units contributed to Theme 1 and included seven codes (meaning units) as informed from IQ 4,5, and 6 (see Table 19). Category 2 supported the organization oriented model (see Figure 13) to understand the project environment and complexity from the complex adaptive systems theory perspective. In IQ 4 I asked the participants to share their insights about the difference between project management and project leadership. I followed by IQ 5 to probe in the role of the project leadership in global, multicultural projects. I used IQ 6 to broaden the view about the global organizations' impact in the industry and establish a link to IQ 4 and 5. I coded a total of 416 quotes under category 2 and the related seven meaning units.

Supporting the multicultural challenges code, participant 01 (UAE – Owner) stated that "The multicultural environment can bring challenges that never been thought about at the beginning of the project. We never thought that the project would be

influenced by the conflict in Libya, Syria, or Egypt, or even changes in the local

government for example." Participant 02 (UAE – Regional Executor) "I believe that the

biggest challenges are cultural and interpersonal, in markets where you have the patriotic

family system and generally where you have one family member or one Sheikh [the head

of a tribe] deciding for the entire family or group of families." Participant 14 (UAE –

Consultant) described a higher level of complexity at the organization's level saying that

"as you deal with your own organization multidiscipline, multilingual people, at the same

time you also deal with the client side with a similar demography. In our case you are not

dealing with one client, you are dealing with three clients because themselves are

multicultural."

Under the oil and gas specifics, I coded issues raised by participants that they

considered as specific challenges or complexities to the oil and gas project environment.

These issues are dominated by the Occupational Safety and Health requirements

abbreviated widely in the sector with Health, Safety, Security, and Environment (HSSE).

HSSE was mentioned by 17 of the 25 participants and occurred in the text 148 times.

Other oil and gas specifics included: high-quality standards, a result-driven performance

management system, the impact of the oil prices fluctuation, and the special requirements

of the offshore segment. Participant 06 (UAE – Regional Consultant) stated that "the oil

and gas industry is unique in the way it does bring people from different backgrounds or

whatever." Participant 13 (UAE – Executor) linked the HSSE performance to the project

bottom line results saying that "the KPIs [key performance indicators] now are much

more varied … and now HSE is HSSEQ including the quality and are so critical now. … If you have an accident in a project, it means it will obliterate all the profit you made."

Participant 18 (Kuwait – Owner) emphasized on the HSSE "I shouldn't forget, first and foremost is safety in this industry; so HSSE targets are sacred in this industry, so they become first in any KPI before profitability before cost control before any other objective like attrition." Participant 23 (Kuwait – Consultant) also stated that "the oil and gas projects are little bit different from the commercial projects ... in the commercial projects you can go by the book 100%, but in the oil and gas you have a lot of influences which may affect your tools and techniques which you want to always implement. Like HSE is taken to top priority in the oil and gas projects."

Under the organizational and structural complexities, I coded 58 quotes that supported my research in category 2. This included indications to the project environment complexity in the oil and gas industry, such as: change management, management support, management commitment, project structure, matrix organization, regional and local structure, joint venture, partnership, decision making process, hierarchy layers, responsibility and authority matrix, stakeholders and investors relations, organization's ownership structure, conflicting interest and personal agendas, and the identity of the organization. Participant 05 (UAE – Executor) indicated a complexity when a partnership is formed between two organizations of different sizes. Participant 05 stated "if a 10,000-employee company has a JV with a 50-employee company' things would be managed differently … trying to promote that [a concept] to your partner or your joint venture … especially when you don't have similar criteria or similar business models, and this where

it gets a bit tricky." Participant 09 (UAE – Executor) linked the management commitment to employees' expectations "especially in our culture in this part of the world; people want to be seen working … and they want to be recognized. So, to me, the most important thing that can be done is management commitment and the higher this management commitment in the organization that goes you can see that project is going smoothly."

Participant 14 (UAE – Consultant) mentioned the inter-organizational issues as a challenge that trickles down to the project "dealing with inter-organizational issues. Different people coming from various backgrounds and struggle for power, and at the same time struggle between offices and struggle in financing which was a major issue." He added that "we are a single ownership company at the moment, with a single ownership, a part of its disadvantages, there are important advantages … quick decision making, less bureaucracy, and trying to shape your organization in line with your client's requirements." Participant 19 (Kuwait – Executor) added to the sources of complexity in the project environment "the status of the international company itself who had issues with the change of management, had issues with project delays, had issues in control over the whole process." Participant 24 (Kuwait – executor) emphasized the importance of the project structure saying that "in order to act as a leader then you have to have a very strong project organization and not only the organization of the head office but the organization of the project that should be carefully selected."

The "Perception of global organizations impact" contributed with 36 codes from 15 of the participants' quotes to the overall understanding of category 2 as directly

informed by IQ 6. The responses linked the impact of global organizations on the local environment to: local capabilities, local content, localization, organizational systems, performance management systems, knowledge exchange, training, education, international standards, the maturity cycle of the local industry, political influences, globalization, national development strategy, strategic alliances and partnerships, technology transfer, and market competitiveness.

Participant 09 (UAE - Executor) linked the influence of the global organizations to the development occurred in the local industry over the last three decades. He stated that "At the beginning, it was positive their [global organizations] presence is very positive it's very well needed, but it needs to diminish because the local capabilities need to be developed more" he also added that "they always need to be there, but they need to be more on the high-end stuff. So, they can bring the high-end technologies, and they can do the high-end projects. But the normal repetitive projects, low end, should be completely handled by national companies or regional companies." Participant 11 (UAE – Executor) stated that "It is easier for a professional company to work with IOCs rather than working with NOCs. NOCs they will always try to go with the cost effective, and they change their mind in the last minute for few things to save in cost."

Participant 23 (Kuwait – Consultant) contested that "they [global organizations] know exactly the oil and gas codes, regulation, and standards, but they may not know the country codes and standards … the ministry of public works, the ministry of electricity and water ministry of communication." Participant 21 (Kuwait – Owner) emphasized on the adaptation of the global organizations' model to the local needs; he stated that "The

international companies should understand the culture and the business. If the international company doesn't understand the culture …. It's very difficult to deliver the correct marketing strategy."

I used the latent content analysis for the 105 coded expressions under "The project global environment" to describe the 25 participants' contribution to this meaning unit. This approach informed Theme 1 from the contingency theory perspective and added to the general understanding of the organization oriented approach to respond primarily to the second research sub-question. I used different interview questions to select the codes under this unit. However, IQ 4, 5, and 6 were the primary source of the codes. The boundaries of the global environment of the oil and gas projects in GCC are defined by the notions of: the project structure; the complexity of the owner layer structure; the global influence on the owner organization layer; the multicultural team dynamics; local executors capabilities and the applied operations standards; the project performance and governance systems; the myriad stakeholders relations, and the deployment of the competing factors that shape the local organizations' strategy and the national strategies.

From the responses coded under "The project global environment," participant 02 (UAE – Regional Executor) identified the challenge to manage the project global environment with the competing aspects of the local versus the international standards. He stated that "We succeeded because at the starting point we anticipated the client, in this case, BP, needs for a safe and reliable transportation. We understood that as an international company they couldn't compromise in any of their standards because of a

particular market." He elaborated in describing the local market as "Immature market, non-availability of service, non-availability of trade resources." He added that "basically we had had to make it happened we positioned ourselves as a contractor in the niche in the market where we would deliver this service while educating the local community how to perform this service."

Participant 07 (UAE – Executor) had a clear vision of the importance of the multicultural environment. He stated that "lots of interfaces are there and lots of legal entities …. GCC by definition all of the projects are multicultural, and there must be obvious challenges …. a lot of people from the northern England and Scotland who are coming into the oil and gas industry here… which means a particular flavor and style of doing things." On the strategy they followed, participants 07 added that "in any industry, it's good to have a cultural match, so requirements of the oil and gas clients are met, the multicultural mix is changing, and I need to alter my multicultural mix to match it."

Participant 09 (UAE – Executor) asserted that "certainly that person [project leader] needs to be culturally aware and knowledgeable of the macro environment." He added that "if he is not aware and sensitive and develops the right relationship and be able to prompt these guys on their perception of how the service or the project is going then he may end up one day hitting the wall." Participant 09 contested the ability to meet the local challenges by raising the questions "Can you hire the people you want to hire? Can you bring the equipment you need? Can you register the company you want to register? Can you subcontract the company you want to subcontract?"

The coded expression under the "Stakeholders Management" category emerged basically from IQ 4, 5, and 6, however with some contribution from IQ 1 as it was a general question about the participant experience. The total number of participants contributed to this category was 14 with 38 codes. The word stakeholders occurred 68 times in the main sources of the data collection and was mentioned by 20 participants. The word stakeholders use occurred with expressions like stakeholder definition, management, engagement, relationship, needs and requirements, direct interaction, directions, the benefit groups, expectations, influence, and involvement. The stakeholders' definition and management were perceived as an additional complexity to the project environment as alluded by the coded expressions.

Participant 01 (UAE – Owner) in describing the challenge to change management stated that "the change is complex from a perspective that it was touching every stakeholder around the organization," he added, "sometime ego and prestige comes into the picture, and people do not accept the advice or others to teach them." On the external stakeholders' management, participant 04 (UAE – Executor) asserted that "stakeholders' management … is absolutely required and its underestimated in many businesses, and in order to get the external stakeholders engaged and involved there has to be some form of common goals which then comes from leadership to drive those goals."

Participant 19 (Kuwait – Executor) claimed that the contractual relationship with the project owner is not always sufficient to deal with the complexities of the stakeholders' management. He stated that "lthough it was a direct contract with […
NOC] the actual implementation was through each of the separate subcontractors, and

that involved a hill of a lot of coordination with ensuring that [the NOC] is putting

enough pressure on them because no one is interested in doing it."

Participant 21 (Kuwait – Owner) elaborated on a strategy to manage internal

stakeholders, he stated that "involving every possible stakeholder in the project, engage

all the stakeholders as a part of the project, you will reach to a stage where all those who

are benefiting from the project will defend the project for the project success." He added,

"I always look at the stakeholders to be represented in the project management team …."

Participant 23 (Kuwait – Consultant) asserted that "Communication is very important

because the lack of communication will lead to dramatic clash at the end or maybe in the

middle of the way."

"Technical complexity" contributed to Category 2 under Theme 1 with 32 codes

derived from the interviewed with 15 participants. From the analysis of the participants'

responses, I noted technical complexity as an additional project aspect that influenced the

project structure, the team structure, and the internal and external stakeholders'

management strategy. Also, participants indicated the following as sources for technical

complexity: project design and drawings, new technology, applied quality standards,

different references for the applied standards, technology-driven changes, project scope

and specifications, and the project nature.

For the instant, participant 04 (UAE – Executor) mentioned the "complexity of

understanding the process and approving the drawing." Participant 08 (UAE –

Consultant) stated that "A particular complexity was the standards of the client compared

to the standards of the consultancy." Participant 09 (UAE – Executor) asserted that

"Normally many projects will suffer in the beginning to get things going especially if you don't know the technicalities of the project." Participant 12 (UAE – Executor) elaborated in impact of the technical complexity of the internal and external structure, he stated that "the complexity is in the scope, in the technical requirements of the projects, in the disciplines involvement, the supply chain challenges that required the involvement of many suppliers … local international and global."

Theme 2: Leadership Role and the Impermanent Multicultural Environment

Theme 2 emerged from two a priori categories; Category 3 "Project Impermanency" and Category 4 "Project Leadership;" and one emergent category, Category 8 "Organizational Leadership Role." I focused the literature review to understand the aspects impacting the project environment and the aspects impacting the project leadership performance. I have indicated these aspects in the meaning units informed Categories 3 and 4. Category 8, Organization Leadership Role emerged from the discussion with the participants who emphasized on the leadership role at the organization level as one of the aspects impacting the project organization and project leadership. I used Category 8 under Theme 2 to differentiate between the "Project Leadership" and the "Organization Leadership Role". Theme 2 emerged for the objective to answer the research second sub-question. My focus in the analysis of Theme 2 was on capturing the opportunities and challenges of the impermanent nature of the project to answer the research second sub-question. I compiled the three categories and the related meaning units in Table 20.

Table 20

Codes and Categories Contribution to Theme 2

IQ	Category Name and Codes	Sources	References	Aggregated References
4,7	**3. Project Impermanency**	**7**	**16**	
	Knowledge Integration and Exchange	21	91	
	Team Building Process	23	101	208
4,5	**4. Project Leadership**	**3**	**5**	
	Authority	7	14	
	Global leadership	19	48	
	Leadership Style	15	30	
	Multicultural Challenges	23	91	
	Project Leadership versus Project Management	25	117	
	Selection Process	18	38	343
4,5,6,9	**8. Organization Leadership Role**	**14**	**43**	
	Change Resistance	4	9	
	Client Interface	9	17	
	Communication	13	31	100

Category 3: "The Project Impermanency." Category 3 is informed by two

meaning units in the codification process: The Knowledge Integration and Exchange and

the Team Building Process (see Table 20 above). The two a priori codes meant to probe

into the data to understand the interaction between the impermanency as one of the

project aspects; and the knowledge exchange and team-building as essential processes in

building a successful project environment. My efforts to carefully analyze these codes

were to answer the second research sub-questions on the role of the project leadership in

promoting a project environment for success.

Participant 02 (UAE – Regional Executor) mentioned knowledge integration with

the local community as a strategy for successful positioning "we positioned ourselves as

a contractor in the niche in the market where we would deliver this service while

educating the local community how to perform this service." Accordingly, in his opinion "international companies have to educate and align local contractors to meet those standards … I would say its where the international becomes a catalyst for the local industry to acquire skills commercially and technically." Participant 03 (UAE – Executor) asserted that knowledge exchange is a natural outcome of the multicultural environment when recognized positively by the project leadership (PLS). He stated, "I think that [cultural diversity] will bring lots of ideas, and if the PLS is a very team based lot of openness a lot of meetings where all individuals are encouraged to come up with their ideas." He also noted that this should be recognized internally and externally between the different teams in the project layers "here is an objective to learn so that team building between a client and contractor can be beneficial for the locals to understand the issues."

Participant 04 (UAE – Regional Executor) supported the same vision as general expectation from the global organizations through the project environment "they bring the knowhow, the new technologies, and the skills, the development, the training, the safety, all these things generally come from outside the region." Participant 10 (UAE – Consultant) mentioned a frustration linked to project impermanency; he stated, "the only disappointing thing for me was that the people who had had so much learning from the implementation we allowed them to leave the business … almost encouraged to leave the business, so we lost that knowledge … the in-depth knowledge." Participant 18 (Kuwait – Owner) elaborated in the concept of the knowledge exchange as a corporate strategy to support the local organization in going global "they brought in something to the table

when they joint ventured. The locals brought the national resources they brought the infrastructure, they brought the vicinity to the market, and the others [international organizations] brought the experience the marketing knowledge, the knowhow, the work processes."

Participant 20 (Kuwait – Owner) emphasized on the localization strategy embedded under the project objectives "the training for the employees, sharing the knowledge …. all these I think will be able to transfer the knowledge to the young generation of engineers. All these we consider as the investment through training, calling for the experts to the country for knowledge sharing." Participant 21 (Kuwait – Owner) contested that the learning objectives should be carefully evaluated "take whatever you want and customize to your requirements to your culture to your people to your needs." He believes that certain level of understanding from the local strategists to what is really required to be brought into the local knowledge "we don't want to reinvent the wheel, but we don't want to copy without thinking …. Try to copy from cultures with as much as living standards closer to the local standards … solutions will be closer to what you are expecting."

Category 4: Project Leadership. I recognized six meaning units under category 4 "The Project Leadership." The meaning units included PLS Authority; Global Leadership awareness; PLS Leadership Style; Multicultural Challenges; the perception of the difference between Project Leadership versus Project Management; and the Selection Process of the PLS and the project team. I used participants responses to IQs 4 and 5 to inform the codes under category 4.

The word "authority" occurred 11 times in the coded expressions from six participants' interviews. Participant 01 (UAE – Owner) defined the authority of the project leadership at the program leader level. He stated that "He was assigned from the parent company, and he was empowered to do the required transformation, and he was authorized to hire the best people, the required talents, and bring the required resources to implement the change." He added, "The program leader role included also evaluating the program progress, chairing the steering committee, and directly evaluating the deviations in the program to enhance the performance." The program leader, in this case, was assumed by a C-level individual from the corporate management team. Participant 16 (Kuwait – Owner) had a slightly different vision about the top management interference; he stated that "With the delegation, they [top management] shouldn't interfere … above a project director, there should not be any leadership interference in the project … he can lead a nation a country or the company …. but that project should be led by the project director and below to lead it the way they want … and of course they are accountable."

On the global leadership aspect, participant 05 (UAE – Executor), a female involved in the upstream projects in different countries in the region, asserted that the global aspect of the leadership occurs in "bridging the gaps between the whole team, including different nationalities, different religions, and the gender as well." Participant 08 (UAE – Consultant) raised the point on the local culture "there is an expectation that there is a big boss who has the authority and I think that is quite different than other places I have worked in." Participant 13 (UAE – Executor) noted that a person with global leadership aspects "has to understand different people and different cultures …

and to realize that not all people perform the same way based on the same instructions or react the same way or understand the same way … there are cultural differences."

The codes under the leadership style meaning unit included 30 expressions from 15 (60%) participants that manifested various leadership styles such as transformational, transactional, participative, and contingent. Participants 16 (Kuwait – Owner) who leads a project management team stated that "we talk about others, it worth first thinking about selves, we can be a key person of success or we can be a key person of failure if I am insisting I know everything." Participant 21 (Kuwait – Owner) defined the project leader role in a global context with "this requires the project leader to be even involved in the social aspects of the project team, support the team socialization, the propaganda for the project"; he also added "always interject ideas reminding them about the project and its importance, involving every possible stakeholder in the project, engage all the stakeholders as a part of the project." From an opposite position, participant 24 (Kuwait – Executor) didn't believe in any leadership requirement beyond the administration of the project management processes. He stated that "the project duration is very short, and after you get the notice of award in a very short time you will receive the notice to commence; so, you do not have enough time that you can perform your leadership with the team that you have worked before, or that will really accept your leadership easily."

I coded 91 expressions from 23 (92%) participants under the multicultural challenges that manifested the project leadership aspects. The project leadership role within this context was associated with: relationship, tribal, language, communication, environment, understanding, awareness, and diversity. Participant 03 (UAE – Executor)

noted that "in terms of the complexities you're going to get from the different languages or cultures, I think that can be managed by having a strong project leader who is used to managing the multicultural project." Participant 11 (UAE – Executor) stated that "especially if the project leader has an executive position then he can practically dictate the culture on his team … at the same time he can coordinate with client's senior management or consultant's senior manage." Participant 12 (UAE – Executor) added that leadership "is about communication and managing the cultural issues."

The project leadership versus project management is a priori meaning unit under the category "Project Leadership" informed by IQ 4 where I coded 117 expressions from the 25 (100%) participants. I asked IQ 4 to give an area for the participants to use their experience in the discussed project cases to add insights on the project leadership role in the project multicultural global environment. Participant 05 (UAE – Executor) stated that "it was mainly a different way of naming it, in one company they call project management in another they call it project leadership." Participant 06 (UAE – Regional Consultant) shared the same vision saying "There is no difference, every project manager must have leadership and management at every single level." Participant 14 (UAE – Consultant) affirmed that "If you try to function as project management only, then the possibility of failure is very likely."

Participant 07 (UAE – Executor) had a different vision; he stated that "project management is an administrative function, and a project leadership is an inspirational function." Participant 08 (UAE – Consultant) supported the difference by saying "the leadership is about the direction of the project and it's about keeping the team functioning

on a different level. Whereas the manager deal with the detail he deals with the day-to-day issues." Participant 18 (Kuwait – Owner) supported the importance to differentiate between the two aspects saying that "had it been a project management it would have been basically setting the targets, organizing the people, then directing them, and finally controlling that … that's a management which is basic management." Participant 18 added that "leadership it's something related to establishing the harmony. You set the harmony about the people that will execute these plans. Leadership is related to integrity and to commitment. From an external perspective, Participant 18 added that "[leadership is about] establishing an intimacy with your customer, showing them that you are a partner in success. When they are successful you are successful when you are successful they are successful."

I noted 38 codes under the project leadership selection process meaning unit from 18 (72%) participants. The codes were mainly associated with: skills and competencies, experience in the region, knowledge in project management, technical experience, cultural awareness, personality. Participant 03 (UAE – Executor) stated that "in the Middle East you probably more likely to need experience from all these countries you are in." Participant 05 (UAE – Executor) added that "from what I found the leader chosen it was based on his qualification." Participant 09 (UAE – Executor) affirmed that "certainly that person needs to be culturally aware and knowledgeable of the macro environment." Participant 17 (Kuwait – Owner) stated that the selection criteria includes "long experience in the project and his vision about the project expectation." Participant 21

(Kuwait – Owner) noted a success factor "in the project manager selection who should listen to everybody."

Category 8: Organization Leadership Role. Category 8 "Organization Leadership Role" emerged during the iteration of the research process. Under category 8, a priori category, I coded a total of 100 expressions from the responses to IQ 4,5,6, and 9 from 14 (56%) participants. Three codes contributed to informing the analysis of category 8, change resistance, client interface, and communication. I compiled this set of codes as a result of the iterative analysis process to differentiate between the aspects of the Project Leadership and the Aspects of the Organization Leadership. Participants responses under Category 8 were of two main visions. A vision supported the engagement of the organization leadership for the purpose to facilitate an efficient stakeholders' management and the team efforts recognition. Another vision supported the full delegation of authority and responsibility to manage the project complexities by the project dedicated team. Some participants alluded to the negative interference of the organization leadership, especially when a conflict of interest occurs at the corporate level. A common concern raised from the complexity of the decision-making process, the subcontractors' selection criteria, and the communication efficiency.

Participant 09 (UAE – Executor) stated that "In this part of the world there has to be a lot of involvement and commitment by the highest management to ensure the success." He added that this involvement "is not necessary to micro-manage, but they need to monitor it and make sure that everyone understands that it's on their radar screen and that they are committed to make it a success." His response alluded the project team

perception about management involvement "If people know that they are being monitored and their progress is being checked, and someone cares about where they reach in the project they will do much more." Participant 10 (UAE – Consultant), supported the involvement of the organization leadership in managing the resistance to change. He used an expression that was used in one of the project cases "One of the phrases that was used by board when any resistance to change was mentioned was... the train is leaving the station, you can be on the train if you like or you cannot be on the train, … but the train is going to be leaving the station." He affirmed that the organization leadership role is "To deal with resistance and make sure to use both the carrot and the stick in order to get deliverables that are actually delivered more for the good of the company who is running the project."

Participant 02 (UAE – Regional Executor) linked the challenges in one project to the missing corporate support. He added that project team "didn't have the management support from the corporate side to deliver on contractual responsibilities within the time frame that were required." Participant 09 (UAE – Executor) also added that "the leadership really for me in all these cases is really identifying and understanding very well the various stakeholders their importance and engaging them in a positive way." Participant 16 (Kuwait – Owner), contested the concepts of the organization leaders' interference. He stated that "they [organization leaders] are the people who will create things or, and giving us the resources, the budget required, …. but project leaders should be from project director and below, project manager, engineers, even up to foreman." Participant 23 (Kuwait – Consultant) recognized that one of the project leader's role is to

manage this relation with the organizations' leadership. He stated that project leader should focus on "high management meetings high-level decisions, decision-related to time, to cost, to changes in the scope of the project."

Theme 3: Project Success Definition and Success Criteria

Theme 3 emerged from the 588 codes under category 5 "Project Success" as informed by IQ 2, 3, 8, and 9 (see Table 21). In IQ 2 I asked a direct question on the participants' perception about the definition of the project success. In IQ 3, I asked the participants about the applied approaches to measure the project success and performance. Responses from 25 participants contributed to the understanding of Theme 3. The analysis of Theme 3 contributed to answering the second research sub-question on the role of the project leadership in the project success.

Category 5: "Project Success" is the main category contributed to the emergence of Theme 3. Category 5 is associated with the codes: alignment to corporate strategy, project critical success factors, performance management, project success criteria, and success measures (see Table 21).

Table 21

Codes and Categories Contribution to Theme 3

IQ	Category Name and Codes	Sources	References	Aggregated References
2, 3, 8, 9	**5. Project Success**	**2**	**2**	
	Alignment to corporate strategy	23	74	
	Critical Success Factors	25	144	
	Performance Management	22	94	
	Project Success Criteria	25	121	
	Success Measures	24	153	588

On the alignment to corporate strategy, participant 01 (UAE – Owner) stated that "The projects are part of the government vision in transforming the overall country's economy," the corporate as a fully owned government entity defines the objectives and development projects as derived from the government vision. He added "Our objective was to align our project objectives with the corporate objective" and "we can align these three together, the corporate objectives, the business objectives, and the project objectives then automatically the project will be a more successful." Participant 05 (UAE – Executor), stated that project objective "was set at the highest level, it was communicated to each and every person … even for the people who are not involved in the project." Participant 25 (Kuwait – Owner) also affirmed that "the project charter with the project success criteria should be measured as one of the objectives from [the mother organization] objective."

Participant 21 (Kuwait – Owner) linked the challenges they faced in managing the project success to the missing vision at the corporate side, he stated that "the holding organizations were represented by individuals who mainly hold different agendas and continually drove the three projects in the direction of their agendas." Aligned with this vision, participant 22 (Kuwait – Owner) also added that "the source of this challenge is the lack of coordination between departments, each department work without sufficient coordination with the other." Participant 24 (Kuwait – Executor) noted an alignment internal challenge that impacted the alignment with the project objectives "I mean the end user is a different department in the organization, but the department which you are dealing with is totally different, and they do not understand each other."

On the definition of the project's critical success factors, participant 01 (UAE – Owner) stated that "following the key success factors include no compromise from a project management perspective, this mean project still need to finish on time, within the specified budget, and it has to meet the quality parameters that has put forward for the project." Participant 05 (UAE – Executor) stated that "we were all sharing experience and people were the major success factor," she added, "transparent environment this is the major success factor." Participant (UAE 0- Owner) stated that "key success factors for me is always team work and great communication and clear statement of constraints, dependencies scope, what's in scope what's out the scope, so to enable people to focus properly on what must be done."

Participant 16 (Kuwait – Owner) appreciated the existing corporate practice in the delegation, and he noted that "the most key success factor is delegating you to do what you are assigned to do, is trusting you doing the job." Participant 17 (Kuwait – Owner) stated that "if the project is well defined with the requirements, we define our critical success factors and we inform the higher management about we need to succeed." Participant 17 added "We tell them [the corporate management] we need that much manpower, if it's a two years project we tell them what consultant do we need, we define our key success factors accordingly. In some projects, we also recommend the project structure based on the scope and requirements." Participant 18 (Kuwait – Owner) linked the definition process of the critical success to other environmental factors stating that "a subjective key success factor was the adaptability to the multi-cultures where we operate," he added "Therefore unless the people you deal with are diversified and

multicultural you would have failed to reach your objective you would have difficulties to reach your objective."

On studying the performance management approaches, the key performance indicators (KPIs), and the process to measure the project performance, participants responses were mainly associated with the project constraints time, cost, and scope. However, other KPIs were associated with HSSE performance, people attrition, training, local content, implementation of successful project management processes, and subcontractors' performance. Participant 05 (UAE – Executor) asserted that "you have the KPIS and continually assessing them." Participant 06 (UAE – Regional Consultant) elaborated that "the performance management system is based on the performance in the QHSE is in the continuous development of people and how its linked to the improve the utilization of the equipment." Participant 18 (Kuwait – Owner) also emphasized on the KPIs identification process "you have corporate key performance indicators … and any project has to be linked to these performance indicators."

Participant 19 (Kuwait – Executor) contested the performance management process saying that "I think it's very difficult in this part of the world … because you have such a variety in skill level or non-skill level in some cases." Participant 20 (Kuwait – Owner) elaborated on a comprehensive approach to measure the project performance, he stated that "We are using tools to measure the project performance like the balance score cards and the KPIS. For all these KPIs we set targets, and we continuously measure the performance against these targets. Some of them are the availability of the material the budget, the training for the employees, sharing the knowledge." Participant 25

(Kuwait – Owner) there is like a project KPI plus the overall group balance score card that we use to measure the project and follow-up.

Two participants linked the missing project performance measurement to the lack of internal understanding for the project structure and the missing project based organization. Participant 04 (UAE – Executor) stated that "without the formal structure, which we often don't do, what I think we should be doing is spend more time on the evaluation of project execution" he added "We never actually looked at if we delivered on time … Generally, we know a project went well if we don't hear anything. There is no benchmarking on any parameter for project management." Participant 09 (UAE – Executor) didn't have the project structure, and the performance is measured at the corporate level only. He stated that "monitor how much money we make we monitor how much money we lose, we monitor how many safety incidents are there," he added, "I can't see at any corporate level project is being discussed other than with criteria related to the financial and HSSE KPIs."

On the identification of the project success criteria, participants responses are associated with coordination with the client's objectives, cooperation between the project stakeholders, alignment of various objectives, and other objectives beyond the time, cost, and scope. Participant 09 (UAE – Executor) noted that "the major criteria for successful project here is to be aware of the difficulties of execution in this part of the world and inefficiencies of the system." Participant 16 (Kuwait – Owner) clarified a difference in defining the project success criteria between the project team and the corporate team, he stated "As I said earlier … I want my end product as I designed it, corporate will follow

the golden triangle." Participant 21 (Kuwait – Owner) differentiated between two levels for defining the project success "You have the project success itself as a project and the project success as an outcome where the leaders and the project owners look at."

Measuring the project success is informed by IQ 3 which was direct question I asked with an association to the project applied performance measurement system. The responses to this question included the reference to the standard criteria of the time, cost, and scope; with respect to corporate objectives, with respect to customer satisfaction, and mostly it was with respect to the financial return of the project especially at the executor layer. Participant 03 (UAE – Regional Executor) mentioned that success is measured with respect to "delivery time, budget, or over budget as long as it agreed, then technical and performance … those are the key things." Participant 05 (UAE – Executor) stated that "the measure of success is weather you meet the expectations or you meet the results at the end of the day." Participant 06 (UAE – Regional Consultant) added that "It's an automatic process in O&G because it's an output driven." Participant 10 (UAE – Consultant) stated "We have the classical definition for meeting the quality time and cost parameters …. but I don't really think this is easy as that. Or even as achievable." Participant 13 (UAE – Executor) linked the project success to people satisfaction with a high focus on the project team satisfaction; he said "my personal definition of success in this work is about people, it's all about people … The major stakeholder, it could be the employees, it could be the end users …. When people are happy in a project, then I consider that project is a success."

Theme 4: Aligned Performance and Governance Systems

I generated Theme 4 from the responses I coded under category 6 "Project

Governance" as informed by IQ 4, 5, 8, and 9. I didn't ask a direct question about the

project governance, and I used the latent content analysis strategy to code a total of 44

expressions under this category to analyze the used policies, procedures, management,

and control tools to integrate a project governance approach. Theme 4 contributes to

answering the second research sub-question.

Category 6: "Project Governance Approaches." Associated with this category

were Internal Risks, External Risks, and Uncertainty as derived from the project

governance discussion in the literature review (see Table 22). This category includes the

latent perceptions of 11 (44%) participants on the implementation of the project risk

identification and mitigation procedures. The latent approach was suitable in the analysis

of Theme 4 for the objective to integrate the various factors influenced the project

governance as a corporate tool to manage the business.

Table 22

Codes and Categories Contribution to Theme 4

IQ	Category Name and Codes	Sources	References	Aggregated References
4, 5, 8, 9	**6. Project Governance Approach**	**9**	**21**	
	Internal Risks, External Risks, Uncertainty	11	23	44

Participant 13 (UAE – Executor) elaborated on the development of the project

governance as a notion integrated a multifaceted process to control the project progress.

He stated "In these days we have project controls and project control engineers … who

look at the various coefficients that are affecting the project. We do have external audits from within the company; we have management always in [the company] they assign a management review board." Participant 13 added "we have something called project review sessions in which we are asked to justify why we are doing things how we are doing it? Could we have done anything differently … why is there a delay here? why is there a loss her?". On the development and integration of the project control under a comprehensive project governance system, participant 13 clarified that "the KPIs now are much more varied and now HSE is HSSEQ including the quality, and are so critical now."

Participant 14 (UAE – Consultant) used the terminology "control tower" that is the applied procedures in the organization to integrate a set of control measures at the regional level. He said "the control tower is the brain; control tower is the management of the entire activities … you name it for a specific project or a certain number of projects in the same location. The reason we set a control tower is basically to control the harmony of people working together." Participant 23 (Kuwait – Consultant) on the effectiveness of an integrated approach added "the monitoring and controlling part during the execution will be the most effective tool towards the successful project goal."

On the absence of an integrated system to manage the project risks, participant 04 differentiated between two cases the company had internally. He stated that "I found the team in Qatar were more open to discussing the potential shortfalls and risk mitigation, they were openly having these discussions." He added, "the UAE team were a little bit more negative and if you try to discuss risk you are negative." On the risk assessment

process also, participant 10 (UAE – Consultant) stated that the process includes "assessing risks and deciding whether to mitigate, whether you can mitigate them and if so is it cost justified." Participant 19 (Kuwait – Executor) elaborated in the integrated process to measure project performance and project risks, he stated this includes "manage the whole financial and legal framework of the execution of the project." Participant 19 also believes it's a process that includes others in the project "working with our third party ensure they also understand that there are gaps, that we need to fill they are not necessarily being specified. It's as calculated risk that you will be able to control that specification process and the deliverables process."

Theme 5: Changing Organizational Strategy

Two categories contributed to the emergence of Theme 5: Category 7 "Organization Strategy" informed by IQ 3, 6, 7, 8 and 9 and category 9 "Local Environment" informed IQ 6, 7, and 8. The consolidation of the codes under these two categories emerged from the objective to analyze the project interactions with its environments. The project environment as discussed in the literature review is defined as a coefficient of the corporate environment that might be formed from different organizations, and the local environment in the hosting country. The careful analysis of Theme 5 and its related categories contributed to answering the first research sub-question on the leadership role in managing the project cultural and environmental complexities.

Table 23

Codes and Categories Contribution to Theme 5

IQ	Name	Sources	References	Aggregated References
3, 6, 7, 8, 9	**7. Organization Strategy**	**0**	**0**	
	Contractor Strategy	4	6	
	Contractor Power	5	11	
	Expectation Management, Growing Business	11	45	
	Owner Organization Strategy	9	23	
	Owner Interference	11	19	
	KPIs & Performance Management	4	10	
	Project Structure	6	10	
	Subcontracting Strategy	10	29	
	Partnerships and Consortiums	6	16	
	Global Organizations Strategy	9	29	
	Changing Interest in GCC	6	16	
	Changing Ownership Structure	6	11	
	Influence of Global Organizations	12	27	252
6, 7, 8	**9. Local Environment**	**10**	**30**	
	Business Environment	10	27	
	Inefficiency in the System	9	19	
	Localization & Local Content	14	46	122

The complex structure of categories 7 and 9 is a result of the myriad factors

impacting organization strategy and the variation of the factors between the three project

layers (see Table 23). The iterative categorization, codification, and text condensation

process supported me emergence of categories 7 and 9 and the generation of Theme 5.

Category 7: Organization Strategy. Contributed to the emergence of category 7

are four meaning units: Contractor Strategy, Global Organizations Strategy, Owner

Organization Strategy, and the organization size. I coded expressions from the responses

to IQ 3, 6, 7, 8, and 9 to analyze this category. The latent approach here supported the

understanding of the participants' responses beyond the direct meaning of the response.

On the contractor strategy, participant 08 (UAE – Regional consultant) linked the project strategy to the business objectives; she stated: "that was an important business decision with a long-term vision … are we here for the long-term and therefore can make the business case to train our subcontractors." Participant 11 (UAE – Executor) complained that "there is a lot of things or issues that are not in our control as a company or as a provider to this project." Participant 19 (Kuwait – Executer) stated that "Our approach was to influence the tender, to begin with by ensuring we are at the point where we could help them [client] to put that specification together which we did successfully." On strategy to control the scope execution process, participant 19 added: "we need to manage what we believe is what we need to deliver even if the scope of work is more organized in initial submission to what ticking boxes in a tender."

On the expectation management and growing business, participant 06 (UAE – Regional Consultant) stated that "quality of the performance gives you growth … because we are looking at a longer-term view." Participant 09 (UAE – Executor) also linked the business to customer expectation management "if you are not able at least to meet the customer expectation …. the satisfaction of the customer then you can risk losing the contract and being replaced." Participant 14 (UAE – Consultant) stated that "We are driven by the clients' expectation."

The meaning unit owner organization strategy was associated with the owner interference in the project business. Participants indicated this interference at different levels including the imposed performance management system, the project structure, and

the subcontracting strategy. Owner organization strategy was also associated with the strategy for partnership and consortiums at the owner and executor layer.

Participant 08 (UAE – Regional Consultant) indicated a challenge from the owner organization strategy "there is a lack of consistency amongst the regional oil companies in not applying methodologies, not evaluating in the same way, allowing different national oil companies to do things in different ways and not using it to the advantage of the country." Participant 11 (UAE – Executer) stated that "this [the owner organization structure] contributes to your decision where to work." From the same perspective, participant 15 (UAE – Consultant) indicated two models for client's interference in the project structure "In this project, client is visiting the site on regular basis and in my last project client was having his own site set up for the execution of the project," he added "sometimes you are having very tough client sometimes you have very flexible client." From client perspective, participant 16 (Kuwait – Owner) justified the use of a consultant with respect to the client capabilities, he stated that "we suggested as the end user we will supervise the job, we had to have a consultant because it's not our core business." Participant 21 (Kuwait – Owner) also indicated a challenge from an owner representative position that "was in structuring the third-party consultant's side which was also heavily impacted by the board members' agenda to their holding organizations."

Also contributed to the emergence of category 7 and Theme 5 the meaning unit global organization strategy that was associated with: the changing interest in GCC, changing ownership structure, and the influence of global organizations. This group of codes emerged during the data collection and analysis stage. The maturity of the local

industry represented by the capability of the local people, local subcontractors, and the national oil companies themselves impacting the project industry and the role of the global organizations in the development process. This emerged category resulted in an additional case classification to be noted when analyzing the oil and gas industry in GCC and Iraq.

On the changing interest in GCC, participant 01 (UAE – Owner) reported an experience with one global organization saying "the new mother company decided that they have no more interest in the Middle East." Participant 11 (UAE – Executer) also venturing project business in Iraq, stated that "in UAE its more difficult to win a project than in Iraq although it's more difficult to work in Iraq than working in UAE." He indicated the local NOCs strategies in subcontractors' qualification and selection process in a mature market like UAE as a challenge; he stated that "all those factors come to me or to the company to decide are we interested really to go on this project or not."

The owner organization structure was one of the factors reported by participants as an additional complexity that needs to deal with in the project environment. Participant 04 (UAE – Executer) works for an organization that changed the ownership with global organizations three times over the last five years. He indicated some challenges resulted from this change especially in the way of doing business, "once you want to integrate multiple businesses you tend to have in many cases conflict in processes." Participant 05 (UAE – Executer) with multiple experiences in GCC countries also indicated that "the complexity of the different ways the two companies see the same thing to be managed."

On the influence of the global organizations, Participant 06 (UAE – Consultant) alluded to the inflated influence of the global organization in the local industry saying "What I do see as well is it's still very much a western dominating business, you know the sort of Shell, BP or whatever, they are the British, European, Dutch, American." He added, "the industry still on pro-colonialism so to say it's really multicultural is probably not the case." Participant 09 (UAE – Executer) stated that "international organization established all the procedures and methods of everything we do over here … what you are seeing as a company is a continuation of what was started by the global organization." He added "the oil and gas still 70% is done by Schlumberger and the Halliburton and the Baker Hughes … etc. ….." Participant 17 (Kuwait – Owner) stated that "I see the role of these organizations as consultation and supervision … they should not be involved in the execution … they can help in defining the weaknesses in the process, in the team … then perhaps providing their technical experience through training, knowledge transfer."

Category 9: Local Environment. Category 9 emerged from the 14 (56%) participants responses to IQ 6, 7, and 8. Four codes were associated with this category: business environment, inefficiency in the system, and localization and local content. The local environment is hosting global organizations of different interests and strategies. Variances in local environment occurred under the identified four codes resulted in the adoption of a variety of strategies to shape the project structure, employ the project team, and define the role and nature of the project management and leadership.

On the business environment, participant 02 (UAE – Regional Executer) indicated various risks resulted from "changing legislation and very bureaucratic system" he added

"when we look at tasks that rely on the authorization or approval of authorities, then I think we run the highest risk on the project not to be successful." Participant 03 (UAE – Executer) also venturing regional project business, stated that "in the law of the big global contracts there is an often a large local content requirement and it is becoming more and more." Participant 05 (UAE – Executer) confirmed the same challenge saying that "unfortunately in that project, it was a country regulation issue … it was just due to some geopolitical changes and different alliances between countries so we had had to kind of shut this down." Participant 06 (UAE – Regional Consultant) elaborated in the pitfalls faced the global organizations "they were not aware of the local condition they were not aware of the local requirements and they were not aware of the frictions so the Iraq factor was not factored in." From the same perspective, participant 23 (Kuwait – Consultant) affirmed the challenge saying "The security as well is taking apart of that [complexity] because most of the places which we are working in are highly restricted areas …. these constraints [security requirements] won't be known to the contractor at the stage of bidding and will not be priced for the contractor who is newly participating with the oil and gas."

Inefficiency in the system also occurred as a challenging factor in the local environment as indicated by nine participants. Participant 11 (UAE – Executer) reported challenges regularly occur in the local environment "site is not ready, we go again commissioning delayed, security pass required, the contractor was not able to list us as subcontractor." Participant 13 (UAE – Executer) added to the challenges "bureaucracy over there, and the … not the corruption as such … but the need to keep people happy to

facilitate things." Participant 14 (UAE – Consultant) also added "dealing with the complex regulations and change of regulation without any notices." Participant 16 (Kuwait – Owner) and although representing an NOC that is fully owned by the government, he complained from the system inefficiency stating that "Many stakeholders are involved in the gate pass issue and in getting people to the site. Political and state rules and regulations are heavily impacting us."

The code localization and local content contributed to understanding the local environment challenges. Participant 05 (UAE – Executer) with multiple experience in the GCC project provide an insight on the different impact of localization, she stated that "in the UAE probably Emiratization or localization is not as heavily effected as other GCC countries like KSA it's a huge problem … the localization and the way they do it, it's definitely affecting some of those projects." Participant 06 (UAE – Regional Consultant) differentiated between three country cases in terms of the applied localization process; he stated "a common problem that Iraq has to KSA to an extent has to Oman is that … they have large young population and they got to develop competence if … blue mix white collar positions," he added "[Iraq] they got to nationalize themselves they got to become more identified with the country in which they are working. But that would never apply for someone like Kuwait because Kuwait got less than a million people and none of them would be doing manual work on an oil rig."

Participant 09 (UAE – Executer) shared his experience localization in a Oman-based project, he reported, "We are forced by the company to hire people from the previous contractor due to localization and those people are not the best people … over

the past 15 to 20 years there has been a serious push into more localization." Participant 13 (UAE – Executer) also noted a difference between UAE and other countries especially in the highly specialized off-shore segment of the industry. He stated "The oil industry here is multinational, so you don't find the GCC nationals involved. You find a lot of internationals involved, and not the GCC nationals are becoming more and more involved but only recently." He also added, "They [locals] haven't been involved for such a long time, they were at the very high management level, but now they started to go down to the middle and lower level positions."

Theme 6: Team Building and the Project Complexity Management

Theme 6 emerged from two emergent categories; Category 10 "Team Building Requirements" as informed by IQ 1, 4, and 9; and Category 11 "Pre-project Preparation" as informed by IQ 1, 2, 3, 8, and 9 (see Table 24). Category 10 contributed to answering the first research sub-question on the role of the project leadership to manage the project multicultural, structural, and environmental complexities. Category 11 contributed to answering the second research sub-question on the leadership role in the project success and the challenging global project environment.

Category 10: Team Building Requirements, is associated with nine codes: accepting females, accepting young generation, commitment, delegation, office support, motivation, team capabilities, and transparency. I coded 121 expressions from 20 (80%) participants in response to IQ 1, 4, 7, and 9 (see Table 24). Contributed to category 10 with highest number of codes was the team commitment with 45 codes from 11 (44%)

participants, followed by the team capabilities 14 codes from seven (28%) participants, the team structure with 12 codes from ten (40%) participants.

Table 24

Codes and Categories Contribution to Theme 6

IQ	Name	Sources	References	Aggregated References
1, 4, 7, 9	**10. Team Building Requirements**	**8**	**12**	
	Accepting Females	2	6	
	Accepting Young Generation	4	5	
	Commitment	11	45	
	Delegation	5	9	
	Office Support	3	7	
	Motivation	2	2	
	Team Capabilities	7	14	
	Transparency	7	9	109
1, 2, 3, 8, 9	**11. Pre-Project Preparation**	**18**	**53**	
	Contractual Relationship	9	12	
	Scope Definition	14	38	103

On accepting females, two interviewed female participants raised their concerns about accepting females in a global multicultural project environment in the oil and gas industry in GCC and Iraq. Participant 05 (UAE – Executer) affirmed that "you always have the issue of the gender related … being an Arab and a female, the expectations are quite low from the other troops." Participant 08 (UAE – Regional Executer) who is European, and worked for one of the major consultants who venture project business around the region, reported that "as a woman, as a female, and a project manager, I have had quite different experiences in different parts of Iraq … in Basra for example it was much traditional … the relationship with some of my subcontractors and working for women was quite challenging."

On accepting young generation, participant 05 also contributed to this cod stating that "There were differences in the experiences ... when you are 10-year experience working with a fresh graduate and working with a 25-year experience, that's really challenging because you will always have an underestimation from one part and overestimation from the other part." On the team building strategies, she added "empowering the new generation to kind of listen to the younger ones … because you always have the modern school versus the old school." Participant 13 (UAE – Executer) who is establishing a specialized off-shore project department, stated on the strategy for the new establishment that "we have young engineers in this project more than you find in any other project … because we got fresh graduates and we trained them from scratch." Participant 14 (UAE – Consultant) stated that "[training people] is very important, in the middle east and some other geographies I have been in, it's not done properly and its neglected … and these companies I see are limiting themselves because they cannot jump to the next level."

On the team commitment, participant 10 (UAE – Consultant) shared his experience in a UAE based project owned by the government the change in the team commitment to the project Lifecycle as one of the risks that threatened the project success. He stated that "sustaining that enthusiasm and energy through to the finish seems to be difficult because the next big idea comes along and people … whether it's a board level or further down seems to diverts their energy and attention into whatever the next big idea is." Participant 13 (UAE – Executer) linked the team commitment to the harsh environment of the oil and gas industry; he stated: "but it's a tough industry so people

really need to have that willingness to be in this industry." Participant 21 (Kuwait –

Owner) affirmed that "The first success in your project management is in making sure

that the team is working together … the team should love what they are doing for the

project success."

On delegation, participant 05 (UAE – Executer) mentioned that "one of the major

issues is delegation … The more you delegate, because you are empowering people, the

more you will get out of them." Participant 12 (UAE – Executer) linked delegation to the

leadership role "he [project leader] needs to rely on other leaders in the project … it

doesn't work otherwise." Participant 19 (Kuwait – Executer) also emphasized on the

project leadership role in delegation he stated that "depending again on the skill set of the

leader and how difficult its otherwise to delegate and retain some of the project

management or project leadership responsibilities." Participant 23 (Kuwait – Consultant)

affirmed the importance of delegation "of course the responsibility of the project

management is with the project manager no matter what … but he has to delegate to the

people working under him each in his discipline and field."

The office support emerged from three (12%) participants emphasis on the

integration requirements of the project team with their head offices. Participant 09 (UAE

– Executer) stated that "today the execution of a project is not in the project people only

…. it is 50% people outside of the project support." Participant 14 (UAE – Consultant)

also described the organization strategy to support the project team with a control tower

that overlooks the project activities and align the use of resources of different types. He

stated that "the control tower is the brain; control tower is the management of the entire

activities … you name it for a specific project or a certain number of projects in the same location."

Participant 13 (UAE – Executer) linked the team motivation to the excitement existing in the project, he stated that "the project here was so exciting that they are starting from scratch building this department ... to be able to participate in that and hopefully establish a long relationship in this department it was why I and others like me came here." Participant 21 (Kuwait – Owner) from the same perspective asserted that "The first success in your project management is in making sure that the team is working together … the team should love what they are doing for the project success." Participant 25 (Kuwait – Owner) indicated a strategy to increase the team motivation through cultural diversity "if they are all Kuwaitis … maybe I will find difficulties to motivate the team. There will be no motivation and there is no self-motivation if they are all Kuwaitis."

Participant 17 (Kuwait – Owner) is in charge of projects structured internally in a matrix structure from the technical departments; he stated that "It's all about the selection of the right people, the right nominees … each team should provide the suitable person … each one will impact the team … it's also related to each team role in the project." Participant 19 (Kuwait – Executer) indicated a challenge form the gap in the team members technical capabilities "when you bring highly qualified people in this environment with all these limitations …. a huge gap is created between the team." Participant 22 (Kuwait – Owner) indicated a link to the budget with the team capabilities "there is an issue is the qualification for the available people with a specified budget," he

also added "when you bring highly qualified people in this environment with all these limitations …. a huge gap is created within the team."

Participant 05 (UAE – Executor) noted that "transparent environment this is major success factor" in team building. Participant 14 (UAE – Consultant) affirmed the importance of transparency in build the project team "I saw big fatal mistake, especially in project management or manager level people they have the tendency to keep information for themselves and limit the flow of information and limit the educational needs and job training and having people more specialized in their job." Participant 15 (UAE – Consultant) stated that "We are very much emphasizing on the team … I believe in transparency ... everything should be clear and to be notified on time. There should not be any communication gap."

Comparative Analysis

In this section, I am presenting a comparative analysis framework to provide insights on how process implementation is different between the cases. I selected seven categories to generate the comparative approach queries. I used the NVivo capabilities to associate the cases with the codes and categories. The case classification process is based on the 25 participants' location and project layers that generated the subcases: Project Case, Country Group Cases, and the Project Layer Cases (see Table 25). I used the seven categories to organize the structure of this section. I used exploratory themes emerged from the exploratory analysis to provide the comparison between the cases. I provided an NVivo generated chart to indicate the used codes and its relation to the categories. I followed by a summary of differences between the cases of each comparison.

Table 25

Comparative Analysis - Case Classification and Categories

RQ	Case Classification	Attribute	Categories (Code Groups)	Exploratory Theme
Comparative Analysis				
RQ 1 & 2	Participants / Project Cases Participants / Country Group	Location Project Layers	Structure & Team Building Environment & Complexity	1. Adaptable project structure with team and environment dynamics
RQ 2	Participants / Project Cases	Project Layers	Organization Leadership Role	2. Leadership role and the impermanent multicultural environment
RQ 2	Participants / Industry Segment	Project Layers	Project Success	3. Project success definition and the success criteria 4. Aligned performance and governance systems
RQ 1 RQ 2	Participants / Country Group Participants / Industry Segment	Location Project Layers	Local Environment Dynamics Organization Strategy	5. Changing organizational strategy
RQ 2	Participants / Project Case	Location	Team Building Requirements	6. Team building and the project complexity management

Structure and Team Building

The structure and team building category is a priori category contributed to the emergence of Theme 1. I compared the codes generated under this category with respect to the participants' current location. I recognized three cases; the UAE case, the Kuwait Case, and the UAE – Regional Case (see Figure 16).
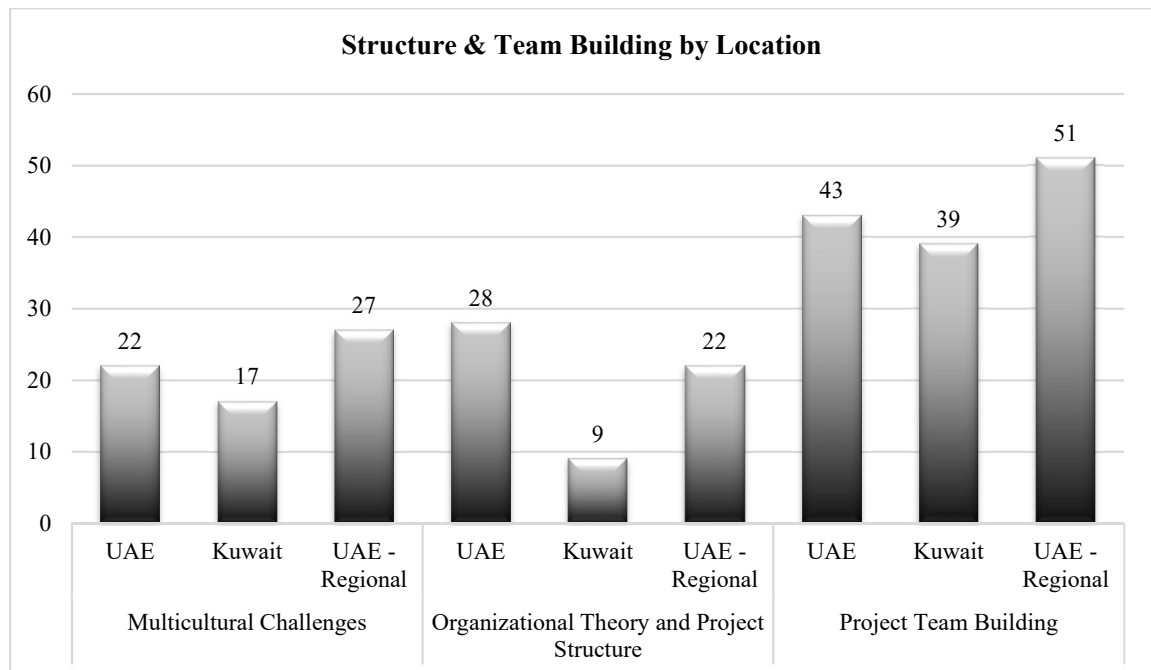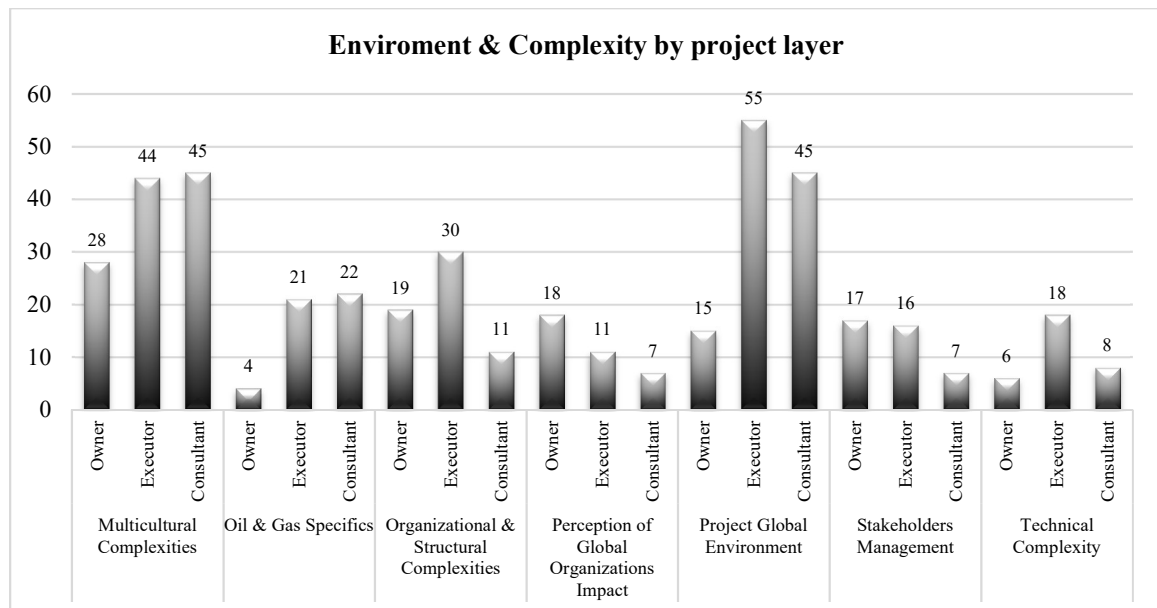

Figure 16. A comparison by location for the categories "Project Structure" and "Team Building."

The three groups confirmed the high cultural diversity in the project environment and that the selection process of the project leadership should recognize the cultural awareness as a major competency. The project environment in Kuwait is challenged with the difficulties to employ expatriates because of the high localization requirements in the oil and gas industry. The three groups raised similar challenges about the project team building. Their concerns focused on the availability of skilled team, the localization

challenges, and people attrition. This confirms a prevailing concern in the region in building the project team. Employing expatriates was not a concern for the UAE group who expressed a high level of satisfaction with local regulations that encourages the employment of expatriates.

Environment and Complexity

Figure 17. A comparison by project later for the categories "Project Environment" and "Project Complexity."

The environment and complexity category contributed to the generation of Theme 1. I compared the codes under this category with respect to the project layers (see Figure 17). The comparison confirms a prevailing complexity generated from the multicultural environment at the individuals and the organizational levels. There is a common agreement on the benefits of the cultural diversity in the learning and knowledge exchange process, and in increasing the competitiveness in the local market. Participants

from the executer and consultant layer raised the concern of the specific requirements and

the technical complexities in the oil and gas. They linked it to the importance of the pre-

project preparation and the project scope definition at the early stages of the project

initiation.

Under the perception of the global organization impact, local executers raised a

concern about the continuous domination of the global organizations on the local market.

They believe the local executers acquired sufficient experience over the last four decades

to manage the development of the upstream segment of the industry. Participants from

the owner and executer layer linked this domination to a local and regional geopolitical

issues. There is a common agreement on the increased complexity to manage

multicultural, multidiscipline, and a wide range of stakeholders generated from the

structural complexity of the global organizations.

Organization Leadership Role

Organization leadership role contributed to the generation of Theme 2. Under this

category, the owner and consultant layer raised common concerns to deal with the change

resistance. The change resistance occurs basically when the project involves the change

in a current process. The change in a current status in embedder in the project definition

and is inevitable in the development process of the oil and gas industry. See Figure 18 for

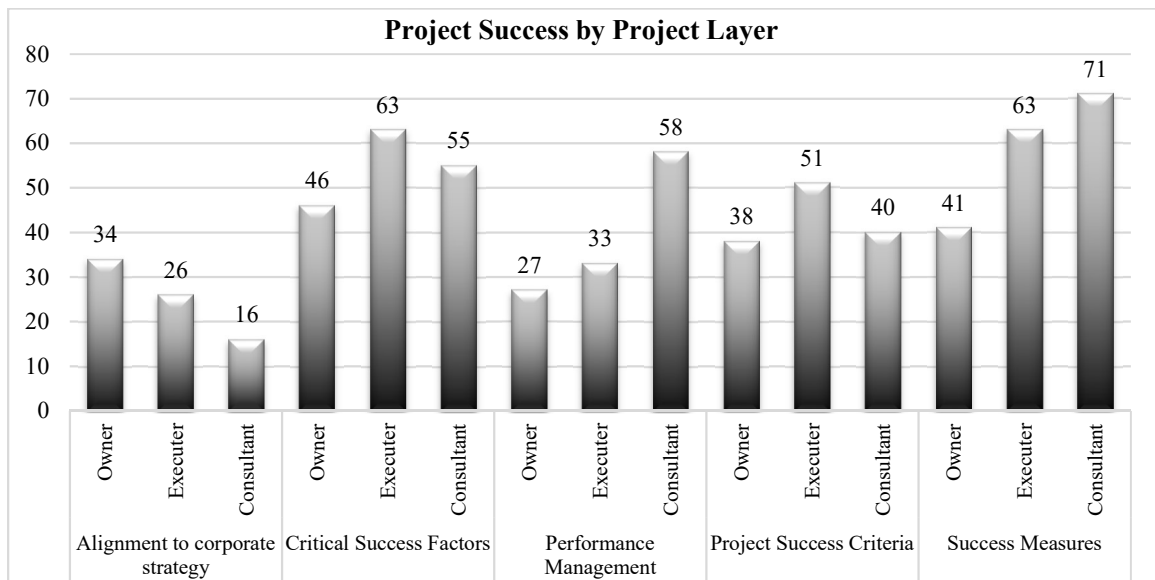a comparison by project layer for the category "Organization Leadership Role."

Organization Leadership Role by Project Layer
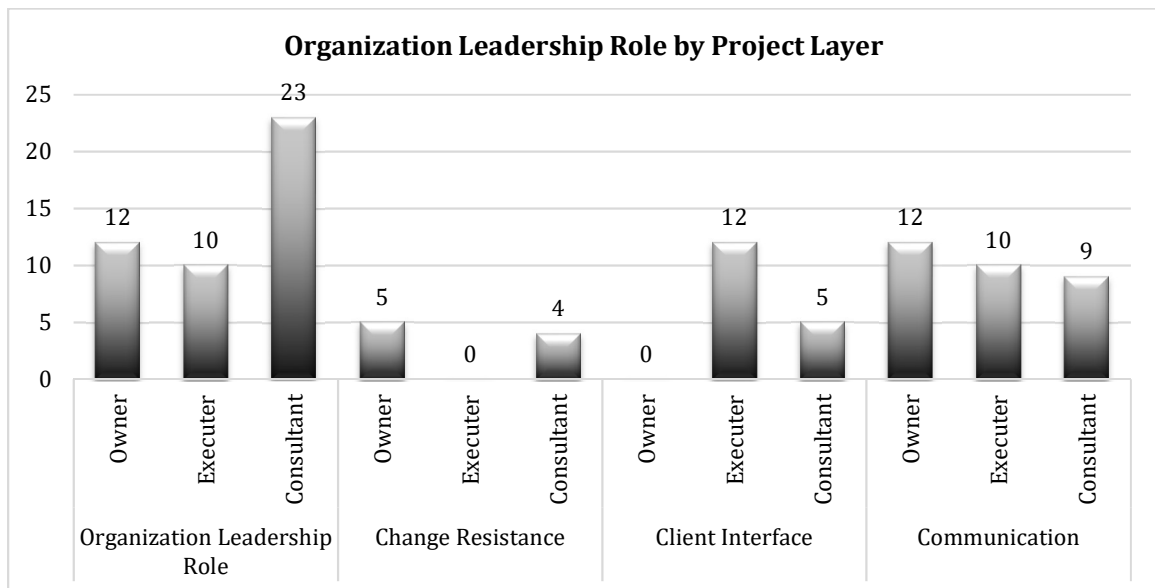
Figure 18. A comparison by project layer for the category "Organization Leadership Role."

Communication occurred as one of the most important aspects of the organization leadership. There is a common agreement between the participants from the three project layers on the importance of communication to manage the information flow at the internal and external levels of the organization. Specifically, on the client interface, common concerns were raised by participants from the executer and consultant layer. Participants linked the lack of communication and the client interface management to most of the reasons behind the project failure.

Project Success

The category project success contributed to the generation of Theme 3 and 4. I compared the participants' responses under this category with respect to the project layer. See Figure 19 for a comparison a comparison by project layer for the category Project Success. The corporate strategy includes declared and undeclared objectives.

Figure 19. A comparison by project layer for the category "Project Success."

I have noted several variations in defining and measuring the project success. At the owner layer, the project success is measured with its alignment to the corporate strategy. Most of the undeclared objectives are concerned with the supplier and contractor selection process, the localization process, and in some cases, the hidden agenda of the organization leaders. Participants from the executer layer focused on the financial return from the project and the possible business growth upon the successful completion of the project. Participants from the consultant layer focused on the successful implementation of the project management processes as an indication of the project success even when the project suffers from one or two challenges in achieving the project three constraints – time, budget, and scope.

I have noted three approaches shared by the participants to increase the alignment with the corporate strategy and the increase the perceived success of a project. The first approach shared by participants from the executer layer and supported the heavy

involvement of the organization leadership in the project governance. The second approach shared by participants from the owner organization layer and focused on the pre-project preparation and scope identification since the project initiation stage. Participants from the executer layer supported the importance of the pre-project preparation as one of the critical success factors. The third approach supported the independency of a well-structured project team that involves the internal stakeholders in the project management process. The third approach is supported by participants from the three layers in the project.

Local Environment Dynamics

The category local environment dynamics contributed to the emergence of Theme 5. I selected this category to compare the participants' responses with respect to their current location and their regional experience. From the data analysis, I distinguished seven (28%) participants under the case group UAE – Regional who had a clear vision in a UAE - Dubai based office-support to coordinate their regional activities. The team integration though a back-office support increased the alignment and the resource allocation at the regional scale. The Kuwait-based international organizations shared the agreement on the difficulty to manage business initiatives outside the country. When compared to Kuwait, UAE provided higher flexibility for doing business at the local and regional scale. The low localization requirements in UAE supported the flexibility in conducting business with local and regional clients. See Figure 20 for a comparison between participants responses by location for the category "Local Environment Dynamics."

Local Enviroment Dynamics by location
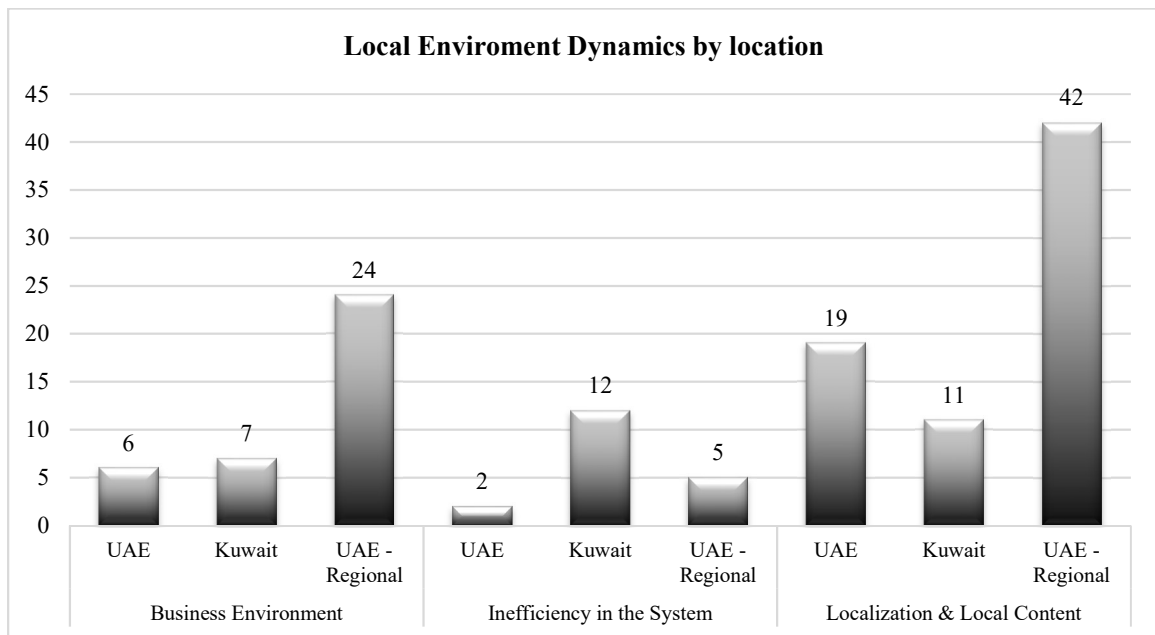
Figure 20. A comparison by location for the category "Local Environment Dynamics."

Twelve (48%) participants based in Kuwait raised the concern about the

inefficiency of the system, especially for hidden risks that the executers failed to factor

during the preparation stage for the project. These concerns included the field

accessibility and the security requirements which was also a shared concern with some

UAE executors. The level of risk in these factors is country specific and may increase the

chances of contractors with previous experience in the region over new entrants as

alluded by six (24%) participants of the executers layer based in Kuwait. Seven (27%)

participant under the case group UAE-regional shared the same concerns about the

hidden risk factors.

Global Organization Strategy

I selected the subcategory global organization strategy under the category organization

strategy that contributed to the emergence of Theme 5 to compare between the

participants' responses with respect to their occupation in the project layer. The three

nodes under this category are shared dynamics by the participants that resulted in a major

change in their organizations' strategy. As a result, some organization changed the

bidding strategy and become very selective in taking calculated risks, changed the

structure of the organization to focus on business with high competitive advantage, or

changed their partnership strategy with local organizations. See Figure 21 for a

comparison by project layer for the category "Global Organization Strategy."

Global Organization Strategy by Project Layer

Figure 21. A comparison by project layer for the category "Global Organization

Strategy."

Seven (28%) participants from the consultant layer complained about the big gap

in the applied standards as compared to the international standards. Ten (40%)

participants from the executer layer asserted that training the local subcontractors to meet

the oil and gas specific requirements is recognized as a critical success factor. However,

this was also linked to the executers' long-term strategy in the region that might

contradict the impermanent nature of the project business. Eight (32%) participants from

the owner layer and ten (40%) participants from the executer layers affirmed the

importance of the global organizations in the learning and knowledge exchange process,

however, they raised the concern about the inflated influence on the NOCs strategies.

Team Building Requirements

The team building requirements contributed to the emergence of Theme 6. I

selected this category to compare between the participants' responses with respect to the

participant current location (see Figure 22). A general agreement occurred on the

challenges of the team building in GCC. The sources of the challenges are summarized

with; dealing with the multicultural challenges, the skill gap, the cultural awareness, and
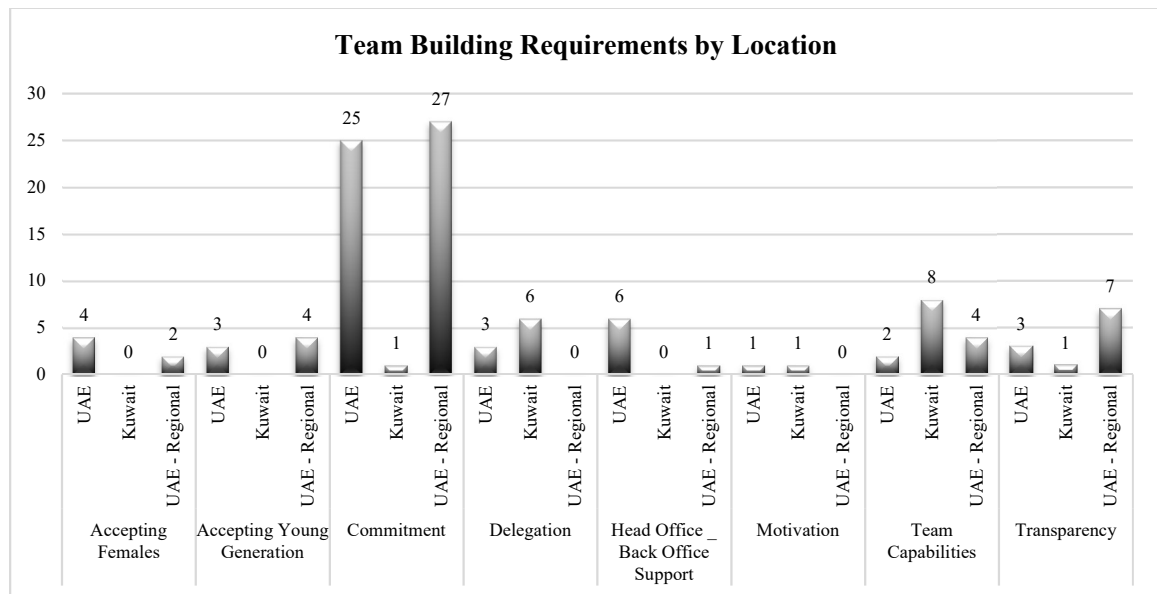
the local regulations.

Figure 22. A comparison by location for the category "Team Building."

From this perspective, participants responses affirmed a major variation in the

challenge between three groups of countries. The first group includes Kuwait and Oman

who have high localization requirements and lack of availability of competent individuals. The second group may include UAE and Qatar with low localization requirements and higher flexibility in employing expatriates. The third group includes KSA and Iraq that was added by the participants. Team building is challenging due to the difficulty to employ expatriates. Add to that the challenging local environment for the global organizations to do business locally. The common factors between KSA and Iraq are the local high population. However, the Iraq factor and the security issue is adding to the challenge. As a major indication for the challenge, team commitment was mentioned by of the UAE-based 15 (60%) participants as a major challenge towards building a successful project team.

Summary

I provided in this chapter the strategy to the data collection and presented the study results using an exploratory and a comparative theme-based analysis framework. In the analysis framework, I presented the emergent themes and associated them with two types of categories and codes; a priori categories generated during the literature review and emergent categories generated during the iterative data collection and analysis process. I associated the emergent themes from this study with two adopted theoretical lenses; the complex adaptive systems theory and the contingency theory. I answered the research sub-questions by deploying a theme and category based discussion under the study results section.

Theme 1: "Adaptable project structure with the team and environment dynamics" provided basic insights to answering the research first and second sub-questions. From

Theme 1, I described the team and environmental aspects contributed to the project

complexities and the role of leadership to manage these aspects. Theme 2: "Leadership

and the impermanent multicultural project environment" contributed to answering the

research second sub-question by aggregating the participants' insights in describing the

risks associated with the impermanent nature of the project. Theme 2 provided a

summative description from the participants' responses on the critical role of the project

leadership and the advantages and disadvantages of the organization's leadership

interference in the project environment.

Theme 3: "Project success definition and the success criteria" tackled the

controversial debate on the definition of the project success and contributed to answering

the second research sub-question. The discussion included the exploration of the

challenges faced by the project practitioners to define and measure the project success;

define and implement the project critical success factors, and align the project success

criteria to the corporate strategy. Theme 4: "Aligned performance management and

governance system" differentiated between the role of the performance management

system and the recent practices in project governance and controls systems. The

discussion under Theme 4 contributed to answering the second research sub-question by

providing additional insights on the project leadership role to understand, design, and

implement a project governance system.

Theme 5: "Changing organizational strategy" aggregated the factors influenced

the change in organization strategies venturing project business in the oil and gas industry

in GCC with the local environmental factors influenced the project environment. Theme

5 contributed to answering the research sub-questions 1 and 2 by adding to the general understanding of the global and local aspects to be considered by the project leadership. Theme 6: "Team building and the project complexity management" explored the link between the project team building process and the management of various types of project complexities. Theme 6 contributed to answering the first research sub-question by highlighting the role of the project leadership in the preparation for a successful project. Also, Theme 6 contributed to answering the second research sub-question by highlighting the critical aspects influenced building and managing the project team.

The comparative analysis at the end of the study results section provided a summary of the themes discussion, highlighting the discrepant cases in a comparative analysis approach. The comparative approach included the comparison of seven selected codes with respect to the participants' location and geographic experience and the current occupation in the project layer. The comparative approach provided a description of the discrepant cases in the selected codes with insights and alignment to the findings under the exploratory themes.

Chapter 5 will include further details on the interpretation of the findings, highlights on the limitation of the study, a recommendations and implication subsections, and a conclusion section. Under the interpretation of the findings section, I provided a conceptual framework that included the main notions evolved during the analysis of the emerged themes. The framework provided indications for further research opportunities under different research settings.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this qualitative exploratory case study was to gain a robust understanding of leadership requirements within the multicultural project environment of locally conducted projects by global organizations in GCC countries. I adopted an exploratory multiple case study approach, with a multilayered and nested case study design, to explore how specific organizational dynamics and social processes affect the perceived role of project leadership. I selected two theoretical lenses; (a) the complex adaptive systems theory (Wang et al., 2015) and (b) the contingency theory (Van de Ven et al., 2013), to develop a set of exploratory themes from the research mini case studies. This selection supported the alignment of the literature review findings with the adopted research method and design.

My central research question was, How does project leadership support the success of global, multicultural projects in the oil and gas industry in the GCC countries? The study involved exploring specific areas related to the project environment and project leadership through the following two subquestions:

1. What is the role of project leadership in managing the cultural and environmental complexities in projects?

2. How can leadership contribute to project success in a challenging global, multicultural impermanent project environment?

The study findings confirmed the literature gap as evident from the lack of unified local practices to tackle the challenges generated in the global project environment. The study findings also confirmed an association between the leadership practices and an

existing challenge to the project success. In this chapter, I elaborate on the findings that emerged from my exploratory and comparative analysis.

Interpretation of Findings

The data analysis revealed six emergent themes grounded in the findings of the exploratory multilayered and nested study. I analyzed the six emergent themes in an exploratory analysis framework to explore how organizational dynamics are implemented in the global, multicultural project environment (see Figure 23). I selected seven subthemes (categories) in a comparative analysis framework to describe how process implementation is different between two groups of case studies, the project layers group and the participants' location group (see Figure 24). I have recognized three emergent mini-case studies during the data collection and data analysis stage based on the projects locations as shared by the participants. I grouped the three cases in three groups of countries that may have similar aspects of population, local regulations, business environment, and localization strategies (see Figure 25).

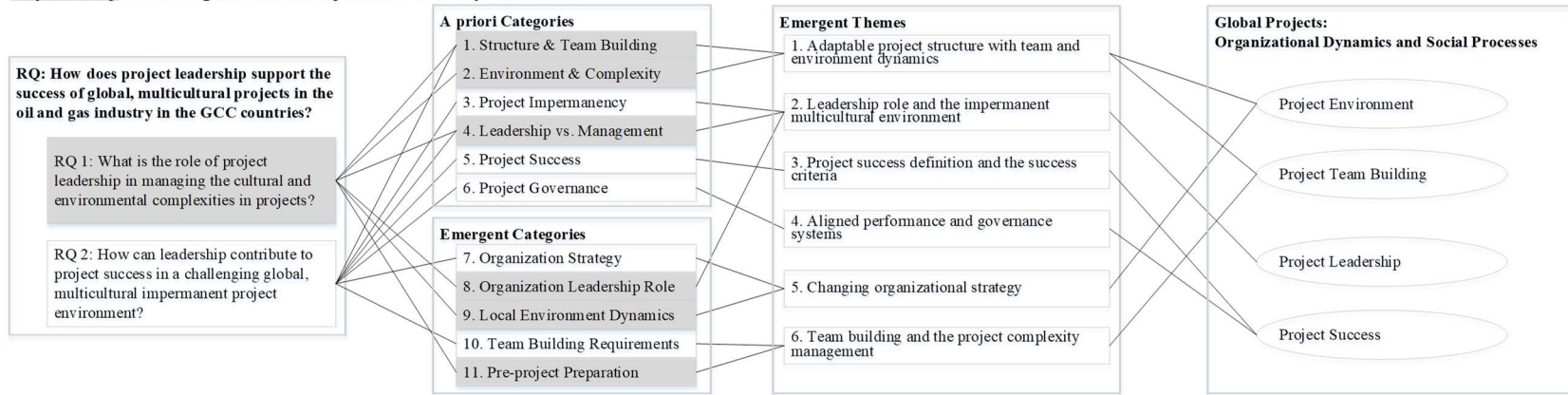**Exploratory**: How Organizational Dynamics are Implemented?

Figure 23. The Exploratory analysis - established a link with the research questions, the categories, and the emergent themes.

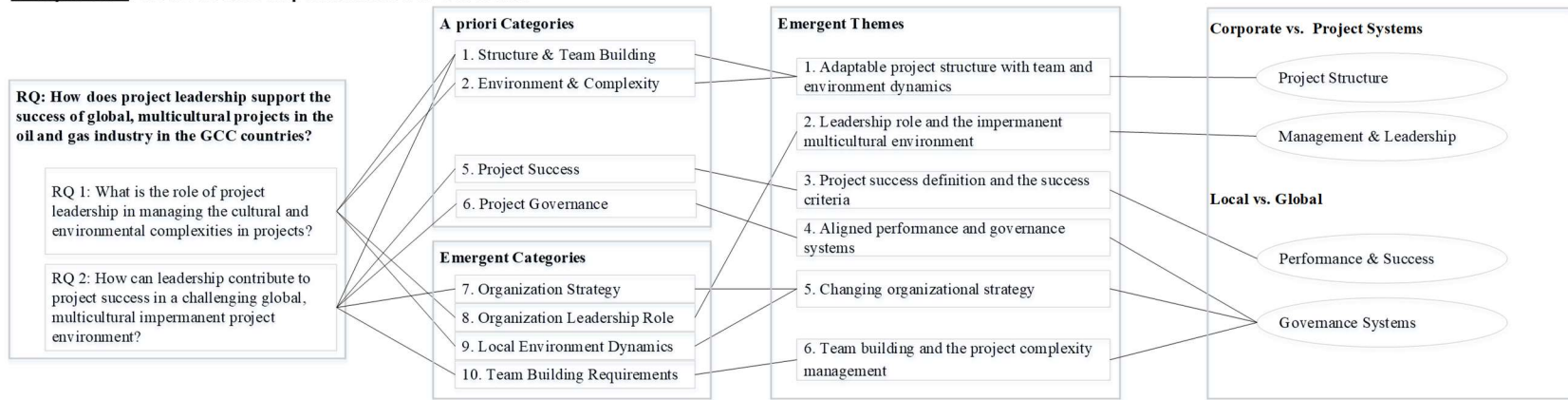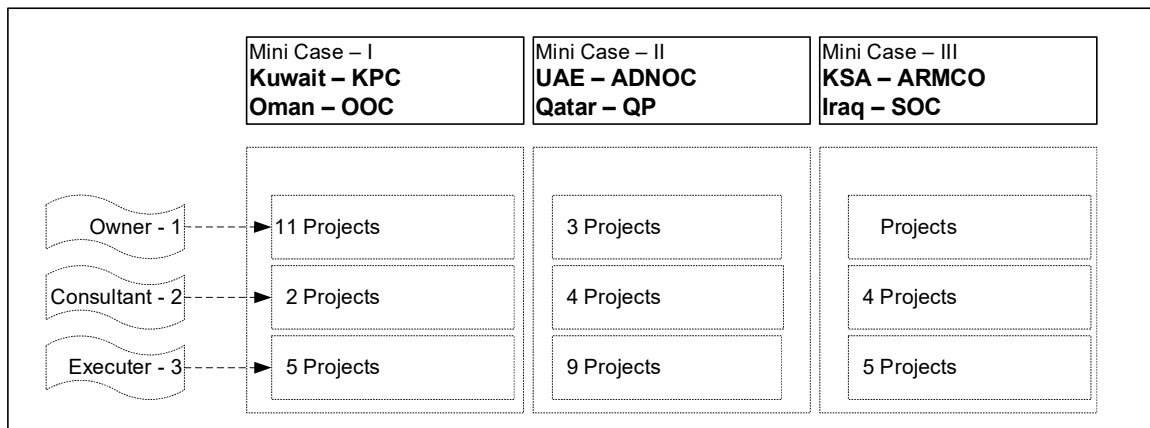**Comparative**: How Process Implementation is Different?

Figure 24. The comparative analysis – established a link with the research questions, the categories, and the emergent themes.

	Mini Case – I **Kuwait – KPC** **Oman – OOC**	Mini Case – II **UAE – ADNOC** **Qatar – QP**	Mini Case – III **KSA – ARMCO** **Iraq – SOC**
Owner - 1	11 Projects	3 Projects	Projects
Consultant - 2	2 Projects	4 Projects	4 Projects
Executer - 3	5 Projects	9 Projects	5 Projects

Figure 25. Emergent classification for three mini cases of country groups in GCC, driven by the project location.

I have organized the Interpretation of the Findings section to describe the conformity and disconformity with the peer-reviewed literature from Chapter 2. I include in this section the knowledge I acquired from data collection and analysis on global projects in the oil and gas industry in GCC. The organization of the section includes a description of the four organizational dynamics: the project environment, project team building, project leadership, and project success. I include a description for the research emergent themes and the link to the identified organizational and social processes. I also consider the adopted theoretical lenses in the description of the interpretation of findings section.

Project Environment

The analysis of the project environment provided under Themes 1 and 5 is informed by Categories 2, 7, and 9. I developed from Theme 1 and 5 an integrated vision on the project leadership role in managing project system complexity and contributing to project success. The global project environment is the output of three interacting system

loops that support the adaptability in the project structure: project complexity,

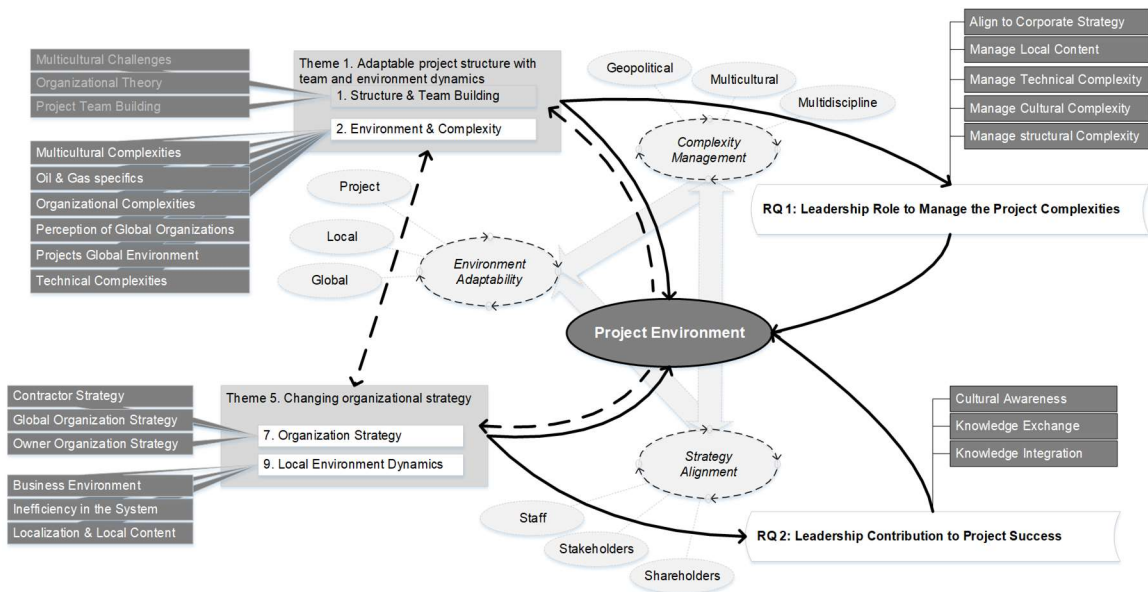organization strategy, and the project environment (see Figure 26).

Figure 26. The "Project Environment" an organization dynamic under the perspective of

the complex adaptive system.

The study findings under Categories 2, 7, and 9 concluded an existing gap in

defining the responsibility of the global project leadership. This gap occurs in the role to

align the project objectives to the corporate objectives. The inter-organizational issues

that trickles down to the project, the role of the project leadership to manage this

challenge, and the challenge to find the required skills were common concerns raised by

the participants from the three layers in the project. Participant 06 (UAE – Regional

Consultant) criticized the lack of competent project leaders with the required cultural

awareness, he alluded to the missing ability to manage the challenge. In his opinion "It's

all about integrating different cultures, different religions, different abilities, different

backgrounds." From the same perspective, participant 09 (UAE – Executor) asserted that

"certainly that person [project leader] needs to be culturally aware and knowledgeable of the macro environment." He confirmed the skill gap in the local market by raising the questions "Can you hire the people you want to hire? ….. Can you subcontract the company you want to subcontract?"

The study results revealed that local content in the hosting country is of different levels of influence on the project environment. Participants differentiated between three groups of countries based on the local content requirements; Kuwait and Oman; UAE and Qatar; and KSA and Iraq. Participant 06 (UAE – Regional Consultant) believed that KSA, Iraq, and to an extent Oman "they have large young population and they got to develop competence." Participant 09 (UAE – Executer) complained about the NOC interference in this case saying that "We are forced by the company to hire people from the previous contractor due to localization and those people are not the best people." Participant 03 (UAE – Executer) confirmed that a challenge is increasing in UAE "in the law of the big global contracts there is an often a large local content."

The project leadership role is emphasized in the study results in managing the project technical, cultural, and structural complexities. Participant 01 (UAE – Owner) asserted the existing cultural gap, he reported that "The multicultural environment can bring challenges that never been thought about." Participant 14 (UAE – Consultant) alluded to the role of the project leadership in this challenge, he stated that "dealing with inter-organizational issues. Different people coming from various backgrounds and struggle for power, and at the same time struggle between offices and struggle in financing which was a major issue."

This finding is aligned with what was found in the literature review that confirmed an association between the complexity in the project environment and the increasing demand on managing project risks (Vidal, Marle, & Bocquet, 2011). Hanisch and Wald (2014) also identified a gap in the literature on the lack of sufficient studies on the effect of complexity in temporary organizations as compared to permanent organizations. Temporary project organization is influenced by the organizations representing the project layers and the individuals representing these organizations.

The project leader may contribute to the project success by leading three social processes associated with the increased complexity in the project environment. The first process is concerned with enhancing the cultural awareness of the project team. The second process supports the knowledge exchange within the project team members when a multidisciplinary team is recruited to attend high technical complexities in the project scope. The third process includes the provision of a project environment that supports the knowledge integration. The study results supported the knowledge integration as a requirement of the localization regulations of the hosting countries in the oil and gas in GCC. The literature review included the identification of a gap on defining the project leader role in knowledge creation process. From this perspective, Canonico et al. (2013) addressed a lack of research on knowledge creation in a project context.

Project Team Building

Two emergent themes 1 and 6 are analyzed under the contingency theory, that contributed to answering the research subquestions #1 and #2. The two themes synthesized the role of the global project leader in building the project team and the

aspects of a successful project team in a global multicultural project environment. The team-based leadership is recognized by 20 (80%) participants as an alternative strategy to deal with the team building challenges, the project's technical complexities, and the project's cultural complexities. Participant 05 (UAE – Executer) alluded to the team based leadership by indicating the importance of delegation in the project structure. She stated that "The more you delegate, because you are empowering people, the more you will get out of them." Participant 12 (UAE – Executer) asserted that "he [project leader] needs to rely on other leaders in the project … it doesn't work otherwise."

The study results related the project team building to the job demands, individuals' values, and the organizational environment. The job demands are indicated by the project technical complexities. Participant 01 (UAE – Owner) stated that "Most of the project management team staff were hired from within the organization based on their skills and competency in project management and their ability to differentiate between a project and the normal operation." Individuals' values are indicated by the cultural and corporate values the team brings to the project environment. According to participant 09 (UAE – Executor) the sources of individuals values are not only the cultural differences but "if you are coming from [… company] and I am coming from [… company] we do have cultural differences. If you studied in the USA and I studied in Egypt, we are both of the same nationality, we have a cultural problem … so it's [cultural diversity] not about nationalities." Participant 18 (Kuwait – Owner) stated that "people come with different backgrounds, different disciplines, different experiences, different

competencies." The project organizational environment is indicated by an interacting

internal and external environment that shape the project environment (see Figure 27).
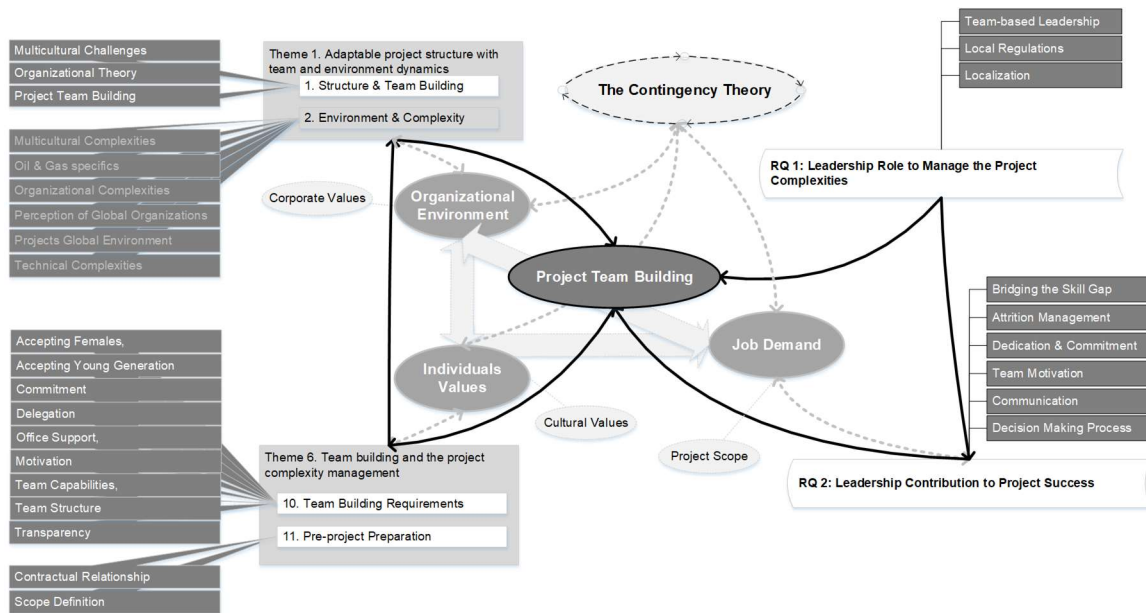

Figure 27. The "Project Team Building" an organization dynamic from the perspective of

the contingency theory.

The interpretations from the study results are aligned with what was found in the

literature on the role of the project leadership to manage the team building process. Hotho

and Champion (2011) recognized team autonomy, task complexity, on-the-job

challenges, and supportive leadership are vital for the success of a knowledge-intensive

firms. Koskinen (2012) supported that the process thinking is a key driver for a

successful learning process. The learning cycle according to Koskinen (2012) involves

the change in individuals and organizational behavior as embraced by the process-

thinking and shared learning activities. From a project leadership perspective, Thamhain

(2013b) specified that building high-performance multinational teams, for global

projects, is a key leadership activity. Thamhain (2013a) also, emphasized the mediated role of the project leader in a complex project structure between the organizations management and the project management team.

The study results revealed six social processes to synthesize the role of the project leadership in a successful project team building process. Bridging the skill gap that includes project management skills, leadership competencies, cultural competencies, and the technical skills of the project team. As indicated by participant 09 (UAE – Executer), an approach to bridging the skill gap would be in an office support strategy. He reported that "today the execution of a project is not in the project people only …. it is 50% people outside of the project support." Managing the staff attrition as one of the leadership responsibilities considering the challenges of the project's impermanent environment. Participant 24 (Kuwait – Executor) asserted that the project leader performance is linked to the team attrition, he stated that "the turnover rate of the personnel that have been working with you is another success."

Team dedication and commitment in a highly localized industry with high requirements for learning and knowledge transfer. Team motivation in a demanding multicultural complex project environment. Participant 13 (UAE – Executer) stated "but it's a tough industry so people really need to have that willingness to be in this industry." Participant 21 (Kuwait – Owner) affirmed that "The first success in your project management is in making sure that the team is working together … the team should love what they are doing for the project success." Communication as a critical success factor for the team integration across the project layers and within the same organization.

Participant 05 (UAE – Executor) noted that "transparent environment this is major

success factor." Aligned to this, participant 15 (UAE – Consultant) alluded to the project

leader responsibility to make sure that "There should not be any communication gap."

Decision-making process that allows for a higher team autonomy and independence.

Participant 22 (Kuwait – Owner) stated that "the leader himself facilitate a better decision

making and minimize the challenge of communication."

Project Leadership

The project leadership occurred as an organizational dynamic at the intersection

between the organization and the project environments. In a project based organization,

the project leader is responsible for managing the project environment and the project

team building. The study results supported that the project leadership role in managing

the project environment may be recognized in supporting a climate for innovation,

managing the changes, and in managing the complex interfaces across the project layers

(see Figure 28). Participant 09 (UAE – Executor) asserted that "if he is not [the project

leader] aware and sensitive and develops the right relationship and be able to prompt

these guys [the various stakeholders] on their perception of how the service or the project

is going then he may end up one day hitting the wall."

Project leadership can contribute to the project success by adopting a dynamic and

flexible leadership style to meet the complex requirements of the project environment.

Participant 21 (Kuwait – Owner) define the project leadership requirements as "this

requires the project leader to be even involved in the social aspects of the project team,

support the team socialization, the propaganda for the project." Participant 08 (UAE –

Consultant) is aligned with this opinion, he stated that "there is an expectation that there is a big boss who has the authority and I think that is quite different than other places I have worked in."
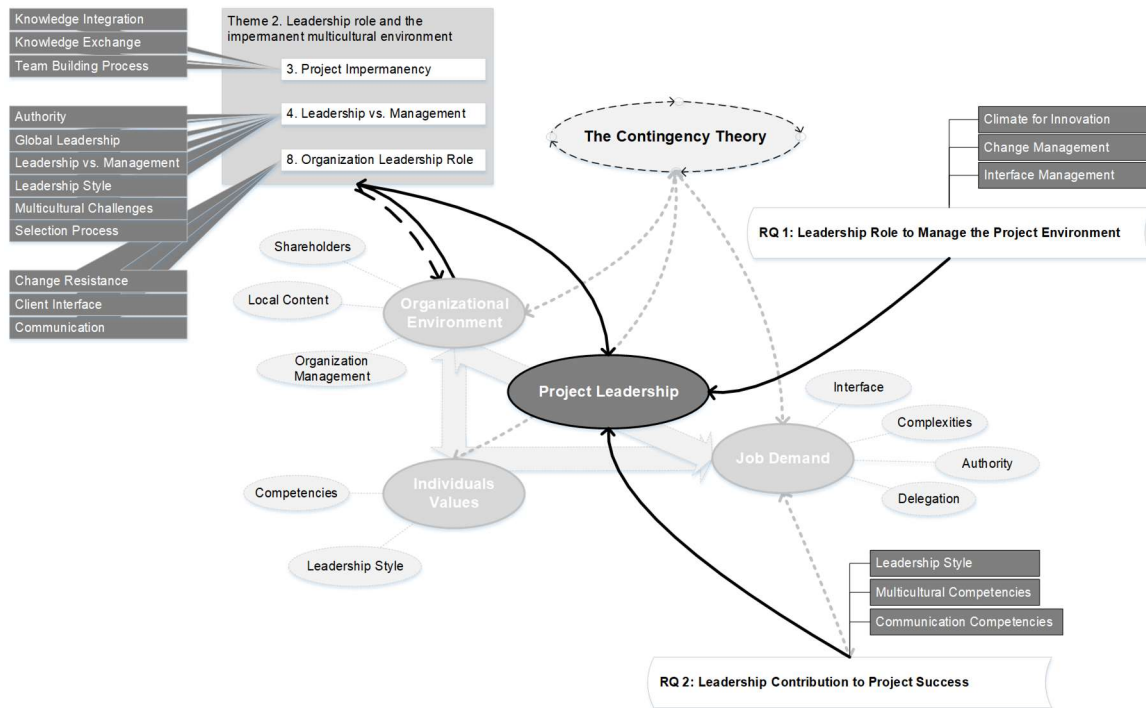

Figure 28. The "Project Leadership" an organization dynamic from the perspective of the contingency theory.

Project leaders with high multicultural and communication competencies may have higher chances to contribute to the project success. This perspective is aligned with the earlier findings from the literature review on the association between the project leadership requirements and the increased project complexity in the project environment. The evolving demands on the project leader's job developed from the growing complexity of the project environment (Clarke, 2010; Gundersen et al., 2012), specifically in multicultural global or multinational projects environment (Caligiuri &

Tarique, 2012; Thamhain, 2013b). From a contingency theory perspective, the identity of

the project leadership is defined from the interacting dynamics of the job demands, the

individual's values, and the organizational environment.

Project Success

The study results supported the defined gap in the literature review on the lack of

an agreed definition of the global project success. For instant, Participant 11 (UAE –

Executor) insisted on having the project success defined before we start the interview

questions about the successful examples. He stated that "We will have to define what do

you mean successful first …. I think we need to rich an agreement with you first about

what is a successful project." From the study results I validated the gap with an existing

challenge to align the project objectives with the mother organization strategy. This

challenge elicited the debate on the global organizations' perception about the objectives

of the global projects. Participant 01 (UAE – Owner) noted that "Our objective was to

align our project objectives with the corporate objective." From a complex adaptive

system perspective, a global project success may be defined by the interaction between

three organization dynamics: the applied performance management system; the adopted

project success definition; and the risk management framework (see Figure 29).

The lack of a performance management system, especially with the absence of a

project based organization form, added to the challenge to define and understand the

degree of success in the global projects in the oil and gas industry in GCC. The study

results deduced a gap in defining and communicating the project success criteria, share

the success measure tools, and a missing alignment to the corporate predefined critical

success factors. Participant 04 (UAE – Executor) alluded to the challenge of the missing

project success criteria and measurement stating that "… what we often don't do which I

think we should be doing is spend more time on evaluation of project execution" he

added "… There is no benchmarking on any parameter for project management."

The study results also proposed the existence of a challenge to implement a

framework for identifying and managing the risks associated with the global projects in

the oil and gas industry in GCC. The study results linked the challenge to the absence of

an integrated project governance system in the project cases reported by 20 (80%)

participants. For instance, participant 09 (UAE – Executor) stated that "I can't see at any

corporate level project is being discussed other than with criteria related to the financial

and HSSE KPIs." From a different perspective, participant 16 (Kuwait – Owner) alluded

to the missing alignment with the corporate objective saying "As I said earlier … I want

my end product as I designed it, corporate will follow the golden triangle." Aligned to

this was the feedback from participant 21 (Kuwait – Owner) who identified two separate

approaches for measuring project success "you have the project success itself as a project

and the project success as an outcome where the leaders and the project owners look at."

I identified three organization processes under a project leader role that can

contribute to increasing the opportunities for the project success. The first is setting the

project success criteria and measurement system. The second is the implementation of a

performance management and measurement system that aligns the project perceived

performance with the corporate strategy. The third is in defining the risks associated with

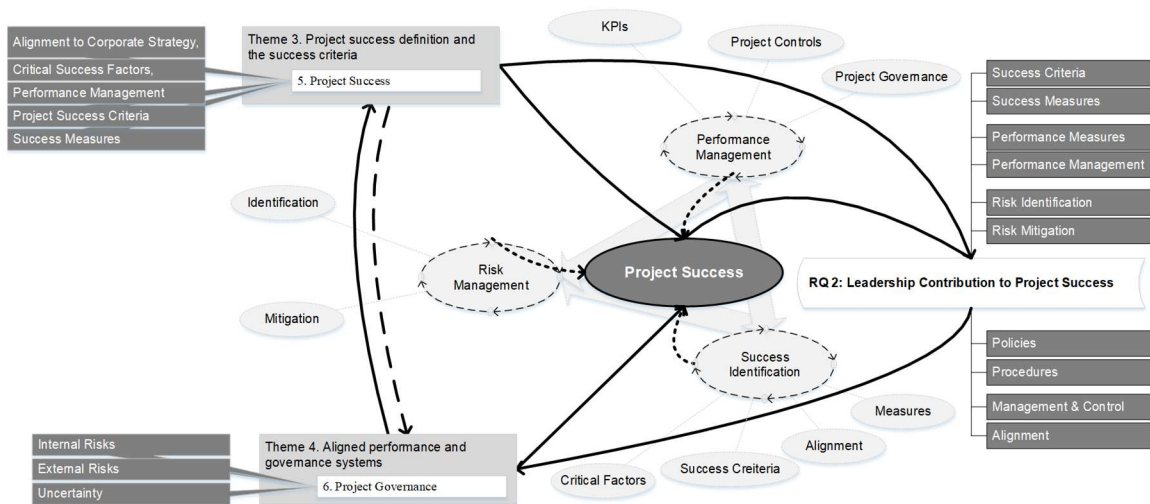the project and in considering an integrated framework for managing risks.

Figure 29. The "Project Success" an organization dynamic from the perspective of the complex adaptive systems theory.

The study results are aligned with the findings of the literature review on the importance the project governance systems to manage and evaluate the project success. Ahola et al. (2014) and Pitsis et al. (2014) integrated the project risk management and project governance policies with the level of risk to manage the uncertainty and instability of a project's internal and external environments. Ahola et al. (2014) defined the project governance as a central tool for controlling the risk exposure of individual projects (Keegan & Turner as cited in Ahola et al., 2014).

Framework for Global Projects Leadership and Success

In this section of Chapter 5, I developed a framework (see Figure 30) that integrated the interpretation of findings of this study with four pre-identified organizational dynamics; the project environment, the project team building, the project leadership, and the project success. In this conceptual framework, I presented a summary that may include the response to the research questions on the role of the project

leadership to manage the project environment and contribute to the project success. The

framework also includes a conclusion of the exploratory and comparative analysis of the

study. The conclusion may contribute to understand the different approaches for

implementing the identified organization processes. The framework methodology

provided insights for capturing the opportunities evolving in the global multicultural

project environment in the oil and gas industry in GCC.
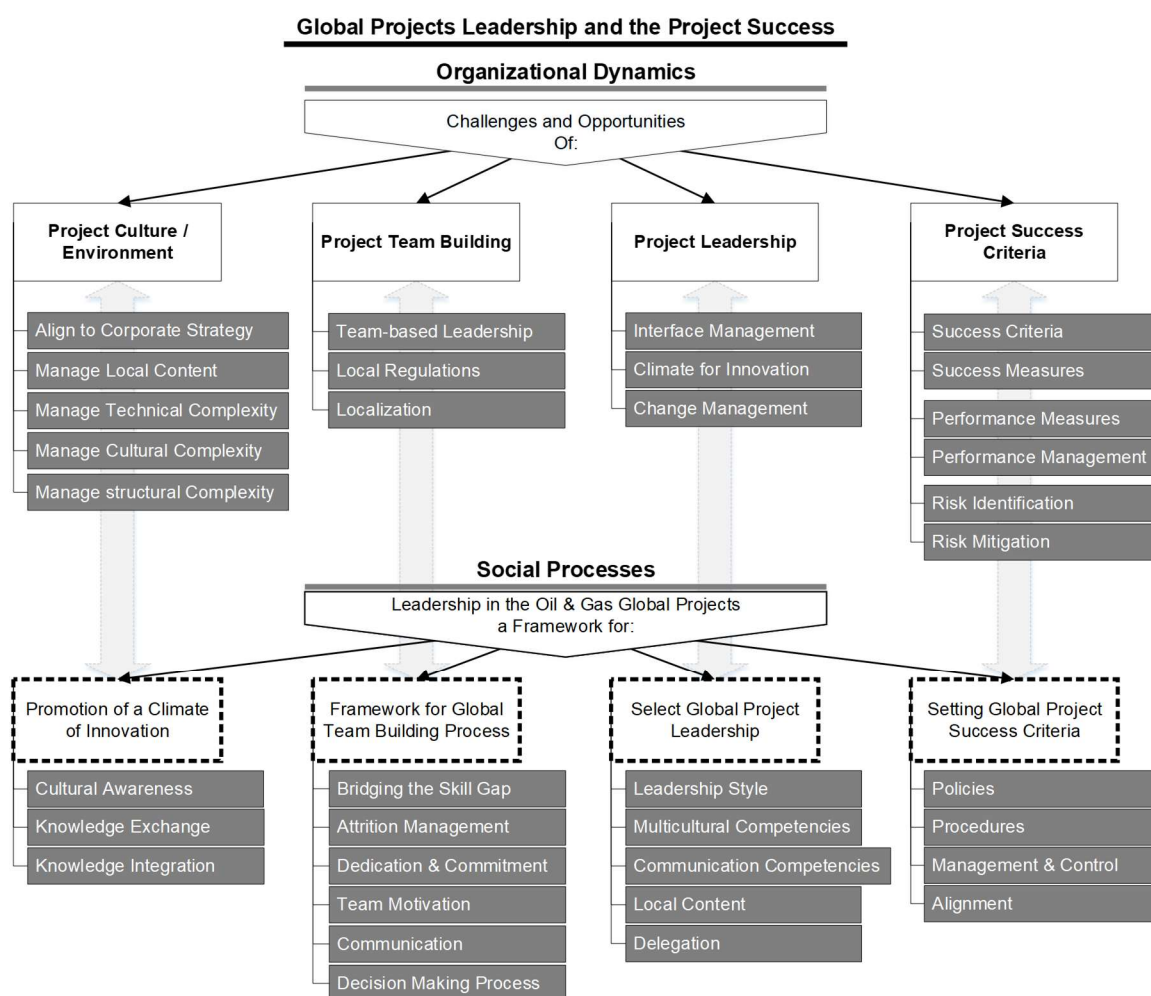
Figure 30. An analysis framework that includes a summary of the study interpretation

and findings.

Organizations hosting and venturing projects in the oil and gas industry in GCC are challenged with the risk of the project failure. Possible sources for the project failure, as identified in this study, may be: a) the wrong selection of the project structure as a result of the lack of understanding the complexities of the global and local project environment; b) the lack of required competencies and skills to manage the project complexities; and c) the challenge to discriminate the inherent variations between the GCC countries. The framework illustrated various aspects impacted the perceived role of a successful project leader building on the findings from the study results.

The lack of literature that addresses the challenges for conducting projects locally is adding to the risk of the project failure. The conceptual framework presented in this section includes a summary of the aspects that may support bridging this literature gap and add to the knowledge of the organizations' leadership to increase the opportunities of the project success. An additional advantage of the conceptual framework is in identifying possible further research opportunities under different research settings to support the generalization of the study results.

Limitations of the Study

I adopted an exploratory multiple case study method and a multilayered and nested mini-case study design to collect the data from 25 participants selected in a non-random purposive sampling strategy. I used a semi-structured interview approach with nine interview questions to build rapport with the participants and explore their life experience in the project environment in the oil and gas industry in GCC. I used

predefined follow-up questions to drive the focus of the participants' responses and support the alignment with the purpose statement and the research questions.

This approach has an inherent bias in the sample representation of the selected industry and geography. I used the comparative approach amongst the mini-case studies to enhance the research transferability and generalize the study results in the selected region. The study has the limitation to generalize the findings on other industries that may require different research settings and sampling strategy. However, the knowledge acquired from this research is adding to the general understanding of the GCC's cultural and environmental complexities that may be helpful when conducting studies in different settings.

One of the major limitations of this study was the participants' current location in two GCC countries, UAE and Kuwait. However, the 25 participants' experience included 44 projects spread over the region. I benefited from interviewing Dubai-based participants who are strategically located to manage their project business across the region. In this respect, another limitation is addressed in the interviewed number of local nationals that included only five (20%) from the Kuwaiti nationality. A more representative sample would include interviewing more of the GCC local citizens that may increase the trustworthiness of the research.

Recommendations

The purpose of this qualitative exploratory case study was to gain a robust understanding of the leadership requirements within the multicultural project environment of locally conducted projects by global organizations in the GCC countries.

Despite the existing cultural similarities and the standardized oil and gas industry, the research findings revealed critical variations between the GCC countries. These variations occurred in the business environment as a result of the NOCs' adopted organizational structure; applied management methods and standards; government strategies and regulations; and the size and maturity level of the local industry. The difference in the population of each of the GCC members is addressed as one of the major sources of the variation in the local environment of each country. I recognized a changing interest in conducting business in GCC by the global organizations as a result of the regional geopolitical aspects. The particular business environment of each member of the GCC countries is impacted by the applied local regulation and the level of ease of doing business in each country.

As a consequence of these variations, I recommend conducting a more focused research studies to understand the specific dynamics of each country. This may include conducting multiple case studies on each NOC or conducting phenomenological studies on each country. The additional research may have the objective to enhance the in-depth understanding of the cultural and organizational dynamics of each country in an ever-changing oil and gas business environment. For the purpose to generalize in the study findings, the additional research may include changes in the research settings to include projects from the construction industry, the infrastructure industry, or the information technology sector.

The remaining of this section includes recommendations for further research studies on selected areas beyond this research scope. The recommended areas for further

research are grounded in the research findings of this study. The recommended areas are also supported by the literature review from Chapter 2.

Project Governance and the Applied Organizational Practice

Theme 4 "Aligned performance and governance system" emerged from a priori Category 6 in response to IQ 4, 5, 8, and 9. I followed the latent approach to develop an understanding of the perceived role of the project leadership and its association to the project success. I contested the applied project governance system where only four (16%) of the 25 participants were familiar with the notions of an integrated project governance system. Most of the participants referred to project performance with KPIs, critical success factors, and only four (16%) participants used the concepts of the project controls system. According to Ahola et al. (2014), project governance refers to the systemic institutional level that governs the relationship between a project and its stakeholders. Project governance is a line of research that is receiving increased attention, and it refers to identifying and managing the internal and external risks of the project.

I recommend conducting further research on the perceived impact of the project governance on increasing the project success in the region. The study may include one of the cases that supported the notion during the data collection stage. The research purpose may be on exploring the possibility to implement an integrated project governance structure within the existing corporate governance system and the project-based structure.

The Contingent Leadership

I included a literature review on the contingent leadership and the contingency theory in this study. The contingency theory was a people-oriented model I adopted

during the data collection and analysis process to probe into the role of the human factor on the project success. A latent approach supported the emergent Themes 1, 2, and 6 that added to the understanding of the dynamics of the project team building and the role of the project leadership. According to Dickson et al. (2012), contingent leadership is a people-oriented model of the contingency theory that includes studying leaders' behavior toward cultural differences. The leader-focused approach of the contingency theory also emphasizes situational and contextual factors (Frederick Littrell, 2013; Müller et al., 2012) in recommending a successful leadership style.

Leadership style was discussed directly by 12 (48%) participants. The participants opinion varied on the preferred leadership styles for a successful project. The study results associated the leadership requirements to the cultural complexities, local environment requirements, and the perceived role of the leader in the local culture. The recommended further research may include an exploratory case study or a phenomenology with the purpose to understand the link between the project nature and the project leadership style. It may also explore the impact of a contingent or situational leadership on the project success.

Localization and Local Content

Theme 5 "Changing organizational strategy" emerged from Category 9 as informed by the emergent code "localization and local content." The study results associated localization to the national regulations on employing the local workforce in Kuwait, KSA, Oman, and Iraq. The study results revealed a challenge and an opportunity in applying the requirements of the local content through the local subcontractors. Six

(24%) participants raised a challenge from to the lack of qualified subcontractors in Iraq. Eight (32%) participants appreciated the high capabilities of the local contractors in UAE. A general concern was raised on the relationship management and the contractual challenges with local subcontractors in GCC by 17 (28%) participant.

According to Aarseth et al. (2013), the involvement of unfamiliar suppliers is an expectation for global projects that take place in an institutionally demanding environment. The environment may include political instability and unfamiliar laws and regulations. From this perspective, localization and local content are expected to have different impacts on the project success in GCC and Iraq. A recommended further research may consider the case of UAE, KSA, Kuwait, or Iraq as a case study to understand the impact of the local regulations for localization and local content on the project success.

Implications

In Chapter 2 of this study I contested the available literature on the global project environment. I identified literature gaps as a result of the lack of research on the global projects in general and particularly on the oil and gas projects in GCC. In the Significance to Social Change section of Chapter 1, I associated the urgency of the study to the lack of existing research and a current challenge to achieve the project objectives from different perspectives. The study results revealed an existing challenge from the increasing domination of global organizations. The financially driven strategies of the global organizations increased the gap with local communities. Considering the high rate of project failure and its threat to the development process, the urgency for conducting

this research occurred in the immediate need to increase the efficiency in the project environment. The increased efficiency in the global projects is expected to promote equity in global human development through an active learning and knowledge exchange process.

Potential Impact of Positive Social Change

The study results have potential implications for a positive social change in two main areas: increase the project opportunities for success and promote the global projects environment as a vehicle for change. The study results recommended that a broader definition for the project success is required. The success criteria may include the social development processes beyond the traditional bottom line and profitability measures. The global organizations' objectives and national objectives intersect in the global project environment. Supporting the project success will help the project environment to act as change vehicle rather than an investment vehicle.

Increase the Project Opportunities for Success. The increased opportunities for project success may support in: changing the government local strategies to educate the local citizens with new technologies, providing opportunities for recruiting local employees, increasing the efficiency in using local resources, and a higher success in meeting the national development strategies. The study results addressed the knowledge integration and exchange process as key to a successful project. The knowledge integration process includes a knowledge transfer from the global organization employees to the locally hired staff. A progressive enhancement in the local capabilities is expected as a result of this process.

The findings of the study, as emerged from the analysis of Themes 1 and 6, supported that localization is an implicit objective in the strategies of the local governments represented by the national oil companies (NOCs). The project performance management system may be more efficient when the local capabilities development is recognized in the project KPIs, as emerged from the analysis of Theme 4. The interpretations of the emergent Theme 3 reflected that the perceived project success by the owner representatives is increased with the increasing benefits to the local community. Employing local nationals may support the cultural awareness of the project team and support the alignment with the local community expectations, as indicated by the analysis of Theme 6. The study results under Themes 3 and 4 supported that the increased alignment between the project performance management and governance systems, is an organizational process that may contribute to the project success. An integrated performance management system benchmarked on a superior local quality, health, safety, and environmental standards may support a better process for resources utilization and allocation. Accordingly, and as per the interpretations from Theme 3, a generally accepted definition for the project success may include social factors beyond the traditional time, scope, and budget.

Promote the global project as a vehicle for a positive social change. The literature review affirmed that the economy of the GCC region is heavily dependent on the proceeds from the oil and gas to drive the local development process. The local development process includes the urbanization process, development of the local infrastructure, and recognizing the local industry as a key player in the global economy.

The oil and gas industry is a fully owned sector by the local governments and the development strategies in the industry is heavily integrated with the national government strategy.

The study results recognized the strategic alliances between local and global organizations as a government tool for developing the oil and gas sector. Participant 18 (Kuwait – Owner) who shared his experience in a global joint venture representing the government asserted that the benefit occurs from the knowledge the global organizations bring to the project. He reported that "they brought in something to the table when they joint ventured. The locals brought the national resources they brought the infrastructure, they brought the vicinity to the market, and the others [international organizations] brought the experience the marketing knowledge, the knowhow, the work processes." The study results may contribute to encouraging global organizations to recognize the local national objectives in the project success criteria. Global and local organizations interacting within the global project environment may have an opportunity to utilize the project as a vehicle for a positive social change at the individual level, the local community level, and at the organizational level.

Methodological, Theoretical, and Empirical Implications

The empirical implications of the study emerge in supporting the organizations to improve their methodologies for managing four project organizational processes. The first organizational process support managing the project environment to benefit from the team innovation in a knowledge based environment. The second organizational process occurred in managing the team building process to bridge the gaps in the technical,

managerial, and cultural competencies of the project team. The third organizational

process supported the selection process of the project leadership based on a clear vision

in the project leader role in capturing the opportunities and managing the challenges. The

fourth organizational process occurred in the provision of a project success criteria based

on a shared understanding of the global project success definition.

Organizations involved in the project business across the project layers may

advance the opportunities for the project success by: implementing an integrated project

performance and governance systems; defining and communicating the project objectives

across the project team members; defining and communicating the project risks with

stakehodlers. Local NOCs may deploy the study implications in: qualifying the project

executors; proposing the suitable structure of the projects and the governance system;

defining the project critical success factors and success criteria; and integrating the

project objectives with local strategies. The global organizations may deploy the

recommended methodologies of this study to: advance the corporate social responsibility;

enhance the allocation and utilization of resources; and improve the knowledge exchange

and integration process.

I adopted the complex adaptive systems theory in the theoretical foundation of

this study as an organization-oriented model to understand the project environment. The

study results related the evolving dynamics in the project environment to the system

interactions between the local environment requirements, the increased complexity of the

project, and the strategy of the participating organizations. Understanding the system

dynamics may support in setting the organization strategy for the change management.

In a people oriented-model, I adopted the contingency theory to understand the challenges and opportunities in the selection process of the project leadership and the project team. The study results revealed three factors interacting in defining the requirements of the project leadership and the project team: the project organization environment, the individuals' values, and the job demands. The issues addressed in the study results may support the local NOCs to regulate the interference in the project structure and the project environment. The global organizations may expand its understanding of the three factors of the contingency theory to enhance the selection process of the project leadership and the project team.

Recommendations for Practices

The recommended practices in this section emerged from the in-depth peer-reviewed literature and the interpretations of the study findings. The recommendations include practices that may be considered at the national and organizational levels of the strategy. This section includes an illustration of three practices that may contribute to increasing the project success. The first practice is to support the emancipation from the corporate domination through the project structure and the project team. The second practice is to recognize the research and development in GCC to benefit from a knowledge based organization. The third is in recognizing the scholarly-practitioner models to bridge the gap between theory and practices in oil and gas industry.

Emancipating from the corporate domination. The study results recognized the corporate domination at the global as well as at the local scales as a significant power in defining the oil and gas industry strategies in the region. Participant 06 (UAE –

Consultant), who is a western consultant, criticized the inflated influence of the global organizations in the local industry. He stated that "… it's still very much a western dominating business." He added, "the industry still on pro-colonialism so to say it's really multicultural is probably not the case." The excessive corporate domination limited the capabilities of the local small-to-medium enterprises. The study results recognized the inefficiency in the system as one of the results of the corporate domination in the region. Inefficiency in the system is evident in the inefficient local regulations as well as in the conflicting interests of the individuals and entities in charge of managing the system. This was indicated by the shared experience from participant 21 (Kuwait – Owner) who linked the challenges they faced in managing the project success to the missing vision at the corporate side. He stated that "the holding organizations were represented by individuals who mainly hold different agendas and continually drove the three projects in the direction of their agendas." The global project organization is an opportunity to emancipate the corporate domination, overcome the inefficiency of the system, and increase transparency in the local and global corporate governance systems.

Focus on the research and development. The lack of research in the oil and gas industry in GCC resulted in critical literature gaps that impacted the development of the project practices. The local governments and the global organizations may increase the investment in a focused research and development activities to bridge the literature gaps. The research and development activities are recommended at the organizational level, the local level of each country, and at a regional level of the GCC and neighboring countries.

Recognizing the scholarly practitioner model in the development process. The scholarly practitioner model integrates the research efforts with the practitioner efforts and may support in bridging the gap between the theory and practice. The findings and the recommendation from the global research initiative and the locally conducted studies may be integrated to contribute to bridging the gap. Government-sponsored and industry-sponsored programs would be an adequate strategy for an effective implementation of a scholarly-practitioner model.

Conclusions

The purpose of this qualitative exploratory case study was to gain a robust understanding of the leadership requirements within the multicultural project environment of locally conducted projects by global organizations in the GCC countries. The study involved 25 participants in a purposive sampling strategy located in UAE and Kuwait – two of the GCC countries. The primary instrument for the data collection was a semi-structured interview that included nine open-ended interview questions and predefined follow-up questions used during the discussion as required.

The study results confirmed the literature review outcome in the lack of local studies on the project environment in general and specifically the oil and gas projects. The study results also confirmed an existing gap between the theory and practices in the oil and gas projects. The gap is an evidence of the lack of investment in the research and development and the financially driven bottom line of the global organizations conducting business locally.

On the project environment; the study results confirmed the increased complexities in the global project in the oil and gas industry in GCC. The complexity is recognized in the multicultural context of the project as a result of the increased number of the employees' nationalities, and the multiple organizational cultures involved at different layers of the project. The high technical requirements of the oil and gas industry at the upstream and downstream segment contributed to the project complexity. The geopolitical aspects and the complex local regulations are recognized in the study results as a significant source of additional complexities that challenged the efficient execution of the projects.

On the project team building; the process is challenged by the exemplary aspects of the team building in addition to the specific aspects occurred from the high cultural diversity, increased localization requirements, and a skill gap in the local workforce. The project team building is challenged with the high attrition rate due to the local employment regulations, the lack of expatriate employees' commitment, and the lack of motivation amongst the local nationals. Cultural diversity was recognized as an opportunity for knowledge exchange and knowledge integration; an opportunity to motivate the team members; and an opportunity to reduce the project cost.

On the project leadership; driven by the aspects of the contingency theory, the study results addressed the project leadership requirements as a result of the interacting elements of the organization environment, the organization strategy, and the job demands. The project leadership role is addressed in managing the project complexities and increasing the project opportunities for success. The project leadership role is evident

in managing four organizational processes: the project environment, the project team building, the project leadership and team selection, and in setting the project success criteria and measures.

On the project success; the study confirmed the existing literature gap in defining the project success. The gap is evident in the competing interests of the participating powers in the project, and the dynamic nature of the global project environment. The study results supported that defining and managing the project success is one of the key responsibilities of the project leadership. The global project leadership may enhance the process to define the project success through an integrated project governance system that aligns the corporate with the project objectives.

I developed a conceptual framework that recognized the role of the project leadership in leading the dynamics of the organizational aspects of the global project environment. This conceptual framework is an evolving process that helped in addressing further research opportunities on the selected topic of this study. The further research opportunities may be considered at the organizational level, the industry level, and the country level. Changes in the research settings may be require to deal with the local aspects of each of the GCC countries.

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Appendix A: Field Test, Request for Feedback on Research Method and Design,

Research Questions, and Interview Questions

Invitation Message to Qualitative Research Field Experts

Dear Dr. XXXXXX

I am in the process to finalizing my proposal for the PhD dissertation and now at the stage where I need to conduct a "Field Test" to ensure the alignment of the research and interview questions with my adopted qualitative research method and design. I request your assistance to be one of my qualitative subject matter experts. Would you please help me?

To participate in my field test, I ask you to please review my research and interview questions and provide any feedback that would allow me to revise for better overall research method and design alignment. The objective is to ensure I ask my interview questions to produce the correct qualitative data/information from those I interview. Attached you will find my problem statement, purpose statement, and interview questions. If you prefer, I can email you my entire proposal.

If you can review the attached information and provide me expert research feedback within the next week, I would appreciate your service and assistance to help me produce a significant and substantial dissertation worthy of Walden's approval.

Sincerely Yours,
Jamal Nassif
Dubai, UAE
Candidate – PhD MGMT, LOC
[e-mail address redacted]
[telephone number redacted]

Pre "Field Test" Research Question and Interview Questions

Pre-Test Research Question

By exploring specific organizational dynamics and social processes, the objective of this research was to respond to the central research question: How does project leadership promote a climate for innovation and a culture of team building with the objective to align with developed consensus on predefined project success criteria in the Oil & Gas industry in GCC region?

Pre-Test Interview Questions

Introduction questions about the project:

1. How do you see the projects performance in the Oil & Gas industry in the GCC region (Kuwait, KSA, UAE)?

2. From your experience in the field in project XXXX, What actions you think the organization (sponsor/ owner, consultant, executer) would have taken to improve measuring the project performance?

Project Management versus Project Leadership:

3. What is your view about the difference between project management and project leadership?

Or

4. How do you describe the difference between project management and project leadership?

Project Leadership Role – focus on Oil & Gas Global Projects in GCC:

5. In your view; what are critical leadership aspects to be addressed in Oil & Gas projects in GCC?

6. How do you perceive the project leadership role in aligning the project environment with the corporate strategic objectives?

Challenges and Barriers to Global Projects Success:

7. How do you feel about global organization conducting business in the local industry?

8. When you prepare a new project charter – start a new project – what are the main areas you consider to keep the project aligned with main targets?

Or

9. What do you think the leadership role in aligning various participating organizations activities to the project objective?

10. What challenges do you think exist to build the project team, healthy project environment, increase team creativity this type of projects?

Closing and follow-up:

11. Who do you recommend to consider in this interview to know more about this problem and enhance the research?

Field Test

A Field Test was conducted with the aim to examine the alignment of the selected research method and design with the research problems and purpose statement; to strengthen the linkage between the research question and the research method and design; and most important to support the association of the interview questions with the research question. Five faculties in the qualitative research have been asked to review the research method and design, the interview questions and protocol, and the research questions. An email invitation was sent with sufficient amount of information on the study background. The specific role of the field experts was to advise on any misalignment in the research design, provide an academic argument around the research question and interview questions, and recommend adjustments.

Two experts' feedback was received, from Expert 1 a Contributing Faculty in the PhD in Management Program in Walden University, and from Expert 2 a Faculty in the Walden Center for Research Support for the Qualitative Methodology Advice Office Hours. A follow up appointment with Expert 2 on the adjustments was conducted during the research center qualitative office hours to refine the changes in the interview questions. The feedback from the qualitative research experts is shown in the communication log below in Table A1.

As a result of the field test, the research question was modified to include one broad question on the research topic, and two focused subquestions on the explored area about the global projects leadership. A matrix of alignment was prepared – shown in Table A2 below – to emphasize on the interview questions association with the research

question. The matrix of alignment also provided the interview strategy to explore the

main research themes. A modified interview questions were provided in Appendix B to

Chapter 3, an interview protocol defining the interview questions sequence and objectives

was prepared in Appendix B guided by the matrix of alignment.

Table A1

Matrix Showing of Alignment of Interview Questions to Research Question

Research Question:	Focus Areas & Research Objective						
How does project leadership support the success of global multicultural projects in the oil and gas industry in the Arabian Gulf Cooperation Council Countries (GCC)? - What is the role of project leadership to manage the project cultural and environmental complexities? - How can leadership contribute to the project success in a challenging global multicultural impermanent project environment?	Introduction & Problem Sensing	Project Management & Project Leadership	Project Success Governance & Performance	Project Environment, Global, Multicultural Focus	Project Team Building	Challenges to project	Experience & Recommendations
Introduction & Problem Sensing Questions:							
1. What are recent project you managed for the oil and gas industry in the region? Can you please pick two recent projects to discuss in this interview?	▓						
If we consider projects xyz, can you please describe the project specifics: Project complexity, Number of employees, team, owner, consultant, contractors; time frame; Project scope	▓						
2. How do you define project success? What is your experience in one successful project, and one less successful project?	▓		▓			▓	
3. In these two projects - How is success measured? What are the applied performance measurement approaches?	▓		▓				▓
Project Management versus Project Leadership:							
4. In these projects, what is your view about the difference between project management and project leadership? **Or** How do you describe the difference between project management and project leadership?		▓	▓	▓			
5. How do you see the project leaders' role in global multicultural project?		▓		▓			
Oil & Gas Global Projects in GCC:							
6. How do you see the global organizations impact on projects multicultural environment? *(Specific organizations names can be discussed based on question 1 from a selected project)*				▓			
7. What are challenges you faced in building the project team in these projects?					▓		
Challenges and Barriers to Global Projects Success:							
8. What are predefined success criteria addressed at the corporate level? **Or** How do you define project success criteria at the corporate level?						▓	▓
9. How do you address project key success factors? *(follow-up)* What challenges do you see in this area?						▓	▓
Closing and follow-up:							
10. Who do you recommend to interview to know more about this problem and enhance this research?							▓

(Left margin label spanning the interview question rows: **Interview Questions**)

Table A2

Field Test Communication Log with Qualitative Research Field Experts

Name	University	Email Invitation Date	Response Date	Remarks and Recommendations	Follow-up
Field Expert # 1 Walden Center for Research Support Qualitative Methodology Advice Office Hours	Walden University Education Center for Research Support	21 April 2016 Online meeting	21 April 2016 Online meeting	Research Method & Design: - Multilayered and nested case study is ok - Sampling Strategy – Snow ball – is ok Research and interview questions: - Align interview questions with research question main areas - Ask direct questions, broad, on focus areas from the research questions. - Give space for participants to speak - Develop a research / interview questions alignment matrix General: - Given examples on focused open ended questions - Recommended changes to questions arrangements and asking methodology Excellent discussion and experience, with a great focused methodology support.	Meet again next Tuesday in the office hours' time
		27 April, 2016 And email is sent with the modified research and interview questions.	27 April, 2016 Online meeting	Methodology - The graphical representation is a good approach to explain the methodology. - Reviewed the areas from the conceptual framework they need to be covered in the interview questions. Required to add a question on global project team building. - All other questions are ok, you need to avoid the abstract questions and focus to relate the questions to the selected projects during the interview.	Done

Table A2

Table Continues

Name	University	Email Invitation Date	Response Date	Remarks and Recommendations	Follow-up
				- Good conversational language in the interview question. - Do not repeat yourself in the interview questions.	
Field Expert # 2 Contributing Faculty PhD in Management Program Walden University	Walden University	April 16th, 2016	April 19t, 2016	Jamal What I see is excellent protocol questions that do not align with one single, too large, a research question. Make the research question very simple as an overarching very broad question and then make two sub questions out of the remainder of question - then do a figure to show alignment with the truly fine protocol which is ready. The problem you have is simple - you tried to make one question out of three. I see a great protocol and a jammed up single research question that frankly is too filled with information so that it does not make sense at all.	Modify and resubmit next week.
Field Expert # 3 Online Faculty, Ph.D. in Management and D.B.A. programs Walden University	Walden University	April 16th, 2016	April 18th, 2016	Hi Jamal, First, congrats on your progress! Unfortunately, I am not taking on any additional committee work at this time. I wish you the best in completing your study.	Feedback insisted on consulting committee only.
Field Expert # 4	American University of the Middle East Purdue Univ. Affiliated	April 16th, 2016	No response		
Field Expert # 5	American University of the Middle East Purdue Univ. Affiliated	April 16th, 2016	No response		

Appendix B: Post Field Test, Modified Research Questions and Interview Questions

Research Question

How does project leadership support the success of global multicultural projects in the oil and gas industry in the GCC countries? In addition, the study involved exploring specific areas related to the project environment and project leadership through the following two subquestions:

1. What is the role of project leadership in managing the cultural and environmental complexities in projects?

2. How can leadership contribute to project success in a challenging global multicultural impermanent project environment?

Interview Questions

Introduction & Problem Sensing Questions:

1. What are recent project you managed for the oil and gas industry in the region? Can you please pick two recent projects to discuss in this interview?

   If we consider projects xyz, can you please describe the project specifics?

   Project complexity, Number of employees, team, owner, consultant, contractors; time frame; Project scope

2. How do you define project success?

   What is your experience in one successful project, and one less successful project?

3. In these two projects - How is success measured? What are the applied performance measurement approaches?

Project Management versus Project Leadership:

4. In these projects, what is your view about the difference between project management and project leadership?

   Or How do you describe the difference between project management and project leadership?

5. How do you see the project leaders' role in global multicultural project?

Oil & Gas Global Projects in GCC:

6. What are your insights about the impact of the global organizations on project's multicultural environment? *(Specific organizations names can be discussed based on question 1 from a selected project)*

7. What are challenges you faced in building the project team in these projects?

Challenges and Barriers to Global Projects Success:

8. What are predefined success criteria addressed at the corporate level?

   Or How do you define project success criteria at the corporate level?

9. How do you address project key success factors? *(follow-up)* What challenges do you see in this area?

Closing and follow-up:

10. Who do you recommend to consider in this interview to know more about this problem and enhance the research?

Appendix C: Interview Protocol

An Exploratory Study on the Role of Project Leadership in Global Multicultural Project Success

Time of Interview:	
Date:	
Place:	
Interviewer:	Jamal Nassif
Interviewee Name:	
Interviewee Position:	

Questions and Focus Areas	**Question Type**
Introduction & Problem Sensing Questions:	
1. What are recent projects you managed for the oil and gas industry in the region? Can you please pick two recent projects to discuss in this interview?	Experience Question
If we consider projects xyz, can you please describe the project specifics: Project complexity, Number of employees, team, owner, consultant, contractors; time frame; Project scope	
2. How do you define project success?	Opinion & Values
What is your experience in one successful project, and one less successful project?	
3. In these two projects - How is success measured? What are the applied performance measurement approaches?	Behavior / Experience
Project Management versus Project Leadership:	
4. In these projects, what is your view about the difference between project management and project leadership? Or How do you describe the difference between project management and project leadership?	Behavior / Experience
5. How do you see the project leaders' role in global multicultural project?	Knowledge
Oil & Gas Global Projects in GCC:	
6. What are your insights about the impact of the global organizations on project's multicultural environment? *(Specific organizations names can be discussed based on question 1 from a selected project)*	Sensory
7. What are challenges you faced in building the project team in these projects?	Opinion & Values
Challenges and Barriers to Global Projects Success:	
8. What are predefined success criteria addressed at the corporate level? **Or** How do you define project success criteria at the corporate level?	Background
9. How do you address project key success factors? *(follow-up)* What challenges do you see in this area?	Behavior / Experience
Closing and follow-up:	
10. At the end of this interview, I would like to thank you for your time and the great insight you added to my research and knowledge about the industry. I will send you a copy of the interview transcript for review and perhaps comments on any of the points we discussed. I would like to know if you have any clarifications or additional points that you would like to discuss? To make sure I am on the right track and I understand this the way you meant, I will provide you with an interview report showing the extracted themes and patterns from this session for your review and remarks within the coming 72 hours. Who do you recommend to consider in this interview to know more about this problem and enhance the research?	

Appendix D: Invitation E-mail to Participants

Dear Mr. / Mrs. XXXXXX

I would like to inform you that Walden University approved my PhD research proposal, and I am now allowed to go to the data collection phase. For this, I am inviting you to participate in my research in a face-to-face interview that may take around 90 to 120 minutes of your time.

I am studying the multicultural environment of the oil and gas projects in the GCC countries. The focus of the study includes the role of the project managers and the management team in the project success. My interview questions will discuss the challenges in the work environment and the leadership requirements to deal with these challenges. I am trying to find how project environment is different specifically when the project is in a foreign country.

I am inviting you to participate in my research because of your experience in the oil and gas projects in the GCC countries. I believe your background, your opinions, and your life experience in the field will add value to my research and will help me to know more about my research objectives. You do not need to give me any sensitive financial information about the company or the projects we are discussing. I will keep confidential your personal information and the information you give me about the project and the company to protect you from any pressure and to protect your safety and privacy.

This study is voluntary and participants can stop or withdraw from the study at any time during the research. If you feel any pressure during the interview you can stop and withdraw from the research. Because I rely on your participation, I attached with this invitation two documents for you to review:
- An "Informed Consent Form" to confirm the confidentiality of the information, and protect your rights.
- The research interview questions for you to review.

If you accept my invitation to participate in this research, please answer my email with your confirmation. Also, I will need to know the most suitable time for you for a 90 to 120 minutes meeting to conduct the interview.

Sincerely Yours,
Jamal Nassif
Dubai, UAE
Candidate – PhD MGMT, LOC
[e-mail address redacted]
[telephone number redacted]

Appendix E: Interview Transcript

Qualitative Research - Interview Transcript Report

Program	: PhD Philosophy MGMT – Leadership & Organization Change

Dissertation Title : An Exploratory Study on the Role of Project Leadership in Global Multicultural Project

Success

Interview Date: …………………………………….. Transcript Report Date: ………………….
Interviewee Identifier Code: ………………………………… Case No.: ……………………….
Time: ………………… Interview Length: ………… Record Tape No.: ………………………

Interviewer Name	: Jamal Nassif
Transcript by	: Jamal Nassif

Speaker	Time Planning	Discussion Points	Remarks
Interviewer	00:00 – 00:05	**Introduction:** Thank you for taking the time to attend this interview, your participation is appreciated and will be of a great value to my research. This interview is a part of my research work in the process to obtain a PhD degree in General Management – Leadership and Organization Change from Walden University. As I mentioned in my email, and as you might have noticed from the interview protocol I attached, I am not planning to discuss any confidential information about the company or the project. It's the objective of this qualitative research study to explore the participant's life experience about the topic, opinion, values, and knowledge you developed from projects you previously worked in. While exploring your background about the areas mentioned in the interview questions, I am also trying to explore your behavior about the project success and its link to project leadership in projects of your selection in the oil and gas industry. This can be projects where you have a direct role in at any of the three project layers – as an owner representative, as a consultant, or as a member in the execution organization. This interview will be recorded, a copy of the recording will be stored securely under my custody and will not be shared with any third party without your written approvals. All recordings will be in digital formats on my personal PC and the files	

		will be encrypted so that no third party can listen to this interview or view its transcript.	
		Your name will not occur in any report or data analysis follows this interview. Instead, I will use participants' identifying codes that will be also encrypted and stored securely in my data. All names will be anonymous and interviews and cases will be identified by the codes given in an encrypted identifier sheet.	
		This interview is planned to be completed within 60 to 90 minutes. Unless you have the time to share any additional information linked to the discussion.	
		I will appreciate your remarks or clarifications (if any) before I move to brief you about the study background that will require around five minutes.	
Participant:	00:05 – 00:07	*Expect participant confirmation to proceed to the interview questions as he accepted formally to conduct the interview.*	
Interviewer:	00:07 - 00:17	**Study background:** Project leadership in the oil and gas industry, as in many other sectors, remains underdeveloped and lacks a serious amount of research. Development and construction projects in the oil and gas industry in the Middle East and the Gulf Cooperation Council (GCC) oil-rich countries remains under-researched. Fatal mistakes have occurred in oil and gas industry projects in GCC countries, and a lack of research on these mistakes occurs with a straggling development process in the oil and gas production and the national objectives. **Problem Statement** The general problem is that, in 2011, over 62% of projects either failed or faced challenges meeting predefined project success criteria (PMI, 2014). In a global environment where almost 70% of organizations experienced at least one project failure in 2010 (PMI, 2014), interest in defining essential factors for conducting projects successfully is increasing. In 2012, the rate of failures attributed to the people in charge of the project leadership was 39% (Kloppenborg, Tesch, & Manolis, 2014). The specific problem is the inability to meet time, cost, and quality constraints in oil and gas industry projects in GCC countries. The problem exists in the failure to achieve government and corporate predefined strategic objectives. A	Move carefully to the problem statement and the project success / failure statistics in the GCC to attract participant's attention.

		link exists between project failures and project management performance, with over 49.7% of the failures occurring in the construction sector (Mir & Pinnington, 2014). In the GCC region, 65 to 90% of the exports earnings depend on the oil and gas sector which is the main driver of the development plans published by GCC governments (Hvidt, 2013). The market is attracting American, European, and Asian construction conglomerates, which increases the challenge in project leadership to manage cultural diversity. Although governments' capital expenditure in projects exceeded US$2.3 trillion in 2013 (Zawya, 2013), international organizations executed over 75% of projects (Meed, 2013). In a highly globalized environment, the applied practices in the selection process of project leadership are yet to meet projects' cultural challenges. Researchers widely question leadership performance in oil and gas construction projects for project performance against predefined success criteria (Eweje, Turner, & Müller, 2012).	Emphasize on this area to drive the interview to remain purpose of the study.
		Purpose of the Study	
		The purpose of this proposed qualitative exploratory case study is to gain a robust understanding of leadership requirements within the multicultural project environment of locally conducted projects by global organizations in the Gulf Cooperation Council (GCC).	
		Research Question	
		Global projects occur at the intersection of the global organization culture and the impermanent nature of project structure. The objective of this research is to respond to the central research question using specific organizational dynamics and social processes: How does project leadership support the success of global multicultural projects in the oil and gas industry in the GCC countries? In addition, the study will involve exploring specific areas related to the project environment and project leadership through the following two subquestions:	
		1. What is the role of project leadership in managing the cultural and environmental complexities in projects?	
		2. How can leadership contribute to project success in a challenging global multicultural impermanent project environment?	
		The project aspects discussed are project environment, project nature, project governance, project team building, project leadership, and project complexity.	

		Please let me know if you have any clarification point before we move to the interview questions.	
Participant:	**00:17 - 00:20**	*Clarifications are expected – open discussion to link the questions to life experience in project cases.*	

Introduction & Problem Sensing Questions:

Interviewer:	00:20 – 00:21	Q1: What are recent projects you managed for the oil and gas industry in the region? Can you please pick two recent projects to discuss in this interview?	
Participant:	00:21 – 00:25		
Interviewer:	00:25 – 00:27	If we consider projects xyz, can you please describe the project specifics: Project complexity, Number of employees, team, owner, consultant, contractors; time frame; Project scope	Follow up to Q1, with this question to select a project case and move deeper into the project specific aspects.
Participant:	00:27 – 00:37		
Interviewer:	00:37 – 00:38	Q2: How do you define project success?	
Participant:	00:38 – 00:43		
Interviewer:	00:43 – 00:44	What is your experience in one successful project, and one less successful project?	Follow up on Q2
Interviewer:	00:44 – 00:50		
Interviewer:	00:50 – 00:51	Q3: In these two projects - How is success measured? What are the applied performance measurement approaches?	One question with possibility to follow-up in the second part to dig deeper in the performance measurement approach (if applicable).
Participant:	00:51 – 00:56		

	00:56 – 01:00	Area for follow-up	

Project Management versus Project Leadership:

Interviewer:	01:00 – 01:01	Q4: In these projects, what is your view about the difference between project management and project leadership? **Or** How do you describe the difference between project management and project leadership?	
Participant:	01:01 – 01:06		
Interviewer:	01:06 – 00:07	Q5: How do you see the project leaders' role in global multicultural project?	
Participant:	01:07 – 01:15		Long feedback is expected.

Oil & Gas Global Projects in GCC:

Interviewer:	01:15 – 01:16	Q6: What are your insights about the impact of the global organizations on project's multicultural environment? *(Specific organizations names can be discussed based on question 1 from a selected project)*	
Participant:	01:16 – 00:20		Industry specific in a defined region is expected.
Interviewer:	01:20 – 01:21	Q7: What are challenges you faced in building the project team in these projects?	
Participant:	01:21 – 01:26		

Challenges and Barriers to Global Projects Success:

Interviewer:	01:26 – 01:28	Q8: What are predefined success criteria addressed at the corporate level? **Or** How do you define project success criteria at the corporate level?	

Participant:	**01:28 – 01:33**		
Interviewer:	**01:33 – 01:34**	Q9: How do you address project key success factors? *(follow-up)* What challenges do you see in this area?	
Participant:	**01:34 – 01:40**		
Closing and follow-up:			
Interviewer:	**01:40 – 01:41**	Q10: At the end of this interview, I would like to thank you for your time and the great insight you added to my research and knowledge about the industry. To make sure I am on the right track and I understand this the way you meant, I will provide you with an interview report showing the extracted themes and patterns from this session for your review and remarks within the coming 72 hours. I would like to know if you have any clarifications or additional points that you would like to discuss?	
Participant:	**01:41 – 01:45**		
Interviewer:	**01:45 – 01:46**	Who do you recommend to consider in this interview to know more about this problem and enhance the research?	Follow up on Q10.
Participant:	**01:46 – 01:50**		Give sometime to exchange contacts and an open discussion

Appendix F: Permission to Use the Survey Results on the Primary Causes for Project Delays

PriceWaterhouse Cooper conduct a frequent survey on the challenges facing the

capital project in the GCC region. A permission granted to use the copyrighted

information in Figure 6 that supports my study problem statement and the literature

review.

Request for Permission Email

Reference Id: PWC73228343288
Your name : Jamal Nassif
Your e-mail address : [redacted e-mail address]
Your telephone number : [redacted telephone no]
Your organisation : Walden University - Laureate Education
Your role within the organisation : PhD Student
Which of our PwC member firms should respond to this request (select only if different from your location)? : ae
Type of inquiry : General business query
Subject : Permission request to use published data in academic research
Specific details about your inquiry :
Dear Sir / Madam, As a part of my research efforts on the project market in the oil and gas industry in GCC, I came across your valuable research paper on "Middle East Capital Projects & Infrastructure"of June 2014. I request your kind permission to use the published information in your survey in my academic research (PhD Dissertation) for the purpose to support my literature review on the challenges facing the delivery of the major projects in GCC region. Appreciate your kind permission or directing me to contact the relevant person or section to place my Request for Permission.

Regards,
Jamal Nassif PhD Student - Walden University
Referer
URL: http://www.pwc.com/gx/en/search.html?searchfield=Stephen+Anderson&tp=long&pwcGeo=GX&pwcLang=en&pwcHideLevel=0&pwcSiteSection=
Form
URL: http://www.pwc.com/global/forms/contactUs.en_gx.html?parentPagePath=/content/pwc/gx/en&style=
Submission Date: 4 Sep, 2017 12:09:48 AM GMT

Permission to Use the Information

Fwd: PWC73228343288-Customer enquiry from pwc.com

[redacted name and e-mail address]

Mon 9/4, 10:22 AM

Jamal Nassif;

[redacted name] (MiddleEast) <[redacted e-mail address>

Inbox

You replied on 9/4/2017 10:41 AM.

Action Items

Hi Jamal,

Good morning.

Thank you for reaching out to us and requesting permission to use our thought leadership material - "Middle East Capital Projects & Infrastructure (2014)"

We will be happy to grant you permission to use our paper for your research purposes only and are happy to be featured in your paper. I have also copied in Maria Lalousis who is a partner in our Capital Projects team in case you have any questions on the material.

Good luck with your research.

Regards

[redacted name]
PwC | Senior Manager - Deals
Office: +971 [redacted telephone number] | Mobile: +971 [redacted telephone number]
Email: [redacted e-mail address]
PricewaterhouseCoopers
[redacted address]