UNIVERSITY OF LIVERPOOL

UNDERSTANDING THE IMPACT OF CULTURE ON PROJECT EXECUTION IN A DEVELOPING COUNTRY: A STUDY OF SIX INTERNATIONAL OIL AND GAS COMPANIES IN NIGERIA

THESIS SUBMITED IN ACCORDANCE WITH THE REQUIREMENTS OF THE UNIVERSITY OF LIVERPOOL FOR THE DEGREE OF DOCTOR OF BUSINESS ADMINISTRATION (DBA)

By

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Abstract

Despite the research on project execution in developing countries and project practitioners executing projects in accordance with project management practices, projects in developing countries still experience a high rate of failure (Gu et al, 2013). Supporting this view, Nzekwe et al (2015) posit that project failure has become rampant in construction projects executed in developing countries. The researcher's organization is not exempted, hence the motivation for this research. This would suggest that project failure issues are not just due to technical factors, but encompass wider behavioural non-technical factors (Skok and Doringer, 2001). The aim of this study therefore was to contribute to project management literature by investigating the impact of culture on project execution in international organizations domiciled in a developing country. The overall goal was to understand and ameliorate the high rate of project failure in a developing country context with the objective to provide strategies for successful project execution. Applying a realist research approach, this research investigates project execution and management of a project team cultural variation from an industrial context. The methodology for the study was both quantitative and qualitative. Quantitative data was collected through survey questionnaire from 103 experienced project practitioners involved in projects execution in the six largest international oil companies (IOCs) in Nigeria. This sample was selected to close a research gap of limited studies in the oil industry of developing countries. The reliability of the data collected was established by the Cronbach coefficient alpha α calculations. Qualitative data was collected through interviews with 20 respondents. Secondary data was sourced from review of literature. The results of the Frequency, Pearson Correlation and Coefficient of Determination analysis reveal a correlation between culture and project outcome, and also a correlation between culture and behaviour. The research concludes that culture has an impact on project execution in the IOC's operating in Nigeria, a developing economy. The results will benefit both practice and academics. In practice, this research provides insight regarding the challenges project managers face when leading culturally diverse teams and propose strategies aimed at curbing project failure. The recommendations will be synthesised into actionable items in the researchers practice as a deliverable of this Action Research approach. In academia, this research will serve as a resource base for secondary data for other scholars and researchers interested in carrying out research on the impact of culture on project delivery in a developing economy.

Keywords: Culture, Critical Success Factors, Project Success, Project Management

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Statement of Originality

I, AKADE, Solace Aiwanfo the undersigned, a Doctoral student at the University of Liverpool (UoL) and the author of the dissertation hereby declare that this dissertation is an original work done and prepared by me under the supervision of Dr. Michaelides Roula, in the School of Management, University of Liverpool. I affirm that the content of this Doctoral research work has not been previously submitted for the award of any degree, diploma or similar title at this or any other academic institution. The materials referenced from other sources and included in this dissertation have been appropriately acknowledged and cited.

Student's Signature: ……..…

Date: ……

Statement of Copyright

Acknowledgements

The journey to the completion of my DBA studies in general and this dissertation has been exciting, very challenging, extremely interesting and culminating in a sense of accomplishment. I wish to express my profound gratitude to the following who contributed to the successful completion of this dissertation.

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Dedication

To the memory of my father Imafidon Edward Akade of blessed memory, who unfortunately is not alive to witness this academic achievement. He gave me the best education and embedded in me the habit of hard work and drive for excellence.

Chapter One: Introduction and Overview

This chapter provides the background to this research from a theoretical and practice perspective. The importance of the Oil and Gas industry in Nigeria is explained. The research problem is clearly defined from the context of addressing gaps in literature and solution to a project challenges in researchers practice. The motivation, significance and rationale for this study are explained. The research aim, research question and supporting objectives are enumerated. The chapter concludes with an explanation of the research structure.

1.1 Background to the Study

Theoretical Perspective

The importance of project management and project execution can be viewed from the perspective of its significant contribution to value creation globally (Anbari et al, 2008). The concept and definition of project execution in the context of this research is explained in the literature review section. Any factor that will have an impact on project execution should be of interest to project practitioners. Despite the research on project execution in developing countries and project practitioners executing projects in accordance with project management institute (PMI) and project management body of knowledge (PMBOK) practices, projects in developing countries still experience a high rate of failure (Gu et al, 2013). Supporting this view, Nzekwe et al (2015) posit that project failure has become rampant in construction projects executed in developing countries. This suggests that the project execution failure issues are not just due to technical factors, but encompass wider behavioural non-technical factors (Skok and Doringer, 2001). The researcher's organization, despite the execution of projects in line with PMI and PMBOK practices, is experiencing similar problems of high number of project failure. This is consistent with the study by Anbari et al (2010) that project management techniques developed on the basis of cultural assumptions of an individualistic culture may not hold in another country with collectivist culture. Accordingly, this study is embarked on to understand the impact of culture, a non-technical factor, on project execution.

The aim, research question and supporting objectives, are discussed in details in other sections of this research. This study selected the culture factor because the impact of culture on project execution by cross-cultural project teams can result in either success or failure depending on how the project team is effectively managed by the project manager. According to Anbari et al (2004), project practitioners executing projects in multicultural international organizations encounter cultural differences, which have the potential to enhance or interfere with the successful completion of their projects. In a follow up study, Anbari et al (2010) argue that the effective use of cross-cultural project teams can provide a source of innovative thinking and diverse experience to improve the likelihood of project success. Conversely, Anbari et al (2010) assert that if cross-cultural project teams are not properly managed, cultural differences and related conflicts can interfere with the successful completion of projects. To mitigate project failure arising from culture related issues and to achieve project success, Anbari et al (2010) suggest that project managers should avoid cultural misunderstandings by being culturally sensitive, promote creativity in adapting to cultural situation through training of multicultural project teams and respect for other cultures. The research by Anbari et al (2010) concluded that multicultural project management can achieve project success through strategies including but not limited to: culturally aware leadership, effective cross-cultural communication, mutual respect, and reconciliation. Anbari et al (2010) posit that without these strategies, projects executed by cross-cultural project teams are destined to fail. This is the basis of the argument by Youker (2004) regarding the need for project practitioners to adapt to cultural settings for successful project execution. According to Youker (2004), to effectively execute projects in an environment, project managers must understand the prevailing culture. Youker (2004) further stated that since cultures change over time and across countries, project practitioners need to identify and understand the local culture by adapting situationally through "reading books and articles, talking to people in the society, looking, listening, and discussing with locals" with the aim to adapt their culture with the local cultures. Ármannsdóttir (2015) in his study on understanding the impact of culture

in international projects arrived at a conclusion consistent with Anbari et al (2010) that culture has both positive and negative impact on project execution. Ármannsdóttir (2015) further suggested strategies project practitioners can use to mitigate the negative impact. A key strategy to mitigate culture induced project failure is cultural management through managing cultural diversity by respecting other people values/behaviours and developing communication skills considered as one of the most important intercultural competency (Ármannsdóttir, 2015). According to Ármannsdóttir (2015), the success of culturally diverse heterogeneous teams has a correlation with the leadership skills of the project team leader to harness diversity and blend the different cultures into one homogeneous team.

Practice Perspective

The impact of culture from the perspective of the CEO's of some Companies of international repute operating in the Oil and Gas industry will be referenced to provide some organizational context to the background of this study. Due to the recent global economic downturn, with specific reference to the impact of the decline in oil price on Oil and Gas Companies (FT, 2016; Cooper, 2015; Husain, 2016), my organization Nigeria LNG Limited (NLNG) faced a lot of challenges which had an impact on the bottom line. To face the challenges, one strategy adopted by NLNG was to change the attitude and behaviour of the workforce through a formal re-orientation of the culture in the organization. This resulted in the Culture Alignment Journey (CAJ) initiative in my organization in 2014. The initiative focused on embedding NLNG's four Core Values (Integrity, Team Work, Excellence and Caring) and ten Leadership Behaviours (creating a sense of urgency, continuous improvement, promoting collaboration, open communication, empowering to deliver, listening, being fact-based, displaying selflessness, role modelling and effective & speed of decision making) in the way employees work and relate with internal and external parties. The importance of the CAJ to the survival of NLNG is echoed by the MD/CEO of NLNG who stated that "The Culture Alignment Journey is a very important initiative to steer our

organization towards improved and sustainable profitability notwithstanding the global economic challenges" (NLNG, 2015). A major player in the Oil & Gas business, Siemens, also embarked on a similar organizational culture transformation initiative. The success of Siemens is based on a culture re-orientation where staff take actions on the basis of a mind-set that Siemens is their own Company i.e. ownership mentality culture. According to the Joe Kaeser President and CEO of Siemens, "no matter your position in the organization, in any action you take, act as if it is your own Company and you will be fine." (Industry Week, 2016). The power of culture in transforming organizations in the O & G industry is further supported by the experience of Dynegy, a major player in the power generation industry in the United States with about 2,600 employees. According to Dynegy (2015), the company generates reliable energy from 35 power stations with the capacity to generate 26,000 megawatts (26 GW) of electricity, which is enough to power about 21 million homes. Dynegy has a customer base of 931,000 residential and 41,000 industrial/commercial customers. Dynegy declared revenue of $3.9 Billion in her 2015 Annual report (Dynegy 2015). In July 2011, Dynegy was going through a very challenging situation and was barely fighting to survive **(**Knowledge Centre, 2016). It was during this difficult period that Dynegy appointed Robert Flexon as CEO. With Dynegy at the verge of bankruptcy, Robert Flexon unveiled a cultural overhaul which embedded an attitude and mind-set of success in all employees, replacing the prevailing negative attitude of doom-and-gloom feeling of expecting the worst to occur (Knowledge Centre, 2016). According to Robert Flexon, the cultural overhaul strategy transformed Dynegy back to an agile, fast-growing company with employees energized by a "one team, one goal" culture (Knowledge Centre, 2016). Through these recent industrial initiatives it is obvious that at the highest levels of organizations, non-technical culture related approach to solving problems are recognised and implemented. This thesis aims to contribute to these initiatives by formulating a non-technical cultural

framework that project practitioners can apply towards improving project delivery in the Oil and Gas industry in developing economies.

Importance of this Study for the Oil and Gas/LNG Industry in Nigeria

The Oil and Gas industry is a pillar of the Nigerian economy and a major factor in Nigeria's world standing (Amnesty International, 2009). A member of Organization of Petroleum Exporting Countries (OPEC), Nigeria is responsible for approximately 6% of OPEC's annual oil production (OPEC, 2015). Nigeria produces about 2.5 million barrels of crude oil per day through the exploration activities of International Oil Companies (IOCs) operating in Nigeria (NNPC, 2015). This makes Nigeria the largest producer of oil in Africa and the eleventh largest producer in the world (NNPC, 2013). Oil and Gas account for 85% of Nigeria's Gross Domestic Product (GDP) (NNPC, 2013). Nigeria has been estimated to have realised about $40 billion from crude oil exports in the first half of 2014 (OPEC, 2015). The 12-nation member organisation, in its revenue fact sheet, however stated that Africa's oil giant had net earnings of about $84 billion in 2013. This revenue positioned Nigeria as the fourth highest earner among OPEC members, after Saudi Arabia ($274 billion), Kuwait ($45 billion), and Iraq ($45 billion), during the same period in 2013. Accordingly, a disruption in the Oil and Gas production facilities in Nigeria will have serious consequences on Nigeria and countries who import oil and gas from Nigeria.

In the gas sector, Nigeria produces about 22 million tonnes per annum of Liquefied Natural Gas (LNG) and 5 million tonnes per annum of Natural Gas Liquids (NGL's) from the NLNG production facility situated on Bonny Island, Nigeria. This production output accounts for 7% of the global LNG production and in addition contributes to 10% of Nigeria's Gross Domestic Product (GDP) from sales revenues. Three projects, which include the $12bn NLNG Train 7, the $10bn Olokola LNG and the $15bn Brass LNG projects, have been in limbo many years after their initiation due to a combination of sociocultural/political and

economic factors arising from different priorities of different government regimes and dwindling price of oil.

From the above, it can be inferred that the O & G industry in Nigeria is important to both Nigeria and the global economy. The lucrative nature and its importance explain the ongoing initiative by the IOC's to either maintain or expand capacity through various rejuvenation and expansion projects on their existing O & G production facilities. The IOC's spend millions of dollars on projects and the success or failure of these projects will have a consequential impact on the survival and continued operations of the organizations experiencing project delivery challenges. The six IOC's in this study fall in the category of private/government multinational joint ventures implementing projects in a multi-cultural and multi-ethnic environment in a developing economy. In discussion with project practitioners implementing projects in the six IOC's, project managers from developed countries in Europe and USA are tasked with the responsibility of managing the activities of project team members from diverse cultures in Nigeria, a developing country. This multi-cultural situation poses a challenge to project practitioners, hence the need to study the extent to which culture influence project execution in the O & G companies operating in a developing economy, using the six IOC's as multiple case studies. Even though other project execution performance improvement initiatives were undertaken in my practice, they were focused on technical aspects of project execution whilst this research looks at a non-technical cultural and human behaviour related perspective. Specifically, given the strategic nature and importance of the Culture Alignment Journey (CAJ) initiative in my organization NLNG, this study seeks to find non-technical culture related solutions that will complement the ongoing Cultural Alignment Journey initiative in NLNG with the objective to improve project execution.

1.2 Research Problem

From studies carried out on the subject of critical success factors in project management, a list of critical success factors are available in literature. However, the Oil and Gas industry still continue to experience a high number of failed projects (Maina and Gathenya, 2014). This paradox is attributed to the belief that critical success factors so far identified in literature are too general in nature and not specific enough for effective practical application by project practitioners (Ofer and Shlomo, 2005). Understanding the critical success factors (CSFs) enables the project manager to focus their attention on important areas and set differential priorities across different project elements. Whereas the technical related aspects of front end preparation and development of projects i.e. scope, equipment, tools, materials, location, procedures, governance models, regulatory systems of projects differs, one common denominator for all projects is the non-technical related human resources i.e. people. In most organizations, people are considered the most important assets and the most complex to predict and manage, attributed majorly to differences in cultural background (Cogliandro, 2007). This reality, regarding the complex nature of people due to cultural differences highlights the relevance and importance of this research to develop a conceptual model and framework which project practitioners can apply in their respective practices to mitigate the non-technical related challenges with project execution. The authors practice and the five other organizations involved in this research will be used to test the plausibility and effectiveness of the framework prior to a wider application.

For so many decades, the CSFs for project success have been a topical issue in research and practice. Studies on the CSFs of projects have provided insights on the factors that can impact project delivery performance (Hyvär, 2006; Ika et al, 2012; Nethathe et al, 2011) but have taken a reductionist approach focussed on industries and countries. According to Nethathe et al, (2011), “Project CSFs are not universal to all projects, and thus there should be different factors for different kinds of projects” (p. 190). In addition, Nethathe et al (2011) argues that

CSFs are organization centric (p. 192), a view shared by Ika et al (2012) who contend that CSFs cannot be similar for all projects (p. 107). Pakseresht and Asgari (2012) also contend that because organizations are unique, identifying the CSFs for different organizations in different geographic areas of the world has been the subject of several studies (p. 383). From literature review, most of the studies on CSFs have focused on developed countries with little attention given to projects in developing countries, despite the importance of projects in developing countries (Rondinelli, 1979).

Narrowing the research problem to the dissertation topic, the CSF related studies on project management in developing countries have paid little attention to the impact of culture on projects execution in the O & G industry in Africa in general and Nigeria in particular (Ofori 2013, Eberlein 2008, Awuah 2008, Gurung and Prater ,2006, Henrie and Sousa-Poza ,2005, Ramage and Armstrong 2005, Eriksson et al, 2002; Kruglianskas and Thamhain, 2000). To date, there is very limited study on the impact of culture on project delivery in the O & G industry of Nigeria. Ofori (2013) posit that Ghana as a developing country is facing a lot of challenges in managing projects. Awuah (2008) cited in Ofori (2013) further contend that some of the project management challenges in developing countries like Ghana, include cultural related issues like deference, hierarchy, notions of respect and taboos, which have a negative impact on the quality and success of projects. In the study by Ramage and Armstrong (2005) cited in Ofori (2013), one of the findings was that there are two distinct categories of factors that determine project success namely: the rational/scientific and political/cultural categories. Ramage and Armstrong (2005) further argued that fully understanding the rational/scientific factors is difficult unless the political/cultural factors are taken into account. In other words, to understand the factors that impact project success, it is important to fully understand the impact of cultural factors. This study seeks to bridge this gap by investigating the impact of non-technical cultural factors on project delivery performance in both my organization and the O & G industry in Nigeria in general. Project

delivery performance collated through the key result areas (KRA's) data in my organization indicates that improvement is required in the area of cost and schedule performance. Over 40% of capital projects have experienced schedule overruns and have reached a level which is unacceptable to top management. As earlier stated, the approach to solve the project execution problem has focused on solutions from a technical/rational/scientific perspective, with less focus on non-technical/political/cultural approach to solving the problem. This functionalist approach to solving poor project execution in my organization with little attention to non-technical cultural considerations may be the reason for lack of improvement as highlighted in recent research in other industries earlier referenced above.

This current study on the impact of culture on projects execution in the O & G industry in Nigeria aims to extend our understanding on the influence of non-technical cultural factors on project success and propose a framework / model to improve project execution in my organization from a non-technical cultural approach by providing empirical support. It is envisaged that the newly developed framework from this research will provide project practitioners in my organization and the O & G sector in general with actionable research solutions that can help them improve project execution from a non-technical cultural approach.

Considering the importance of the O & G industry in Nigeria, and the criticality of project execution in this industry, extending our understanding on improving project delivery from a non-technical cultural perspective is important. This is in particular applicable to developing economies like Nigeria since the IOC's in Nigeria operate and execute projects in a multi-cultural and multi-ethnic environment with personnel from diverse cultural backgrounds. In carrying out this study, we aim to recommend strategies that can aid project practitioners improve project execution. For my practice, this study sets out to develop a conceptual model and framework that will provide more insight on the impact of culture on project delivery

performance through a comprehensive analysis that will show a correlation between culture and project execution in developing economies like Nigeria.

1.3 Project Management Context of this Study

Project is defined as a temporary endeavour undertaken to create a unique product or service (PMBOK, 2008, p.5). Successful execution of projects is of significant economic and social importance to the economy and people of any organization and country because projects that are not successfully executed fail to realize the objective for their initiation and result in waste of resources (PMBOK, 2008). The process of executing a project through the different phases in the project life cycle is very complex and presents project managers with an ongoing challenge to implement successful projects (Crawford, 2000). It requires simultaneous attention to a wide range of budgetary, technical and human variables, in the areas of leadership, team work, and cultural differences. According to Crawford (2000), the project manager typically has the responsibility of ensuring that project outcomes are successful under conditions of tight budget, time and human resources constraints to handle all the complexities that are required for project success. Furthermore, the project manager operates in a dynamic, turbulent and unpredictable environment (Hyväri, 2006) necessitating requisite skills to manage diverse situations and challenges as they arise. Successful project management therefore requires an understanding of the specific factors that are critical for the success of the project.

Despite the importance of culture in project management, there are limited studies in literature regarding the influence of culture on perceptions of project success in developing countries (Ofori 2013, Eberlein 2008, Awuah 2008, Gurung and Prater ,2006, Henrie and Sousa-Poza ,2005, Ramage and Armstrong 2005, Eriksson et al, 2002; Kruglianskas and Thamhain, 2000). From the perspective of developing countries, Awuah (2008) and Ofori (2013) posit that Ghana as a developing country is facing a lot of challenges in managing projects due to cultural related issues like deference, hierarchy, notions of respect and taboos,

which have a negative impact on project delivery. Ofori (2013) argues that conducting a study to determine the CSFs for project management in a developing economy like Ghana would require investigating the phenomenon within the context of a "socio-cultural, governmental, political, economic, technical and operational framework". Ofori (2013) further argues that the socio-cultural factors can influence project outcomes and conclude that project teams in the implementation of projects should consider socio-cultural factors, which as an endogenous factor can impact on the project outcome depending on the degree of influence. For this study, we will reference factors from Ofori (2013) because Ghana is a developing economy like Nigeria, and the situation in the Oil and Gas industry in Ghana are expected to be relevant to the Oil and Gas context in a developing economy like Nigeria. Ramage and Armstrong (2005) cited in Ofori (2013) argues that two distinct categories of factors that determine project success include rational/scientific and political/cultural categories. They state that fully understanding the rational/scientific factors is difficult unless the political/cultural factors are considered. Therefore, to study the factors that influence project success, it is important to understand the influence and impact of cultural factors. For example, despite the technical approach to improving project delivery performance in my organization, the low performance in terms of budget spends and schedule overruns still persists. According to Kuen et al (2012), despite the increasing use of project management tools within organizations, 75% (seventy-five percent) of projects failed. The study by Kuen et al (2012) then recommended that future research should explore the influence of multicultural behaviour on the implementation of the projects so that more insights can be gained. Hence the motivation for this study to understand the impact of a non-technical cultural approach to improving project execution, which is detailed in the next section.

1.3.1 Motivation for this Study

There is limited literature on the impact of culture in projects executed in developing economies (Eriksson et al, 2002; Kruglianskas and Thamhain, 2000), hence the motivation

for this study to investigate and understand the impact of culture on project execution in six O & G companies operating in a developing economy like Nigeria.

From previous studies carried out, one organization factor that has been linked to project performance is culture (Belassi et al., 2007; Shore, 2008; Wang and Liu, 2007; Yazici, 2009). Most of the studies have focused on developed economies with little or no attention to studies in developing economies. The few studies by Babatunde et al (2012), Ika et al (2012) and Nethathe et al (2011) on CSFs for project success in developing economies focused on organizations outside the O & G sector. Henrie & Sousa-Poza (2005) in their literature review of CSFs gave very little consideration to cultural factors amongst other factors. Given the relevance and effect of culture within projects, there are limited empirical studies in the O & G industry of developing economies substantiating its importance in project management. As stated in the problem statement, this oversight could be the reason for poor project execution in my organization, despite the technical related approach and effort that has been embarked on to improve project execution.

In the researchers' organisation, the outcome of an Efficiency and Work Study review led to an ongoing Culture Alignment Journey to address the systemic issues highlighted by the review (NLNG, 2015). The systemic issues included organizational culture (behaviour) related issues which was considered to be limiting the Company's ability to mitigate the internal and external challenges that threaten her productivity and profitability. Some visible tangible improvements in the organization put forward in 2014 (NLNG, 2015) include:

- Culture awareness
- More collaboration/ fewer silos
- Leadership more accountable
- Higher level of commitment
- Decisions get made faster
- Process improvements

- Increase in trust level between staff and management staff

Accordingly, this research proposes that a wider view of project management practice across the O & G industry, reflecting on challenges to projects execution specific to a developing country and emerging economy, such as Nigeria, is lacking. This research aims to mitigate culture related challenges with project execution by raising cultural awareness in project practitioners approach to project execution, specifically in my practice and the O & G industry in Nigeria in general.

1.3.2 Significance of this Study and Rationale for Selection

The O & G industry in Nigeria plays a significant role in the national economy considering that the Companies in the sector collectively account for over 90% of Nigeria's revenue (NNPC, 2013). Any disruption in the production operation of the O & G Companies will have serious economic consequences for Nigeria and exports to countries that rely on crude oil and gas products from Nigeria. To remain in business, and continue to contribute to the Nigerian and global economy, the O & G Companies must have production facilities with the capacity to meet customer demands. To illustrate the magnitude of project failure and loss of revenues in Africa, the 2014 Deloitte African Construction Trends Report estimated a 76% completion rate of projects in Africa, which implies a 24% failure rate (Deloitte and Touché, 2014). The Ernest and Young report estimated an investment of US$250 billion in O & G projects in Africa (Ernest and Young, 2014). At an estimated 24% project failure rate, this will translate to approximately US$60 billion in wasted resources for projects in the O & G Companies in the developing countries of Africa in 2014. In comparison to O & G projects in developed economies, the International Energy Agency (IEA) estimates a cumulative investment of US$22.4 trillion in the global O & G sector between 2014 and 2035, equivalent to an average annual spend of more than US$1 trillion (Ernest and Young, 2014). If we assume a similar estimated 24% project failure rate, this will translate to approximately US$240 billion loss in developed economies compared to US$60 billion loss estimated for

projects executed in developing economies in Africa.

The six International O & G Companies in this study are the largest in the O & G industry in Nigeria and invest heavily in capital projects to sustain production output and remain competitive. To enhance profitability and value realization in these organizations, project practitioners must ensure that projects are executed to deliver the intended benefits, optimise project costs, complete projects on schedule and eliminate sunk costs arising from failed projects. One approach project practitioners can use to achieve this objective is to identify the factors critical to the success of projects implemented. A lot of research has been carried out on critical success factors (CSFs) for project success, most of them from a developed economy perspective, with fewer studies from a developing economy perspective. Despite the information available to project practitioners, project execution still record high failure rates, average of 24% failure rate (Deloitte and Touché, 2014). From the perspective of the investment structure in the O & G industry in Nigeria and other developing economies, large international corporations with headquarters in developed economies with different cultural backgrounds, operate in the oil rich host countries, where multidisciplinary and multinational groups work together. This is evidenced in five of the six organizations whose project practitioners participated in this study as shown below.

Organization Location and Cultural Background Matrix

Organization	Headquarters Location	Cultural Background
The Shell Petroleum Development Company of Nigeria (SPDC)	The Hague	Dutch
Nigeria Agip Oil Company (NAOC)	Milan	Italian
Nigeria Liquefied Natural Gas Company (NLNG)	Port Harcourt	Nigerian
Chevron Nigeria Limited (CNL)	Houston	American
Total Nigeria Producing Limited (TNPL)	Paris	French
Mobil Producing Nigeria Limited (MPNL)	Houston	American

Table 1: Organization Location and Cultural Background Matrix

This situation introduces a mix of national cultures resulting in multicultural project teams (Zein, 2015). This multiculturalism makes projects execution challenging due to the influence of multicultural behaviour, attributed to projects requiring forming project teams with practitioners from different corporate and national cultures, at short notice, for short periods (Zein, 2015). Any project manager, who has to work within a multicultural environment, will need to adjust their approach to communications, negotiation, governance and people management if they are to reduce conflict and increase harmony and efficiency (Zein, 2015). This research seeks to understand the impact of culture on projects execution in a developing economy, and come up with strategies to manage multiculturalism, in the six international O & G Companies operating in Nigeria, where multiculturalism might exist.

On a broader perspective, by carrying out this research to understand the impact of culture on project execution in my organization and the other five leading O & G Companies in Nigeria, this study is expected to have significant implications for project practitioners in other international O & G Companies operating in developing economies. The study is also going to have implications for scholars by providing empirical data on the influence of culture in project management in the O & G sector of developing economies.

In summary, this study is significant to the project management profession and project practitioners for the following reasons:

- **Academics** - provide empirical data conferring that culture and cultural related factors are important to project execution in developing countries.
- **Practitioners** - develop an actionable framework / model for project management practitioners in the oil and gas industry in Nigeria and other developing countries that will guide the implementation of a non-technical cultural approach to project execution challenges.

- **My Organization** – implement an actionable framework / model to support the ongoing culture alignment journey and cost optimization initiatives in my practice, to mitigate the key challenges and systemic issues facing the organization from a projects execution context, with specific consequential improvement of the key result areas of cost and schedule.

1.4 Research Aim, Objectives and Research Question

1.4.1 Research Aim and Supporting Objectives

The aim of this research is to:

- Understand the impact of culture on project execution in the O & G industry of a developing economy from the perspective of six IOC's operating in Nigeria.
-

The supporting objectives of this study are stated below:

- *To determine what project success means from the perspective of project practitioners in the in Oil and Gas sector of a developing economy like Nigeria.*
- *To investigate the influence of culture as an enabler of project success in the Oil and Gas sector of a developing economy like Nigeria.*
- *To investigate the extent to which culture is considered as a critical success factor and its impact on project execution in the in Oil and Gas sector of a developing economy like Nigeria.*
- *To develop a conceptual model for the framework on focus areas to support project execution performance from a non-technical cultural perspective in the Oil and Gas sector of a developing economy like Nigeria.*

The following questions will guide this research's' focus on the supporting objectives.

1. *How is project success defined in the O & G sector of a developing economy like Nigeria?*

2. *Does enhancing cultural awareness improve project execution in O&G projects in developing economies such as Nigeria?*
3. *Is culture a factor for the success of projects in the O & G sector of a developing economy like Nigeria?*
4. *Is culture an enabler of project success in the O & G sector of a developing economy like Nigeria?*
5. *Are the critical success factors identified in studies involving developed nations similar to those for developing nations?*

1.4.2 Research Question

To achieve the research aim and supporting objectives, this study will seek to answer the following research question:

"***What is the impact of a non-technical cultural approach to the improvement of project execution in the Oil and Gas sector of a developing economy like Nigeria?"***

1.5 Dissertation Structure

The seven chapter dissertation structure is shown in Figure 1.

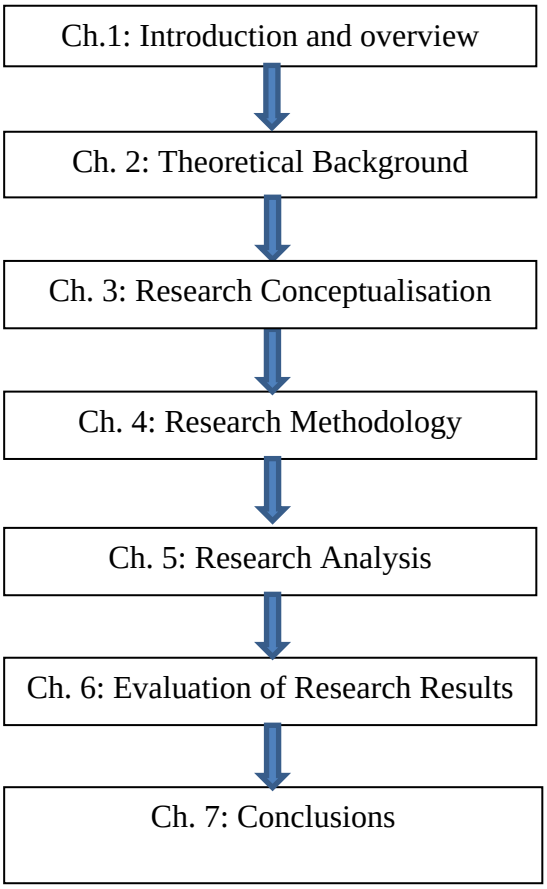

Figure 1 Dissertation Structure

Chapter 1 introduces the research background, research objectives and research question that underpin this Thesis. Chapter 2 provides a review of existing literature on culture, project management and critical success factors in both developed and developing countries. Chapter 3 explains the development of the conceptual model. Chapter 4 discusses the research methodology and approach used for the study. Chapter 5 presents the data collected and the findings from both qualitative and quantitative research survey. Chapter 6 analyses the research results and discusses these within the context of existing theory and discusses the implications for practice. Chapter 7 presents the conclusions, recommendations, opportunities for further research, the limitations of the study and the action research implementation plan of the recommendations in my practice, including the plausibility of the recommendations by experienced project practitioners responsible for project execution in my practice.

Chapter Two: Theoretical Background – Literature Review

Chapter 2 of this thesis provides a structured review of the theoretical background of this dissertation. Culture research is the main research area that this study falls into. The basis for this research is the study on critical factors for successful new project development by Kuen et al (2012), who recommended that future research should be carried out to explore the impact of multicultural teams and behaviour on the execution of projects so that more insights can be gained regarding the phenomenon. One of the objectives of this study therefore, is to develop a cultural framework / model that can be used to implement a non-technical approach to ameliorate the challenges with project execution in the researchers' organization and the O & G industry in Nigeria in general. This section covers the theoretical background guiding this study as follows. Project management, the concept of project execution and project success are described. The CSF from a developed and developing economy context is reviewed. Theories of culture / cultural factors and their impact on project execution are explored. The comprehensive review of theories, frameworks and models related to culture as a CSF for project execution in existing literature forms the basis for developing the conceptual model and related hypotheses. The reason for selecting the theories referenced for this research is described in this chapter and then further explained in chapter 3.

2.1 Project Management Theory

2.1.1 Project Management

Project Management Institute (PMI) defines a project as a temporary endeavour undertaken to create a unique product, service or result (PMI, 2008). A project is a temporary activity in which 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 an outcome defined by quantitative and qualitative objectives (Turner, 1993). Projects are executed to achieve different organizational strategic objectives driven by either or combination of market

demand, organizational need, customer need, technological advancement, and legal/statutory requirement (Hyväri, 2006).

The Association for Project Management defines project management as the discipline of successfully managing projects (APM, 2000). The Project Management Institute (PMI) defines project management as the application of knowledge, skills, tools and techniques to project activities to meet project requirements (PMI, 2004). As a discipline, project management is defined as the art of managing project resources to achieve set project parameters of scope, cost, time, quality and customer satisfaction (Maina and Gathenya, 2014). Project management involves activities geared towards the implementation of projects by geographical and culturally diverse teams (Maina and Gathenya, 2014). This context of international projects involving teams from different geographical and cultural areas poses challenges for project leaders who require the right competencies to manage multi-cultural teams (Lawler et al, 2000).

2.1.2 Project Execution

The concept of project execution in the context of this research will be defined and explained from the perspective of practice and theory. According to PMBOK guide, the project management process can be organized into five groups that define the generic project cycle: Initiating, Planning, Executing, Controlling and Closing. The initiating process involves authorisation of the project. The planning process entails defining and refining the project objectives with the aim to select the best option to realise the project deliverables. Executing processes involve coordinating people and resources to carry out the plan via schedule management change management, risk management, issues management, quality management, procurement management, contracts management etc while the Controlling processes ensures that the project objectives are achieved through periodic monitoring and measuring of progress to detect any deviation from plan and corrective actions taken as required. The closing processes is the last phase and involves formal acceptance of the

project prior to bringing the project t to an orderly end. Project execution in the context of this research covers the Executing and Controlling process groups. This concept conforms to the PMBOK guide that defines project execution as a structured process that involves coordinating people and resources, as well as integrating, controlling and performing the activities of the project in accordance with the project plan. Executing in summary consists of the processes used to complete the work defined in the project plan to accomplish the project's requirements.

In the researchers practice, the project management process is a structured Opportunity Realisation Process (ORP) that follows a seven stage-gated phase: identify, assess, select, define, execute, operate and close-out. The execute phase is structured in conformance with the project execution and controlling process as defined by PMBOK. A Project Execution Plan (PEP) document is the road map prepared and used by the Project Team to deliver the agreed project deliverables of Scope, Schedule, Cost, Quality and HSE. The PEP enables the Project Manager to monitor and control project execution through effective management of change orders, schedule, cost, quality, risks, contracts, procurement, communications, stakeholders, client acceptance and issues. From the researchers experience in practice, the project execution is the period where project managers have to deal with the greatest impact of the complexities and dynamics of the multiculturalism in the project management process. This informs the need for this research to understand the impact of culture on the project execution aspect of the project management process.

2.1.3 Project Success

One of the objectives of this research is to explore what success means from the perspective of a developing country. It is important to understand successful project execution in the context of this research, as this will provide clarity on the aim of this study to develop a framework to aid project practitioners with improving project delivery. According to McCoy (1996), a prerequisite for evaluating a project as successful or failed, is to agree in advance

the criteria used to determine success or failure. According to De Wit (1998) cited in Nethathe et al (2011), "project success is measured against the overall objectives of the project, whereas project management success is measured against the widespread and traditional measures of performance against cost, time, and quality". Crawford (2000) argues that project success is a matter of perception and that a project will be most likely to be perceived to be an overall success in different ways. According to Crawford (2000), a project is perceived as successful if "the project meets the technical performance specifications and/or mission to be performed, and if there is a high level of satisfaction concerning the project outcome." Fremen and Beale (1992) posit that project success means different things to different people. Since project success is a perception as perceived from different contexts by different people, the meaning of project success by project practitioners in the six oil and gas Companies will be investigated in this study. Boyd (2001) define project success from five 'customer maxims' of satisfaction, delivering project objectives, delivering quality, delivering within the time frame, delivering the desired feedback customer needs and having a robust win-win customer and project team conflict resolution mechanism. According to Jeffrey and Dennis (1987) cited in Maina and Gathenya (2014), a project is categorized as a success if it is implemented in line with pre-determined criteria of time, cost , all the set goals and accepted for use by the customer. Pinto and Slevin (1987) suggest that project success can be judged by the extent to which a project meets its objectives. Notwithstanding the definitions of project success/failure that exist in literature, Ofori (2013) are of the view that a common of understanding of success or failure and a consensus agreement on the factors that lead to project success or failure is a complex project management issue. There are two distinct categories of factors that influence project success namely rational/scientific and political/cultural categories (Ramage and Armstrong, 2005). Ramage and Armstrong (2005) argue that fully understanding rational/scientific factors is impossible unless the political/cultural factors are taken into account.

Arising from the need to take action as explained in the problem statement of this research, this study developed a framework which project practitioners can use to support project delivery in the O & G sector of a developing economy.

2.2 Critical Success Factors

2.2.1 Critical Success Factors for Projects – Developed Country Perspective

Critical Success Factors are the few key areas of activity where favourable results will enhance successful competitive performance for individuals, departments or organizations (Rockart, 1982). Furthermore, CSFs are the limited number of areas, if properly managed, will result in the successful competitive performance of an organization (Ofer and Shlom, 2005). From project practitioners' perspective, knowledge of CSFs will provide clear guidance on where project managers should focus their attention and resources during project implementation (Shanks et al , 2000). From the context of this research, the answer to the subsidiary research questions whether culture is a factor and enabler for project success, will determine if culture is a CSF that project practitioners should focus on to achieve project success. This will provide the basis and give credibility to the framework that will be developed by this research to improve project execution.

The number of CSFs should be preferably ten or fewer and the CSFs are organization centric, although some may be generalized (Rockart, 1982). Fortune and White (2006) in their review of 63 different publications on the subject of CSFs concluded that there is limited consensus by different researchers on the factors that influence project success. Fortune and White (2006) posit that the three most cited factors that influence project success include support from senior management; clear and realistic project objectives; and preparing a robust efficient project plan. Belassi and Tukel (1996) classify success factors into three different groups: (i) those that relate to the project; (ii) those related to the organisation; (iii) and those related to the organisation's external environment. Hyvär (2006) provides 10 factors that are critical for the success of a project. These factors include: project mission; support from top

management; project plans/schedule; client consultation; personnel; technical task; client acceptance; monitoring and feedback; communication; and trouble shooting. Frese and Sauter (2003) in their paper concluded that good planning, clear responsibility and accountability, schedule control, project leadership, good governance, and communication are key drivers of successful projects. Khang and Moe (2008) contribute a different perspective by segregating critical success factors required for different phases of a typical project life cycle. The summary of their research is tabulated below.

Critical Success Factors by Project Phase

Phase	Success Factors
Conceptualizing	Clear understanding of project environment Effectiveness of consultation with stakeholders Competency of project team
Planning	Alignment with development priorities Adequate resource support Effectiveness of consultation with stakeholders Competency of project team
Implementation	Compatibility of regulations for project management Effectiveness of consultation with stakeholders Consistency of support for stakeholders Competency of project team
Closing	Adequacy of project closure activities Effectiveness of consultation with stakeholders Competency of project team

Table 2: Critical Success Factors by Project Phase

Source: Khang, D.B. and Moe, T.L. (2008)

The below tables provide a summary of the list and ranking of CSFs by some authors based on the studies carried out in developed countries.

CSFs identified across publications by Ofori (2013)

Critical Success Factors	**Authors**									
	Pinto & Slevin (1987, 1989)	Kerzner, (1992, 2001, 2003)	Yeo, (2002)	Boyd (2001)	Andersen et. al, (2002)	Hyvari (2006)	Turner & Muller (2005, 2007)	Khang & Moe (2008)	Frese & Sauter (2003)	**Nagesh and Thomas (2015)**
Clear Project Management Objectives	√		√		√			√	√	
Top Management Support	√		√		√	√	√	√	√	√
Information/Communication	√			√	√	√			√	
Client Involvement	√	√		√	√	√		√		√
Competent Project Team	√					√	√	√		
Authority of the Project Manager/Leader	√				√					√
Realistic Cost and Time Estimates	√	√	√	√						
Adequate Project Control	√				√				√	
Problem Solving Abilities	√					√				√
Project Performance and Quality		√		√						
Adequate Resources	√	√			√	√		√		√
Planning/controlling	√	√	√		√		√	√	√	
Monitor performance and feedback			√	√		√	√			
Project mission/common goals	√				√	√				
Project ownership	√	√					√	√	√	

Table 3 CSFs identified across publications by Ofori (2013)

Source: Ofori (2013, pp.19)

Summary: Table 3 is a snapshot of CSFs based on the research by Ofori (2013). Top management support, client involvement and adequate resources were the most consistent CSF's across all the publications referenced by Ofori. These three are people centric which are prone to cultural influence.

CSFs identified across publications by Kuen et al (2003)

Success Factors from the Literature	Pinto (1986)	Kerzner (1987)	Pinto & Slevin (1989)	Wateridge (1995)	Clarke (1999)	Cooke-Daview (2002)	Kuen et al (2012)	Nagesh and Thomas (2015)
Corporate understanding		X	X	X				
Executive commitment	X	X	X	X				
Organizational adaptability		X						
Communication	X		X		X			
Project manager selection criteria	X	X	X	X			X	
Project manager leadership/empowerment	X	X	X	X				X
Environment			X					X
Commitment to planning and control	X	X	X		X			
Project mission / common goal / direction	X		X		X	X	X	
Top management support	X		X	X			X	X
Client consultation / acceptance	X	X	X					
Monitor performance and feedback	X		X			X		
Personnel / teamwork	X	X	X	X		X		X
Technical task ability	X	X	X					
Trouble shooting / risk management	X		X			X		
Project ownership						X		
Urgency of project			X	X				X
Duration and size of project				X	X	X		X

Table 4 CSFs identified across publications by Kuen et al (2003)

Source: Kuen et al, 2003

Summary: Table 4 is a snapshot of CSFs based on the research by Kuen et al (2003). Top management support and Personnel / teamwork were the most consistent CSF's across all the publications referenced by Kuen et al. These two are people centric which are prone to cultural influence.

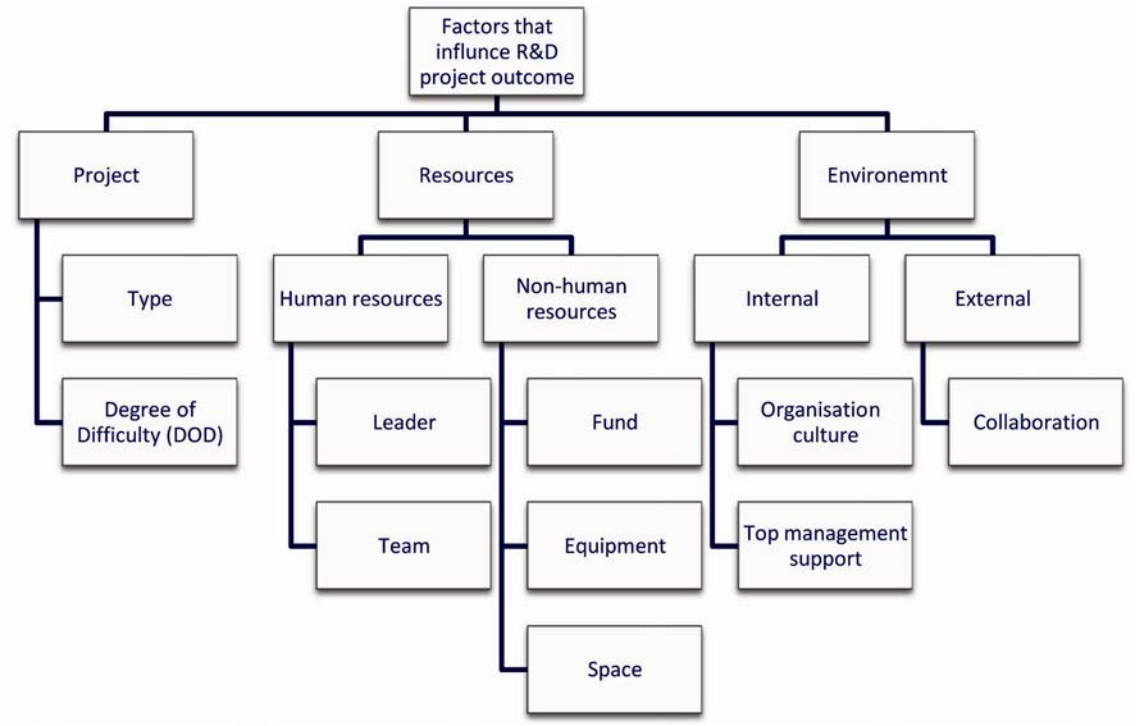

Figure 2 : Success Factors that influence Project Delivery

Source: Nagesh and Thomas (2015)

Note: Organizational culture is identified as a success factor under non-technical environmental factor.

Ranking of CSFs identified across publications by Hyvari (2006)

Success Factors from the Literature	Hyvari (2006)	Finch (2003)	Delisle & Thomas (2002)	Pinto & Presscott (1988)	Pinto & Slevin (1987)
Project Mission	6	7	1	1	1
Top Management Support	4	6	9	7	2
Project Schedule/Plans	5	5	5	9	3
Client Consultation	2	1	2	2	4
Personnel	9	10	10	10	5
Technical Task	7	9	4	3	6
Client Acceptance	3	4	6	4	7
Monitoring and Feedback	10	3	3	5	8
Communication	1	2	8	6	9
Trouble-shooting	7	8	7	8	10

Table 5 Ranking of CSFs identified across publications by Hyvari (2006)

Source: Hyvari (2006)

Summary: Table 5 is a snapshot of CSFs ranking based on the research by Hyvari (2006). Client consultation on the average has the highest ranking as a CSF's across all the publications referenced. Similar to Table 3, client consultation is people centric, which is prone to cultural influence.

Influence of CSFs in different phases of Project cycle by Hyvari (2006)

Success Factors from the Literature	Definition	Planning and Organizing	Implementation and control	Close Out
Project Mission	1*	4*	10*	9*
Top Management Support	5	5*	4	4
Project Schedule/Plans	6	2	3*	7
Client Consultation	2*	3	8*	3*
Personnel	8	7	6	10
Technical Task	7	6	6*	8*
Client Acceptance	4	8*	9	2
Monitoring and Feedback	10	10	4	5
Communication	3	1	1	1
Trouble-shooting	9	9	2*	6

Table 6 Influence of CSFs in different phases of Project cycle by Hyvari (2006)

Source: Critical Success Factors (CFS) identified across publications - Hyvari 2006

Summary: Table 6 is a snapshot of the influence of CSFs in different phases of a project based on the research by Hyvari (2006). Communication on the average has the most influence as a CSF's across all the publications referenced. This is followed by client consultation. These two CSF's are people centric, which are prone to cultural influence.

From the above tables of CSFs for project success which are based on the studies carried out in developed countries, culture although not identified as a direct factor in relation to technical factors, is a factor with an influence on the top ranking CSF's. However, in the study by Nagesh and Thomas (2015), organizational culture was identified as a non-technical environmental factor, reference figure 2. The questions we seek to answer in this current study include: is culture a CSF and does culture have a bearing or an influence on any of the factors identified in developing countries?. Specifically, are the following factors:

communication, personnel attitude, approach to client consultation, team work, and project manager leadership style influenced by culture in a developing country?.

2.2.2 Critical Success Factors for Projects – Developing Economy Perspective

Ofori (2013) argue that CSFs are situational and dependent on other contending factors like location, core values, value chain to mention a few. This aligns with the views of Hyvär (2006) who argue that the influence of CSFs is situational and therefore differs from project to project. Ofori (2013) argue that conducting a study to determine the CSFs for project delivery in a developing economy like Ghana would require investigating the phenomenon within the context of different situations defined by the "socio-cultural, governmental, political, economic, technical and operational framework" (p.19). This current study seeks to investigate the phenomenon of CSFs for project success in a developing economy from the situational context of the multi-national culture in six international O & G Companies operating in Nigeria.

The relative ranking of the importance of the factors was different between developed and developing nations as indicated in the below table ICT project success factors and relative importance. An important point to note is that culture featured in the factors for project success in developing country context, although with a low ranking of 12^{th} in terms of relative importance. This supports the study by Fong and Kwok (2009), where culture was found to influence offshore IT project success at both the organizational and team levels in developing countries.

Relative Importance CSFs in Developing Countries by Atsu et al (2010)

SUCCESS FACTORS	RELATIVE IMPORTANCE	
Factor	**Study by Atsu et al (2010)** **Developing Country Context**	**CHAOS study, 1994** **Developed Country Context**
Available Funds	1	NA
Top Management Support	2	2
Training	3	NA
Motivation	4	9
Proper Planning	5	5
Minimized Scope	6	1
User Involvement	7	6
Firm Basic Requirements	8	3
Clear Statement of Requirements (Business Objectives)	9	8
Formal Methodology	10	10
Ownership	11	NA
Culture	12	NA
Political Interference	13	NA
Risk management	14	NA
Capital budgeting and post implementation audit	15	7
Competent Staff	16	4
Experienced Project Manager	17	NA

Table 7: Relative Importance CSFs in Developing Countries by Atsu et al (2010)

Source: Atsu et al (2010)

The above table reveals that non-technical factors like culture and political interference are relatively more important as CSF for successful project delivery in developing countries compared to developed countries.

Based on the results of their study, Atsu et al (2010) proposed a success framework for ICT project implementation related to four major variables: organizational, governmental, economic, and culture. The culture variables in the Atsu et al (2010) success framework that influenced project success were based on three elements of Hofstede culture dimension (Hofstede, 1991) , namely uncertainty avoidance, power distance and long-term orientation, in addition to the traditional culture elements of norms, beliefs and attitudes. Accordingly, this research will analyse Hofstede's theory in the literature review section for better understanding of the elements in the context of their input to the framework that will be developed to improve project delivery from a non-technical cultural approach in developing economies.

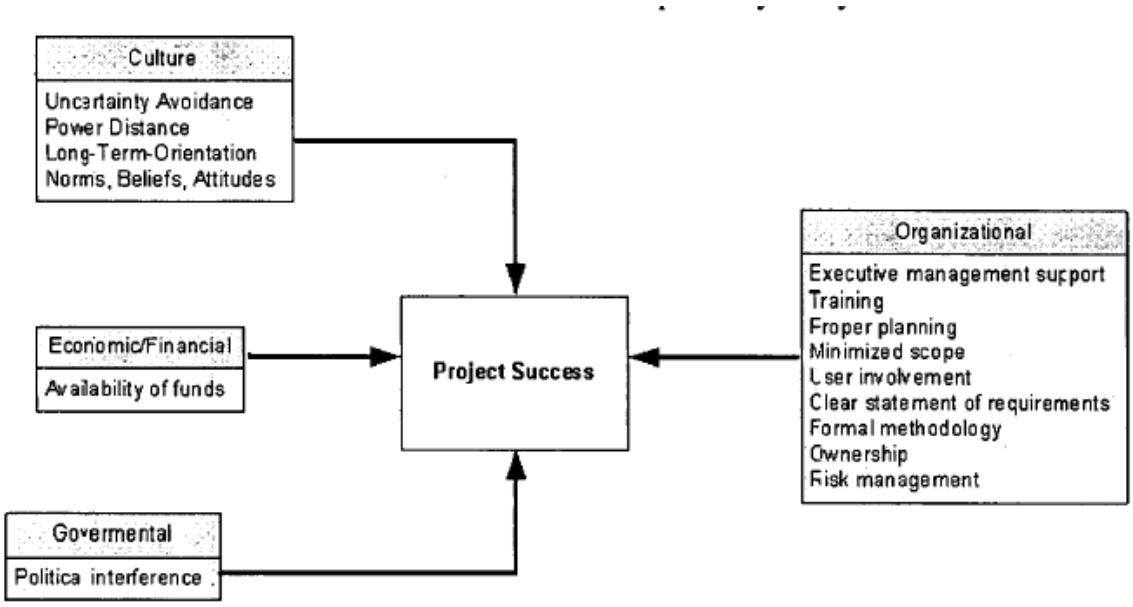

Figure 3 Success Framework for ICT Project Implementation

Source: Atsu et al (2010)

Ranking of CSFs for Project Success by Ofori (2013)

Variable	Rank
Clear mission & goals	1
Adequate resources	2
Top management support & commitment	3
Competency of project personnel	4
Effective communication	5
Well-laid out specifications	6
Leadership	7
Client acceptance/ satisfaction	8
Client involvement/ consultation	9
Teamwork	10
Monitoring & feedback	11
Realistic cost & time estimates	12
Appropriate technology	13
Standards & regulations	14

Table 8 Ranking of CSFs for Project Success by Ofori (2013)

Source: Ofori (2013) Survey Data, 2010.

Combining the above critical success factors and the results of his study, Ofori (2013) developed a conceptual framework to model how project outcomes are influenced by critical success factors "endogenous" to the project environment" such as socio-cultural, political, governmental, and economic factors. Regarding the socio-cultural endogenous factors, Ofori (2013) argues that the socio-cultural factors can influence project outcomes and conclude that project teams in the implementation of projects should consider socio-cultural factors, since in his view; the conceptual framework developed for his study considers the socio-cultural aspect as an endogenous factor whose impact on the project outcome depends on the degree of influence. The results of a study by Ofori (2013) rated top management support, effective communication, clarity of project purpose & goals and stakeholder involvement as the top four critical success factors that contribute to the success of projects. This current study will compare the result of its top four CSFs with the findings from the study by Ofori (2013) for

consistency or otherwise, and draw up relevant conclusions regarding the CSFs for project success in developing economies. For this study, we will adopt these top factors from Ofori (2013) because Ghana is a developing economy like Nigeria, and the situation in the Oil and Gas industry in Ghana are expected to be relevant to the Oil and Gas context in a developing economy like Nigeria.

In their study of critical success factors in project management performance among petroleum marketing firms in a developing country, Kenya, Maina and Gathenya (2013) posit that that there is a significant and positive linear relationship between project success and organizational culture. In addition, from a national culture perspective, Maina and Gathenya (2013) contend that for projects to be successful, the project manager must take cultural factors of traditions, values, customs, and beliefs into consideration at the project planning stage to ensure that project objectives are consistent with the values and customs of the beneficiaries (Maina and Gathenya, 2013, p. 581).

Aluko (2003) carried out a study to examine the impact of national culture on organizational performance in three textile firms in Nigeria. A key finding from the study was that although culture was not the sole determinant of organizational performance, there was a significant positive relationship between culture and organizational performance (Aluko, 2003). In reference to the study by Hofstede (1991), Aluko (2003) posits that the study by Hofstede (1991) did not include Nigeria, hence the motivation for his own study Aluko (2003) to fill the research gap. This current research equally draws similar inspiration in the quest to carry out a study to examine the criticality of culture on project success in the O & G industry of a developing economy, Nigeria.

In summary, success criteria are the dimensions (or measures) on which the success of the project is judged, namely cost, time, quality and client satisfaction, while the critical success factors are those key variables and inputs to the management system that lead directly or

indirectly to the success of a project (Diallo and Thuillier ,2004). This conclusion by Diallo and Thuillier (2004) is instructive in the sense that in studies where culture has not been identified directly as a CSF, it might have an indirect influence on the identified CSFs. For example, culture has an influence on communication which has been identified as top CSF for project success in some studies (Ofori, 2013; Maina and Gathenya, 2013). This section will be concluded with summary of the findings by Ofori, Atsu, Aluko and Maina and Gathenya, including how they align with the study by Hofstede (1991).

Alignment of studies on Culture in developing countries with Hofstede

Author	**Summary of Findings**	**Alignment with studies by Hofstede**
Ofori (2013)	**Country of Study**: Ghana **Industry**: Different economic sectors (Banking, Construction , Food & Beverages, Telecoms) **Top 5 CSF**: Clear mission/goals, Adequate resources, Top management support, Competency of project personnel and Effective communication. **Culture**: Not ranked as a CSF but posits that socio-cultural factors have a strong influence on the CSF's.	National culture has an influence on CSF's in line with Hofstede (1984 and 1991).
Atsu et al (2010)	**Country of Study**: Ghana **Industry**: ICT **Top 5 CSF**: Available Funds, Top Management Support, Training, Motivation and Proper Planning. **Culture**: Ranked 13	National culture is considered a CSF's, although ranked number 13. This is consistent with Hofstede (1984 and 1991) studies.
Maina and Gathenya (2013)	**Country of Study**: Kenya **Industry**: Petroleum Marketing **Top 5 CSF**: Currency exchange rates, use of efficient project-specific technology, good forecasting of work plan/ estimation of project duration, efficient/timely procurement of materials & equipment and monitoring and evaluation **Culture**: No reference made	No reference made to culture
Okolie and Okoye (2012)	**Country of Study**: Nigeria **Industry**: Construction **Top 5 CSF**: **Culture**: National culture has an	Okolie and Okoye (2012) argue that to understand the influence of culture on societies, national culture needs to be classified

	influence on the construction workers safety.	into dimensions or categories (Hofstede, 1991; 2001).
Aluko (2003)	**Country of Study**: Nigeria **Industry**: Textile Industry **Top 5 CSF**: **Culture**: Culture has a multidimensional impact on Organizational Performance in selected Textile firms in Nigeria.	Aluko (2003) in his conclusion posit that there is a significant relationship between culture and organizational performance. Reference was made to Hofstede (1984 and 1991) studies regarding the five dimensions that define National culture.

Table 9: Alignment of studies on Culture in developing countries with Hofstede

2.3 Culture, Cultural Diversity, and Theories of Culture

Culture is defined as the set of mental programs, established early in life and difficult to change, that control or influence an individual's responses in a given situation (Shore and Cross, 2004). Culture is a pattern of beliefs and expectations shared by the organization's members that create norms that powerfully shape the behavior of individuals and groups in the organization (Schwartz and Davis, 1981 cited in Davidson, 2003). The uniqueness of culture stems from the deterministic power of defining what is right or wrong, acceptable or unacceptable, workable or unworkable, important or unimportant (Shore and Cross, 2004). Culture is a way of doing things which can make the difference between a successful and unsuccessful organization (Davidson, 2003). According to Wursten, (n.d.), the work of managers is constrained by its cultural context, which Peter Drucker supports by stating that "what managers do is the same all over the world, how they do it is determined by culture and tradition". Wursten (n.d.) further argues that it is impossible to coordinate the actions of people without a deep understanding of their values, beliefs and expressions. The concept of culture is therefore quite complicated as it encompasses the whole gamut of assumptions, beliefs, knowledge, norms, dressing, values and attitudes. Bower (1966) and Smit et al. (2008) cited in Silvius (2013) define culture of a group from two broad spectrum, where the visible describes the way people do things and the less visible describes the way people think about things. From an organization context, culture can be defined as the accepted norm within the organization which determines the collective behavior of people that dictates how things are done in the organization (Hofstede, 2010).

For this study, we will enumerate some definitions of culture from literature. According to Schwartz and Davis (1981) cited in Davidson (2003), culture is a pattern of beliefs and expectations shared by the organization's members that create norms that shape the behavior of individuals and groups in the organization. Within the context of this study, Schwartz and Davis (1981) infers that the behavior of project practitioners to project management in the six organizations covered in this study will be shaped by the norms in the different organizations. Schein (1985) defines culture as "the way in which a group of people solves problems and reconciles dilemmas". From the perspective of this dissertation, project activities are the problems and dilemmas which a group of people comprising project practitioners, project manager his project team, customers and stakeholders set out to solve.

APM (2000) further posit that the cultural back-ground of project team members need to be considered when constituting project teams. From this perspective, Eberlein (2008) formulated a research question: "can the success of international IT services projects be increased by cultural management?" Eberlein (2008) concluded that a good understanding of the concept of cultural differences is important to project practitioners and recommend that organizations should develop managers with multi-cultural mindset to manage the challenges associated with working in cross-cultural teams. This dissertation aims to investigate if project practitioners in the O & G sector of a developing country experience similar challenges, and if they do, recommend solutions.

2.3.1 Cultural Factors and Project Management

Ochieng and Price (2009) argue that communication within multicultural project environments can be effective when project managers demonstrate an awareness of cultural differences. Multicultural teams are preferred by project managers, because they are perceived to out-perform monoculture teams (Earley and Mosakowski, 2000). Several studies cited in this literature review have argued that culture has an influence on effective project management and project outcome. Since multicultural project teams involve people from

different cultures, there is no guarantee that the use of project management practices and procedures, without consideration for appropriate management of cultural differences, will result in successful project outcomes (Ochieng and Price, 2009). It is therefore very important for organizations, when bringing in expatriate project managers from developed countries to work in developing countries, to develop the competency of the project manager to understand everyday issues from different cultural perspectives (Ochieng and Price, 2009). According to Jackson et al. (1992), the performance of culturally diverse teams in providing solution to problems, have been proven to surpass mono cultural teams. Harnessing the synergy and energy of individuals from different organizational cultures has the potential to advocate more creative approach to solving problems and challenges by teams in project-based operations (Marquardt and Hovarth, 2001). This conclusion is consistent with the results of studies in literature as highlighted in this current study, which suggests that culture has both direct and indirect impact on the CSF's that drive project delivery.

2.3.2 National, Organizational and Professional Culture

Cultural patterns, which assist in understanding cultural contexts and differences, can be distinguished along the three levels of national, organizational and professional culture (Trompenaars and Hampden-Turner, 1997). The studies by Hofstede show that cultural differences between nations are evident at the deepest intangible level of values while cultural differences at the organizational level are identified at the more tangible level of practice (Hofstede, 2008).

2.3.3 Organizational Culture

Hofstede defines organizational culture as "the collective programming of the mind that distinguishes the members of one organization from others" (Hofstede, 2008). The distinguishing element from Hofstede's definition stems from the allusion that organizational culture is a pattern of basic assumptions which evolve when a group of people adjust to problems of external adaptation and internal integration (Schein, 1990). According to Gu et al

(2003), organizational culture can be described as the sub-culture to the national culture where the organization operates. Organizational culture is a shared phenomenon (Tichy, 1982; Pfeffer, 1981; Wilkins and Ouchi, 1983 cited in Silvius 2013) and can be segregated into different types suited for different cultural contexts (Goffee and Jones 1996, Deal and Kennedy 1982, Handy 1993 cited in Silvius 2013). In multi-national organizations, the organizational culture cuts across the boundaries of national and professional cultures (Eberlein, 2008), thereby enforcing the need for cultural awareness in international organizations (Trompenaars and Hampden-Turner, 1997). The six O & G Companies where the influence of culture on project performance is investigated in this dissertation are international multi-cultural organizations operating in a developing economy.

Studies carried out on some American organizations ascribed their success and higher financial performance compared to other organizations to the prevailing culture in their respective organizations (Ouchi, 1981; Deal and Kennedy, 1982; Peters and Waterman, 1982 and Lewis, 1994 cited in Davidson, 2003), hence the conclusion that culture is what distinguishes truly high-performing organizations from the pack (Jeuchter et al, 1998 cited in Davidson, 2003). The Hawthorne studies carried out in the 1920's concluded that the culture of a work group has more influence on productivity compared to technology or working conditions (Davidson, 2003), which today explains how the Japanese and European cultures impact the productivity of their organizations (Ouchi, 1981 cited in Davidson, 2003). According to Davidson (2003), studies by Kotter and Heskett (1992), Tidball (1988), Peters and Waterman (1982) and Denison (1990) found a compelling relationship between an organizations culture and organizational performance and the results concluded that culture affects both employee behavior and the success of a company (Davidson, 2003). Specifically, the study by Denison (1990) over a 15-year period with more than 1000 participating organizations, found clear compelling relationships between an organization's culture and it's business performance.

According to studies by Hofstede, organizational cultural models consist of six autonomous dimensions and two semi-autonomous dimensions, which define the characteristics of an organizations culture. The below table explains each dimension in detail with information from the studies by Hofstede (2008).

Hofstede Dimension of Culture Definitions

Autonomous Dimensions	**Description**
Means-oriented vs. Goal-oriented	In a means oriented culture the key feature is the way in which work has to be carried out; people identify with the "how". In a goal-oriented culture employees are primarily out to achieve specific internal goals or results, even if these involve substantial risks; people identify with the "what".
Internally driven vs. Externally driven	In a very internally driven culture employees perceive their task towards the outside world as totally given, based on the idea that business ethics and honesty matters most and that they know best what is good for the customer and the world at large. In a very externally driven culture the only emphasis is on meeting the customer's requirements; results are most important and a pragmatic rather than an ethical attitude prevails.
Easygoing work discipline vs. Strict work discipline	This dimension refers to the amount of internal structuring, control and discipline. A very easygoing culture reveals loose internal structure, a lack of predictability, and little control and discipline; there is a lot of improvisation and surprises. A very strict work discipline reveals the reverse. People are very cost-conscious, punctual and serious.
Local vs. Professional	In a local company, employees identify with the boss and/or the unit in which one works. In a professional organisation the identity of an employee is determined by his profession and/or the content of the job. In a very local culture, employees are very short-term directed, they are internally focused and there is strong social control to be like everybody else. In a very professional culture it is the reverse.
Open system vs. Closed system	This dimension relates to the accessibility of an organisation. In a very open culture

	newcomers are made immediately welcome, one is open both to insiders and outsiders, and it is believed that almost anyone would fit in the organisation. In a very closed organisation it is the reverse.
Employee-oriented vs. Work-oriented	In very employee-oriented organisations, members of staff feel that personal problems are taken into account and that the organisation takes responsibility for the welfare of its employees, even if this is at the expense of the work. In very work-oriented organisations, there is heavy pressure to perform the task even if this is at the expense of employees.

Table 10 Hofstede Dimension of Culture Definitions

Source: Hofstede (2008)

2.3.4 Organizational Culture and Project Performance

Studies by Belassi et al., 2007; Shore, 2008; Wang and Liu, 2007; and Yazici, 2009 concluded that "one organizational factor that has been linked to project success is culture". Gu et al (2013) posit that despite the extensive research work on factors that influence project performance, including the research efforts of Project Management Institute (PMI), a high number of projects still fail. Specifically, Standish Group International in 2009 reported a 72% project failure rate in the United States compared to 76% completion rate of projects in Africa, which implies a 24% failure rate reported by the 2014 Deloitte African Construction Trends Report.

2.3.5 Professional (Work) Culture

Professional culture refers to the code of conduct which guides and drives the professional conduct of individuals within the context of their profession, and defined on the basis of a particular discipline e.g. project management. For project professional, professional culture are guided by professional bodies both internationally or locally. Some international bodies include Project Management Institute (PMI) code of professional conduct and APM to mention a few. In Nigeria, local professional bodies include NSE and COREN.

2.3.6 National Culture

National culture refers to the behaviors, ethics, and beliefs of people from different nations (Hofstede, 1991). Gu et al (2013) posit that national cultures are premised on the behaviour of people in a specific country. Different countries are succinctly defined by the distinct values in their respective cultures and these values drive the different approaches to the resolution of problems, including implementation of projects (Trompenaars and Hampden-Turner 1997, Hofstede 1991). Eberlein (2008) in his study contend that in situations where several national cultures are present in a project team, the project team tends to be more of a heterogeneous team rather than homogeneous team. This is a possible reason for the conclusion that culture is a potential reason for project failure in developing countries arising mainly due to the prevailing different cultural contexts (Muriithi and Crawford, 2003). This aligns with the views of Henrie and Sousa-Poza (2005) who argue that cultural knowledge and awareness is significant requirement for project success by project professionals who manage projects. Despite the importance of cultural knowledge and awareness in project management, there is limited data in literature regarding the influence and impact of culture in project management in developing countries (Henrie and Sousa-Poza ,2005, Gurung and Prater ,2006) Kliem (2004) argue that additional risks and challenges to successful delivery of international projects are introduced due to “geographical and cultural differences” arising from the globalization of international organizations, and this motivated his research on the impact of cultural factors on project management. Kliem (2004) posit that cultural differences are a major risk from the perspective of the challenges of building and maintain trust in a multi-cultural team in international projects. Kliem (2004) argues that people from some nationalities may not have good working relationship with people from other nationalities, resulting in mistrust and poor team work, with resultant impact on project delivery.

Kayworth and Leidner (2000) posit that global virtual teams face significant challenges in four areas: communication, culture, technology, and project management (leadership). The

culture challenges stem from the context that culture may influence how project team members interpret information, act upon it, and communicate the information to other team members (Kayworth and Leidner, 2000). Project managers have to contend with a lot of potential issues when managing projects. When cultural differences are added to this mix of potential issues, the management of virtual teams may become exceedingly complex (Kayworth and Leidner, 2000). One of the identified critical success factors in literature is communication. As such, communication between project team members must be factual and accurate to mitigate passing wrong information which could have negative consequences on the project. Culture plays a vital role in ensuring that communication between team members is accurate and factual devoid of distortion or misinterpretation (Kayworth and Leidner, 2000). Specifically, "cultural differences significantly affected the ability of team members to communicate ideas and to coordinate the project" (Kayworth and Leidner, 2000). Recall that communication and co-ordination have been identified in literature as top ranking CSF's for successful project delivery. In addition, extant literature argues that cultural differences has influenced team communication and coordination, reference item 14 in table 11 below. Relating this finding to the current study, the impact of culture on communication and co-ordination will be assessed to understand the consequential impact of culture on project delivery in the O & G sector of Nigeria and by extension other similar developing economies.

2.4 Summary of Theoretical Background

This section gives a summary of the literature reviewed for the theoretical background that underpins this research. The summary in the below table 11 provides the statement and proposition themes and variables that this research will rely on for developing the hypotheses and the quantitative analysis of this research.

Theoretical Background Literature Summary

Statements / Proposition	Literature Reference
1. Culture is the fourth significant constraint in project management (in addition to time, cost and scope)	Muriithi and Crawford (2003), Henrie and Sousa-Poza (2005), Kliem (2004), Davidson (2003), Atsu et al (2010)
2. Project managers in my company are sensitive to cultural diversity and have a strong commitment towards cultural issues	Eberlein (2008), Cerimagic (2010), Eberlein (2008), Moran et al (2014), Okolie and Okoye (2012), Earley and Mosakowski (2000), Ochieng and Price (2009), Marquardt and Hovarth (2001)
3. Formal awareness of cultural diversity in the project team improves morale and productivity of team members	Davidson (2003), Jackson et al. (1992).
4. The cultural back-ground of project team members should be considered when allocating resources in project teams in my company	APM (2000), Ofori (2013), Cerimagic (2010), Cerimagic (2010), Muriithi and Crawford (2003), Okolie and Okoye (2012), Earley and Mosakowski (2000), Jackson et al. (1992).
5. My organisation has a training program for project managers to help them manage multi-cultural teams	Eberlein (2008), Trompenaars and Hampden-Turner (1997), Cerimagic (2010), Brewster and Pickard, 1994; Kealey and Protheroe, 1996; Harris and Brewster, 1999, Black and Mendenhall (1990), Eberlein (2008), Moran et al (2014), Earley and Mosakowski (2000), Ochieng and Price (2009),
6. The presence of several national cultures in a project team has a negative effect on team cohesion and teamwork.	Eberlein (2008), Kliem (2004), Cerimagic (2010), Eberlein (2008), Jackson et al. (1992), Marquardt and Hovarth (2001), Maina and Gathenya (2013)
7. In some of my projects, the existence of multi-cultured teams has directly been identified as the reason for project failure.	Eberlein (2008), Muriithi and Crawford (2003), Henrie and Sousa-Poza (2005), Kliem (2004), Muriithi and Crawford (2003), Atsu et al (2010), Okolie and Okoye (2012), Ochieng and Price (2009) , Jackson et al. (1992), Marquardt and Hovarth (2001), Eriksson et al (2002)
8. I have experienced situations where people from different nationalities did not trust each other resulting in poor project delivery.	Muriithi and Crawford (2003), Henrie and Sousa-Poza (2005), Kliem (2004), Cerimagic (2010)
9. The multi-cultural composition of project teams influences the behaviour of team members and how they manage situations.	Eberlein (2008), Kliem (2004), Davidson (2003), Cerimagic (2010), Muriithi and Crawford (2003), Eberlein (2008), Hofstede (1984), Earley and Mosakowski (2000), Jackson et al. (1992), Marquardt and Hovarth (2001)
10.In some projects I have been engaged	Eberlein (2008), Kliem (2004), Cerimagic

in, misunderstandings and conflicts between team members have been attributed to cultural differences	(2010), Eberlein (2008), Kayworth and Leidner (2000), Ochieng and Price (2009), Eriksson et al (2002), Maina and Gathenya (2013)
11. For projects to be successful, the project manager must take cultural factors like traditions, values, customs, and beliefs into consideration at the project planning stage	Eberlein (2008), Muriithi and Crawford (2003), Henrie and Sousa-Poza (2005), Kliem (2004), Cerimagic (2010), Muriithi and Crawford (2003), Muriithi and Crawford (2003), Eberlein (2008), Atsu et al (2010), Hofstede (1984), Okolie and Okoye (2012), Earley and Mosakowski (2000), Ochieng and Price (2009), Jackson et al. (1992), Marquardt and Hovarth (2001), Eriksson et al (2002), Maina and Gathenya (2013), Ofori (2013)
12. Project managers from different cultures have different approaches to managing their projects	Trompenaars and Hampden-Turner (1997) , Hofstede (1991), Cerimagic (2010), Brewster and Pickard, 1994; Kealey and Protheroe, 1996; Harris and Brewster, 1999, Black and Mendenhall (1990), Muriithi and Crawford (2003), Muriithi and Crawford (2003); Onyemelukwe (1973), Hofstede (1984), Ochieng and Price (2009), Marquardt and Hovarth (2001), Shore and Cross (2004), Ika (2012)
13. From my experience in project management, managing projects in developed nations is different from managing in developing nations	Trompenaars and Hampden-Turner (1997) , Hofstede (1991), Cerimagic (2010), Black and Mendenhall (1990), Muriithi and Crawford (2003), Muriithi and Crawford (2003); Onyemelukwe (1973), Hofstede (1984), Ochieng and Price (2009), Shore and Cross (2004), Ika (2012)
14. In the projects I have managed, cultural differences has influenced team communication and coordination	Kliem (2004), Benitez Codas (2006), Davidson (2003),Cerimagic (2010), Eberlein (2008), Kayworth and Leidner (2000), Ochieng and Price (2009), Maina and Gathenya (2013)
15. In some projects I have worked, appointing a project manager from the host community influenced project success.	Cerimagic (2010), Brewster and Pickard, 1994; Kealey and Protheroe, 1996; Harris and Brewster, 1999, Muriithi and Crawford (2003)
16. The organisational culture i.e. the way we do things project success	Davidson (2003), Muriithi and Crawford (2003),Eriksson et al (2002), Shore and Cross (2004), Ika (2012), Maina and Gathenya (2013) , Maina and Gathenya (2013), Belassi et al., 2007; Shore, 2008; Wang and Liu, 2007; Yazici, 2009.
17. The work environment, which includes trust and goal congruence, in which the project team operates has a positive influence on project performance	Kliem (2004), Benitez Codas (2006), Culp and Smith (2005), Atsu et al (2010), Thamhain (2004), Howell and Shea (2001), Liberatore and Wenhong (2010)

Table 11: Theoretical Background Literature Summary

In summary, the findings from the foregoing theoretical review of project management from the context of CSF's and culture related studies provides the basis for further conceptualisation of the dissertation problem culminating in the hypotheses and research framework / model. One key finding is the fact that despite the studies on factors for successful project delivery, we still have high number of failed projects in both developed and developing economies. The literature review also show that studies have focused on technical factors compared to non-technical factors like culture. The findings from the literature review support the motivation to embark on this study on the impact of culture on project delivery in developing economies, with the aim to explore non-technical approach to improve project delivery. The outcome will form the basis for an action research process to improve project delivery in the researcher's organization.

Chapter Three: Conceptualisation

Based on the review of extant literature in the preceding chapter, the research hypotheses and conceptual framework of this dissertation are developed in this chapter. The research hypotheses are formulated from the findings of the literature review. This study relies on a critical analysis of four theories of culture namely Hofstede cultural dimensions , Richard Lewis culture model, Atsu et al (2010) framework for project success and Culp and Smith triangle of needs for project success to develop the research model underpinning this study. This chapter drills deeper into understanding the impact of culture on project execution in developing economies from the perspective of the four theories, with specific focus on six leading IOC's operating in Nigeria.

3.1 Theories and Models of National Culture

3.1.1 Hofstede's Framework of Cultural Dimensions

Hofstede's framework of cultural dimensions has been extensively used to explain the impact of national culture on organizations performance (Ármannsdóttir, 2015), hence the need to review Hofstede's work for this current study on impact of culture on project execution. Hofstede (1980) model of national cultures, based on a survey of more than 50 countries involving more than 120,000 respondents, characterised national culture into five distinct cultural dimensions that can be used to predict behaviour. The dimensions include: Power Distance Index, Individualism vs. Collectivism Index, Masculinity vs. Femininity Index, Uncertainty Avoidance Index and Long Term Orientation vs. Short Term Orientation Index. The five dimensions can be used to define values which affect how people in different cultures behave, and how they will potentially behave in a work related context (Hofstede, 1980). Therefore, a management technique or philosophy that is appropriate in one national culture is not necessarily appropriate in another (Hofstede, 1984, p.1), which implies that management activity cannot be decoupled from the culture in the domain it is situated. The research by Anbari et al (2010) comparing western cultural values and non-western cultural

values, from the perspective of Hofstede's framework of cultural dimensions, provides some insight on the impact of culture on project execution as tabulated below.

Western Cultural Values	Non-Western Cultural Values	Impact on Project Management
Individualism	Collectivism/Group	+
Achievement	Modesty	x
Equality/Egalitarianism	Hierarchy	–
Winning	Collaboration/Harmony	+
Guilt (internal self-control)	Shame (external control)	x
Pride	Saving face	x
Respect for results	Respect for status/ascription	+
Respect for competence	Respect for elders	–
Time is money	Time is life	–
Action/doing	Being/acceptance	–
Systematic/mechanistic	Humanistic	–
Tasks	Relationships/loyalty	–
Informal	Formal	–
Directness/assertiveness	Indirectness	–
Future/change	Past/tradition	–
Control	Fate	–
Specific/linear	Holistic	+
Verbal	Non-verbal	+
(+) = Positive impact of combining both values on outcomes	*(-) = Negative impact of combining both values on outcomes (culture clash)*	*(x) = No direct impact on outcomes*
Adapted from Kohls (1981); Marquardt & Kearsley (1999)		

Table 12: Impact of Cultural Values on Project Management

From table 12, the impact of cultural values on project management in western and non-western culture can be summarised into three distinct aspects: positive impact in having the two cultural values in a project team, negative impact in having the two cultural values in a project team, and situations where a mix of the cultural values in a project team has no impact on project execution outcome. The significance of this for practitioners is the need to appreciate the appropriate resource mix when constituting teams for project execution in developing countries a predominantly non-western cultural value that engage personnel from western cultural values to execute projects.

Hofstede Culture Index for Nigeria

Narrowing the Hofstede theory to the context of Nigeria, the below table 13 gives an overview of Nigeria's culture index relative to other world cultures based on Hofstede six dimension model.

Hofstede Theory Application to Nigeria

Dimension/Index	Hofstede Culture Index Score (Nigeria)
Power Distance Index .	Nigeria scores high on this dimension (score of 80) which means that people accept a hierarchical order in which everybody has a place and which needs no further justification. Hierarchy in an organization is seen as reflecting inherent inequalities, centralization is popular, subordinates expect to be told what to do and the ideal boss is a benevolent autocrat.
Individualism vs. Collectivism Index	Nigeria, with a score of 30 is considered a collectivistic society. This is manifest in a close long-term commitment to the member 'group', be that a family, extended family, or extended relationships. Loyalty in a collectivist culture is paramount, and over-rides most other societal rules and regulations. The society fosters strong relationships where everyone takes responsibility for fellow members of their group. In collectivist societies offence leads to shame and loss of face, employer/employee relationships are perceived in moral terms (like a family link), hiring and promotion decisions take account of the employee's in-group, management is the management of groups.

Masculinity vs. Femininity Index	Nigeria scores 60 on this dimension and is thus a masculine society. In masculine countries people "live in order to work", managers are expected to be decisive and assertive, the emphasis is on equity, competition and performance and conflicts are resolved by fighting them out.
Uncertainty Avoidance Index	Nigeria receives an intermediate score of 55 on this dimension, which does not show a clear preference.
Pragmatism Index	Nigeria scores very low (13) on this dimension, meaning that its culture is normative instead of pragmatic. People in such societies have a strong concern with establishing the absolute Truth; they are normative in their thinking. They exhibit great respect for traditions, a relatively small propensity to save for the future, and a focus on achieving quick results.
Indulgence Index	With a very high score of 84, Nigerian culture is said to be one of indulgence. People in societies classified by a high score in indulgence generally exhibit a willingness to realise their impulses and desires with regard to enjoying life and having fun. They possess a positive attitude and have a tendency towards optimism. In addition, they place a higher degree of importance on leisure time, act as they please and spend money as they wish.

Table 13 : Hofstede Theory Application to Nigeria

Source: Hofstede (2008)

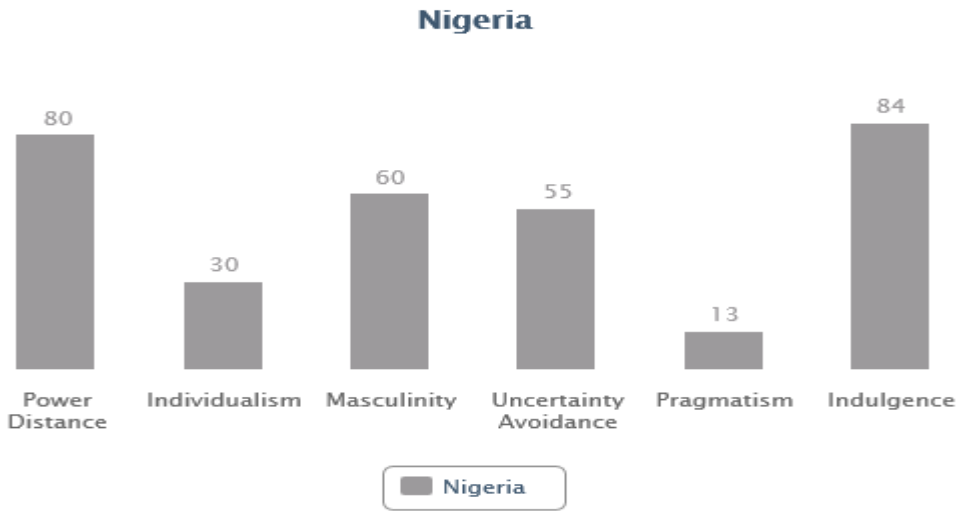

Figure 4 : Summary of Hofstede's Theory Application to Nigeria

Source: Hofstede (2008)

The bar chart in figure 4 above summates the narration and information in table 13. From this research and in the context of my practice, this research will use this information to develop the framework that will be proposed for use by project practitioners to improve project delivery in a developing economy like Nigeria.

Application of Hofstede Cultural Dimensions - Ideal Cultural Approach by Phase

Muriithi and Crawford (2003) and Jessen (1998) conducted studies using Hofstede cultural dimensions to identify the ideal cultural trait in each phase of the project cycle. The results of the study is shown in the below table.

Ideal Cultural Approach by Phase

Trait	Project Phase			
	Initiation	**Design**	**Execution**	**Termination**
Power Distance	High	Low	Low	Medium
Uncertainty Avoidance	High	Medium	Medium	High
Individualism/Collectivism	Medium	Medium	Medium	High
Masculinity/Feminity	Low	Medium	Medium	Medium

Table 14: Ideal Cultural Approach by Phase

Sources: Muriithi and Crawford (2003) and Jessen (1998)

Muriithi and Crawford (2003) posit that an understanding of this could help project practitioners explain the reason for project failures that are attributed to cultural factors at different phases of the project cycle. For example, according to Muriithi and Crawford (2003), at the initiation stage of a project, the power distance index should be high. The logic is that the project manager should give priority to top management to drive project initiation (Muriithi and Crawford, 2003). Muriithi and Crawford (2003) applied the same logic for explaining the influence of the other three culture traits on the different project phases.

Applying this for projects executed in developing country like Nigeria where power distance index is high, the potential for success will be more at the initiation and termination phase, while potential for failure will be higher at the design and execution phase. In essence, cultural traits will have an influence on project management at the different phases of a project. Therefore, in this research, I will use this finding from the Hofstede's theory to develop my proposed framework for application by project practitioners to improve project execution performance.

3.1.2 Richard Lewis Model of Culture

The application of Hofstede's theory in practice is illustrated by the Richard Lewis Model of Culture which posits that the over 200 different national and regional cultures of the world can be classified into three classes: Linear Active, Multi Active and Reactive cultures. According to Lewis, the model can be used to predict and explain behaviour and communication orientation of people from different cultures. This is the basis for the hypothesis in this research which seeks to investigate the correlation between culture and behaviour.

Predicting and explaining behaviour

The three classes of culture is summarised by the below figure indicating the Lewis model cultural types across the linear, multi-active and reactive variations. For this research, the Lewis model will be used to explain the behaviour of different national cultures and predict the interaction between them, making the model a powerful tool for constituting teams based on compatibility of working together.

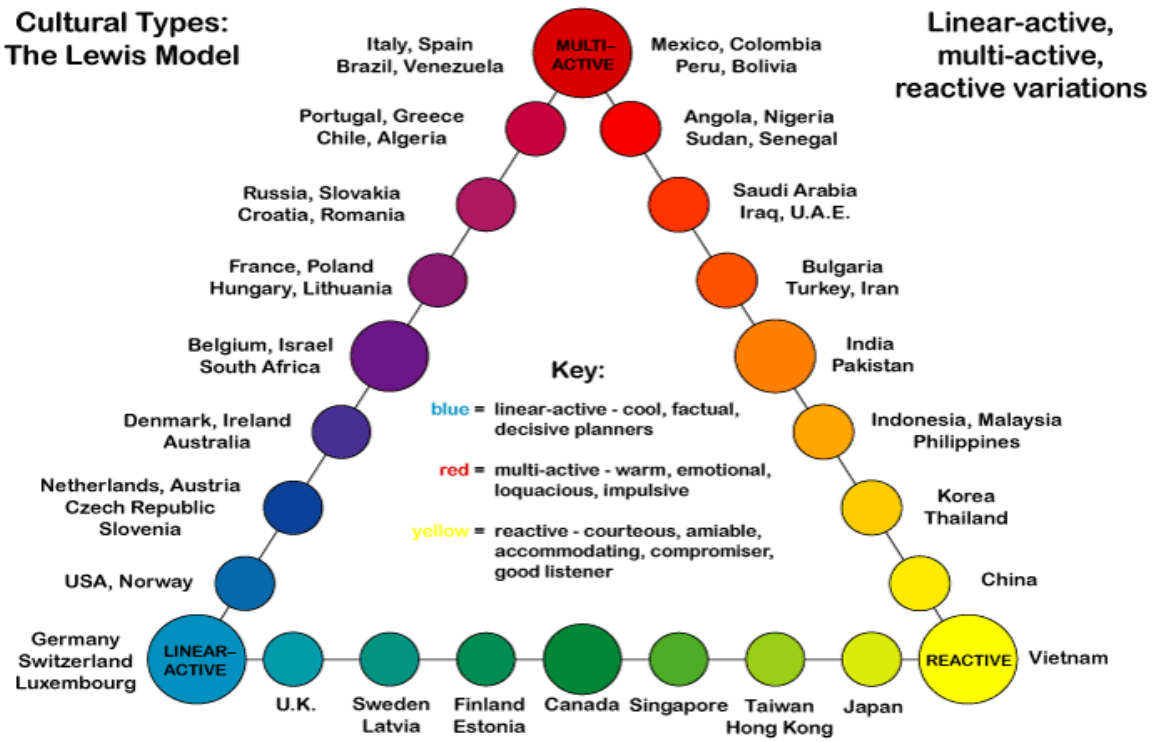

Figure 5 Lewis Model of Cultural Types

Source: Lewis (2015)

The table 15 below compares the attributes of the three cultures from the perspective of the Lewis model, which strengthens the views of this research why it is critical to consider cultural background when constituting project teams comprising practitioners from different cultures, considering that the main objective of this research seeks to investigate the impact of culture on project delivery success in the Oil and Gas industry of a developing economy, as a precursor to developing the conceptual model of this research and the framework that will guide project practitioners to improve project delivery performance.

Attributes of Linear Active, Multi Active and Reactive Cultures

LINEAR-ACTIVE	MULTI-ACTIVE	REACTIVE
Talks half the time	Talks most of the time	Listens most of the time
Does one thing at a time	Does several things at once	Reacts to partner's action
Plans ahead step by step	Plans grand outline only	Looks at general principles
Polite but direct	Emotional	Polite, indirect
Partly conceals feelings	Displays feelings	Conceals feelings
Confronts with logic	Confronts emotionally	Never confronts
Dislikes losing face	Has good excuses	Must not lose face
Rarely interrupts	Often interrupts	Doesn't interrupts
Job-oriented	People-oriented	Very people-oriented
Use mainly facts	Feeling before facts	Statements are promises
Truth before diplomacy	Flexible truth	Diplomacy over truth
Sometimes impatient	Impatient	Patient
Limited body language	Unlimited body language	Subtle body language
Respects officialdom	Seeks out key person	Uses connections
Separates the social and professional	Interweaves the social and professional	Connects the social and professional

Table 15 Attributes of Linear Active, Multi Active and Reactive Cultures

Source: Lewis (2015)

Predicting and Explaining Communication Orientation

Communication is not only about the different languages people speak, but within the organizational context it covers how we: **"**get people to like us, put across a clear and logical message, create enthusiasm and passion, build trust and get people to do things" (Lewis, 2015). This provides clarity regarding the importance of communication and explains why several researches have ranked communication very high as a critical success factors in project management.

The Richard Lewis Model of culture classified communication across the three cultures as indicated in the below diagram. Lewis concluded that people from linear active cultures are data oriented, with a preference for communicating using data. People from multi active cultures are dialogue oriented, meaning that they have a preference for using conversation for communication. People from reactive cultures are listener oriented, which means that they are good listeners and do less of talking.

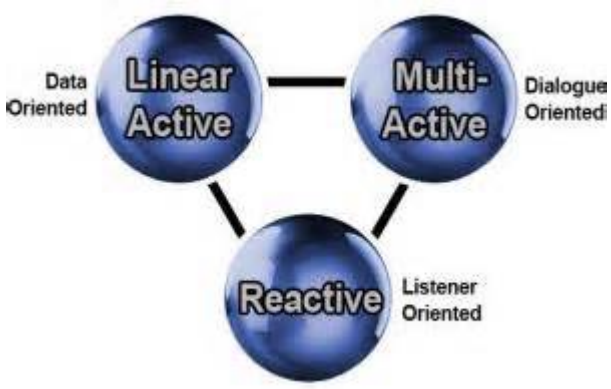

Figure 6 Lewis Model of Communication Orientation

Source: Lewis (2015)

3.1.3 Application of Lewis Model in Practice

The Lewis model is a useful tool that can be used to understand the different behaviors dominant in different cultures and how to interact with people from different cultures. In multi-cultured project teams, the Lewis model will help team members predict the behavior of individuals and better explain the actions of people from particular cultures. This will go a long way to reduce strife, mitigate misunderstandings and enhance collaboration, team work and team cohesion. By focusing on the cultural roots of national behavior, both in society and business, we can foresee and calculate with a surprising degree of accuracy how others will react to our plans for them, and we can make certain assumptions as to how they will approach us (Lewis, 2015). Accordingly, this research will be adopting the relevant aspects of the Lewis model to develop the hypotheses, conceptual model and framework.

3.2 Impact of Culture on Project Delivery in Nigeria, Africa and Developing Countries

Hofstede argues that cultural differences have an impact on work related value patterns and work concepts are culturally based (Muriithi and Crawford, 2003). Project management approaches in practice are driven mostly by project management knowledge and practice guides of professional institutes like the Project Management Institute and Association for Project Management, which although developed from the perspective of developed economies, have attracted a lot of interest from developing and emerging economies seeking for guidance in improving project performance (Muriithi and Crawford, 2003). As a result of the concern regarding the application of practice guides developed from the perspective of developed economy in a developing economy, Muriithi and Crawford (2003) carried out a study of projects in East Africa, with the aim to explore the applicability of project management approaches as represented in the most widely distributed and accepted knowledge and practice guides (PMBOK1 Guide, APMBoK (4th edition) and Australian National Competency Standards for Project Management) to projects in developing and emerging economies. Muriithi and Crawford (2003) conclude that the use of tools and techniques contained in the knowledge and practice guides will not enhance project success if they run counter to the culture and work values of the country it is used (Muriithi and Crawford, 2003). The reason for this is that cultural context has an influence on managing people, because values in the workplace are culturally based, and this influence vary between countries, and within countries with different cultures (Muriithi and Crawford, 2003). According to Muriithi and Crawford (2003), a good understanding of cultural differences can determine how managers successfully apply management theories in different countries and cultures. For example, the values of people in western cultures (i.e. what motivates them, how they view or value work, how they relate to authority, what values or virtues they hold most dear) are not applicable in African cultures (Muriithi and Crawford, 2003). Going by these arguments of Muriithi and Crawford (2003) and other scholars, the difference in values of people from the different cultures within Nigeria could have an influence on project

delivery. As a result of this difference between cultures, Moran et al (2014) suggest the following:

- The most basic skill that global leaders must cultivate is learning how to effectively communicate and listen cross-culturally.
- To be more effective personally and professionally, we must understand how to manage culturally differences, because if not understood, the cost can be significant.

Okolie and Okoye (2012) in their study conducted on construction industry in Nigeria, argue that there should be adequate consideration of workers cultural values and beliefs for a successful project delivery. Okolie and Okoye (2012) recommend that when working in any part of Nigeria, construction companies should consider and take into consideration the cultural values of their host community and that of their workers as these affect project outcome (Okolie and Okoye, 2012).

Empirical evidence shows a very high rate of project failure in developing countries (Dugger, 2007). According to a study of World bank projects in African countries, the findings suggest that while the World Bank has invested more than US$5 billion in more than 700 projects in Africa over the past 20 years (Dugger, 2007), its project failure rate is over 50% in Africa, which is greater than the 40% failure rate observed in other poor regions of the world and shows that African projects are lagging behind (Dugger, 2007). In addition, the International Finance Corporation (IFC) found that only half of their projects in Africa succeed (Associated Press, 2007). According to Ika (2012), one of the reasons for failure of projects in Africa is what he termed the cultural trap, arising mainly because project management practices were not tailored to the cultural context of Africa (Ika, 2012, p. 34). He suggests that to address this cultural trap, project management approach should be tailored to African values and culture (Ika, 2012, p. 34). According to Stuckenbruck & Zomorrodian (1987), when introducing any management technique from a developed country into a developing country, without due consideration of the prevailing culture and political environment of the administrative system, the initiative will likely not be effective. The main area of challenge in

developing countries is local management under capacity and inefficiency, with consequential impact on successful project implementation. Hofstede (1984) supports this conclusion by Stuckenbruck & Zomorrodian (1987) on the relation between project management theories and practices and the culture concept. According to Hofstede (1984), "a management technique or philosophy that is appropriate in one national culture is not necessarily appropriate in another culture" (Hofstede, 1984).

3.3 Impact of Culture on Project Execution

Hofstede framework of cultural dimensions gives an indication that there is no best approach to managing people (Cerimagic, 2010), for the simple reason that each country has its unique cultural dimension, and as such requires management practices appropriate to the culture (Hofstede ,1980). This difference in culture and beliefs explains the reason why if people from different cultures face the same problem, there will be different approach, attitude and behaviour to solving the problem (Leung and Bond, 2004). This research will test this phenomenon in one of the hypotheses to be developed for the conceptual model of this study.

Building on the findings from the Hofsteds's theory, Culp and Smith (2005) applied the concept of "triangle of needs" to determine the three important basic needs of project team members, which if satisfied by the project manager, will most likely influence project success. Relating the triangle of needs to project management, Culp and Smith (2005) contend that the three needs fall into three categories:

- **Content needs** – project scope, budget, expenditure, resources and schedule.
- **Procedural needs** – how progress is monitored and reported, how issues are resolved, how the team gets paid for doing the project, and how changes in project scope are handled.
- **Relationship needs** – perception of trust, commitment, communication, fairness, respect, participation, and caring.

According to Culp and Smith (2005), for a project to be successful, the project manager needs to spend an equal amount of time on all three needs and argue that the main reason for project failure is that project managers do not spend an equivalent amount of time on each of the three needs (Culp and Smith, 2005). The findings from a study are summarised below.

Triangle of Needs - Impact on Project Execution

Behaviour	**% related to project success (if demonstrated)**	**% related to project failures/problems (if not demonstrated)**
Relationship building – caring, fairness, demonstrating trustworthiness and understanding.	23.8%	45.3%
Cognitive capacity – managing ambiguity, creativity, managing diversity, and system complexity.	23.8%	10.5%
Communication – supportive, informing, confronting, presentations, writing.	16.4%	5.2%
Self-management – courage, perseverance, self-awareness, time management.	16.4%	26.3%
Decisiveness – action orientation, command skills, organization, prioritising, result orientation.	13.4%	2%
Technical ability – functional skills, specific business knowledge	5.9%	10.5%

Table 16: Triangle of Needs - Impact on Project Execution

Source: Culp and Smith (2005)

Based on the above finding, Culp and Smith (2005) argue that "the key to project success is to spend as much time to the relationship side of the triangle of needs as to the content and procedural needs" (p. 4). This finding of Culp and Smith (2005) from studies in a developed country will be looked at from a developing country context in this dissertation through analysis of quantitative and qualitative data that will collected from the surveys.

3.4 Combining Theories

For the development of this research conceptual framework, the variables for the correlation analysis were derived from four theories namely Hofstede Dimensions of Culture, Lewis Model of Cultural Types, Culp and Smith "triangle of needs" and Atsu et al Success framework for ICT project implementation. The description, problem, variables and reason for selecting these theories have been explained in details in the preceding sections and are summarised in table 17 below.

Theory Explanation

Theory	Description	Problem Addressed	Factors/ variables used	Reasons for use
Hofstede Dimensions of Culture	Hofstede framework of cultural dimensions gives an indication that there is no best approach to managing people, for the simple reason that each country has its unique cultural dimension, and as such requires management practices appropriate to the culture. An understanding of this could help project practitioners explain the reason for project failures that are attributed to cultural factors at different phases of the project cycle.	The difference in culture and beliefs explains the reason why if people from different cultures face the same problem, there will be different approach, attitude and behaviour to solving the problem (Leung and Bond, 2004).	Culture Behaviour National cultures (comparing developed and developing cultures)	Hofstede theory is relevant to the conceptual model of this research which seeks to show the correlation between culture and three variables: behaviour, project delivery and difference between project management approach in developed & developing nations Specifically, in section 3.2, the Hofstede theory supports the research model through some references in literature that elucidates the impact of Cultural differences on Project Delivery in Nigeria, Africa and Developing Countries. References: Muriithi and Crawford (2003), Okolie and Okoye (2012), Moran et al (2014), Ika (2012) Stuckenbruck & Zomorrodian (1987).
Lewis Model of	The Lewis model is a	By focusing on the	Communication	Theory is relevant

Cultural Types	useful tool that can be used to understand the different behaviors dominant in different cultures and how to interact with people from different cultures. The Richard Lewis Model of culture classified communication across the three cultures as indicated in the below diagram. Lewis concluded that people from linear active cultures are data oriented, with a preference for communicating using data. People from multi active cultures are dialogue oriented, meaning that they have a preference for using conversation for communication. People from reactive cultures to be listener oriented, which means that they are good listeners and do less of talking.	cultural roots of national behavior, both in society and business, we can foresee and calculate with a surprising degree of accuracy how others will react to our plans for them, and we can make certain assumptions as to how they will approach us (Lewis, 2015).	Behaviour. Predict the behavior of individuals. Explain the actions of people from particular cultures. Misunderstandings Collaboration, Team work Team cohesion.	to the conceptual model of this research which seeks to depict the correlation between culture and three variables: behaviour, project delivery and Project management approach in developed & developing nations Specifically, in section 3.1.2, the Lewis theory supports the research model by revealing that culture has an impact on communication, which is ranked very high as a CSF for project success. Secondly, the Lewis theory shows that culture is used for predicting and explaining the behaviour variables used in the conceptual model. Thirdly, the Lewis theory developed a table which compares the attributes of the three culture types, which explains why it is critical to consider cultural background when constituting project teams comprising practitioners from different cultures.
Culp and Smith "triangle of needs"	Useful in determining the three important basic needs of project team members, which if satisfied by the project manager, will most likely influence project success.	According to Culp and Smith (2005), for a project to be successful, the project manager needs to spend an equal amount of time on all three needs and argue that the main reason for project failure is that project managers do not spend an equivalent amount of time on each of the three needs (Culp and Smith, 2005).	**Procedural needs** – how issues are resolved **Relationship needs** – perception of trust, commitment, communication, fairness, respect, participation, and caring.	In section 3.3 of this research, the Culp and Smith theory investigates the impact of culture on project delivery. Specifically, Culp and Smith (2005) argue that "the key to project success is to spend as much time to the relationship side of the triangle of needs as to the content and procedural needs"

				(p. 4). This finding of Culp and Smith (2005) from studies in a developed country will be investigated from a developing country context in this dissertation. The reason for this is because the Culp and Smith theory reveals two important themes: 45.3% of project failure/problems are related to relationship related issues if appropriate interpersonal relationship is not demonstrated. 16.4% of project success is related to effective communication. Interpersonal relationship and communication are variables in this research conceptual model.
Atsu et al (2010) Success framework for ICT project implementation	The culture variables in the Atsu et al (2010) success framework that influenced project success were based on three elements of Hofstede culture dimension (Hofstede, 1991) , namely uncertainty avoidance, power distance and long-term orientation, in addition to the traditional culture elements of norms, beliefs and attitudes	According to Atsu et al (2010), non-technical factors like culture and political interference are relatively more important as CSF for successful project delivery in developing countries compared to developed countries.	Culture Project Success Organizational Governmental Economic	Atsu theory is relevant to this research because it applied Hofstede's theory in establishing the correlation between culture and project success.

Table 17 Theory Explanation

3.5 Research Hypotheses

The basis for the conceptual framework for this study evolved from a review of eight theoretical frameworks on culture and project management related studies in extant literature as described in appendix 6.

On the basis of the theoretical model selected for this study, the following hypotheses are formulated for testing the correlation between three variables: culture, behaviour and perceived project success, the correlation between projects in developing and developed countries, in addition to indicating their significance levels. The hypotheses are derived from the themes obtained from table 11 of the summary of the literature in section 2.4 of chapter 2 covering the theoretical background of this research. The model is depicted in the next section 3.6. A brief narration of the correlation variables used for the conceptual model, the rationale for selecting the variables and the link with the theoretical background of this research follows.

3.5.1 Correlation between culture and behaviour

H_B: There is a relationship between culture and the behaviour exhibited by project team members.

This hypotheses is proposed to confirm or reject the findings from the Hofstede's, Lewis, Culp & Smith and Atsu et al theories and also the literature referenced in the theoretical background chapter (see table 11 item # 9), on the basis of the analysis to be carried out in this research study, that there is a correlation between culture and behaviour, from the perspective of the Oil and Gas industry of a developing economy like Nigeria.

H_{B1}: The presence of several national cultures in a project team has a negative impact on team cohesion and teamwork.

This hypothesis is proposed in this research to obtain a more in depth analysis of the team cohesion and teamwork aspect of the behaviour variable based on the findings from the

literature referenced in the theoretical background chapter (see table 11 item # 6) that there is a correlation between national culture and team cohesion & teamwork, from the perspective of the Oil and Gas industry of a developing economy like Nigeria.

H_{B2}: The presence of individuals from different nationalities in a project team increases the chances of mistrust between team members.

This hypothesis is proposed in this research to obtain a more in depth analysis of the mistrust aspect of the behaviour variable based on the findings from the literature referenced in the theoretical background chapter (see table 11 item # 8) that there is a correlation between differences in nationalities and mistrust, from the perspective of the Oil and Gas industry of a developing economy like Nigeria.

H_{B3}: Managing differences due to cultural diversity in the project team improves morale and productivity of team members.

This hypotheses is proposed in this research to obtain a more in depth analysis of the morale and productivity aspect of the behaviour variable based on the findings from the literature referenced in the theoretical background chapter (see table 11 item # 3) that there is a correlation between differences due to cultural diversity and morale & productivity, from the perspective of the Oil and Gas industry of a developing economy like Nigeria.

H_{B4}: Cultural differences in project team increases the propensity for misunderstanding and conflicts between team members

This hypotheses is proposed in this research to obtain a more in depth analysis of the misunderstanding and conflicts aspect of the behaviour variable based on the findings from the literature referenced in the theoretical background chapter (see table 11 item # 10) that there is a correlation between cultural differences and misunderstanding & conflicts between team members, from the perspective of the Oil and Gas industry of a developing economy like Nigeria.

H_{B5}: Cultural differences between team members has a negative impact on team communication and coordination.

This hypotheses is proposed in this research to obtain a more in depth analysis of the team communication and coordination aspect of the behaviour variable based on the findings from the literature referenced in the theoretical background chapter (see table 11 item # 14) that there is a correlation between cultural differences between team members and team communication & coordination, from the perspective of the Oil and Gas industry of a developing economy like Nigeria.

3.5.2 Correlation between culture and perceived project success

H_R : There is a relationship between culture and perceived project success or failure.

This hypotheses is proposed to confirm or reject the findings from the literature referenced in the theoretical background chapter (see table 11 item # 16), that there is a correlation between culture and perceived project success or failure, from the perspective of the Oil and Gas industry of a developing economy like Nigeria.

H_{R1}: There is a negative relationship between multi-cultured project teams and perceived project success.

This hypotheses is proposed to confirm or reject the findings from the literature referenced in the theoretical background chapter (see table 11 item # 7), that there is a correlation between the existence of multi-cultured project team and perceived project success, from the perspective of the Oil and Gas industry of a developing economy like Nigeria.

H_{R2}: There is a correlation between project teams with people from different nationalities and perceived project failure.

This hypotheses is proposed to confirm or reject the findings from the literature referenced in the theoretical background chapter (see table 11 item # 8), that there is a correlation between

people from different nationalities aspect and perceived project failure, from the perspective of the Oil and Gas industry of a developing economy like Nigeria.

H_{R3}: The organizational culture i.e. "the way we do things" in a company has an influence on perceived project success

This hypotheses is proposed to confirm or reject the findings from the literature referenced in the theoretical background chapter (see table 11 item # 16), that there is a correlation between the organizational culture aspect of the culture variable and project success, from the perspective of the Oil and Gas industry of a developing economy like Nigeria.

HR_4: The appointment of a project manager from the host community is positively related to project success.

This hypotheses is proposed to confirm or reject the findings from the literature referenced in the theoretical background chapter (see table 11 item # 15), from the perspective of this research study, that there is a correlation between appointing a project manager from the host community and project success, from the perspective of the Oil and Gas industry of a developing economy like Nigeria.

3.5.3 Correlation between managing projects in developing and developed countries

H_{M1}: Managing projects in developed nations is different when compared to developing nations

This hypotheses is proposed to confirm or reject the findings from the literature referenced in the theoretical background chapter (see table 11 item # 13), that there is a correlation between managing projects in developing and developed economies, from the perspective of the Oil and Gas industry of a developing economy like Nigeria.

3.6 Conceptual Framework

According to Regoniel (2010), the conceptual framework depicts how the research problem will have to be explored and defines the specific approach the research will be undertaken. This is founded on the theoretical frameworks that already exist in Literature as shown in appendix 6. From the literature review carried out, and the hypotheses statements guiding this research, this study proposes the following representation of the conceptual framework for this study which describes the relationship between the variables in this study.

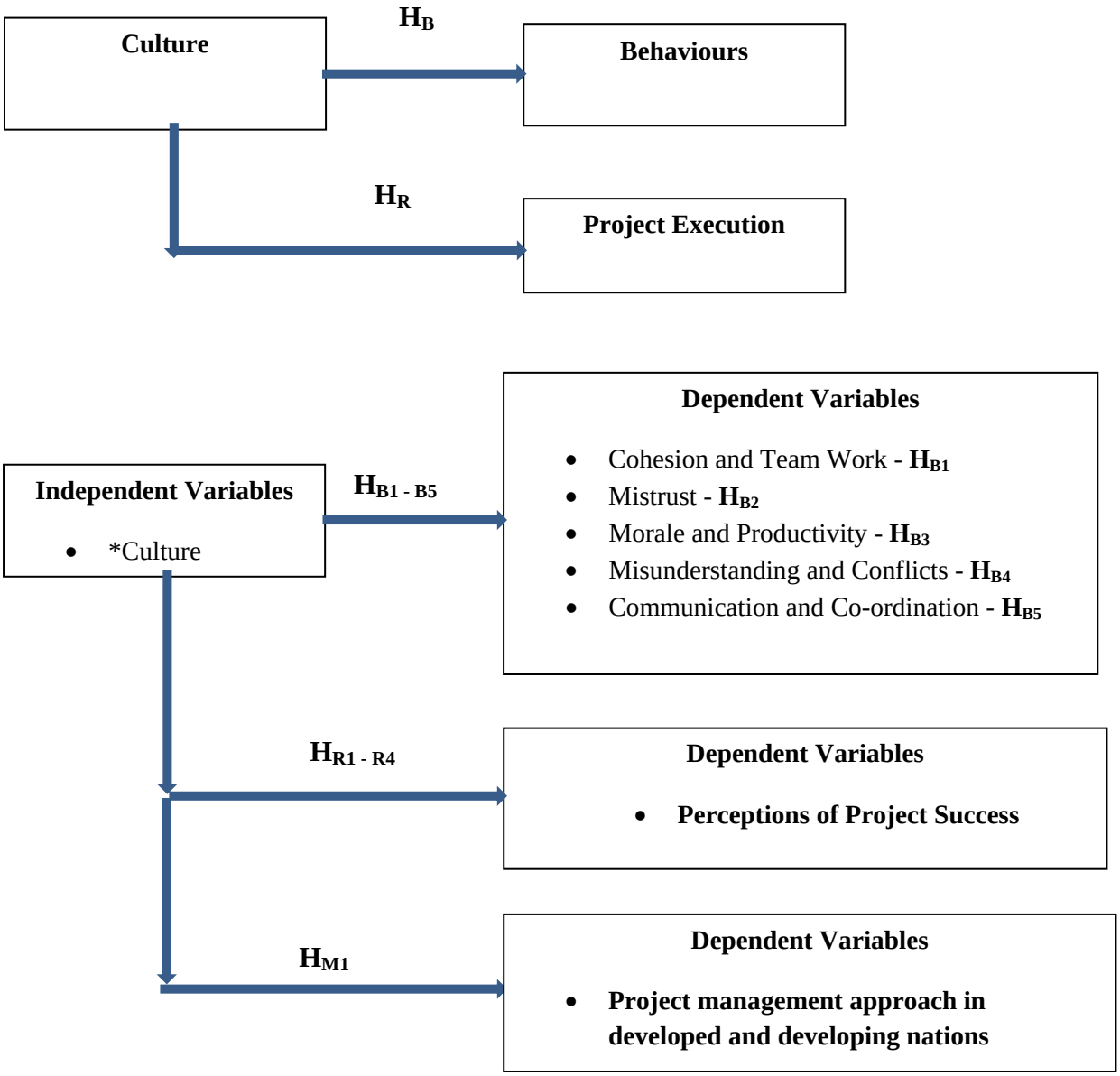

Figure 7: Conceptual Framework

*** Culture Context**

- Organizational Culture
- National Culture
- Cultural Factors – Diversity, Differences, Value

Chapter three has provided the conceptualisation of the dissertation and drills deeper into understanding the impact of culture on project execution in developing economies from the perspective of the four theories, with specific focus on six leading IOC's operating in Nigeria. A critical analysis of the four theories that underpin this study was carried out to develop the research model namely: Hofstede cultural dimensions, Richard Lewis culture model, Atsu et al (2010) framework for project success and Culp and Smith triangle of needs for project success. The application of Hofstede cultural dimensions to Nigeria is explained. The application of Richard Lewis culture model to predict and explain behaviour and communication orientation is provided. The application of Culp and Smith triangle of needs to understand the impact of culture on project execution is explained. A table summarising the four models in the context of description, problem it addresses, factors/variables used and reason for its use is provided. The process of development of the research hypotheses and research model of this dissertation from eight conceptual models from the literature review is described.

Chapter Four: Research Methodology

Empirical Research Process

The objective of chapter four is to outline the applied research methodology, including the philosophy, design, sample population, data collection and empirical analysis that underpin the dissertation. The section commences with an overview of the research philosophy which explains the adoption of a realist research paradigm, the reason for the sample population and sample. The design of the data collection methods and instruments gives details of the approach to qualitative and quantitative data collection, and the analysis and interpretation of the data collected. The research population, target population and research sample are defined. The research participants are experienced project practitioners from the six IOCs that make up the population and the organizational context of each IOC is well described. The development of measures and composition of the survey questionnaire and the interview questions are outlined in the context of the selected research sample and dissertation objectives. The empirical research process is shown in the below flow chart.

Phase	Research Activity	Output
1	Theoretical Framework and Conceptualization	- Problem definition - Literature review - Definition of research gap and motivation for dissertation - Formulation of research model and hypotheses
2	Definition of Data Items and Survey Scales	- Identification of relevant data items/objects - Composition of scales based on literature - Development of scales for new measurement items/constructs
3	Survey Instrument Design and Pilot Testing	- Design of survey instruments - Piloting and pre-testing - Implementation of changes where applicable
4	Quantitative and Qualitative Data Collection	- Development of survey website - Contacting of proposed participants - Collection of responses via online survey monkey
5	Quantitative and Qualitative Data Analysis	- Measure Reliability and validity of data collected - Define relevant constructs and variables - Quantitative descriptive analysis and hypotheses testing - Qualitative 3-stage inductive analysis and testing
6	Interpretation of Results and Conclusion	- Discussion of research findings - Implications for theory and practice - Limitations and future research opportunities - Action research application

Figure 8: Empirical Research Process

4.1 Research Philosophy

The research philosophy adopted for any research study determines the approach to how data are collected, analysed, interpreted and conclusions made. The three dominant epistemological assumptions or research paradigms are positivist, realist and social constructionist (or interpretivist). One of these paradigms will be selected for this research and will determine the approach for data collection and analysis. Adopting the positivist research philosophy will be premised on my assumption that there is a true solution to the problem and my task as a researcher will be to adopt a methodology and approach to find the solution from a detached independent and objective position. Levin (1998) contend that a positivist research philosophy sees reality as a phenomenon that can be viewed objectively and explained through scientific relationships. Adopting the realist research philosophy will be premised on my assumption that the problem has a causal relationship, based on the perception of people involved, which is however difficult to explain because of the number of contending factors and variables involved. According to Easterby-Smith et al (2008), "since the research involves multiple factors, and needs to make approximation of reality, relatively large samples are usually required, and hence surveys are the preferred methodology" (p. 90). As with the positivist paradigm, the best approach will be to use quantitative and qualitative design for data collection and analysis. The aim will be to confirm a causal relationship between dependent and independent variables. For this study, the aim is to investigate and see if there is a causal relationship between culture and project success or failure, and further establish whether culture is a critical success factor in project management practice. Adopting the social constructionist or interpretivist research philosophy will be premised on my assumption that there is no absolute truth i.e. solution to the problem, and my main task as a researcher will be to investigate how various claims for truth or solution to the problem, and reality become constructed in everyday life and implemented in an organization

(Easterby-Smith et al ,2008, p. 93). According to Husserl (1965), the interpretivist philosophy approach research on the premise that "reality is constructed socially from the perception of those involved, and therefore refute the validity of objectively interpreted facts." The strength and weakness of each research philosophy is tabulated below.

Strength and Weaknesses of the Research Philosophies

	Strengths	**Weaknesses**
Positivist	Wide coverage and fast. Good for providing causality between variables. Easier to provide justification for policies.	Inflexible and artificial data. Not good for in-depth understanding of meanings and theory generation
Realist	Accepts multiple sources of data and enables generalization beyond sample population	Requires large samples for results to be credible, quite costly, difficulty in reconciling data with different conclusions.
Social Constructionist (interpretivist)	Good for in-depth understanding of meanings and theory generation. Data collected is natural because it is the real expression of people involved.	Time consuming, analysis and interpretation are difficult. May not have credibility with policy makers.

Table 18: Comparism of Research Philosophies

Source: Easterby-Smith et al (2008, p.73), Table 4.7

From existing literature, the concept of culture is quite complicated, with a lot of factors and variables at play. Accordingly, in order to obtain an in-depth understanding of the influence of culture on projects and project management practice, this current research study adopts a realist research philosophy. The aim is to assess the extent to which culture impacts project execution in the oil and gas sector of a developing country using six international oil and gas Companies operating in Nigeria as a case study.

4.1.1 Research Design

This research design explains the activities that will be carried out to implement this study on the impact of culture on project execution in the oil and gas industry of a developing

economy. This will form the basis for further studies to be carried out, if and when required. Because limited studies have been carried out in this area, the research was investigated through the use of realist research design (Eberlein, 2008). The main focus of this study was quantitative in approach, using a survey questionnaire to gather data. Quantitative approach is supported by Cerimagic (2010) and used in his survey investigating influence of culture on project practices in the UAE. Cerimagic (2010) argues that there are many theoretical questions which simply cannot be addressed unless culture can be measured with reliable, and easily administered instruments, which allow comparability, convenience, systematization and repeatability of the data as well as maximizing comparison and precision (Cerimagic, 2010). The survey will be developed using survey monkey because of its capability to collect and analyze data accurately and reliably (Cerimagic, 2010).

In order to gain better understanding and more insightful interpretation of the results from the quantitative survey, a qualitative approach will also be adopted for the study, using structured interviews, which will be administered to selected experienced project practitioners from the Companies selected for the study. This mixed approach (triangulation) design was selected to optimize the reliability, validity and generalizability of this research (Saunders et al, 2003). The research population comprised project practitioners from the project department of six international oil companies in Nigeria namely Shell, Total, Agip, Exxon Mobil, Chevron and Nigeria LNG Limited.

4.1.2 Research Approach

The research approach for this study corresponds to realist. The research methodology proposed is Action Research and a mixed quantitative and qualitative (triangulation) method was employed for data collection. This realist / triangulation approach is proposed for the following reasons:

- The realist research approach supports the research area where very limited knowledge seems to exist regarding the research question (Eberlein, 2008). According

to Henrie and Souza-Poza (2005), project team culture is an under-researched area where further research is encouraged. Furthermore, Eberlein (2008) posit that their research aims to explore a new social reality by providing clarity towards understanding the impact of cultural management on international project management (p. 32). This approach which is aligned to this research approach is according to Burrell and Morgan (1979) similar to the realist approach proposed for this research.

- According to Saunders et al, (2003), the mixed research approach will enhance the reliability, validity and generalizability of this research. Eberlein (2008) further states that a qualitative approach will enhance the validity of this research through data obtained from interviews with selected experienced project practitioners. Furthermore, Eberlein (2008) states that a quantitative approach will enhance the reliability of this research through minimizing participant, observer and sample bias from interviews. The case for mixed approach is further supported by Collins and Hussey (2003) who argue that a sole qualitative research approach will be rich in validity but deficient in reliability, hence a mixed approach to complement validity and reliability is proposed for this study.

4.1.3 Action Research Methodology

Theoretical Perspective of Action Research

The purpose of this section is to clarify how this study fits into a wider action research process that is still ongoing. From a historical perspective, social psychologist Kurt Lewin in 1946 wrote a paper advocating a 'type of action-research that would lead to social action. Lewin argued that 'Research that produces nothing but books,' he argued, 'will not suffice' (Lewin 1946: 35). To address this, Lewin proposed a cyclical, iterative approach to research involving planning, taking action and fact-finding about the results. Argyris (1995) argues that action research entails the ability and skills by a scholar practitioner to identify a critical organizational problem, articulate options to address the

issues and collaborate with relevant stakeholders to initiate a process to support the resolution of the problem. Cohen and Manion (1994) define action research as a small scale intervention to solve a problem in the real world and taking a close examination of the effects of the intervention (p.186). According to Walliman (2005), the main characteristic of an action research is that it is essentially an on the spot procedure designed to deal with a specific problem evident in a particular situation (p.121). The research involves constant monitoring and evaluation with conclusions from the findings immediately applied to the particular problem/situation, which is then further monitored. Walliman (2005) further posit that action research depends mainly on observation and behavioral data (p.121).

Application of Action Research in Practice

On the application of action research in practice, Rose et al (2015) contends that its Action orientation makes it appropriate for investigating 'why' and 'how' questions with a focus to find solutions to problems encountered in practice and Action research. Till date, Action research continues to be applied in organisational development and management of change i.e. projects. Secondly, Rose et al (2015) posits that Action research has also been used as a research method by management students who are studying while working and who undertake the research in their own organisation to resolve a problem, an approach Coghlan (2007) calls 'insider action research' The other variant of Action research method is participatory Action research which Rose et al (2015) describes as the collaborative and democratic application of action research with a focus on changing participants' situations. The key difference is that insider Action research focus on organizational improvement while is participatory Action research focus on personal development.

The Design of Action Research Method

The basic design of an Action research method in studies is a 4-step cyclical / repetitive process of Plan - Act – Observe – Reflect. In the research environment this is referred to as the core Action research cycle. However, Rose et al (2015) posits that the specific design adopted for any study will depend on the aim and objectives of the research and the approach chosen to achieve the aim and objectives. When a research is being done as part of an academic assessment Zuber-Skerritt and Perry (2002) posit that two action research cycles operate in parallel as shown in the figure below. The first is the core action research cycle with the aim to solve a practical problem. The second is the thesis action research cycle where the researcher is engaged in planning, acting, observing and reflecting with regard to the academic part of the research project and their learning from it. This follows the traditional research process of introduction, research problem, literature review, methodology, data collection, data analysis, research findings and conclusions/recommendations/reflections.

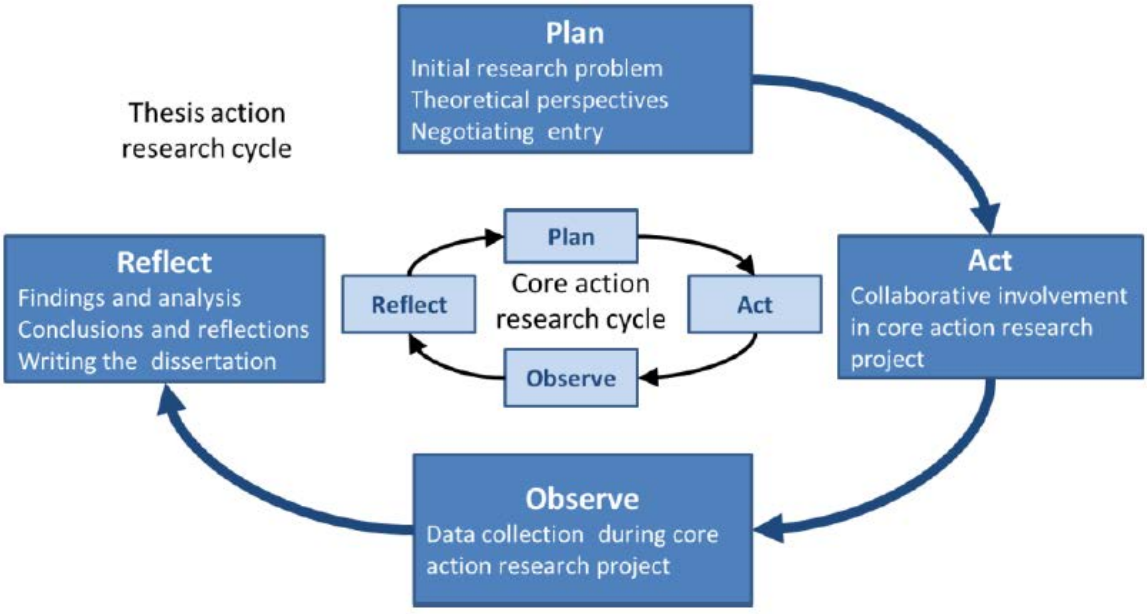

Figure 9 Action Research Project for a Thesis or Dissertation

Source: Rose et al (2015) (adapted from Zuber-Skerritt and Perry 2002)

The Action Research Method of this Study

Since this dissertation is embarked as a requirement of the University of Liverpool DBA academic assessment, this design as illustrated by Zuber-Skerritt and Perry (2002) is deemed suitable for this study. The aim of the research is to solve the problem of high rate of perceived project failure in project execution in the researchers practice from a non-technical perspective. This is the core action research aspect of the design. On the thesis action research aspect, relying on the ongoing culture alignment journey in the researchers' practice, this study seeks to understand the impact of culture on project execution thorough an academic research process with the objective to apply the knowledge generated towards resolving the problem of project execution from a cultural perspective in the researchers' practice, The value of this study to the researcher included contribution to theory, resolution of a problem in practice and personal development with specific focus on improving leadership, decision-making, critical and reflexive thinking skills. This resonates as a combination of insider and participatory Action research earlier described.

From the context of the narrative on the theoretical perspective, application in practice and design of a typical Action research method, this study is considered to involve an Action research method, which fits into the wider Action research cyclic process which is still an ongoing activity in the researchers practice. The core action research defined the problem, while the dissertation is the first phase of the thesis action research. In summary, according to Rose et al (2015), some key features of an action research approach with some semblance to this study are tabulated below.

Typical Action Research Method	Concurrence with this Research
Action is taken to improve practice and the research generates new knowledge about how and why the improvements came about.	Action is proposed as a deliverable of this research to mitigate the challenges with project execution in researcher's' practice. In addition, this study aims to contribute to theory from the perspective of project management practice in six leading IOC's from the Oil and Gas sector of a developing economy like Nigeria.
Action research is conducted as a collaborative partnership between the researcher and a group in an organisation or community who participate in the process of the action research.	This research is conducted in collaboration with experienced project practitioners working in the six leading IOC's.
The results are shared amongst participants and for action research in an academic context the output typically also includes a public report such as a dissertation or thesis.	The output of this study is a dissertation and the findings will be shared with participants who have indicated interest from the survey questionnaire.
The output is 'actionable knowledge' (Coghlan 2007: 293) that is useful to both the practitioner and academic communities.	The findings of this research will contribute to theory and practice as outlined in the dissertation reference abstract, chapters 1, 2 and 6.
Research proceeds as a cycle of joint planning, action, observation and reflection, where the reflection phase paves the way for further cycles of planning, acting, observing and reflecting in a spiral of learning	This study proceeds as a mix of core and thesis action research as shown in figure 9.

Table 19 Typical Action Research Method compared to this Research

4.2 Data Collection Methods and Instruments

4.2.1 Quantitative Approach

As explained in section 4.1, quantitative approach is considered appropriate to answer the research questions of this study. The main research question sought to find out the extent to which culture influenced project delivery and project success in order to determine if culture is a critical success factor to achieve project success. As explained in section 4.1, research philosophy and research design, the realist research philosophy and quantitative approach were selected for this study, as the best method to measure culture and its casual effect on project success. A similar quantitative approach was used by Cerimagic (2010) in collecting data for his survey investigating influence of culture on project practices in the UAE. Also, Hofstede in his award winning research that established the cultural dimensions theory,

which provides a systematic framework for assessing the differences between nations and cultures, gathered most of his data on world cultural values through surveys conducted by IBM in over 40 countries.

For the quantitative approach, primary data was collected from respondents using an online survey instrument designed with questions relating to cultural factors, critical success factors, project success, project management performance and sustainability. The context of the questions was structured to investigate the extent to which cultural factors influence project delivery and project success. The data collected from the questionnaire survey was subjected to descriptive and quantitative analysis using the SPSS version 16 software. The statistical analysis relevant to this research covered the following:

- Frequency % scores and standard deviations were used to evaluate the effects of culture on practitioner's attitudes and perceptions as well as the influence of culture dimensions on perception of project performance.
- Pearson's correlation coefficient (r) was used to determine the nature of relationship between the culture variables and perception of project performance.
- Pearson Product-Moment Correlation Coefficient significance test was carried out with two-tailed non directional test statistic (t-test) at a given degree of freedom (n-2) and 5% (0.05) significance level.
- Cronbach's coefficient alpha to measure the internal consistency of the variables and constructs.
- Level of significance (p-value)
- Standard deviation, and
- Coefficient of Determination (r^2) calculated to the show the amount of shared variance in the relationship between the independent and dependent variables.

The test of the hypotheses was performed using the bivariate correlation procedure of SPSS V 16 to compute the strength and direction of the linear associations (correlation) between the studied variables as indicated on the conceptual model. The correlation matrix is tabulated for clarity.

4.2.2 Qualitative Approach

The qualitative approach used structured interviews with questions designed to gain better understanding and more insightful interpretation of the results from the quantitative survey. Culture is a very complex phenomenon (Eberlein ,2008; Bertalanffy ,1973, Kroeber and Kluckhohn ,1952; Wursten ,n.d.) and interviews with project practitioners was considered appropriate to gain in-depth insight to complement , obtain more understanding and make sense of the quantitative data collected (Easterby-Smith et al ,2009).

The interview questions were piloted and refined to clarify data from the quantitative data by searching for more information and in-depth interpretation of the data collected from the questionnaire used for the quantitative survey. According to Easterby-Smith et al (2009), the main aim of qualitative interviewing is to gain understanding from the interviewee from the perspective of what and why of their viewpoints. As such, some project practitioners who participated in the quantitative survey were sent interview questions to probe deeper and make sense of the quantitative data. The data collected is analyzed by using a structured content analysis approach to derive first order concepts and second order themes followed by the development of aggregate dimensions/categories to help describe and explain the effect of culture on project success without losing sight of terms used by the interviewee. .

4.2.3 Research Population

The population for the study covered project practitioners from different cultural background working in the project department of six (6) International Oil and Gas Companies in Nigeria namely: The Shell Petroleum Development Company of Nigeria (SPDC), Nigeria Agip Oil Company (NAOC), Nigeria Liquefied Natural Gas Company (NLNG), Chevron Nigeria

Limited (CNL), Total Nigeria Producing Limited (TNPL) and Mobil Producing Nigeria Limited (MPNL). These six companies were chosen for the survey due to their distinctive characteristics related to culture and work environment as indicated below.

Research Participants Organizations Context - Location and Cultural Background

Organization	Headquarters Location	Cultural Background
The Shell Petroleum Development Company of Nigeria (SPDC)	The Hague	Dutch
Nigeria Agip Oil Company (NAOC)	Milan	Italian
Nigeria Liquefied Natural Gas Company (NLNG)	Port Harcourt	Nigerian
Chevron Nigeria Limited (CNL)	Houston	American
Total Nigeria Producing Limited (TNPL)	Paris	French
Mobil Producing Nigeria Limited (MPNL)	Houston	American

Table 20: Research Participants Organizations Context - Location and Cultural Background

Organizational Context

The purpose of this section is to provide a brief narration on the six organizations involved in this study.

The Shell Petroleum Development Company of Nigeria (SPDC)

SPDC was originally known as Shell D'Arcy and later as Shell-BP which was jointly financed by the Royal Dutch/Shell Group of Companies and the British Petroleum (BP) Group on an equal basis. The Company discovered the first commercial oil field in Nigeria at Oloibiri in Bayelsa State, in 1956. Through a sustained exploration effort more oil fields have been discovered which have firmly established Nigeria as one of the world's major crude oil producers with significant gas potential. SPDC is the pioneer and leader of the Oil and Gas industry in Nigeria with the largest oil acreage producing about 39% of Nigeria’s crude oil. Some of the crude oil is refined for local consumption and some exported to earn foreign exchange revenue for Nigeria.

SPDC's operations are concentrated in the Niger Delta region where it operates in an oil mining lease area of around 31,000 square kilometres. SPDC has more than 6,000 kilometres of pipelines and flow lines, 87 flow stations, 8 gas plants and more than 1,000 producing wells. SPDC is a multi-cultural Company with people form diverse cultures who have to work together to achieve set objectives. The parent Company has its home base in The Netherlands with a Dutch culture.

Source: Shell (2015).

Nigeria Agip Oil Company (NAOC)

Nigerian Agip Oil Company (NAOC) is an ENI (Agip) Company in Nigeria founded in 1962. NAOC operates in the Niger Delta region, under a joint venture agreement with NNPC (60%), NAOC (20%), and ConocoPhillips (20%). The company has a significant operations base in the Niger Delta covering ~8,500 km2 of onshore, swamp and deep water activities with oil and gas production of over 170,000 bpd with expectations to increase this in the short to medium term by ~120,000 bpd following the completion of a number of on-going projects (ENI, 2014). NAOC is a multi-cultural Company with people from diverse cultures who have to work together to achieve set objectives. The parent Company has its home base in Italy with an Italian culture.

Source: Agip (2015).

Nigeria LNG Limited (NLNG)

Nigeria LNG Limited (NLNG) is a joint venture company with shareholders comprising Nigerian National Petroleum Corporation, Shell Gas BV, Total LNG Nigeria Limited, and Eni International. NLNG has two subsidiaries namely Bonny Gas Transport (BGT) Limited, for shipping capacity needs and NLNG Ship Management Limited (NSML), for ship and crew management services. NLNG was incorporated on May 17, 1989, but commenced operations in 1999 with two LNG production trains to harness Nigeria's natural gas resources

through the production of Liquefied Natural Gas (LNG) and Natural Gas Liquids (NGL's). NLNG currently has six LNG production trains in operation with a combined LNG production output of 22 million tonnes per annum (MTPA) of LNG and 5 MTPA of NGL's. NLNG is an international company with global spread, supplying buyers with LNG and NGL's in the Atlantic Basin, Asia and the Far East. NLNG has a fleet of 23 LNG ships to transport its products to the buyers. NLNG has contributed to the Nigerian and global economy. NLNG accounts for ~11% of the global LNG production and contributes to 10% of Nigeria's GDP. NLNG has invested over US$ 14 billion in projects and has committed a lot of resources to the sustainable development of the local gas industry in Nigeria.

NLNG is a multi-cultural Company with people form diverse cultures who have to work together to achieve set objectives. The shareholder Companies have their home base in Italy with an Italian culture, The Netherlands with a Dutch culture, Paris with a French culture and Nigeria with a Nigerian culture.

Chevron Nigeria Limited (CNL)

In Nigeria, Chevron operates under a joint-venture arrangement with the Nigerian National Petroleum Corporation with assets on land and in swamp and near-offshore concessions covering approximately 2.2 million acres (8,900 sq km) in the Niger Delta region. In 2013, Chevron's net daily production in Nigeria averaged 233,000 barrels of crude oil, 182 million cubic feet of natural gas and 5,000 barrels of liquefied petroleum gas. Chevron operates and holds a 40 percent interest in 13 concessions under a joint-venture arrangement with the Nigerian National Petroleum Corporation (NNPC). Chevron also does business through other subsidiaries in Nigeria. Chevron is a multi-cultural Company with people form diverse cultures who have to work together to achieve set objectives. The parent Company has its home base in The United States with an American culture.

Source: Chevron (2015).

Total Exploration and Production Nigeria Limited (TEPNL)

TOTAL has been a partner since 1962 in the development of Oil and Gas in Nigeria, carrying out both Upstream and Downstream activities. Total's stakes in various Nigerian projects reflect our long-term commitment to sustainable development of the country's economy, infrastructure and communities. With a diverse work force of several nationalities and cultures working together, TOTAL is making remarkable contributions to the socio-economic development of Nigeria through huge investments in world-class projects. Total is a multi-cultural Company with people form diverse cultures who have to work together to achieve set objectives. The parent Company has its home base in Paris with a French culture.

Source: Total (2015)

Mobil Producing Nigeria (MPN)

Mobil Producing Nigeria (MPN) commenced operations in Nigeria in 1955 under the name Mobil Exploration Nigeria Incorporated (MENI). MPN operates a Joint Venture with the Federal Government of Nigeria, through the Nigerian National Petroleum Corporation (NNPC). The Federal Government has a 60 percent share, with the remaining 40 percent being MPN. The company and its joint venture partner, NNPC, operate over 90 offshore platforms comprising of about 300 producing wells at a capacity of over 550 thousand barrels a day of crude, condensate and natural gas liquids (NGL).

A series of projects by the joint venture are targeted to increase the current average production level to above one million barrel per day. Mobil is a multi-cultural Company with people form diverse cultures who have to work together to achieve set objectives. The parent Company has its home base in The United States with an American culture.

Source: Mobil (2015).

4.2.4 Target Population

The target population for this study covered project practitioners with more than five years' project management experience in the project department of the six International Oil Companies. The project practitioners cover disciplines such as project managers, project engineers, construction managers, construction engineers, and project support services (Safety, QA/QC, cost estimators, planners ect). The survey questionnaire was administered through an online survey portal in survey monkey. In addition, structured interview was conducted on some project practitioners who participated in the survey from the same target population of the six companies.

4.2.5 Sample Population and Response Rate

For the online survey, the number of project practitioners in the targeted International Oil and Gas Companies is around 400. We aim to receive around 100 responses, representing 25% of the target population. Accordingly, questionnaires were sent to 200 participants and response was received from 103 participants i.e. average of 51% response rate. Out of the 103 responses, 101 were usable, resulting in actual complete response rate of circa 50%. The unusable surveys were the ones that did not contain sufficient data for further analysis. A response rate of 50% is high when benchmarked against response rates in studies where the unit of analysis is an organization, and the questionnaire involves extensive organizational level questions (Griffin, 1997 cited in Gu, V.C. et al, 2013). For example, a study by Gu, V.C. et al, (2013) where data was collected from one organization each in United States and China had a response rate of 17.2%. For the interviews, invitation was sent to 30 practitioners across the six companies and we are anticipating running interviews with about 30 respondents (5 from each company). Interviews are more effort and time intensive and as these practitioners are working full-time we are conscious of their time availability. Out of the proposed interviews with 30 very experienced project practitioners, interviews were successfully conducted on 18 representing a 60% response rate.

4.2.6 Research Participants

Project practitioners in the organizations selected for this study were identified through focal persons in the organizations who then sent the questionnaire and invitation for interviews respectively. The invitations to participate e-mail had a cover letter explaining the purpose of the questionnaire and also inform respondents that their participation within this study is entirely voluntary. The letter also informed participants that any questions they feel are commercially sensitive for their organization can be left un-answered and that in completing the questionnaire they are effectively giving informed consent. The e-mail had a link to the online questionnaire in survey monkey and responses were received in collection point in survey monkey.

The invitation to attend an interview was issued through an email to a smaller group of the target population across the six companies. For this stream, target was mature project managers that are familiar with challenges regarding project management in their respective practices.

4.2.7 Inclusion Criteria, Sampling Errors and Biases

Participant's essential for this study are active and experienced project practitioners in the six Companies. Although the survey questionnaire was sent to a broad spectrum of project practitioners, the focus for the qualitative interviews were experienced project practitioners who have many years of practice in the oil and gas sector of an emerging economy like Nigeria, and who can add value to this research to gain better understanding and more insightful interpretation of the results from the quantitative survey. It is expected that the more experienced project practitioners would demonstrate a varied cultural background compared to less experienced junior project practitioners. The criteria for segregating experienced and junior project managers shall be determined from the data related to age and experience (i.e. number of years in project management) collected from the survey questionnaire. This approach is critical in order to enhance the validity and reliability of data.

Former employees of the identified international oil companies are excluded from the study because they are likely not to be conversant with the current situations in the oil and gas industry in general and their respective companies.

Accordingly, recognizing that very experienced project practitioners were carefully selected from the six largest O & G companies operating in Nigeria, the sampling error of the dissertation defined as "the extent to which the precision of sample survey estimates is limited by the number of participants surveyed" (Dillman, 2007) is considered to be marginal and this will be measured by the statistical significance p value in the data analysis chapter.

4.2.8 Informed Consent

The questionnaire was sent to participants via e-mail; the questionnaire itself is online in nature, and therefore only required the participants to log on to the Internet. Although written informed consent was not asked for, the cover letter sent to participants informed them that by completing the questionnaire, they are giving informed consent.

An invitation to attend the interview was sent to participants via email. Although written informed consent was not be asked for, the invitation letter sent to participants informed them that by attending the interview, they are giving informed consent

4.3 Survey Questionnaire Design and Structure

The survey questionnaire was designed to collect data from project practitioners that make up the sample population in six international oil companies in Nigeria. The questionnaire was designed on the premise of constructs and variables in literature, the research objectives, the research questions and the conceptual model. The survey questions were uploaded in the online survey monkey software prior to deployment to research participants.

Questionnaire Layout

To enhance the effectiveness of data collection from the target population, the layout of the survey questionnaire is important and should take cognisance of the cultural and technical context of the respondents. In addition, a good design will encourage an appetite to participate in the survey and reduce the frustration to abandon the survey midway. The opening page of the questionnaire captured the University of Liverpool logo which gave evidence of support from the university and the required academic credibility of the dissertation. Furthermore, the sections as illustrated below followed a structured process which helps the participants to progress logically from start to finish. All these factors contributed to the acceptable response rate achieved. .

4.3.1: Quantitative Data Collection

This section explains how the quantitative data was collected from the participants through the survey questionnaire. The survey instrument was divided into five sections. The questionnaire was designed to provide a reliable and valid instrument to measure key variables identified in the literature review. Accordingly, the structure of the questionnaire covered four sections namely: demographics, project management practice, culture, and critical success factors.

Section A of the questionnaire collected data on the **demographics** of the respondents.

Section B of the questionnaire collected data based on four questions related to **project management practice** in the respondents' organization.

Section C of the questionnaire collected data regarding the **culture** in the respondents' organization from the perspective of organizational, national and professional culture.

Section D of the questionnaire collected data on **critical success factor** focusing on questions related to then factors that are critical for project management / project delivery success in respondent's organization.

Survey Pilot

Before launching the survey questionnaire, a pilot was tested with a small group in the research population. The participants in the pilot study were specifically requested to revert with any challenges they encounter while completing the questionnaire. In addition, the pilot was used by the researcher to measure the average time it will take respondents to complete the questionnaire. This is important because the time to complete the survey will be included in the introduction section of the survey. For credibility, it is important to state accurately the time it will take to complete the survey.

4.3.2 Data Collection Instrument and Measurement Scale

The survey questionnaire was administered to each member of the sample population using survey monkey web based portal. The questionnaire had both open and close-ended questions. The closed-ended questions were used to test the participants rating of various variables and constructs, and provided structured responses for consistency in analysis, conclusion and recommendation. For example, a 5 - point Likert scale of 1 to 5 was provided to measure level of extent of agreement where applicable as follows:

1 = strongly disagree, 2 = disagree, 3 = Neutral, 4 = agree, 5 = strongly agree.

Because participants were dispersed in different locations, the structured interview was administered using either telephone interviews or face-to-face method with each participant. The open-ended questions provided additional information not captured in the closed-ended questions designed to obtain more insightful interpretation of the results from the quantitative survey.

4.3.3 Data Processing and Analysis

The quantitative data collected from the survey questionnaire was analysed using SPSS version 16 to generate descriptive statistical values. Conclusions will be made through a process of inductive reasoning. The values will be presented in the form of percentages, means, standard deviations, frequencies etc.

A structured interview approach was used, with open-ended questions designed to gain better understanding and obtain more insightful interpretation of the results from the quantitative survey. The interviews were conducted via telephone, face to face meeting and email through survey monkey. All expenses for the interviews were borne by the researcher.

The qualitative data collected from the telephone and face-to-face interviews was interpreted using content analysis by categorizing the data to make valid and replicable inferences from the data to the context, constructs or ideas identified in advance (Backcomb, 2003 cited in Maina and Gathenya, 2014, Easterby-Smith et al, 2009). To achieve qualitative rigor, the data collected was organized into first and second order categories to achieve a data structure that adequately captures the participants experience in a robust theoretical format which according to Gioa et al (2012) will reveal a credible relationship between the emergent concepts and provide clarity the "relevant data-to-theory connections" (Gioa et al ,2012)

4.3.4 Reliability, Validity and Generalisabity of Study

Reliability of the data collected gives an indication of whether the results of the study can be repeated by studies carried out by other researchers. Some factors that can determine the reliability of this study include, but are not limited to, using the appropriate methodology, asking the right questions, the respondent's knowledge of the subject under investigation, respondent's attitude towards the questionnaire and conducting a pilot study (Maina and Gathenya, 2014). To enhance the reliability of this study, the questions in the questionnaire were tailored to constructs and variables in existing literature and conform with the five principles of designing structured questions for surveys such that each question: expressed

one idea, avoided jargons, simple/straightforward, avoided the use of negatives and avoid leading questions (Easterby-Smith et al ,2009, p. 227). In addition, experienced project practitioners with sound knowledge of project management constituted the sample population. Although it is difficult to calibrate the attitude of the respondents towards the questionnaire, one approach used for this study was to boost motivation and interest by clearly stating the benefits of the study to the respondents and their organizations, in line with the principle of reciprocity. After finalizing the questionnaire design, a pilot test was conducted among ten project practitioners in one of the six IOC's. The objective was to ensure clarity and adequacy of the questionnaire to achieve the objectives of the study. To check the reliability of the results, SPSS software was used to verify the reliability of the collected data, using Cronbach's alpha coefficient of > 0.7 as an indication of acceptable level of reliability (Easterby-Smith et al , 2009; Nunnally, 1978).

Validity is defined as the extent to which data collection methods of a study accurately measure what they are intended to measure (Saunders et al., 2003 cited in Maina and Gathenya, 2014). Validity of the study provides an indication of the integrity of the conclusions generated. It is a measure of whether the findings are really about what they appear to be about (Maina and Gathenya, 2014). One of the major reasons for invalidity is associated with incorrect identification of independent and dependent variables.

Generalisabity is the extent to which the results of this study on six oil and gas companies can be used by other project practitioners outside the companies in this study to predict the situation in their companies.

Chapter four provides detailed explanation of the research methodology used for the dissertation. The selection of Realist research philosophy and the rationale for mixed research approach is explained. The data collection method, design of the instruments and measurement scale are described. The research population, target sample, criteria for

selection of research participants is explained. An explanation of how data will be analysed, and the determination of the reliability, validity and generalisation of the analysed data is explained.

Chapter Five: Research Analysis and Findings

This chapter focuses on the analysis and findings of the data collected from the empirical research questionnaire. The primary source of data is the survey questionnaire and interview questions, while secondary source of data is from journals, articles and textbooks. The survey and interview questionnaire questions are displayed in appendix A. The data from the survey and interview questionnaire have been analysed using basic statistical analysis SPSS version 16 while the data from the interviews has been analysed through categorization, three stage coding and identification of dominant themes. The reliability of the data collected is calculated using the Cronbach coefficient alpha (α). The values indicate that the data collected is reliable. The quantitative analysis results are displayed through tables and charts. The results are defined by frequency % scores and standard deviations. The degrees of correlation between variables are defined by the Pearson correlation (r). The basis for selecting Pearson Correlation is derived from the approach used in similar studies in existing literature to test the degree of relationship between variables. The statistical significance of the Pearson correlation value is defined by the p value. In addition, the coefficient of determination (r^2) is calculated to indicate the percent of variance in a variable that is attributed to another variable. The qualitative data is analysed inductively using the first, second and third order coding method to come up with qualitative ratification of the quantitative analysis.

5.1: Validity and Reliability of Survey Data

5.1.1: Validity of Data Collected

Validity is defined as the extent to which the data collection method in this study accurately measures what they are intended to measure (Saunders et al., 2003). The validity of the data collected refers to the integrity of the conclusions that are generated by this study from the data collected. Since the data for this study was collected from experienced project practitioners

in the project department of the six largest O & G organizations operating in Nigeria, the validity of the data and relevant results is adjudged adequate (Maina and Gathenya, 2014).

5.1.2: Reliability of Data Collected

The reliability of the data collected gives an indication of the extent to which the survey instrument designed for this study will produce a similar result when repeated (Kerlinger, 1986; Carmines and Zeller, 1979; Forza, 2002). According to Forza (2002), the four most common methods for testing reliability of data are: test-retest, alternative form, split halves and internal consistency methods. For this current study, the internal consistency method was adopted, using the Cronbach coefficient alpha α calculated via SPSS software to assess the equivalence, homogeneity and inter-correlation of the variables and constructs used in the survey. Cronbach's alpha is a measure of internal consistency, that is, how closely related a set of items are as a group. It is considered to be a measure of scale reliability.

The statistical formula for the standardized Cronbach's alpha is:

$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N-1) \cdot \bar{c}}$$

In this formula, N is the number of items, c-bar is the average inter-item covariance among the items and v-bar equals the average variance.

Cronbach coefficient alpha α was selected because it is the most widely used method of reliability assessment in business research (Chau, 1999; Forza, 2002). A Cronbach coefficient alpha α value of $0.5 \leq \alpha < 0.6$ is generally considered adequate in the assessment of the reliability of data collected in empirical research (Nunnally, 1978). The below table by Nunnally, 1978 summates the internal consistency rating for different α values.

Cronbach's alpha values and internal consistency ratings (Nunnally, 1978).

Cronbach's alpha	Internal Consistency Rating
$\alpha \geq 0.9$	Excellent
$0.7 \leq \alpha < 0.9$	Good
$0.6 \leq \alpha < 0.7$	Acceptable
$0.5 \leq \alpha < 0.6$	Adequate

Table 21 Cronbach's alpha values and internal consistency ratings (Nunnally, 1978).

5.1.3: Cronbach coefficient alpha (α) for the different sections of the survey questionnaire

Section B: Question 3 (a - f) Project Management – Definition of Project Success

Cronbach's Alpha	N of Items
0.599	6

From the above table, the Cronbach Alpha α calculated for the six items in section B question 3 of the survey questionnaire is 0.599. The coefficient of reliability value for the six items of the data collected from the respondents is α = 0.60, suggesting that the items have relatively high internal consistency and is therefore considered as acceptable.

Section C: Question 1 (a - e) Culture – Perception of Culture in the Context of a Project

Cronbach's Alpha	N of Items
0.732	5

From the above table, the Cronbach Alpha α calculated for the five items in section C question 1 of the survey questionnaire is 0.732. The coefficient of reliability value for the five items of the data collected from the respondents is $\alpha \geq 0.70$, suggesting that the items have relatively high internal consistency and is therefore considered as good.

Section C: Question 2 (a - q) Culture – Culture and Project Management Activities

Cronbach's Alpha	N of Items
0.651	17

From the above table, the Cronbach Alpha α calculated for the seventeen items in section C question 2 of the survey questionnaire is 0.651. The coefficient of reliability value for the seventeen items of the data collected from the respondents is $\alpha \geq 0.60$, suggesting that the items have relatively medium internal consistency and is therefore considered as good.

Section C: Question 3 (a - g) Culture – Description of Culture

Cronbach's Alpha	N of Items
0.524	7

From the above table, the Cronbach Alpha α calculated for the seven items in section C question 3 of the survey questionnaire is 0.524. The coefficient of reliability value for the seven items of the data collected from the respondents is $\alpha \geq 0.50$, suggesting that the items have relatively high internal consistency and is therefore considered as acceptable.

Section C: Question 4 (a - d) Culture – Hofstede Dimension of Culture (Power Distance)

Cronbach's Alpha	N of Items
0.465	4

From the above table, the Cronbach Alpha α calculated for the four items in section C question 4 of the survey questionnaire is 0.465. The coefficient of reliability value for the four items of the data collected from the respondents is $\alpha \leq 0.60$, suggesting that the items have relatively low internal consistency and is therefore considered as poor.

Section C: Question 5 (a - d) Culture – Hofstede Dimension of Culture (Collectivism)

Cronbach's Alpha	N of Items
0.751	4

From the above table, the Cronbach Alpha α calculated for the four items in section C question 5 of the survey questionnaire is 0.751. The coefficient of reliability value for the four items of the data collected from the respondents is $\alpha \geq 0.7$, suggesting that the items have relatively high internal consistency and is therefore considered as good.

Section C: Question 6 (a - d) Culture – Hofstede Dimension of Culture (Femininity / Competitiveness)

Cronbach's Alpha	N of Items
0.685	4

From the above table, the Cronbach Alpha α calculated for the four items in section C question 6 of the survey questionnaire is 0.685. The coefficient of reliability value for the

four items of the data collected from the respondents is $\alpha \geq 0.6$, suggesting that the items have relatively high internal consistency and is therefore considered as acceptable.

Section C: Question 7 (a - d) Culture – Hofstede Dimension of Culture (Uncertainty Avoidance)

Cronbach's Alpha	N of Items
0.502	3

From the above table, the Cronbach Alpha α calculated for the three items in section C question 7 of the survey questionnaire is 0.502. The coefficient of reliability value for the four items of the data collected from the respondents is $\alpha \geq 0.5$, suggesting that the items have relatively medium internal consistency and is therefore considered as adequate.

Section C: Question 8 (a - d) Culture – Hofstede Dimension of Culture (Long Term Orientation)

Cronbach's Alpha	N of Items
0.610	4

From the above table, the Cronbach Alpha α calculated for the three items in section C question 8 of the survey questionnaire is 0.610. The coefficient of reliability value for the four items of the data collected from the respondents is $\alpha \geq 0.6$, suggesting that the items have relatively medium internal consistency and is therefore considered as acceptable.

Section C: Question 4 - 8 (a - d) Culture – Hofstede Dimension of Culture (All Dimensions Combined)

Cronbach's Alpha	N of Items
0.839	19

From the above table, the Cronbach Alpha α calculated for the nineteen items in section C questions 4 - 8 of the survey questionnaire is 0.839. The coefficient of reliability value for the nineteen items of the data collected from the respondents is $\alpha \geq 0.8$, suggesting that the items have relatively high internal consistency and is therefore considered as very good.

Section D: Question 2 (a - l) Critical Success Factors for Projects

Cronbach's Alpha	N of Items
0.907	12

From the above table, the Cronbach Alpha α calculated for the twelve items in section D questions 2 of the survey questionnaire is 0.907. The coefficient of reliability value for the nineteen items of the data collected from the respondents is $\alpha \geq 0.9$, suggesting that the items have relatively high internal consistency and is therefore considered as excellent.

Section E: Question 3 (a - f) Sustainability Practice

Cronbach's Alpha	N of Items
0.766	6

From the above table, the Cronbach Alpha α calculated for the six items in section D questions 3 of the survey questionnaire is 0.766. The coefficient of reliability value for the six items of the data collected from the respondents is $\alpha \geq 0.7$, suggesting that the items have

relatively high internal consistency and is therefore considered as good.

5.1.4 Summary of calculated Cronbach Alpha α values

Dissertation Reference	Cronbach's Alpha	N of Items
Section B: Question 3 (a - f) Project Management – Definition of Project Success	0.599	6
Section C: Question 1 (a - e) Culture – Perception of Culture in the Context of a Project	0.732	5
Section C: Question 2 (a - q) Culture – Culture and Project Management Activities	0.651	17
Section C: Question 3 (a - g) Culture – Description of Culture	0.524	7
Section C: Question 4 (a - d) Culture – Hofstede Dimension of Culture (Power Distance)	0.465	4
Section C: Question 5 (a - d) Culture – Hofstede Dimension of Culture (Collectivism)	0.751	4
Section C: Question 6 (a - d) Culture – Hofstede Dimension of Culture (Femininity / Competitiveness)	0.685	4
Section C: Question 7 (a - d) Culture – Hofstede Dimension of Culture (Uncertainty Avoidance)	0.502	3
Section C: Question 8 (a - d) Culture – Hofstede Dimension of Culture (Long Term Orientation)	0.610	4
Section C: Question 4 - 8 (a - d) Culture – Hofstede Dimension of Culture (All Dimensions Combined)	0.839	19
Section D: Question 2 (a - l) Critical Success Factors for Projects	0.907	12
Section E: Question 3 (a - f) Sustainability Practice	0.766	6

Table 22 Summary of calculated Cronbach Alpha values

5.1.5 Explanatory to support the use of Cronbach's Alpha α values < 0.6

The Cronbach's Alpha α value is a measure of internal consistency regarding how closely related a set of items are as a group. It is a measure of scale reliability. A "high" value for alpha does not imply that the measure is unidimensional. For the quantitative survey used for this research, Cronbach's alpha is calculated to measure the reliability and internal consistency of the questionnaire items. The intent is to confirm consistency from the perspective that if the questionnaire is administered with a different set of sample/participants, that we can get the similar results. In essence, the Cronbach's alpha is the measure of the reliability and consistency of the sampling instrument to examine whether

all the data are measuring the same underlying construct irrespective of the participants. From the foregoing, the Cronbach's Alpha α values that define the reliability of the Likert scales used in the survey questionnaire, calculated for 9 out of 12 sections of the survey questionnaire have a Cronbach's α value $\geq$ 0.6. From table 21, this value is considered as acceptable when assessing the reliability of data in empirical research (Nunnally, 1978). 3 out of 12 sections of the survey have a Cronbach's α value $\leq$ 0.6. From table 21, two values of 0.524 and 0.502 although < 0.6 were > 0.5 which according to Nunnally (1978) are adequate from the context of the internal consistency of the items. 1 section of the questionnaire had a Cronbach's α value of 0.465 which is $\leq$ 0.5. This section collected data regarding Section C: Question 4 (a - d) Culture – Hofstede Dimension of Culture (Power Distance) which had 4 items. For this situation of a low Cronbach's α value, the approach is to review the correlation matrix among all related items. For this research, the combined Cronbach's α value for all the Hofstede Dimension of Culture reference Section C: Question 4 - 8 (a - d) Culture – Hofstede Dimension of Culture (All Dimensions Combined) is 0.839. According to Nunnally (1978), this value of 0.839 is considered to be good. This implies that the item with the low value did not have any adverse impact on the overall value, and by extension the internal consistency of the constructs. Consequently, the scale items for the variables and constructs used for the survey questionnaire in this current study are considered reliable for further empirical analysis.

5.2: Descriptive Analysis

Quantitative data collected from 103 project practitioners working in the six leading international Oil and Gas Companies in Nigeria was analysed by descriptive statistics. The descriptive analysis is carried out to better understand the composition of the respondents that make up the sample prior to the quantitative analysing to determine the correlation between the variables and testing the hypotheses of this dissertation. According to Babbie (2010), the statistics from the descriptive analysis assist the researcher in understanding the source of the

data and make sense of the conclusions from the inferential analysis arising from the quantitative analysis results. The descriptive analysis was displayed by use of bar charts, graphs and pie charts. The following provides a narration of the analysis and results for the different sections of the survey questionnaire.

Section A – Demographics: Profile and Distribution of Respondents

Socio-Demographic Variables

The analysis of the socio-demographic variables which details the profile and distribution of the sex, age, nationality, and educational qualification of the respondents is presented in this section.

Sex - Distribution of male and female respondents

Total N = 103			
Variable			
	Sex	**N**	**%**
	Female	8	7.8
	Male	95	92.2

Table 23 Distribution of male and female respondents

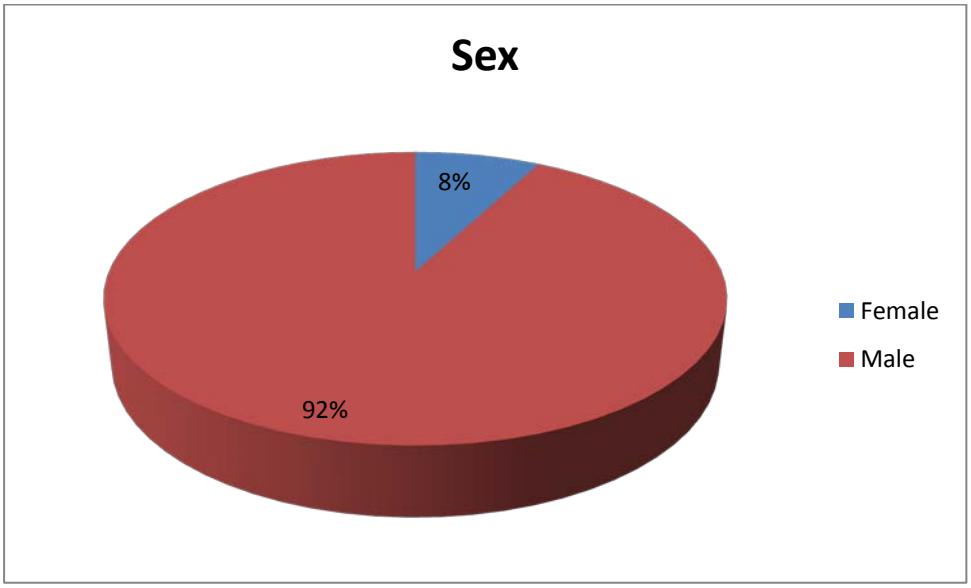

Figure 10: Distribution of male and female respondents

Out of a total of 103 respondents, 95 representing 92% of the population were males, while 8 representing 8% of the population were females.

Age group distribution of respondents

Total N = 103			
Variable		**N**	**%**
Age Group			
	>55 Years	7	6.8
	18 - 25 Years	1	0.9
	26 - 35 Years	12	11.7
	36 - 45 Years	51	49.5
	46 - 55 Years	32	31.1

Table 24 Age group distribution of respondents

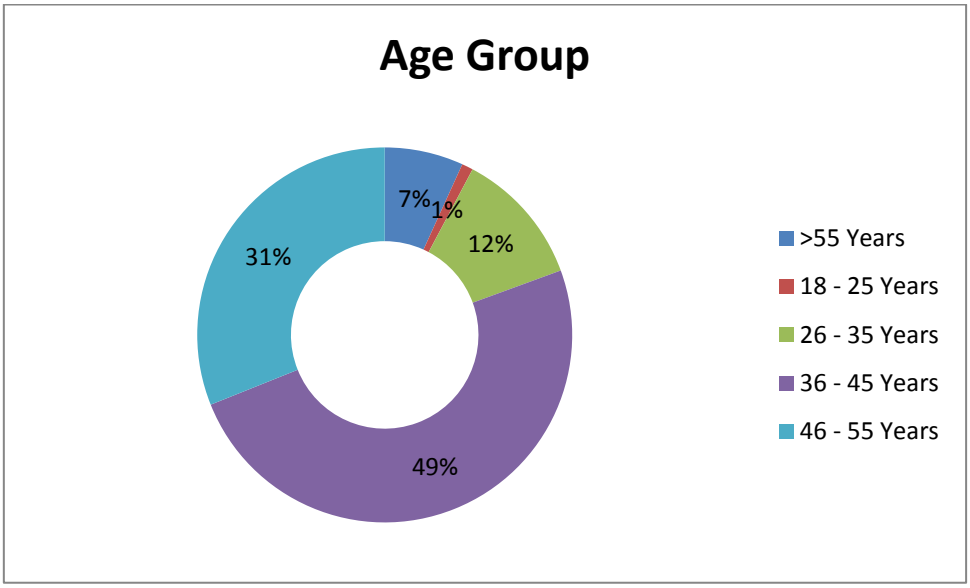

Figure 11: Age group distributions of respondents

49% of the respondents belong to the 36 – 45 years age bracket, while 31% of the respondents fall in the 46 – 55 years age group. About 1% of the respondents were below 25 years of age. Majority i.e. 80% of the respondents are above 36 years, which give an indication of the maturity of the respondents.

Nationality distribution of respondents

Total N = 103			
Variable		**N**	**%**
Nationality			
	African (Non-Nigerian)	2	1.9
	Asian	9	8.8
	Nigerian	89	86.4
	North American	3	2.9

Table 25 Nationality distribution of respondents

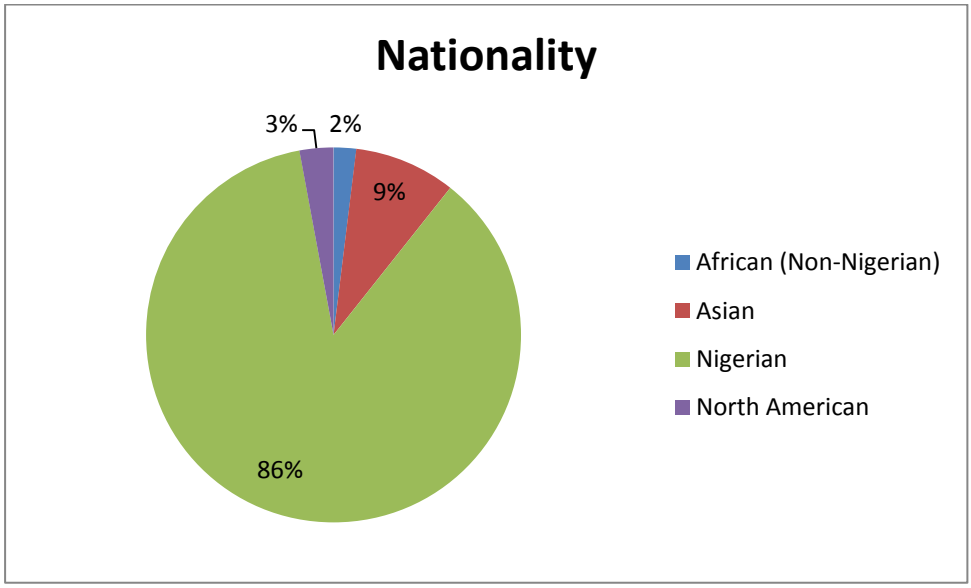

Figure 12: Nationality distributions of respondents

86% of the respondents were Nigerians. Out of the 14% non-Nigerians, 9% were Asian, 3% Africans and 2% North Americans.

Highest Education Qualification Level

Total N = 103			
Variable		**N**	**%**
Highest Education Qualification Level			
	Bachelor's Degree	41	39.8
	Doctorate	1	1.0
	Higher National Diploma/Certificate	3	2.9
	Master's Degree	51	49.5
	Postgraduate Diploma	7	6.8

Table 26 Educational qualification distribution of respondents

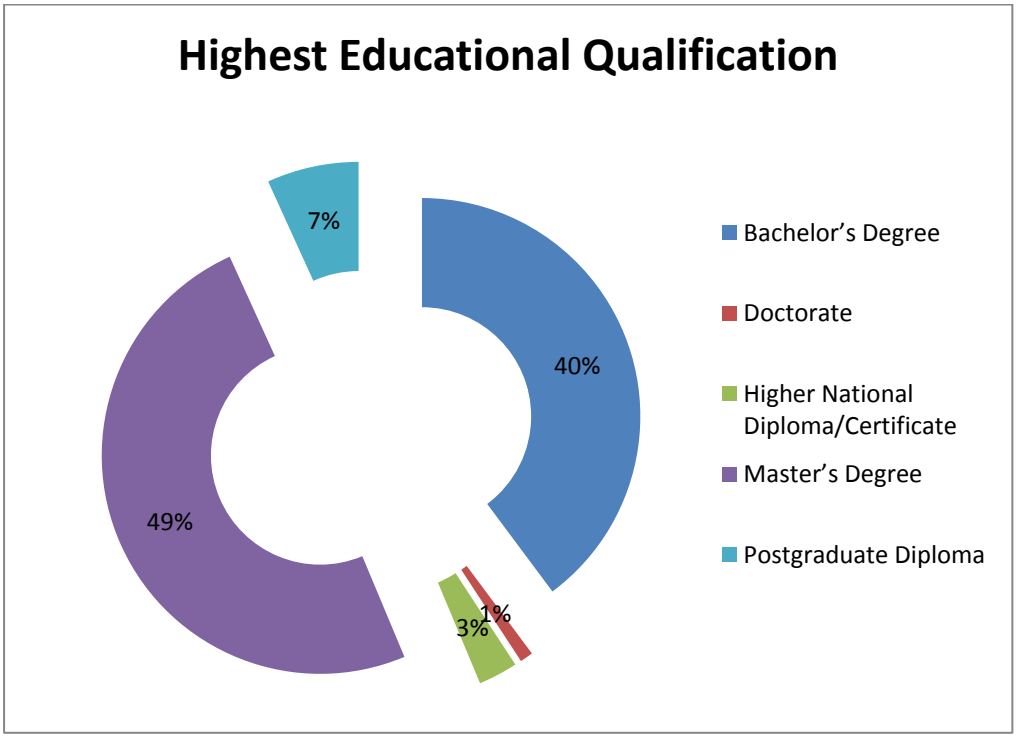

Figure 13: Educational qualification distributions of respondents

40% of the respondents with career in project management in the six oil and gas Companies have a bachelor's degree, while 49% possess a master's degree and 1% have attained doctorate degree. 7% have postgraduate diploma while the remaining 3% have higher national diploma certification.

Industry Composition of Sample

Current Organization

Total =103			
Variable		**N**	**%**
Current Organisation			
	Agip	15	14.6
	Chevron	14	13.6
	Mobil	4	3.8
	NLNG	43	41.7
	Shell	15	14.6
	Total	12	11.7

Table 27 Industry Composition of Sample

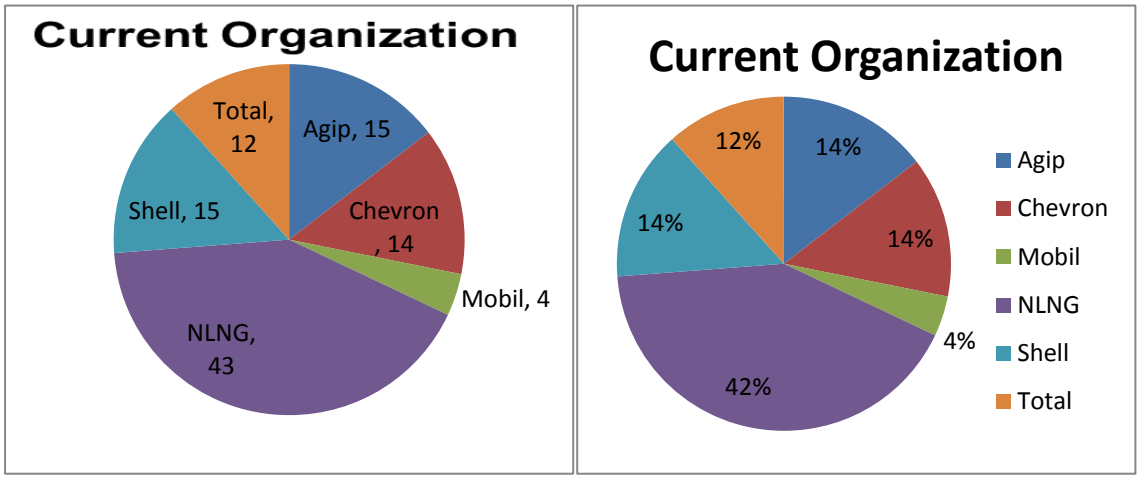

Figure 14 Industry Composition of Sample

42% of the sample comprised project practitioners working with NLNG. Shell, Chevron and Agip each recorded respondents, representing 14% of sample respectively. The number of respondents from Total was 12, representing 12% of the sample. Mobil recorded the lowest number of 4 respondents, representing 4% of the sample.

Number of Years in Organisation

Total = 103			
Variable		**N**	**%**
Number of Years in Organisation			
	> 20 Years	11	10.7
	16 - 20 Years	13	12.7
	11 - 15 Years	29	28.1
	6 - 10 Years	29	28.1
	1 - 5 Years	21	20.4

Table 28 Number of years in current organization

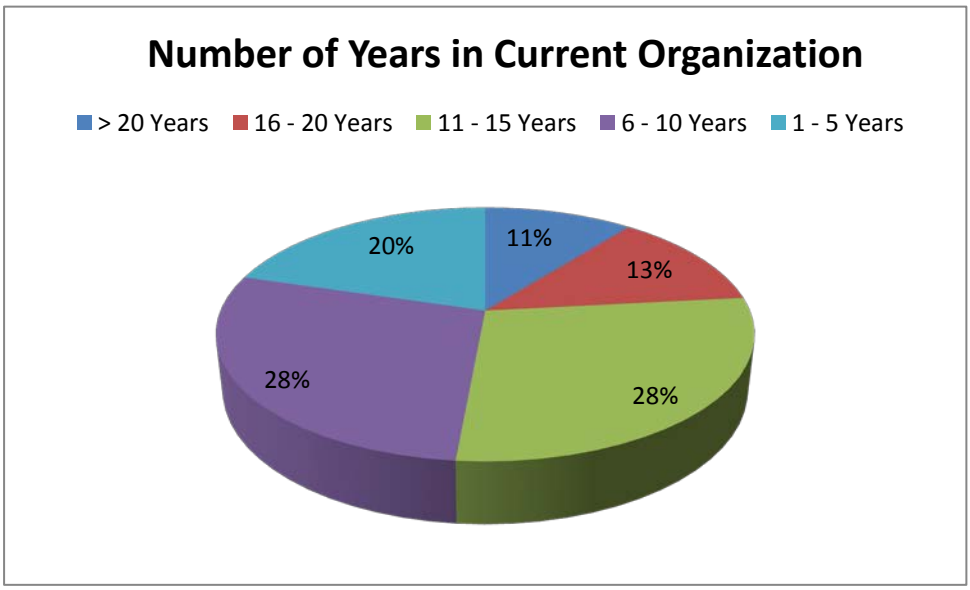

Figure 15: Number of years in current organization

61% of the respondents have worked for more than 10 years in their current organization. Their views should be a good representation based on in-depth understanding of the project management practices in their respective organizations.

Current Position in Organisation

Variable		N	%
Current Position in Organisation			
	Other (please specify)	46	44.8
	Principal Project Engineer	2	1.9
	Project Engineer	21	20.4
	Project Lead	9	8.7
	Project Manager	9	8.7
	Senior Project Engineer	16	15.5

Table 29 Distribution of current position in organization

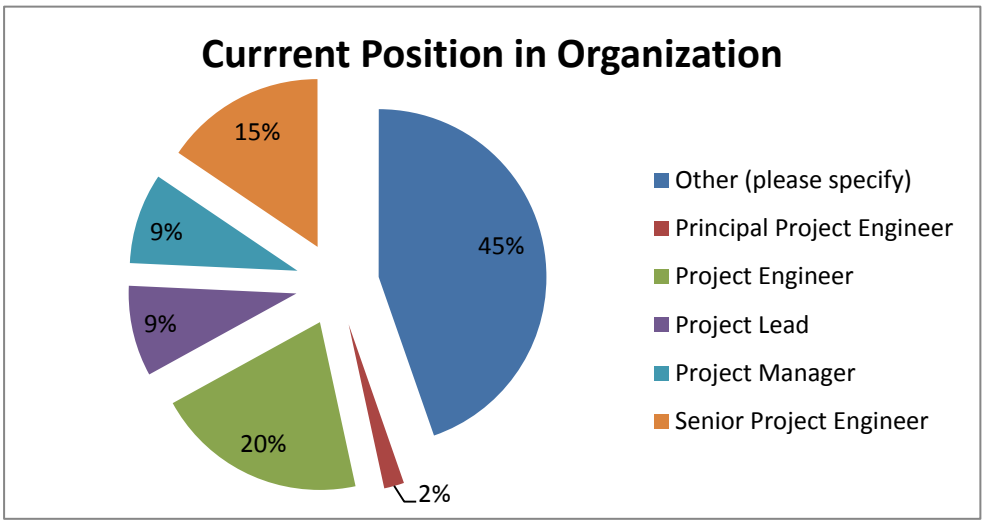

Figure 16 Distribution of current position in organization

20% of the respondents in this survey are highly experienced project practitioners working at the level of project manager. The remaining 80% of the respondents comprise 2% in principal project engineer role, 15% in senior project engineer role, 20 % in project engineer role and some in the 45% outside the options provided. 45% who stated positions outside the positions in the options specified in this survey are in roles higher than project engineer position. It is therefore expected that the depth of information in the data collected this survey is adequate for this current study.

Typical Number of People Supervised

Variable: Number of people supervised in your Project		N	%
	> 51	14	13.5
	21 to 50	21	20.4
	11 to 20	22	21.4
	6 to 10	24	23.3
	1 to 5	22	21.4

Table 30 Number of people supervised

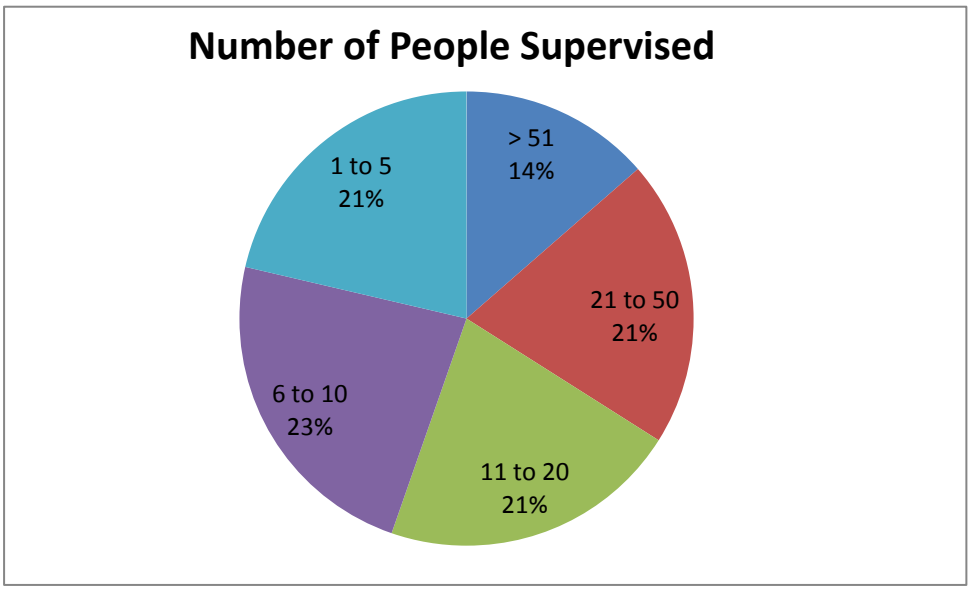

Figure 17 Number of people supervised

The study results reveal that 86% of the project practitioners who participated in this survey were responsible for the supervision of up to 50 direct reports. The results revealed that 14% supervised more than 50 direct reports.

Section B - Project Management

Project Management Standards Used

Total = 103			
Variable		**N**	**%**
Project Management standards used in your organization			
	PMBOK	32	31.1
	PRINCE 2	0	0.0
	Others	71	68.9

Table 31 Project management standards used in respondent's organization

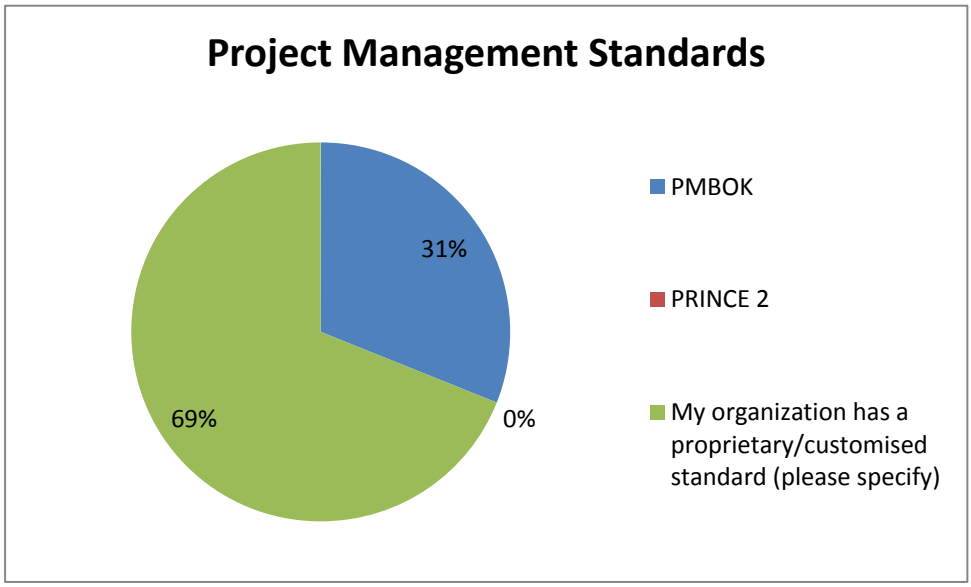

Figure 18 Project management standards used in respondents organization

69% stated that their organization have a proprietary/customised project management standard for project delivery. 31% of the respondents stated that PMBOK project management standard is used to complement the proprietary/customised project management standard for project delivery in their organization.

Structure and Composition of Projects – Number of Professional Disciplines

Total = 103			
Variable		**N**	**%**
Professional disciplines involved in projects			
	1	0	0.00
	2	1	0.97
	3	2	1.94
	4	17	16.50
	5	13	12.62
	6	7	6.80
	> 6	63	61.17

Table 32 : Professional disciplines involved in projects

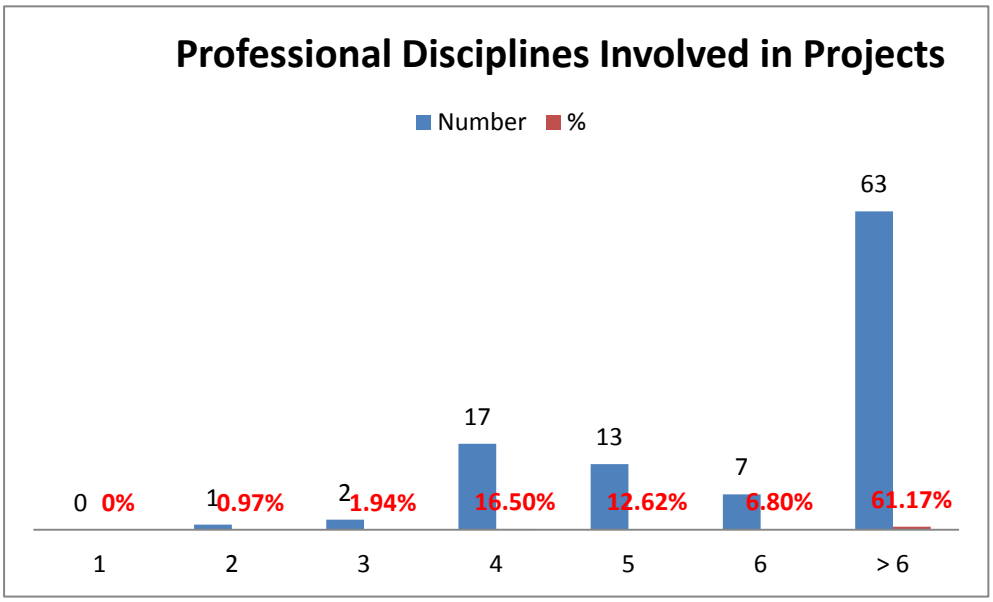

Figure 19 Professional disciplines involved in projects

61 % of project practitioners sampled have more than six professional disciplines involved in their projects, while about 36 % have between 4 and 6 professional disciplines involved in their projects. 97% of project practitioners are involved in managing multi-disciplinary

professional and resources in the implementation of projects.

Structure and Composition of Projects – Number of Cross Discipline Teams

Total = 103			
Variable		**N**	**%**
Cross – discipline teams you interact with			
	1	0	0.00
	2	1	0.97
	3	2	1.94
	4	17	16.50
	5	13	12.62
	6	7	6.80
	> 6	63	61.17

Table 33 Cross – discipline Teams Interacting With

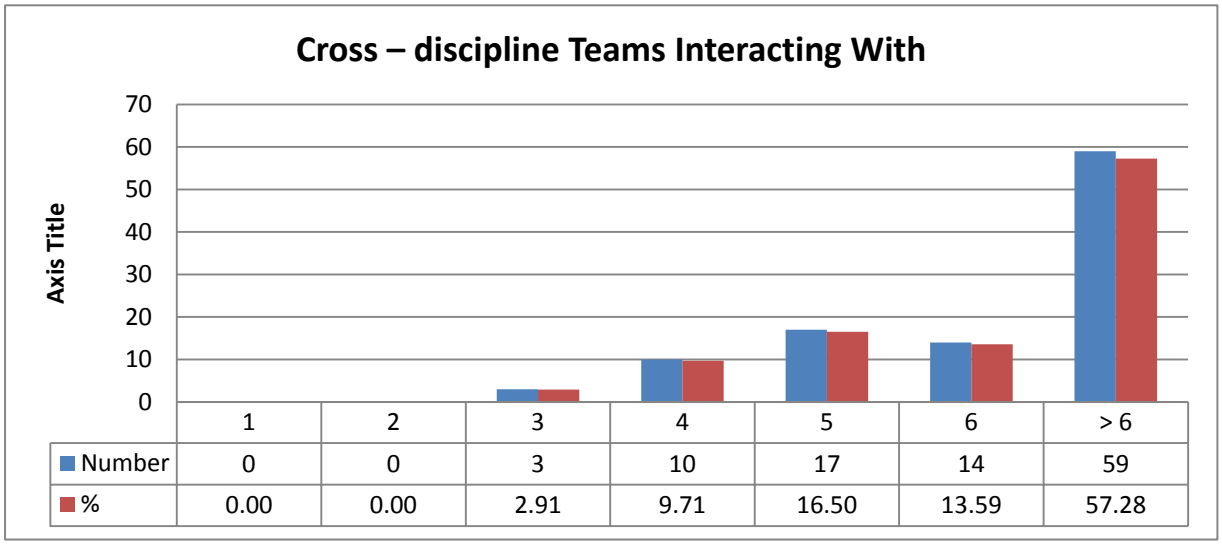

Figure 20 Cross – discipline Teams Interacting With

57 % of project practitioners in this study interact with more than six cross discipline teams in the projects they implement, while about 40 % have between 4 and 6 cross discipline teams involved in their projects.

5.3: Quantitative Analysis

This section gives details of the quantitative analysis of the dissertation. The data from the survey questionnaire was analysed using the SPSS software. The initial inferential analysis used simple percentages and frequency scores to analyze the views of the respondents. As earlier explained in chapter four, further analysis was carried out to test the hypotheses and explore the correlation between the variables using the Pearson's correlation coefficient (r) to test the different hypotheses on the relationship between the variables of culture, behaviour and perceptions of project performance. In addition, the Pearson Product-Moment Correlation Coefficient significance test (p-values) was carried out to determine the significance level. The detail of the quantitative analysis for the different sections of the survey questionnaire follows.

Survey Section B Question 3: How is Project Success Defined in Your Organization?

The result of the survey is indicated in the below table.

Definition of project success in respondents' organization

Definition	Strongly Agree (%)	Agree (%)	Uncertain (%)	Disagree (%)	Strongly Disagree (%)	No response (%)
1. Project success is defined as meeting project requirements	45(43.7)	54(52.4)	0 (0)	3(2,9)	1(1,0)	0 (0)
2. Project success is defined as delivering benefit to the customer	36(35.0)	57(55.3)	5(4.9)	5(4.9)	0 (0)	0 (0)
3. Project success is defined as delivering benefit to the organisation	49(47.6)	42(40.8)	3(2.9)	3(2.9)	1(1.0)	5(4.9)
4. Project success is not constrained to achieving cost, schedule and scope.	14(13.6)	36(35.0)	10(9.7)	28(27.2)	9(8.7)	6(5.8)
5. Project success is defined as the perceived usefulness and adoption of project outcome by the client.	11(10.7)	53(51.5)	24(23.3)	7(6.9)	1(1.0)	7(6.8)
6. Project success definition goes beyond the achievement of project specifications and delivery time, with emphasis on meeting the aspirations of the various stakeholders	43(41.7)	37(35.9)	0 (0)	2(1.9)	12(11.7)	9(8.7)

Table 34 Definition of project success in respondents' organization

Likert Scale: 1 = strongly disagree, 2 = disagree, 3 = uncertain, 4 = agree, 5 = strongly agree.

99.1% of the respondents strongly agree / agree with project definition #1. 90.3% of the respondents strongly agree / agree with project definition #2. 88.4% strongly agree / agree with project definition #3. 48.6% strongly agree / agree with project definition #4, while 9.7% were uncertain and 35.9 % strongly disagreed / disagreed with this definition. 62% of the respondents strongly agree / agree with project definition #5. 77.6 % of the respondents strongly agree / agree with project definition #6. A relatively smaller number of 14 practitioners representing 13.6% strongly disagree / disagree with this definition of project success.

A further analysis of the data collected was carried out using SPSS software with the following results. Since there was no response from 9 respondents for definition number 6, the frequency analysis was based on N = 94 out of the 103 respondents.

Definition of Project Success - Frequency Distribution

Definition of Project Success	Frequency %	SD	N
1. Project success is defined as meeting project requirements	99.1%	.70	94
2. Project success is defined as delivering benefit to the customer	90.3%	.76	94
3. Project success is defined as delivering benefit to the organisation	88.4%	.78	94
4. Project success is not constrained to achieving cost, schedule and scope	48.6%	1.26	94
5. Project success is defined as the perceived usefulness and adoption of project outcome by the client	62%	.80	94
6. Project success definition goes beyond the achievement of project specifications and delivery time, with emphasis on meeting the aspirations of the various stakeholders	77.6	.77	94

Table 35 Definition of Project Success - Frequency Distribution

From the above table, the results show very strong congruence by project practitioners for four out of the six definitions for project success in existing literature. The top four definitions of project success supported by project practitioners from the frequency analysis of the data collected are: meeting project requirements (99.1%), delivering benefit to the

organisation (90.3%), project success definition goes beyond the achievement of project specifications and delivery time, with emphasis on meeting the aspirations of the various stakeholders (77.6%) and delivering benefit to the customer (88.4%).

Survey Section B Question 3: Which three of the following are most important in defining project success? Rank in order: (1- Most important, 6 – Less important)

The results of the ranking of the definition of project success as depicted in the below table is consistent with the results in the preceding section. As indicated in the below table, the definition of project success as meeting project requirements was ranked number 1, 2 and 3 by 67% of the respondents. This was closely followed by the definition of project success as delivering benefit to the organization was ranked number 1, 2 and 3 by 66% of the respondents.

Ranking of project success definitions

Total = 103							
Project Success Definitions	**Rank 1 (%)**	**Rank 2 (%)**	**Rank 3 (%)**	**Rank 4 (%)**	**Rank 5 (%)**	**Rank 6 (%)**	**No response (%)**
1.Meeting project requirements	30(29.1)	20(19.4)	19(18.4)	13(12.6)	11(10.7)	8(7.8)	2(1.9)
2. Delivering benefit to the customer	8(7.8)	15(14.6)	22(21.4)	33(32.0)	13(12.6)	10(9.7)	2(1.9)
3. Delivering benefit to the organization	27(26.2)	21(20.4)	20(19.4)	11(10.7)	10(9.7)	12(11.7)	2(1.9)
4. Project achieving cost, schedule, quality and scope parameters.	15(14.6)	26(25.2)	23(22.3)	17(16.5)	11(10.7)	9(8.7)	2(1,9)
5. Perceived usefulness and adoption of project outcome by the client.	5(4.9)	7(6.8)	7(6.8)	13(12.6)	31(30.1)	38(36.9)	2(1.9)
6. Delivering benefit to identified stakeholders	16(15.5)	12(11.7)	10(9.7)	14(13.6)	25(24.3)	24(23.3)	2(1.9)

Table 36 Ranking of project success definitions

Survey Section C Question 1: What do you perceive as culture in a Project?

88.3% of the respondents perceive culture as definition # 4. 61.2% of the respondents perceive culture as definition # 1. 85.4% of the respondents perceive culture as definition # 3. 79.6% of the respondents perceive culture as definition # 5. 86.4% of the respondents perceive culture as definition # 2.

Respondent's perception of culture

Total = 103					
Perception of Culture	**Strongly Agree**	**Agree**	**Uncertain**	**Disagree**	**Strongly Disagree**
1. I perceive culture as the set of values that influence an individual's responses to different situations in a project team	5(4.9)	58(56.3)	19(18.4)	13(12.6)	6(5.8)
2. I perceive culture as the set of values that influence an individual's responses to different situations in a project team	29(28.1)	60(58.3)	5(4.9)	6(5.8)	1(1.0)
3. I perceive culture as the way people do things, which can make the difference between a successful and unsuccessful project	33(32.0)	55(53.4)	7(6.8)	4(3.9)	2(1.9)
4. I perceive culture as a pattern of beliefs, norms and expectations that shape the behaviour of individuals and groups in the project team	47(45.6)	44(42.7)	4(3.9)	5(4.9)	1(1.0)
5. I perceive culture as the behaviours and traits that determine honesty/openness, communication, trust, co-operation, and job satisfaction	28(27.2)	54(52.4)	8(7.8)	9(8.7)	2(1.9)

Table 37 Respondent's perception of culture

Likert Scale: 1 = strongly disagree, 2 = disagree, 3 = uncertain, 4 = agree, 5 = strongly agree

Respondent's perception of culture – Frequency Distribution

Perception of Culture	Frequency %	SD	N
1. I perceive culture as the way in which people solve problems and reconcile dilemmas in a project team	61.2%	.983	101
2. I perceive culture as the set of values that influence an individual's responses to different situations in a project team	86.4%	.813	101
3. I perceive culture as the way people do things, which can make the difference between a successful and unsuccessful project	85.4%	.851	101
4. I perceive culture as a pattern of beliefs, norms and expectations that shape the behaviour of individuals and groups in the project team	88.3%	.843	101
5. I perceive culture as the behaviours and traits that determine honesty/openness, communication, trust, co-operation, and job satisfaction	79.6%	.947	101

Table 38 Respondent's perception of culture – Frequency Distribution

Culture is perceived by majority of the respondents by definition # 4 as shown by a frequency score of 88.3%. This is followed by definition # 2 as shown by a frequency score of 86.4, while culture is perceived to a moderate extent by definition # 3 as shown by frequency scores of 85.4%. Relatively fewer project practitioners perceive culture by definition # 5 as shown by a frequency score of 79.6%. The results of the survey indicate that culture is least perceived amongst project practitioners by definition # 1 as shown by a frequency score of 61.2%.

Survey Section C Question 2: To what extent do you agree with the following statements regarding culture and project management activities in your organisation?

The questions in this section of the questionnaire were structured to find out the views of respondents regarding the impact of culture on behaviour and project performance. According to the results depicted in the below table 39, the top four statements regarding impact of culture on project management activities by project practitioners with frequency % scores of > 80% are captured by statements in items 11, 16, 3, and 17. From the results, majority of the respondents rated as most important item 11 as shown by the frequency score of 89%. The second most important was item 16 as shown by the frequency score of 86%. This was closely followed by item 3 as indicated by a frequency score of 84%. The fourth in order of importance is item 17 as shown by the frequency score of 80.4%.

From the results of the survey, eight items 2, 4, ,6,9, ,13, and14 have a frequency score > 70% but < 80%, an indication that the respondents agree with the statements regarding the impact of culture on project management activities in their organizations. Five items, 1, 5, 7, 8, 10, 12 and 15 have a frequency score of < 70%, an indication that relatively fewer of the respondents agree with the statements. Specifically, item 7 and item 15 have the lowest frequency scores of 8% and 20% respectively. This is an indication that a small number of the respondents agree that multicultural teams are the direct cause of project failure and also that the appointment of a project manager from the host community has any direct influence on project success.

Respondent's perception of culture – Frequency Distribution

Statement	Frequency %	SD	N
1. Culture is the fourth significant constraint in project management (in addition to time, cost and scope)	44%	.966	103
2. Project managers in my company are sensitive to cultural diversity and have a strong commitment towards cultural issues	70%	.810	103
3. Formal awareness of cultural diversity in the project team improves morale and productivity of team members	84%	.554	103
4. The cultural back-ground of project team members is considered when allocating resources in project teams in my company	79.8%	.098	103
5. My organisation has a training program for project managers to help them manage multi-cultural teams	66%	.983	103
6. The presence of several national cultures in a project team has a negative effect on team cohesion and teamwork.	72%	.775	103
7. In some of my projects, the existence of multi-cultured teams has directly been identified as the reason for project failure.	8%	.974	103
8. I have experienced situations where people from different nationalities did not trust each other resulting in poor project delivery.	34%	.949	103
9. The multi-cultural composition of project teams influences the behaviour of team members and how they manage situations.	80%	.657	103
10.In some projects I have been engaged in, misunderstandings and conflicts between team members have been attributed to cultural differences	55%	.887	103
11. For projects to be successful, the project manager must take cultural factors like traditions, values, customs, and beliefs into consideration at the project planning stage	89%	.668	103
12. Project managers from different cultures have different approaches to managing their projects	65%	.821	103
13. From my experience in project management, managing projects in developed nations is different from managing in developing nations	70%	.964	103
14. In the projects I have managed, cultural differences has influenced team communication and coordination	68%	.777	103
15. In some projects I have worked, appointing a project manager from the host community influenced project	20%	.943	103

success.			
16. The organisational culture i.e. the way we do things ir	86%	.792	103
17. The work environment, which includes trust and goal congruence, in which the project team operates has a positive influence on project performance	80.4%	.239	103

Table 39 Respondent's perception of culture – Frequency Distribution

Survey Section C Question 3: The following statement best describes the culture in my organization

From the results of the survey depicted in the below table 40, most respondents agree that a culture where business ethics and honesty matters most compared to meeting the customer's requirements best describes the culture in their organizations as shown by the frequency score of 90%. This is followed by a culture where there is a lot of control and discipline and people are very cost-conscious, punctual and serious as shown by the frequency score of 80%. A high number of project practitioners agree that the culture in their organization has an influence on project performance as shown by the frequency score of 82%.

Respondent's perception of culture – Frequency Distribution

Statement	Frequency %	SD	N
1. The focus is on how work is carried out rather than the achievement of the goals or results	48%	1.22	100
2. Business ethics and honesty matters most compared to meeting the customer's requirements	90%	0.797	100
3. There is a lot of control and discipline and people are very cost-conscious, punctual and serious	80%	.743	100
4. The identity of an employee is determined by the boss and/or the unit in which one works rather than determined by his profession and/or the content of the job	30%	.910	100
5. New employees are immediately integrated/well received and employees are open both to insiders and outsiders	75%	.811	100
6. There is heavy pressure to perform the task with little or no consideration for the welfare of employees	21%	1.06	100
7. The culture in my organization has an influence on project performance	82%	.706	100

Table 40 Respondent's perception of culture – Frequency Distribution

Survey Section C Question 4: To what extent do you agree or disagree with the following statements regarding the culture in your organization?

This question sought to investigate the extent to which Hofstede's five dimensions of culture is embedded in the culture of the respondent's respective organizations. The five dimensions were defined in chapter 2.

Power Distance Index

From the results of the survey depicted in the below table 41, most respondents agree with statement # 2 as shown by the frequency score of 93%. A large number of respondents agree with statement # 4 as shown by the frequency score of 85%. An equal number of respondents agree with statement # 1 as shown by the frequency score of 79%. A relatively few number of respondents agree with statement # 3 as shown by the frequency score of 42%.

Hofstede's dimensions of culture – Power Distance Index

Statement	Frequency %	SD	N
1. Major decisions regarding site project issues, always take place after consulting project team members	79%	.864	100
2. I am always encouraged to raise any project concern with my supervisor	93%	.537	100
3. Project decisions is exclusively a management function	42%	1.201	100
4. I am always being consulted by my supervisor regarding preparation of project plans and policies	85%	.737	100

Table 41 Hofstede's dimensions of culture – Power Distance Index

Individualism vs. Collectivism Index

From the results of the survey depicted in the below table, most respondents a agree with statement # 2 as shown by the frequency score of 93%. A comparable number of respondents agree with statement # 3 as shown by the frequency score of 89%. A similar number of respondents agree with statement # 4 as shown by the frequency score of 85%. Very few respondents agree with statement # 1 as shown by the frequency score of 3%.

Hofstede's dimensions of culture – Individualism vs. Collectivism Index

Statement	Frequency %	SD	N
1. Project decisions made by me alone are usually more effective than decisions made in consultation with my team members.	3%	.622	101
2. My team members often collaborate and support me in resolving project issues	93%	.606	101
3. Project success has a lot of personal meaning to me and my team members	89%	.721	101
4. Responsibility for Project success or failure is shared by project team members rather than a single individual	85%	.789	101

Table 42 Hofstede's dimensions of culture – Individualism vs. Collectivism Index

Uncertainty Avoidance Index

From the results of the survey depicted in the below table, most respondents agree with statement # 1 as shown by the frequency score of 82%. Some respondents agree with statement # 4 as shown by the frequency score of 58%. Very few respondents agree with statement # 3 as shown by the frequency score of 14%. Fewer respondents agree with statement # 2 as shown by the frequency score of 4%.

Hofstede's dimensions of culture – Uncertainty Avoidance Index

Statement	Frequency %	SD	N
1. Team members follow project procedures without being told to do so	82%	.730	101
2. Project failure just happen, there is little anyone can do to avoid them	4%	.733	101
3. I am rarely worried about meeting project objectives	14%	.906	101
4. Project procedures should not be breached, even when I believe it will affect the project	58%	1.15	101

Table 43 Hofstede's dimensions of culture – Uncertainty Avoidance Index

Long Term Orientation vs. Short Term Orientation Index

From the results of the survey displayed in the below table, a high percentage of respondents agree with statement # 4 as shown by the frequency score of 97%. A similar number of respondents agree with statement # 1 as shown by the frequency score of 92%. A relatively high number of respondents agree with statement # 2 as shown by the frequency score of

79%. A similar number of respondents agree with statement # 3 as shown by the frequency score of 77%.

Hofstede's dimensions of culture – Long Term Orientation vs. Short Term Orientation

Statement	Frequency %	SD	N
1. Sustainable Project implementation is a top priority of my company	92%	.623	99
2. Measurement of project performance is benchmarked against previous project performance	79%	.838	99
3. Project managers prefer to adhere to quality parameters even if it costs more.	77%	.739	99
4. The policy of my company encourages safe behaviour on project sites.	97%	.622	99

Table 44 Hofstede's dimensions of culture – Long Term Orientation vs. Short Term Orientation Index

Section D - Critical Success Factors

The aim of this section of the questionnaire was to investigate the factors that are critical for project management / project delivery success in the organization covered in this study.

Survey Section D Question 1: Do you formally identify critical success factors that enable success of projects in your organisation?

97.1% of project practitioners did indicate that critical success factors were formally identified in their organizations. Only 2.9% indicated that critical success factors were not formally identified in their organizations.

Formal identification of critical success factors in Organization

Total = 103			
Variable		**N**	**%**
Do you formally identify critical success factors that enable success of projects in your organisation?			
	No	3	2.9
	Yes	100	97.1

Table 45 Formal identification of critical success factors in Organization

Survey Section D Question 2: Which of the following project factors are considered as critical success factors for projects in my organisation?

From the results of the frequency analysis in the below table, top management support ranked number one critical success factor as indicated by the frequency score of 91%. Clearly defined technical task ranked number 2 with a frequency score of 90%. Personnel competence with a frequency score of 88% was ranked the number 3 critical success factor. Project Mission with a frequency score of 87% was ranked the number 4 critical success factor. Client acceptance with a mean score of 85% was ranked number 5 by the respondents. The focus of this dissertation, culture, was ranked number 8 with a relatively high frequency of 76%. This result suggests that a relatively high number of project practitioners in the IOC's surveyed are of the opinion that culture is a CSF for project execution.

Ranking of critical success factors

Project Factor (N = 103)	**Frequency %**	**Ranking**	**SD**
1. Project Mission	87%	4	.867
2. Top Management Support	91%	1	.842
3. Updated Project Schedule/Plans	82%	6	1.070
4. Client Consultation	79%	7	.912
5. Culture	76%	8	.784
6. Personnel Competence	88%	3	.810
7. Clearly defined Technical Task	90%	2	.785
8. Client Acceptance	85%	5	.925
9. Monitoring and Feedback Embedded in the Project	74%	10	.904

Process			
10. Communication	74%	9	.785
11. Trouble-shooting Skills	68%	11	.969
12. Level of Sustainability Compliance	60%	12	.945

Table 46 Ranking of critical success factors

Survey Section D Question 3: Rank the factors below as enablers of project success in your organisation?

From the results of the survey displayed in the table below, effective communication, coordination and commitment was ranked number 1 enabler of project success by most respondents as indicated by the frequency score of 29%. Teamwork was ranked second major enabler of project success, effective planning was ranked third, project organisation structure was ranked fourth, organisational culture was ranked fifth, while project sustainability was ranked sixth with frequency scores of 24%, 18%, 13%, 10% and 8% respectively.

Ranking of project factor as an enabler of project success

Factor (N = 103)	Frequency %	Ranking	SD
1. Effective Communication, Coordination and Commitment	29%	1	2.188
2. Project Organisation Structure	13%	4	1.501
3. Effective Planning	18%	3	1.323
4. Project Sustainability	8%	6	1.386
5. Teamwork	24%	2	1.520
6. Organisational Culture	10%	5	1.630

Table 47 Ranking of project factor as an enabler of project success

Survey Section D Question 4: Rank the factors below as barriers to project success in your organisation

From the results of the survey displayed in the table below, lack of finance was ranked as the number 1 barrier to project success by more respondents as indicated by the frequency score of 37%. Conflicting Organizational Priorities follows with a frequency score of 19%. The other four factors were considered as barriers to project success by very similar number of respondents with frequency scores clustered between 9% and 12%.

Ranking of project factor as a barrier to project success

Factor (N = 103)	Frequency %	Ranking	SD
1. Lack of Finance	37%	1	2.188
2. Lack of Experienced & Competent Personnel	10%	5	1.501
3. Low Management Support	12%	3	1.323
4. Conflicting Organizational Priorities	19%	2	1.386
5. Ineffective Stakeholder Engagement	12%	4	1.520
6. Insensitivity to Cultural Differences	9%	6	1.630

Table 48 Ranking of project factor as a barrier to project success

Survey Section D Question 5: Rate the importance of paying attention to the following project needs as enabler of project success

This question sought to rate the importance of some project needs as an enabler of perceived project success in the respondent's organization. Three needs obtained from literature and project management journals were selected. For the purpose of this study, cultural need was included as the fourth need with the aim to investigate the rating of the cultural need relative to the three needs obtained from literature. The rating was based on combined frequency of respondents rating of high and extremely high. From the results of the survey depicted in the below table, relationship needs, content needs, and procedural needs had very close ratings of 98%, 96% and 96%. This is consistent with extant literature which argues that for projects to be successful, managers need to spend equal number of time on the three contending needs. Cultural need, which was introduced in this study to test its rating relative to the three aforementioned needs, had a frequency score of 78%. This suggests that although cultural needs are perceived as a strong need by a high number of project practitioners, it does not attract the same attention compared to the other three.

Ranking of project need as enabler of project success

Project Need (N = 103)	Frequency %	Rating	SD
1. **Content needs** – project scope, budget, expenditure, resources and schedule	96%	2	.719
2. **Procedural needs** – the procedures that govern how the project is implemented	96%	2	.677
3. **Relationship needs** – how project teams relate or interact with themselves and other stakeholders	98%	1	.609
4. **Cultural needs** – cultural differences, cultural awareness, sensitivity to cultural diversity, values, customs and beliefs	78%	3	.903

Table 49 Ranking of project need as enabler of project success

5.4: Hypotheses Test Results

This section of the data analysis focuses on inferential analysis aimed at establishing if there is a relationship between the variables and concepts as defined by the conceptual model that underpin this study. The inferential analysis aims to investigate and establish if there is a correlation, not causality, between one independent variable or predictor i.e. culture and two dependent variables i.e. human behaviour and perceptions of project results as shown in the below conceptual framework. For clarity, the findings from the analysis are tabulated and discussed accordingly.

Conceptual Framework

The conceptual framework depicts how the research problem will have to be explored. This is founded on the theoretical frameworks that already exist in Literature as shown in appendix 6.

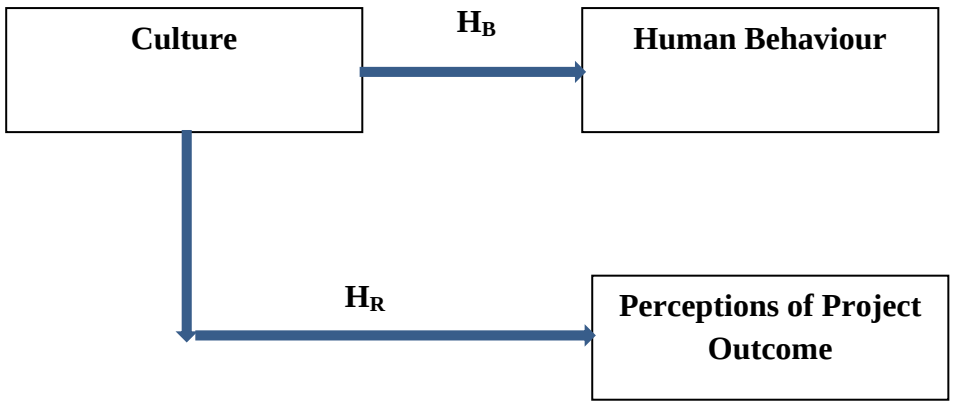

Figure 21 Conceptual Framework: Correlation between Culture, Human Behaviour and Project Results

According to Easterby-Smith et al (2008), researchers have an important task of identifying the main dependent and predictor variables: it is the predictor variables which are assumed to be influencing, not causing the dependent variables (pg. 91). To do this, Easterby-Smith et al (2008) posit that a method of measuring the variables will be defined, relevant hypotheses

will be set and each of the hypotheses will then be tested to find out the degree of correlation between the predictor and dependent variables. For this study, twelve hypotheses were proposed as depicted by the conceptual framework below: $\mathbf{H_B}$, $\mathbf{H_{B1}}$ - $\mathbf{H_{B5}}$, $\mathbf{H_R}$, $\mathbf{H_{R1}}$ - $\mathbf{H_{R4}}$, and $\mathbf{H_M}$.

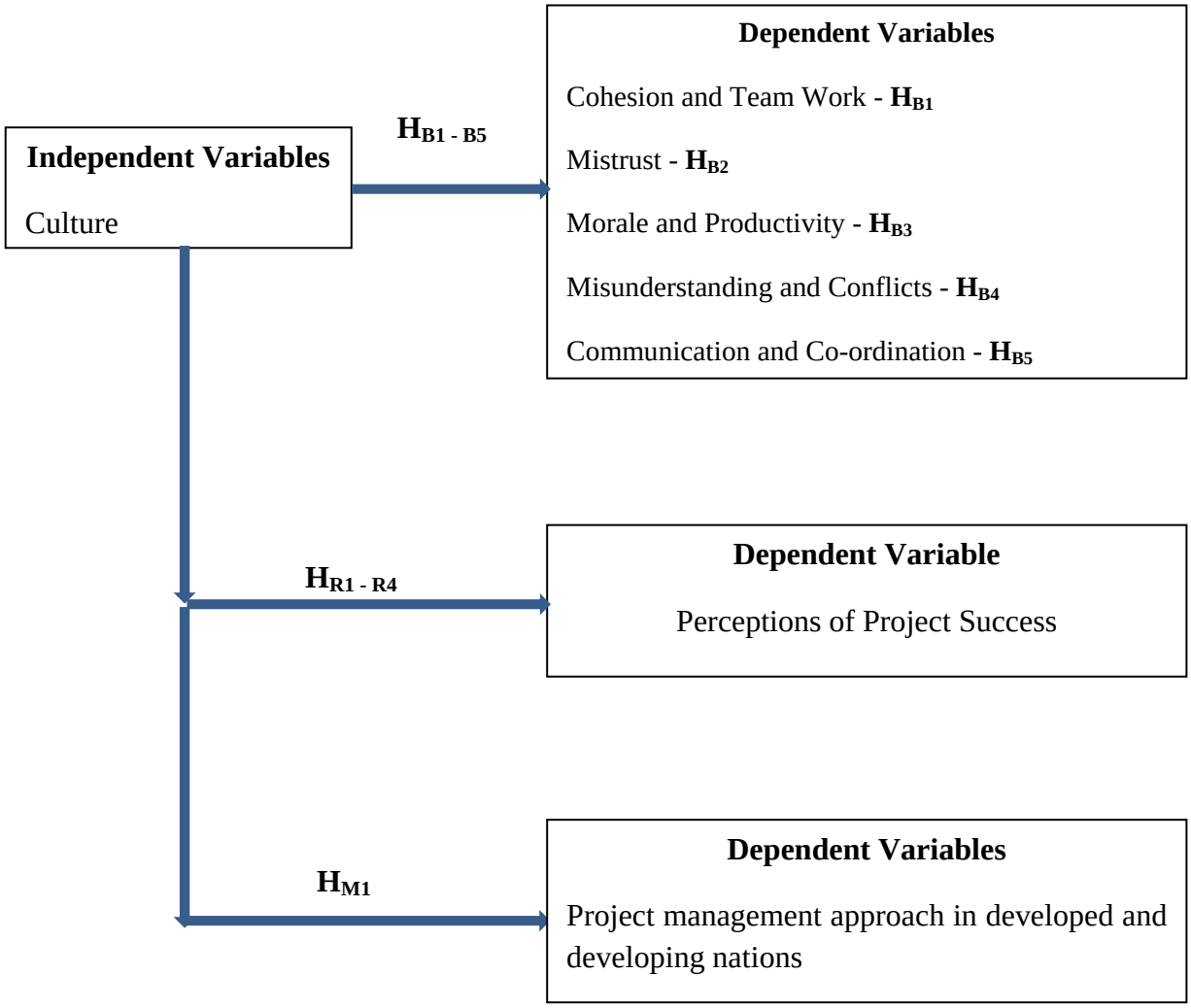

Figure 22 Conceptual Framework: Correlation between Culture, Human Behaviour and Project Results

5.4.1 Measuring the Relationship between the Variables

Pearson Correlation (r)

For this study, the Pearson Correlation was selected to test the degree of correlation between the independent and dependent variables. The basis for selecting Pearson Correlation is

derived from the approach used in studies to test relationship between variables in existing literature by Ohaeri (2013) regarding sustainability as a critical success factor for projects in Nigeria LNG Limited, and in the study of ethics, trust and governance in temporary organizations by Ralf Muller et al (2014) published in Project Management Journal, Pearson Correlation analysis was used to identify the relationships between governance and trust.

Coefficient of Determination (r^2)

The coefficient of determination (r^2) is a statistical measure of how close the data collected for the items are to the fitted regression line. It is the proportion of the variance in the dependent variable that is predictable from the independent variable. For research models, it provides a measure of how well observed outcomes are replicated by the model, based on the proportion of total variation of outcomes explained by the model. It is calculated to indicate the percent of variance in a variable that is attributed to the other variable. A perfect 100% value indicates that the model explains all the variability of the response data around its mean. For this study, it is calculated to express the degree of variation in the dependent explained by the independent variable i.e. to indicate the amount of shared variance. It will provide a measure of how the change in the independent variable influences the change in the dependent variable. In other words, it explains the variation of the dependent variable that is directly related to the variation of the independent variable. The closer the coefficient of determination (r^2) value to 1, the closer is the variation of one variable related to the variation of the other variable. In statistical terms, if Pearson Correlation $r = 0.7$, the coefficient of determination (r^2) = 0.49, interpreted to mean that 49% of the variance in the dependent variable can be explained by the independent variables, and the remaining 51% can be attributed to unknown or inherent variability. It should be noted that the correlation values of r and r^2 does not imply causation. In other words, while correlations provide an indication of causal relationships among variables, a non-zero estimated correlation between two variables is not, on its own, evidence of causality that changing the value of one variable would result

in changes in the values of other variables. According to Easterby-Smith et al (2008), statistical models are useful in understanding the way in which variables relate to each other, but cannot be used to prove a causal relationship (p.179).

Hypothesis H_B: There is a relationship between culture and the behaviour exhibited by project team members.

The frequency score of 80% from an earlier analysis indicates that the respondents agree that the multi-cultural composition of project teams influences the behaviour of team members and how they manage situations. The below table shows the results of the correlation and coefficient of determination between culture, the behaviour exhibited by project team members and project success. The results show that the behaviour exhibited by project team members is positively correlated ($p = 0.020$, $r = 0.852$) with project success as defined in this study. The coefficient of determination $r^2 = 0.726$ for the model indicates that 72.6% of the variance in the dependent variable (project success) can be explained by the independent variable (behaviour), and the remaining 29.4% is attributed to unknown or inherent variability. The results also show that behaviour exhibited by project team members is positively correlated ($p = 0.051$, $r = 0.195$) with culture as defined in this study. The coefficient of determination $r^2 = 0.038$ for the model indicates that 3.8% of the variance in the dependent variable (behaviour) can be explained by the independent variable (culture), and the remaining 96.2% is attributed to unknown or inherent variability.

N = 94 N = 101	The multi-cultural composition of project teams influences the behaviour of team members and how they manage situations (reference Section C question 2 i)		
	Pearson Correlation (r)	**Sig. (2-tailed) (p)**	**Coefficient of Determination (r^2)**
Combined definition of Project Success reference Section B Question3 a - e	0.852	0.020	0.726
Combined definition of Culture reference Section C Question1 a - e	0.195	0.051	0.038

Hypothesis H_{B1}: The presence of several national cultures in a project team has a negative impact on team cohesion and teamwork.

The frequency score of 72% from an earlier analysis indicates that the respondents concur that the presence of several national cultures in a project team has a negative impact on team cohesion and teamwork. The below table shows the results of the correlation between culture, team cohesion and teamwork and Hofstede dimensions of culture. The results show that the team cohesion and teamwork exhibited by project team members is negatively correlated (p = 0.014, r = - 0.244) with culture as defined in this study. The coefficient of determination r^2 = 0.059 for the model indicates that 5.9% of the variance in the dependent variable (team cohesion and teamwork) can be explained by the independent variable (culture), and the remaining 94.1% is attributed to unknown or inherent variability.

N = 101 N = 99	The presence of several national cultures in a project team influences team cohesion and teamwork (Section C question 2 f)		
	Pearson Correlation (r)	**Sig. (2-tailed) (p)**	**Coefficient of Determination (r^2)**
Combined definition of Culture reference Section C Question 1 a – e.	- 0.244*	0.014	0.059

Hypothesis H_{B2}: The presence of individuals from different nationalities in a project team increases the chances of mistrust between team members.

The frequency score of 60% from an earlier analysis indicates that the respondents concur that the presence of individuals from different nationalities in a project team increases the chances of mistrust between team members. The below table shows the results of the correlation between culture, mistrust between team members and Hofstede dimensions of culture. The results show that the mistrust between team members is negatively correlated ($p = 0.042$, $r = -0.673$) with culture as defined in this study. The coefficient of determination $r^2 = 0.453$ for the model indicates that 45.3% of the variance in the dependent variable (trust) can be explained by the independent variable (culture), and the remaining 54.7% is attributed to unknown or inherent variability.

N = 101	I have experienced situations where people from different cultural background did not trust each other, resulting in poor project delivery (Section C question 2 h)		
	Pearson Correlation (r)	**Sig. (2-tailed) (p)**	**Coefficient of Determination (r^2)**
Combined definition of Culture reference Section C Question 1 a – e.	- 0.673	0.042	0.453

Hypothesis H_{B3}: Formal awareness of cultural diversity by the project team improves morale and productivity of team members

The high frequency score of 84% from an earlier analysis suggest that the respondents strongly agree that formal awareness of cultural diversity by the project team improves morale and productivity of team members. The below table shows the results of the correlation between morale and productivity of team members, and three propositions regarding cultural diversity as shown in the table. The results in the table shows that morale and productivity of team members as construed by the statement that formal awareness of cultural diversity by the project team improves morale and productivity of team members is positively correlated {(p = 0.000, r = 0.418), (p = 0.002, r = 0.307) and (p = 0.477, r = 0.071)} with: cultural diversity as construed in this study by the statements: (a) Project managers in my organisation are sensitive to cultural diversity and have a strong commitment towards cultural issues (p = 0.000, r = 0.418**), (b) For a project to be successful, the project manager should consider cultural factors (e.g. traditions, values, customs, and beliefs) at the project planning stage (p = 0.002, r = 0.307**) and (c) Project managers from different cultures have different approaches to managing their projects (p = 0.071, r = 0.477). The best fit coefficient of determination $r^2 = 0.227$ for the model indicates that 22.7% of the variance

in the dependent variable (morale and productivity) can be explained by the independent variable (cultural diversity), and the remaining 77.3% is attributed to unknown or inherent variability.

N = 103	Section C 2c (Formal awareness of cultural diversity by the project team improves morale and productivity of team members)		
	Pearson Correlation (r)	**Sig. (2-tailed) (p)**	**Coefficient of Determination (r^2)**
Section C 2 b (Project managers in my organisation are sensitive to cultural diversity and have a strong commitment towards cultural issues)	0.418**	0.000	0.175
Section C 2 k (For a project to be successful, the project manager should consider cultural factors (e.g. traditions, values, customs, and beliefs) at the project planning stage)	0.307**	0.002	0.094
Section C 2 l (Project managers from different cultures have different approaches to managing their projects)	0.477	0.071	0.227

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Hypothesis H_{B4}: Cultural differences in project team increases the propensity for misunderstanding and conflicts between team members

The frequency score of 55% from an earlier analysis indicates that the respondents agree that cultural differences in project team increases the propensity for misunderstanding and conflicts between team members. From an earlier analysis, respondents agree with the statement that project managers from different cultures have different approaches to managing their projects as shown by the frequency score 65%. The results in the below table show that misunderstanding and conflicts between team members is positively correlated (p = 0.084, r = 0.406) with cultural differences between team members. The coefficient of determination $r^2 = 0.165$ for the model indicates that 16.5% of the variance in the dependent

variable (misunderstanding and conflicts) can be explained by the independent variable (cultural differences), and the remaining 83.5% is attributed to unknown or inherent variability.

N = 100	In some projects I have been engaged in, misunderstandings and conflicts between team members have been attributed to cultural differences (Section C question 2 j)		
	Pearson Correlation (r)	**Sig. (2-tailed) (p)**	**Coefficient of Determination (r^2)**
Section C 2 l (Project managers from different cultures have different approaches to managing their projects)	0.406	0.084	0.165

Hypothesis for H_{B5}: Cultural differences between team members have a negative impact on team communication and coordination

The mean score of 68% from an earlier analysis shows that most respondents agree that cultural differences between team members have a negative impact on team communication and coordination. From an earlier analysis, respondents agree with the statement that in some projects they have been engaged in, misunderstandings and conflicts between team members have been attributed to cultural differences as shown by the mean score 55%. The results show that team communication and coordination is positively correlated ($p = 0.009$, $r = 0.256$) with misunderstandings and conflicts between team members arising from cultural differences between team members. The coefficient of determination $r^2 = 0.065$ for the model indicates that 6.5% of the variance in the dependent variable (misunderstanding and conflicts) can be explained by the independent variable (cultural differences), and the remaining 93.5% is attributed to unknown or inherent variability.

N = 103	Section C question 2 n (In the projects I have managed, cultural differences has influenced team communication and coordination)		
	Pearson Correlation (r)	**Sig. (2-tailed) (p)**	**Coefficient of Determination (r^2)**
Section C question 2 j (In some projects I have been engaged in, misunderstandings and conflicts between team members have been attributed to cultural differences)	0.256**	0.009	0.065

** Correlation is significant at the 0.01 level (2-tailed).

Hypothesis for H_R: There is a relationship between culture and project failure

The frequency score of 8% from an earlier analysis shows that very few respondents agree that in a project they have been engaged in, the existence of multi-cultured teams contributed directly to project failure. The table below shows the results of the correlation between project failure and culture. The results show that project failure is positively correlated (p = 0.012, r = 0.902) with culture. The coefficient of determination r^2 = 0.814 for the model indicates that 81.4% of the variance in the dependent variable (project failure) can be explained by the independent variable (culture), and the remaining 18.6% is attributed to unknown or inherent variability.

N = 101	In a project I have been engaged in, the existence of multi-cultured teams contributed to project failure (Section C question 2 g)		
	Pearson Correlation (r)	**Sig. (2-tailed) (p)**	**Coefficient of Determination (r^2)**
Combined definition of Culture reference Section C Question 1 a – e.	0.902	0.012	0.814

Hypothesis for H_R: There is a relationship between culture and project success

The frequency score of 86% from an earlier analysis shows that most respondents agree that the organisational culture i.e. the way we do things in my organisation influences project success. The results show that project success is positively correlated (p = .120, r = 0.231) with culture. The coefficient of determination r^2 = 0.053 for the model indicates that 5.3% of the variance in the dependent variable (project success) can be explained by the independent variable (culture), and the remaining 94.7% is attributed to unknown or inherent variability.

N = 101	The organisational culture i.e. the way we do things success (Section C question 2 p)		
	Pearson Correlation (r)	**Sig. (2-tailed) (p)**	**Coefficient of Determination (r^2)**
Combined definition of Culture reference Section C Question 1 a – e.	0.231	0.120	0.053

Hypothesis H_{R2}: There is a correlation between project teams with people from different nationalities and project failure.

The frequency score of 89% from an earlier analysis shows that most respondents agree that for a project to be successful, the project manager should consider cultural factors (e.g. traditions, values, customs, and beliefs) at the project planning stage. The results show that project teams with people from different nationalities is positively correlated (p = 0.066, r = 0.190) with project failure. The coefficient of determination r^2 = 0.036 for the model

indicates that 3.6% of the variance in the dependent variable (project failure) can be explained by the independent variable (people from different nationalities), and the remaining 96.4% is attributed to unknown or inherent variability.

N = 94	For a project to be successful, the project manager should consider cultural factors (e.g. traditions, values, customs, and beliefs) at the project planning stage (Section C question 2 k)		
	Pearson Correlation (r)	**Sig. (2-tailed) (p)**	**Coefficient of Determination (r^2)**
Definition of Culture Section C Questions 1 a - e.	0.190	0.066	0.036

Hypothesis H_{R3}: The organizational culture i.e. "the way we do things" in a company has an influence on project success

The frequency score of 86% from an earlier analysis shows that most respondents agree that the organizational culture i.e. "the way we do things" in a company has an influence on project success. From an earlier analysis, respondents agree with the statement that the work environment, which includes trust and goal congruence, in which the project team operates has a positive influence on project performance as shown by the frequency score 80.4%. The results show that organizational culture is positively correlated ($p = 0.004$, $r = 0.282$) with project success. The coefficient of determination $r^2 = 0.079$ for the model indicates that 7.9% of the variance in the dependent variable (project success) can be explained by the independent variable (organizational culture), and the remaining 92.1% is attributed to unknown or inherent variability.

N = 103	The organisational culture i.e. the way we do things influences project success (Section C question 2 p)		
	Pearson Correlation (r)	**Sig. (2-tailed) (p)**	**Coefficient of Determination (r^2)**
The work environment, which includes trust and goal congruence, in which the project team operates has a positive influence on project performance (Section C question 2 q)	0.282**	0.004	0.079

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Hypothesis H_{R4}: The appointment of a project manager from the host community is positively related to project success.

The frequency score of 20% from an earlier analysis shows that some respondents agree that the appointment of a project manager from the host community is positively related to project success. The results show that appointment of a project manager from the host community is positively correlated (p = 0.059, r = 0.557) with project success. The coefficient of determination $r^2 = 0.311$ for the model indicates that 31.1% of the variance in the dependent variable (project success) can be explained by the independent variable (appointment of a project manager from the host community), and the remaining 68.9% is attributed to unknown or inherent variability.

N = 103	In some projects I have been engaged in, appointing the project manager from the host community influenced project success (Section C question 2 o)		
	Pearson Correlation (r)	**Sig. (2-tailed) (p)**	**Coefficient of Determination (r^2)**
For a project to be successful, the project manager should consider cultural factors (e.g. traditions, values, customs, and beliefs) at the project planning stage (Section C question 2 k)	0.557	0.059	0.311

Hypothesis H_{M1}: Managing projects in developed nations is different when compared to developing nations

The frequency score of 70% from an earlier analysis shows that respondents agree that from their experience in project management, managing projects in developed nations is different from managing in developing nations. The results show that managing projects in developed nations and managing projects in developing nations is positively correlated (p = 0.065, r = 0.518) with project success. The coefficient of determination r^2 = 0.268 for the model indicates that 26.8% of the variance in the dependent variable (project success) can be explained by the independent variable (project location in developing or developed economy), and the remaining 73.2% is attributed to unknown or inherent variability.

N = 100	From my experience in project management, managing projects in developed nations is different from managing in developing nations (Section C question 2 m)		
	Pearson Correlation (r)	**Sig. (2-tailed) (p)**	**Coefficient of Determination (r^2)**
Definition of Project Success reference Section C Question 3 a - g	0.518	0.065	0.268

5.4.1 Summary of the Hypotheses Test Results

To give a clear overview of the results, the summary of the findings from the initial quantitative analysis comprising calculation of Frequencies, Pearson Correlation (r), Statistical Significance (p) and Coefficient of Determination (r^2) is combined with the hypotheses being tested and tabulated below.

Hypothesis	Frequency %	Perason (r)	CoD (r^2)	p	Discussion
Hypothesis H_B:	80%	0.51	0.726	0.195	The frequency score of 80% indicates that the respondents strongly agree that there is a relationship between culture and the behaviour exhibited by project team members and how they manage situations. Further analysis reveal that the behaviour exhibited by project team members has a positive correlation (r = 0.51) with culture and 72.6% of shared variance. The p value of 0.195 suggests a statistical significance in the correlation between the two variables implying that the hypothesis is true for the sample population in this study and also true to the wider project management practitioner population in O & G industry in developing economies.
Hypothesis H_{B1}:	72%	- 0.244	0.059	0.01	The frequency score of 72% suggests that the respondents strongly agree that the presence of several national cultures in a project team has a negative impact on team cohesion and teamwork. Further analyses reveal a negative correlation (r = - 0.244) between the variables and 5.9% of shared variance; thus confirming that hypothesis H_{B1} is supported by this study. The p value of 0.01 suggests that there is a strong statistical significance between the variables implying that the hypothesis is valid for both the sample population in this study and also to the wider project management practitioner population in O & G industry in developing economies.
Hypothesis H_{B2}:	60%	- 0.673	0.453	0.042	The frequency score of 60% indicates that the respondents agree that the presence of

					individuals from different nationalities in a project team increases the chances of mistrust between the team members. Further analysis reveal a negative correlation (r = -0.673) between the variables and 45.3% of shared variance. The p value of 0.042 suggests that there is a strong statistical significance between the variables implying that the hypothesis is valid for both the sample population in this study and also to the wider project management practitioner population in O & G industry in developing economies.
Hypothesis H_{B3}:	84%	0.477	0.227	0.071	The high frequency score of 84% from an earlier analysis suggest that the respondents strongly agree that formal awareness of cultural diversity by the project team improves morale and productivity of team members. Further analysis reveal a relatively very strong positively correlation (r = 0.477) between the variables and 22.7% of shared variance. The p value of 0.071 indicates a good statistical significance between the variables implying that the hypothesis is true for the sample population in this study and also to the wider project management practitioner population in O & G industry in developing economies.
Hypothesis H_{B4}:	55%	0.406	0.165	0.08	The frequency score of 55% indicates that the respondents agree that cultural differences in project team increases the propensity for misunderstanding and conflicts between team members. The results show that misunderstanding and conflicts between team members has a

					strong positive correlation (r = 0.406) with cultural differences and 16.5% of shared variance. The p value of 0.08 indicates some degree of statistical significance in the correlation between the variables implying that the hypothesis is true for the sample population in this study and also to the wider project management practitioner population in O & G industry in developing economies.
Hypothesis for H_{B5}:	68%	0.256	0.065	0.009	The frequency score of 68% shows that most respondents agree that cultural differences between team members have a negative impact on team communication and coordination. Further analysis reveal a relatively strong positively correlation (r = 0.256) between the variables and 6.5% of shared variance. The p value of 0.009 indicates a very strong statistical significance in the correlation between the variables implying that the hypothesis is true for the sample population in this study and also to the wider project management practitioner population in O & G industry in developing economies.
Hypothesis for H_R:	8%	0.902	0.814	0.012	The frequency score of 8% shows that few respondents agree that in a project they have been engaged in, the existence of multi-cultured teams contributed to project failure. Further analysis reveal a strong positive correlation (r = 0.902) between the variables and 81.4% of shared variance. The p value of 0.012 indicates a very strong statistical significance in the correlation between the variables implying

					that the hypothesis is true for the sample population in this study and also to the wider project management practitioner population in O & G industry in developing economies.
Hypothesis for H_{R1}:	86%	0.231	0.053	0.120	The frequency score of 86% shows that most respondents agree that the organizational culture i.e. the way we do things in my organization influences project success. Further analysis reveal a positive correlation (r = 0.231) between the variables and 5.3% of shared variance. The p value of 0. 120 is an indication of a weak statistical significance in the correlation between the variables implying that the hypothesis may be true for the sample population in this study but may not necessarily apply to the wider project management practitioner population in O & G industry in developing economies.
Hypothesis H_{R2}:	89%	0.190	0.036	0.06	The frequency score of 89% shows that most respondents strongly agree that there is a correlation between project teams with people from different nationalities and project failure. Further analysis reveal a positive correlation (r = 0.190) between the variables and 3.6% of shared variance. The p value of 0.06 indicates a relatively strong statistical significance in the correlation between the variables implying that the hypothesis is true for the sample population in this study and also to the wider project management practitioner population in O & G industry in developing economies.

Hypothesis H_{R3}:	86%	0.282	0.079	0.004	The frequency score of 86% shows that most respondents strongly agree that the organizational culture i.e. "the way we do things" in a company has an influence on project success. Further analysis reveal a positive correlation (r = 0.282) between the variables and 7.9% of shared variance. The p value of 0.004 indicates a very strong statistical significance in the correlation between the variables implying that the hypothesis is true for the sample population in this study and also to the wider project management practitioner population in O & G industry in developing economies.
Hypothesis H_{R4}:	20%	0.557	0.311	0.059	The frequency score of 20% shows that relatively few respondents agree that the appointment of a project manager from the host community is positively related to project success. Further analysis reveal a very weak positive correlation (r = 0.557) between the variables and 31.1% of shared variance. The p value of 0.059 indicates a very strong statistical significance in the correlation between the variables implying that the hypothesis is true for the sample population in this study and also to the wider project management practitioner population in O & G industry in developing economies.
Hypothesis H_{M1}:	70%	0.518	0.268	0.065	The frequency score of 70% shows that the respondents strongly agree that managing projects in developed nations is different from managing in developing nations. Further analysis reveal a positive correlation (r = 0.518)

					between the variables and 26.8% of shared variance. The p value 0.065 indicates a very strong statistical significance in the correlation between the variables implying that the hypothesis is true for the sample population in this study and also to the wider project management practitioner population in O & G industry in developing economies.

Table 50: Summary of the Hypotheses Test Results

5.5: Qualitative Analysis

In order to gain better understanding and more insightful interpretation of the results from the quantitative survey, a qualitative approach is included, using structured interviews. This mixed approach (triangulation) design was selected to optimize the reliability, validity and generalizability of this research (Saunders et al, 2003). This section explains how the qualitative data was collected and analyzed by the process of categorization and three-stage coding to identify dominant themes and theory.

5.5.1: Interview Questionnaire Structure

The aim of collecting qualitative data is to find out the views, perceptions and opinions from some selected experienced project practitioners who participated in the quantitative survey (Easterby-Smith et al, 2008, p. 142). A set of ten questions as shown in the below table was administered on eighteen respondents. The questions were divided into three sections. Section ‘A’ comprising six questions sought to find out the views of the respondents regarding the correlation between culture and behaviour. Section ‘B’ comprising three questions sought to find out the views of the respondents regarding the correlation between culture and project success. Section ‘C’ comprising one question sought to find out the views of the respondents regarding the correlation between managing projects in developing and developed countries.

Structured Interview Questions

Section A: Correlation between culture and behaviour
Question 1: What do you think about the relationship between culture and the behaviour exhibited by project team members?
Question 2: What impact does the presence of several national cultures in a project team have on team cohesion and teamwork?
Question 3: What influence does the presence of individuals from different cultures in a project team have on the level of trust between team members?
Question 4: What effect does the presence of individuals from different cultures in the project team have on the morale and productivity of team members?
Question 5: What effect do you think people from different cultures in project team have on misunderstanding and conflicts between team members?
Question 6: What impact do team members from different cultures have on team communication and co-ordination?
Section B: Correlation between culture and project success
Question 1: Do you think culture influences project success or failure? Please explain your answer.
Question 2: How do you think the organizational culture i.e. "the way we do things" in a company influence project success?
Question 3: Do you think the appointment of a project manager from the host community will enhance the chances of project success? Please explain your answer.
Section C: Correlation between managing projects in developing and developed countries
Question 1: Do you think managing projects in developed nations e.g. USA, UK is different when compared to managing projects in developing nations e.g. Nigeria, Ghana? Please explain your answer.

Table 51 Structured Interview Questions

5.5.2: Data Analysis

According to Easterby-Smith et al (2008), the main aim of qualitative interviews is to gain an in-depth understanding from the respondent's perspective by probing to understand the "what" and "why" of their viewpoints (p. 144). Kvale (1996) cited in Easterby-Smith et al (2008) posit that the aim of qualitative interviews should be to collect information, which captures the meaning and interpretation of a phenomenon under investigation in relation to the participant's worldview (p.144). Easterby-Smith et al (2008) therefore contends that researchers must conduct interviews in way that insights from the participant's perspective are achieved. One approach suggested is to understand the constructs used by the respondents as a basis for their opinions and beliefs on a particular matter or situation (Easterby-Smith et

al, 2008, p. 145). The qualitative analysis of interview data can be done using six methods namely: content, grounded, discourse, narrative, conversation and argument analysis. The method of analysis adopted will depend on what the researcher seeks to find out (Easterby-Smith et al, 2008, p. 173). According to Easterby-Smith et al (2008), Grounded analysis is adopted where an open approach to data analysis is done. The process involves systematic analysis of interview data to tease out themes, patterns and categories that will be declared in the findings (p.175). Since this study has carried out quantitative analysis, and qualitative analysis is proposed for an in-depth understanding of the findings from the quantitative analysis, this research opted for the grounded analysis approach, specifically using the Gioia method, to extract the themes, patterns and categories that emerged from the quantitative analysis and are also related to the hypotheses developed for the correlation.

5.5.3 Three Stage Coding and Inductive Analysis

This section provides a structured analysis of data collected using coding method of first, second and third order coding to identify concepts, themes and aggregate dimensions from the structured interviews. The details of the response for the ten questions from each of the eighteen participants are displayed in the appendix.

For all its richness and potential for discovery, qualitative research has been critiqued as too often lacking in scholarly rigor. Therefore, a systematic approach to new concept development and grounded theory articulation is proposed to bring "qualitative rigor" to the conduct and presentation of inductive research (Gioia et al, 2012. To achieve qualitative rigor for this study, the data from the interviews is analyzed using a structured inductive process to identify important categories (concepts, themes and dimensions) in the data with the objective to reveal any related patterns and relationships. The inductive process, based on the Gioia method, is carried out through progressive focused coding of the interview data collected into first order concepts, second order themes and third order aggregate dimensions, to inductively develop grounded theory (Gioia et al, 2012). This Gioia method is accepted by

researchers, as a number of other researchers have now adopted some form of this methodology reference table 52 (Gioia et al, 2012). The outcome of the structured qualitative analysis of the data collected from the ten structured interview questions is tabulated in the data structure below.

Studies Using the Methodology or Variations on the Approach.

Author(s)	Year	Journal
Anand, Gardner, and Morris	2007	*Academy of Management Journal*
Anand and Jones	2008	*Journal of Management Studies*
Balogun and Johnson	2004	*Academy of Management Journal*
Clark, Gioia, Ketchen, and Thomas	2010	*Administrative Science Quarterly*
Corley	2004	*Human Relations*
Corley and Gioia	2004	*Administrative Science Quarterly*
Dacin, Munir, and Tracey	2010	*Academy of Management Journal*
Gioia, Price, Hamilton, and Thomas	2010	*Administrative Science Quarterly*
Gioia and Thomas	1996	*Administrative Science Quarterly*
Gioia, Thomas, Clark, and Chittipeddi	1994	*Organization Science*
Harrison and Corley	2011	*Organization Science*
Kjærgaard, Morsing, and Ravasi	2011	*Journal of Management Studies*
Labianca, Gray, and Brass	2000	*Organization Science*
Maguire and Phillips	2008	*Journal of Management Studies*
Maitlis	2005	*Academy of Management Journal*
Maitlis and Lawrence	2007	*Academy of Management Journal*
Mantere, Schildt, and Sillince	2012	*Academy of Management Journal*
Nag, Corley, and Gioia	2007	*Academy of Management Journal*
Nag and Gioia	2012	*Academy of Management Journal*
Poonamallee	2011	*Journal of Management Inquiry*
Pratt, Rockmann, and Kaufmann	2006	*Academy of Management Journal*
Ravasi and Phillips	2011	*Strategic Organization*
Rerup and Feldman	2011	*Academy of Management Journal*
Rindova, Dalpiaz, and Ravasi	2011	*Organization Science*
Stigliani and Ravasi	2012	*Academy of Management Journal*
Thomas, Sussman, and Henderson	2001	*Organization Science*

Table 52 Other Researchers who adopted the Gioia Methodology

Question 1: Behaviour

Interview Responses (Raw Data Transcript)	Three Stage Coding of Interviewee Responses		
	First Order Coding	**Second Order Coding**	**Third Order Coding**
	First Order Concepts	**Second Order Themes**	**Aggregate Dimensions (Emerging Categories)**
Culture is a Critical Success Factor Culture has huge influence on behaviour of people Culture influences thinking and behaviour of people Culture transcends to behaviour of people	Culture influences behaviour Culture influences on thinking	Behaviour Thought pattern	Culture has influence on the following: ▪ Behaviour ▪ Thinking Process ▪ Commitment ▪ Performance ▪ Team work
Behaviour of individuals collectively determines the culture of the team. There is a high correlation between culture and behaviour.	Individual behaviour determines team culture.	Behaviour	
The cultural background of an individual has an adverse effect in his personal and professional behaviour.	Culture influences both personal and professional behaviour.	Behaviour	
Culture plays a major part in Project Management Stakeholder management plays a vital role. There is a big interdependence between culture and project management.	Culture impacts on Project Management.	Project Management	
Culturally perspectives on the need to work and look after family, most times drive people's commitment to their assigned roles.	Culture drives commitment of people.	Commitment	
Culture drives the performance of project team members is delivering their projects.	Culture drives performance of people.	Performance	
The culture established by the company begat every behaviour displayed. Culture of individual team members influences behaviours, affects team dynamics and output positively or negatively	Culture influences behaviour displayed by people. Culture affects team dynamics and output	Behaviour Behaviour Team work Performance	

Question 2: Cohesion and Team Work

Interview Responses (Raw Data Transcript)	Three Stage Coding of Interviewee Responses		
	First Order Coding	**Second Order Coding**	**Third Order Coding**
	First Order Concepts	**Second Order Themes**	**Aggregate Dimensions (Emerging Categories)**
It creates tension in the beginning, but with a visionary leader this can be managed to bring out the best.	Creates tension	Tension	Positive Impact on: ▪ Productivity ▪ Decision making ▪ Innovation ▪ Leadership ▪ Problem solving ▪ Learning ▪ People Management Negative Impact on: ▪ Time management ▪ Team Cohesion ▪ Quality ▪ Team work ▪ Communication ▪ Trust ▪ Team Confidence
The impact to could be positive if one takes advantage of the diverse skill set.	Positive impact	Positive Impact	
It could also be negative if one focuses on differences.	Negative Impact	Negative Impact	
Delay a team from evolving from its storming stage to the forming stage in its formative stage.	Delay in team formation	Delays	
Can lead to project delays, conflict, and rework,	Project delays Conflict Quality issues	Delays Conflict Quality	
Can become an advantage because new ideas stemming from different cultures are brought to the team.	Advantageous		
Positive due to a potential for better decision making when learned. Negative due to challenges associated with communication differences.	Positive impact Negative impact		
Multicultural teams often generate frustrating management dilemmas in project management.	Frustration		
The presence of several national cultures can create substantial obstacles to effective teamwork.	Obstacles to effective teamwork.	Teamwork	
Obstacles to effective teamwork may be subtle and difficult to recognize until significant damage has already been done.	Influence on behaviour	Behaviour	
Lack of trust. Influence the behaviour of team members.	Misunderstanding Conflict	Conflicts	
Misunderstanding and conflict between team members.	Approach to management	Management Approach	
Different approaches to managing their projects.	Poor communication	Communication Co-ordination	

Lack of communication and coordination in team work. Negative side - Lack of trust, confidence and openness will not be there.	Poor co-ordination. Negative impact on trust, confidence and openness	 Trust Confidence	
Positive side - it will bring collective good ideas to production, increase in productivity and effective decision making in maters that require urgent attention.	Increase in productivity. Effective decision making. Sense of urgency.	Productivity Decision making Time management	
It brings about multicultural practices What is applicable in other national is shared among team members Adopted as a practice among the project team.	New practices	Innovation	
Inhibits team cohesion and teamwork in a newly formed project team.	Team cohesion inhibition Team work inhibition	Cohesion Team work	
The impact has been storming on the project team building.	Impact on team building	Team work	
Creates a positive impact as long as the goals are aligned and all cultures are respected and accepted and vision of the Leadership is clear and communicated to the team.	Positive impact Respect for culture Transparent leadership	 Leadership	
The problem solving is very effective and result of synergy is extra-ordinary.	Improved problem solving Synergy	Problem solving Team work	
Can be a cause of less cohesion and poor teamwork in a project team unless culture alignment is well managed by the team leader.	Team cohesion inhibition Team work inhibition	Cohesion Team work	
Impact could be positive or negative, but when properly managed there is strength in diversity.	Positive impact Negative impact Strength in diversity	 Diversity Cohesion	
It will have positive impact on team cohesion and teamwork, where team members understand each other's culture and can learn from each other.	Team cohesion improvement Team work improvement	 Team work	
It makes the understanding of each person in the team easier and been able to bond together.	Two way Learning Understanding people	Learning People management	

It has positive impact on decision making Negative impact on communication when the project team is newly setup especially face-to-face communication. The negative impact diminishes over time that the team members understand each other better.	Improve bonding Effective decision making Poor communication Negative impact	Bonding Decision making Communication	

Question 3: Trust

Interview Responses (Raw Data Transcript)	Three Stage Coding of Interviewee Responses		
	First Order Coding	**Second Order Coding**	**Third Order Coding**
	First Order Concepts	**Second Order Themes**	**Aggregate Dimensions (Emerging Categories)**
Differences in cultures create an atmosphere of distrust among the team. If the goal is to deliver excellent project, ones should focus on the skill set and not the cultural differences.	Distrust between people	Mistrust	Introduces: ▪ Mistrust ▪ Deceit ▪ Poor Interaction ▪ Prevents Collaboration ▪ Poor Communication ▪ Conflicts
Better trust Culture differences results in lack of trust.	Lack of trust between people	Mistrust	
They assume all Nigerians to be liars and swindlers who are always ready to swindle you at any given opportunity.	Liars, Swindlers	Deceit	
The level of trust between team members maybe low because most individual take their own culture as ways of thinking and behaving as a representative of human nature and therefore the right way to think or behave.	Low trust level	Mistrust	
The increasing global nature of projects has highlighted the importance of multiculturalism and the new challenges it brings to project execution. Developing and maintain trust between cultures is a formidable challenge. People from different cultures often bring to relationship building	Culture is a way of thinking and behaving	Behaviour	
	Multiculturalism introduces challenges with project execution,	Execution challenges	
	Challenge with trust	Mistrust	

efforts 'alien' values and beliefs, 'peculiar' behaviours and even incompatible assumptions, which can prevent successful interactions and fruitful collaborations in project team. The influence can be in either positive or negative effect to project team in Openness, Team collaboration, effective communication, quick decision making and confidence. Not much influence because different individuals need time to study the applicable culture and practice among the team before suggesting ways of improvement. Negligible Influence. Integrity as a trait is personal not cultural. Negligence and greed. Trust between individuals is a personal trait. Culture has little or no bearing on this issue. If the person walks the talk the trust is built. There are some individuals that take time to build trust with the other members of the team until they had often personal and social interactions. There are also some individuals from a different culture who can easily adjust to adapt to the environment and willing to discuss improvement initiatives thus building trust becomes easy. Cultural differences among project teams can cause conflict, misunderstanding and poor project performance. The trust level influence is huge. Initially, the influence may not be great because the trust will only be developed between individuals of similar culture. However, as trust	Prevent successful interactions in project team Prevent fruitful collaborations in project team. Negligible influence Slow acceptance of other cultures Improvement initiative Negligible influence Integrity Negligence Greed Trust is a personal trait and not related to culture Leadership by example Building trust is a slow process Adaptation to other cultures Fast tracking trust building. Conflict Misunderstanding Poor project performance Culture influences trust Culture influences trust Trust level changes with time. Culture influences trust Culture influences trust	Poor Interaction Prevents Collaboration Influence on Trust Influence on Trust	

is being developed over time for individuals from different cultures, this influence will grow. A great influence. For newly composed teams, the level of trust is usually high as the perception of individual team members would be that they were selected on competence and share the same project goals. Over time, with increased level of interaction, the level might reduce or become fragile due to their individual cultural perception and behaviours which might be misinterpreted / misconstrued. It breeds lack of trust and inhibits communication. It is the major cause of conflict in a team.	Trust level changes with time. Reduce trust Inhibits communication Causes conflicts	Influence on Trust Mistrust Poor Communication Conflicts	

Question 4: Morale and Productivity

Interview Responses (Raw Data Transcript)	Three Stage Coding of Interviewee Responses		
	First Order Coding	**Second Order Coding**	**Third Order Coding**
	First Order Concepts	**Second Order Themes**	**Aggregate Dimensions (Emerging Categories)**
This differs, depending on the individual in question. To those who are timid it will de-motivate them. Again, I would be happy to work with people from diverse background so as to learn from their experience and culture. I would say, it will increase morale Increased morale Morale and productivity of team member will be low. In a multicultural team, not addressing teamwork style challenge can quickly affect morale, lower productivity and produce a negative effect on achieving team goals. 1. Introduction of fresh and great ideas to the team	Timid people are de motivated. Happy to work with other cultures Learning from experiences Increase morale Increase morale Reduce morale Reduce productivity Affect morale Reduce productivity Negative effect on achieving team goals. Fresh ideas Motivation	Demotivation Increase morale Reduce morale Reduce productivity Reduce productivity Innovation Increase morale	Effect include: ▪ Increase morale ▪ Increase productivity ▪ Enhance innovation

2. Presenting motivational orientation 3. In other way, when the team are not part of happy and healthy group. Leads to confrontation /argument on the welfare of the team members, but after clarification and understanding both can be productive. Positive effect depending on what the individual has to offer. Negligible effect Negative influence, if the individual is among the senior management team It helps in improving the morale. Every culture has its unique perspectives. Opportunity for learning exists. The presence of individuals from different cultures in the project team tends to have higher morale, creativity and productivity as long as members have overcome their cultural differences. It tends to create high morale and productivity, as different and fresh ideas are always on the table. It drives out initial fears of take overs, domination and control and opens up vistas of acceptance, trust, oneness (team spirit) and successful delivery of team targets. If team members see these individuals from different cultures as an asset, then their morale and productivity on team members will be enhance, but it takes time based on relationship. The effect is quite high From my experience, multi-cultural teams are usually high performance teams i.e. productivity level & morale is high and ideas are varied and decision making process usually more robust.	Happy people Healthy people Confrontation Argument Increase in productivity Positive effect Negligible effect Negative influence among senior management team Improve morale Learning from experience Higher morale Higher creativity Increase in productivity High morale Increase in productivity Fresh ideas Drives out fear Trust Team work Successful delivery Increase in morale Increase in productivity Big effect High performance teams Increase in productivity Increase in morale Generate ideas Robust decision making process	Increase Conflicts Increase productivity Increase morale Learning Increase morale Learning Increase productivity Increase morale Increase productivity Innovation Enhance Confidence Increase morale Increase productivity Increase performance Increase productivity Increase morale Innovation Improve decision making	

Question 5: Misunderstanding and Conflicts

Interview Responses (Raw Data Transcript)	Three Stage Coding of Interviewee Responses		
	First Order Coding	**Second Order Coding**	**Third Order Coding**
	First Order Concepts	**Second Order Themes**	**Aggregate Dimensions (Emerging Categories)**
Negatively affects the team.	Negative effect		Effect include: ▪ Promote conflicts ▪ Promote misunderstanding, ▪ Challenge with communication ▪ Lack of trust ▪ Anxiety and stress ▪ Low morale ▪ Frustration
If one respects other culture and appreciate the differences, conflict will be minimized.	Conflict is minimized with better understanding	Conflicts	
Reduced conflicts.	Reduced conflicts		
Culture difference is one of the major causes of interpersonal conflict in a team.	Interpersonal conflict		
Communication challenges.	Communication problem	Communication problem	
Cultures differences can promote misunderstanding and conflicts between team members.	Promote misunderstanding Promote conflicts	Misunderstanding Conflicts	
If teammates become frustrated or impatient with a lack of fluency, interpersonal conflicts can arise.	Interpersonal conflicts	Conflicts	
Non-native speakers may become less motivated to contribute, or anxious about their performance evaluations and future career prospects.	Demotivation Anxiety	Demotivation Anxiety	
The organization as a whole pays a greater price: Its investment in a multicultural team fails to pay off.	Financial impact	Cost overrun	
Effective interaction, communication and collaboration with the team members.			
To introduce new ideas, thought/believes to the team members. To see effective work and productivity.	Innovation Productivity	Innovation Productivity	
Miscommunication Lack of cultural sensitivity amongst members can be a cause for misunderstanding.	Misunderstanding	Misunderstanding	
When the group is in storming phase it can cause heart-burn for the junior staff.	Heart-burn for junior staff	Stress	
Conflict arises from different viewpoints and objectives.	Conflicts arises	Conflicts	
Cultural conflicts can be	Cultural conflicts	Conflicts	

resolved if they are identified, understood and the appropriate behaviour is agreed upon.			
Sometimes misunderstanding and conflict arises between team members with different cultures, the reaction mostly is based on individual personality.	Misunderstanding Conflicts	Misunderstanding Conflicts	
Some may react calmly and some may react by fighting back.	Clam or harsh reaction		
When this happens, it can hinder the team from achieving its best performance.	Inhibits Performance	Poor Performance	
It diminishes trust between the different cultures.	Diminishes trust	Reduces trust	
People coming from different cultures have their own perspective of wrong and right attitudes, of how they out to be treated and respected.			
Initially, conflicts arise from expecting others to accept and treat the new mix with expected mind set beliefs.	Conflicts arise	Conflicts	
This gets sorted out over time, as integrations and mutual trust builds.			
Team members from different cultures could be a source of misunderstanding and conflict, there is lack of understanding of the different cultures and lack of respect.	Misunderstanding Conflicts	Misunderstanding Conflicts	
The effect is low as this is quickly resolved immediately it happened and not to extend beyond repairs.			
Due to different Language proficiency levels, some team members might not be able to express themselves freely, misunderstanding might occur and some just bottle-up when discussions are being held.	Inhibits freedom of expression Misunderstanding Frustrations	Communication problem Misunderstanding Frustration	
This in the long term might lead to conflicts as these members would feel undervalued and have	Conflicts Feel undervalued Low morale	Conflicts Low morale	

low morale. Also, there are some cultures that promote deference to older people, so they don't challenge/generate conflicting ideas directly in the team. Some people of more open cultures might view this as incompetence over time which could lead to conflicts.	Minimize conflicts Perception of Incompetence Conflicts	Incompetence Conflicts	

Question 6: Communication and Co-ordination

Interview Responses (Raw Data Transcript)	Three Stage Coding of Interviewee Responses		
	First Order Coding	**Second Order Coding**	**Third Order Coding**
	First Order Concepts	**Second Order Themes**	**Aggregate Dimensions (Emerging Categories)**
Negative impact. Communication is two ways. One has to first understand to be understood. So, it can be challenging if the team members do not develop rules and expectations. Better communication and co-ordination. A cross cultural team is the way to go if an organization want to be innovative but it has its own inherent challenges. One of which is teamwork. It is usually difficult to get a cross-cultural team to embrace team work due to lack of trust existing among team members. Negative impact. This due to cultural and language differences result in miscommunication, which jeopardized trust cohesion and team identity. Challenge of multicultural teams arise from differing styles of communication is one of the four categories that can create barriers to a team's ultimate success. These categories are direct versus indirect communication; trouble	Negative impact Challenges Innovation Impacts team work Negative impact Miscommunication Lack of trust Impacts cohesion Impacts team identity Barriers to a team's ultimate success	Negative impact Challenges Innovation Impacts team work Negative impact Miscommunication Lack of trust Impacts cohesion Impacts team identity Barriers to a team's ultimate success	Negative impact on the following: ▪ Team work ▪ Communication ▪ Co-ordination ▪ Trust ▪ Decision making ▪ Productivity ▪ Understanding

with accents and fluency; differing attitudes toward hierarchy and authority; and conflicting norms for decision making.	Poor decision making	Poor decision making	
1. It creates barriers to team's ultimate success. 2. It creates conflicting norms for decision making. 3. Trouble with accents and fluency. 4. Differing attitudes towards hierarchy and authority.	Barriers to a team's ultimate success Conflicts Poor decision making	Barriers to a team's ultimate success Conflicts Poor decision making	
It creates barriers to Team productivity and also to effective communication in matters concerning production. It creates diversity alliance team effectiveness.	Barriers to Team productivity Poor communication	Barriers to Team productivity Poor communication	
Considerable impact because ideas are welcomed and possibly adopted as a culture.			
Minimal impact.			
Decision making.	Poor decision making	Poor decision making	
It will be a mixed impact. Members from a culture which encourage open communication can upset another culture where the culture is not so open. On the other hand, muted communication due to cultural reasons can create confusion.	Cultural upset Create confusion	Cultural upset Create confusion	
Different cultures in a team can impact the communication and coordination through the different languages spoken by the members and also on the style of communication.	Impact communication Impact co-ordination	Impact communication Impact co-ordination	
A person from a culture where loud voices and interrupting are not intended to be destructing may be intimidating to a person from a culture with a softer spoken manner.	Feeling intimidated	Feeling intimidated	
Could be vital, since different things or statement could mean something else to other people from other culture. So knowing what is offensive to other culture could also be critical.			
Main impacts are			

negative in the areas of openness, common front and tolerance cum respect of others persons view point. Communication could easily be misinterpreted by team members from different cultures, for example shaking of head might mean yes for some and no for others, and the seriousness attached to that may impact team coordination. The impact is high. Good team communication and coordination. For newly setup teams, team communication would be poor if the average proficiency level of the language of communication is just average which leads to misunderstanding and poor team coordination. Over time, a mature team with good leadership would have been able to overcome this by developing a means of the team passing their messages across e.g. translated emails etc.	Miscommunication Wrong interpretation of Body language Good team communication Good coordination. Poor communication Misunderstanding Poor team co-ordination	Miscommunication Misinterpretation Good Communication Good coordination. Poor communication Misunderstanding Poor team co-ordination	

Question 7: Impact of National Culture on Project Outcome

Interview Responses (Raw Data Transcript)	Three Stage Coding of Interviewee Responses		
	First Order Coding	**Second Order Coding**	**Third Order Coding**
	First Order Concepts	**Second Order Themes**	**Aggregate Dimensions (Emerging Categories)**
Yes I think culture influences project success or failure. Success. Due to increased team spirit. Culture is one of the factors that determine the success or failure of Projects. For example, a project manager who is an Indian national will find it difficult to communicate in the native dialect of a community in Nigeria. This will become a communication inhibitor	Influences project success or failure Influences project success Determines project success or failure Communication inhibitor which will in turn lead to project delay.	Influences project success or failure Project delays	Culture influences: • Project success • Project failure • Compliance to procedures • Decision making • Project performance

which will in turn lead to project delay.			
Yes. Culture lead to leverage diverse knowledge and skill to improve outcomes of decision making and performance of the project team member that will lead to project success.	Improve outcomes of decision making and performance of the project team member Will lead to project success.	Improves decision making Enhances performance Influence project success	
Culture may also lead to project failure because of its complexity and communication challenges which make team member to invest more time and effort in encoding and decoding messages.	Culture may also lead to project failure Culture breeds complexity and communication challenges	Influence project failure Induces complexities Induces communication challenges	
Culture enhances and influences project success because culture enables people to share the same value and belief toward achieving the same goal of the project.	Culture enhances and influences project success Culture enables people to share the same value and belief toward achieving the same goal of the project.	Influences project success Encourages Shared values	
Culture influences project success in the sense that many organizations have good process orientation in place and people generally follow them. Good management governance in making sure people do what they are supposed to do. Also, people typically know the roles and responsibilities they play on projects and what is expected of them.	Culture influences project success Organizations have good process orientation in place and people generally follow them. Good management governance in making sure people do what they are supposed to do. Roles and responsibilities	Influences project success Adherence to good process orientation Adherence to good management governance	
Culture influences project success, because it helps in Process orientation, governance, Training (organization needs to have a right skill, if not she is bound to perform poorly), Roles and responsibilities (people typically know the role the play on project and what is expected of them).	Culture influences project success Process orientation, governance, Training Roles and responsibilities	Influences project success Adherence to process orientation and governance	
Yes it does. Positive cultural attitude begets success while the opposite is the latter.	Positive cultural attitude begets success while the opposite is the latter	Influences project success	
Positive culture influences project positively leading to project success while negative culture	Positive culture results in project success Negative culture results in project failure	Influences project success Influences project failure	

influences project negatively leading to project failure.			
It influences project success because it assists in setting out the ground rules that will drive the project to a success.	Assists in setting out the ground rules that will drive the project to a success.	Influences project success	
Yes to some extent. The major influence is from organizational culture, policies and the Leadership style of Management team. The team or social culture has next impact. Under identical organization system, culture can be and will be a differentiator.	Major influence is from organizational culture. Influences the success or failure of a project.	 Influences project success	
Yes. As culture affects the behaviour of the members of the team, it can influence the success or failure of a project. A positive culture need to be established within the team by creating mutual respect to every member regardless of nationality, race, religion and colour to encourage teamwork, interpersonal communication, interaction and motivation. This will further enhance the performance of every individual in the team.	Promotes teamwork, interpersonal communication, interaction and motivation. Enhances the performance of every individual in the team. There is strength and also weakness in culture diversity.	teamwork, Enhances individual performance Influences inter-personal relationships	
Yes, depending on how it is managed as there is strength in culture diversity and also weakness in culture diversity.	Culturally beliefs affect how people relate to each other, respect others capacity and their decisions on whom to follow.	Improves project performance	
Yes, strong held culturally beliefs affect how people relate to each other, respect others capacity and their decisions on whom to follow.	Culture improves project performance	Influences project success	
Yes. Respect and understanding of different culture improves project performance in terms of communication of goals and support of the team and effort to achieve it. This influences project success. The opposite leads to project failure.	Influences project success Influences project failure Influences project success or failure.	Influences project success or failure. Influences team work	
Yes of course. It	Affects the team		

influences project success or failure. Yes, it does. The culture of individual members of a team affects the team dynamics and coordination in the long term. If the team has domineering members whose cultural background is the type that take decisions quickly and like to be visible, other members whose cultural background is more laid back would become less open and less likely to contribute ideas/suggestions for decision making. The group perceptive and ideas generated become streamlined which might lead to project failure in the long term.	dynamics and coordination. Poor decision making Lead to project failure	Influences decision making Influences project success or failure.	

Question 8: Impact of Organizational Culture on Project Outcome

Interview Responses (Raw Data Transcript)	Three Stage Coding of Interviewee Responses		
	First Order Coding	**Second Order Coding**	**Third Order Coding**
	First Order Concepts	**Second Order Themes**	**Aggregate Dimensions (Emerging Categories)**
It inspires individual to do the same. If you organisation is not set to deal with project or the organisation is siloed. It will affect projects negatively. Usually positively. The culture of an organization determines the level to which its objectives are met.e.g. an organization in which blame culture is the order of the day, members of staff will not be encouraged to become innovative. This will retard the growth of that organization. The organizational culture i.e the way we do things in a company influence project success. Trainings, awareness campaign, provision of internet, e-mail,	Has effect on project performance. Determines the level to which its objectives are met. Influences project success.	Influences project performance Influences achievement of objectives Influences project success.	Organizational culture influences: • Project success • Project performance • Achievement of objectives • Approach to work

teleconferencing, team rooms, chat etc are part of organization culture in a company that influence project success. Organizational culture refers to a system of shared assumptions, values, and beliefs that show people what is appropriate and inappropriate behaviour. Lack of organizational culture have negative greater impact on the success of the project because without lay-down culture, there will be no shared value and no direction. The way we do things can be said to be: "The way" refers to the project process (how) "We" refers to the people in the project, i.e. project team and stakeholders (who and for whom) "Do thing" refer to the project management methodology (what). "In a company" refer to the project environment (where). Culture means "how we do things" can influence project success by the organization not understanding and putting in the right approach to process orientation, governance, training and role/responsibility of individual team members in the organization. Organizational culture is diverse especially when considering safety, cost and other factors. When relating it to safety, the project can be delayed and must be done safely. In the area of cost, project success has been influenced negatively because the lowest bidder is now the best option regardless of quality and	Influences project success. Shows people what is appropriate and inappropriate behaviour. Lack of organizational culture: Influences project success. In the area of cost, project success has been influenced negatively. Lead to project success Influences project		

standard. The organizational culture in a company can lead to project success if it is positive in its approach towards project execution or vice versa. It influences project successfully because it assists us to create rooms for improvement. It influences to a great extent. The Project belongs to the organization and as such has a major impact. It contributes to the success of project in a way that these words reflect that different cultures in the team are in the same objective and are aligned to a common goal. To a very large extent, it does influence project success. It influences outcomes driving from attitudes that are inherent in people's mind sets. If those beliefs (way to do things) are not in consonance to best practices, the organization suffers a lot. When every team member has a full understanding and commitment to organizational culture, things work seamlessly leading to project success. Once understood, it helps to do things right all the time. For organisational culture, yes it does. A positive culture that encourages open communication & new ideas, top management support & empowerment, collective responsibility and recognition are usually more successful as they are more flexible, can react more quickly & positively to issues and make better decisions.	success. Influences project success. Influences project success. Influences project success. It influences outcomes. Lead to project success. Helps to do things right.	Influences outcomes Influences right approach	

Question 9: Effect of appointment of Project Manager from host community on project outcome

Interview Responses (Raw Data Transcript)	Three Stage Coding of Interviewee Responses		
	First Order Coding	**Second Order Coding**	**Third Order Coding**
	First Order Concepts	**Second Order Themes**	**Aggregate Dimensions (Emerging Categories)**
No I don't think so. A project manager with the right competence should be able to adapt to environmental changes and succeed.	Project manager with the right competence should be able to adapt to environmental changes and succeed.	Competency can be adapted to any environment	On its own it will not enhance project success but will complement a manager with PM competency and skills to achieve success in a host community.
Knowledge does not reside in host community.	Knowledge does not reside in host community.		
It is good to have somebody that understand the community and can work with the people.	Good to have somebody that understands the community and can work with the people.	Technical knowledge is not determined by where people come from.	
However, leading a team of experts need someone that can work with everybody.	Leading a team of experts need someone that can work with everybody.	Ability to work with different cultures.	
Not necessarily. The skill and experience of the PM have greater input towards project success.	The skill and experience of the PM have greater input towards project success.	Skill and experience	
I think that appointing a project manager from the host community will enhance chances if project success this is because issues that	Appointing a project manager from the host community will enhance chances of project success.	Project manager from the host community will enhance chances of project success	
revolve around communication blockages will be limited or totally eliminated. Also, the project manager will be better equipped to deal with community	Project manager will be better equipped to deal with community disturbances	Effectively manage community issues.	
disturbances because he is conversant with the laws and traditions of the people.	Selection from host community should not be neglected	Imposition of cultural values	
Appointment of a project manager from the host community may not enhance the chances of project success because	Hiring a project manager from the community will not enhance chances of the project success.		
such position required highly skill professional which may not be available in host community. Also project manager from the host community may likely impose the cultural value and belief of the community into the team	Experience and not where a person comes from is critical for project success		
	The appointment of a project manager from the		

using community influence.	host community or not, is insignificant.		
While recruitment from the host community to form part of the project team should not be neglected. I do not think hiring a project manager from the community will enhance chances of the project success.	Project management skills have more influence on project success than where a person comes from.		
Ability to successfully executed a project go far beyond only presence of stakeholders but ability to successfully manage and apply processes, methods, knowledge, skills and experience to achieve the project objectives.	The appointment of a project manager from host community my not enhance project success	Technical knowledge is not localised.	
The appointment of a project manager from the host community or not, is insignificant. A project manager who is well grounded in project management, strategic planning, financial management and other key tools, must have acquire knowledge and skill to manage and drive projects to success.	On condition that the project manager is competent and capable. Being from the host community is an added advantage.	Impose culture of community on team. Influence is subject to competency and capability. Added advantage.	
The appointment of a project manager from host community my not enhance project success, because he may be affected by community influence, disturbance, favouritism and not being able to control and meet the project intent of the company at large.	The origin of the project manager or appointing a project manager from the host community will not enhance project success.		
Yes. If project manager is competent and capable, that is the first step to success. Being from the host community is an added advantage in areas of CASHES, Content development and community relations would be adequately managed.	Will only mitigate community related issues (if any). No, except the project management ethics as a professional is overlooked. In Middle East when you have a National Project Manager it can help, provided we get the right talent.	No influence on project success. Has influence on only community related issues. Has influence only when project management ethics are by passed.	
The position of a Project Manager is a professional role in a project. The origin of the project manager is not a guarantee for project success hence appointing a project manager from		Influence is subject to the	

the host community will not enhance project success. Such an act will only mitigate against community related issues (if any). No, except the project management ethics as a professional is overlooked. It varies from country to country. Generalization is not possible. In Middle East when you have a National Project Manager it can help, provided we get the right talent. Where the challenge exists, in sourcing the right talent, Community Liaison Officers of adequate social stature and communication skills can help. It depends. There are advantages and disadvantages. A project manager from host community may have a better chance of eliminating the language barrier within the surrounding environment, better understanding or familiarity of the local rules and laws, the ability to adapt to various internal procedures, to form close relationship with client representatives but may not understand well the project objectives without proper trainings and has the qualification skills of managing a multicultural team. Not necessarily, as management of host community can be achieved in various other ways. No. It could help in boosting stakeholder meeting but must be a very competent person. But it most times, could compromise a lot if he decides to gang up to hold the project to ransom. Not necessarily, the competence and skill are	A project manager from host community may have a better chance of eliminating the language barrier May not understand well the project objectives without proper trainings and has the qualification skills of managing a multicultural team. The competence and skill are most important. Knowledge of the community and acceptance. Competency is of the essence. Develop & maintain high level of trust between the host community and the project sponsor	right talent Influence on communication problem Influence is subject to PM training, skills and qualifications. Influence is subject to PM competence and skill. Compliments competency and skills Compliments competency and skills	

most important. However, if a project manager from the host community already possesses these, then it is preferred for community project due to knowledge of the community and acceptance. Not really. Competency is of the essence. Yes it will if a competent project manager that can align the requirements of the host community with the project objectives and develop & maintain high level of trust between the host community and the project sponsor.			

Question 10: Comparing managing projects in developed and developing economies

Interview Responses (Raw Data Transcript)	**Three Stage Coding of Interviewee Responses**		
	First Order Coding	**Second Order Coding**	**Third Order Coding**
	First Order Concepts	**Second Order Themes**	**Aggregate Dimensions (Emerging Categories)**
Yes I think so. The basic infrastructure for project is available. There are predictable occurrences and little surprises in a developed country. Yes, expectations are different. In western world, things are documents are people are heard to higher standard to professionalism. There are also procedures in place to deal with expectation. No difference. Most important requirement is the constitution of the project team and the leadership skill of the PM. Yes it is. Firstly, I will start with information gathering. Nigeria does not have a central database for material cost, labour costs and output etc which are major ingredients used in developing realistic project schedule. Here the project schedules are	Little surprises in a developed country. Higher standard to professionalism in developed nations. No difference. Dependent on the project team and the leadership skill of the PM. More robust database in developed nations.	Better control in developed nations Developed nations are more professional	Managing projects in developed and developing nations are similar from a technical perspective. The difference is from a culture perspective. This supports the view that culture is a factor for project success.

developed using past project data which might be obsolete. Another factor is the issue of poor mechanization.			
The answer is YES. Yes because in developed nation technologies for communication and information sharing are more effective to alleviate cultural challenges than developing nation.	In developed nation technologies for communication and information sharing are more effective to alleviate cultural challenges than developing nation.		
Managing projects in developed nations is different when compared to managing projects in developing nations. A lot of factors such as the political, economic, operational, social, and physical problems that most often cause serious project delays and failures on projects implemented in less developed nations.	Managing projects in developed nations is different when compared to managing projects in developing nations. A lot of factors that cause serious project delays and failures on projects implemented in less developed nations.		
Managing projects in developed nations is different from managing in developing nations mainly because of poor management and an inappropriate approach to establishment of the projects.	Managing projects in developed nations is different from managing in developing nations Poor management and an inappropriate approach to establishment of the projects.		
Perhaps the greatest controversy in the world today is how to make sense out of the two dominant global objectives ushering the globe into the new millennium: sustainable development and globalization. These two obviously desirable paradigms appear to have some opposing tendencies within them. So the developed nations tend to be more favoured in managing project than the developing nations.	Due to sustainable development and globalization So the developed nations tend to be more favoured in managing project than the developing nations.		
Yes. As stated above, developed nations have access to readily available resources to enable them manage their projects effectively and efficiently and timely delivery is certain while developing	Managing projects in developed nations is easier than managing a project in developing		

countries rely on the developed countries for these resources and support. Project Management Processes are standardized and employed globally in the execution of projects. The processes adopted in managing projects in developed nations e.g. USA, UK is same employed in managing projects in developing nations like Nigeria and Ghana. No, project techniques are the same worldwide. Yes. The culture is different. The legal framework is different. The supporting environment is different. The cost drivers are different. Yes. Managing projects in developed nations is easier than managing a project in developing countries. Normally, project management in developing nations will have to face and resolve numerous challenges such as financial, social, political, and operational, behind technology to name a few that can cause serious project delay or even project failure than in developed nations. On the Technical side not really, but from a cultural and political point of view, yes, as differences starts to come in terms of norms and culture, what is acceptable and not acceptable and also influence of government especially from the developing countries. Yes, the environment and cultural held back beliefs affect the people's attitude to work, value definition and success. Yes. There are some external factors such as community, political, environmental factors affecting developing	countries. Similar from Technical perspective, but different from a cultural and political perspective. The environment and cultural held back beliefs affect the people's attitude to work, value definition and success. Unpredictable external factors such as community, political, environmental factors affecting developing nations, but are predictable in developed nations. Cultural background play important role in managing project successfully. The culture setup is different in developed and developing nations with consequential impact on project execution.		

nations, which might be unpredictable. However, in developed nations, there may be history to predict the possible outcome. Yes of course. Cultural background play important role in managing project successfully. Yes. The culture setup is different with developing nations like Nigeria being hierarchical in decision making and strong deference to older people/people of higher authority. This makes decision making slow and bureaucratic, so project cycles are usually longer and sometimes more expensive to execute. The culture setup in developed nations like USA is more open, ideas/suggestion encouraged by all team members and decisions taken quickly. This results in lots of projects that are high risk/high return, with shorter cycles.			

Table 53: Three Stage Coding of Interviewee Responses

5.6 Qualitative Analysis Summary

The structured analysis of the qualitative inquiry reveals the following:

- Culture influences the behavior of people in project teams with consequential impact on their commitment to work and performance during project execution.
- The presence of several nationalities in a project team has a negative impact on teamwork, team cohesion, trust, communication, breeds misunderstanding and conflicts, but has a positive impact on productivity and morale.
- National and organization culture influences project outcome.
- The appointment of a project manager from the host community where a project is executed will not guarantee project success but it will enhance the chances of a

manager who has Project Management competency and skills to achieve success in a host community.

- Managing projects in developed and developing nations are similar from a technical perspective. The difference is from a culture perspective. This supports the view that culture is a factor that has an impact on project delivery performance.

This chapter calculated the reliability of the quantitative data collection instrument using the Cronbach's coefficient alpha value to determine the internal consistency of the variables and constructs. The scale items for the variables and constructs used for the survey questionnaire were considered reliable and good. A detailed descriptive analysis was done to describe socio-demographic variables of sex, age, nationality, and educational qualification of the 103 respondents. A quantitative analysis of the data was done covering computation of frequencies and standard deviations. The analysis of the conceptual framework and hypotheses was done using Pearson Correlation (r) to determine the relationship between the variables and p values to determine the statistical significance of the relationship. The Coefficient of Determination (r^2) was computed to determine the the proportion of the variance in the dependent variable that is predictable from the independent variable. A tabulated summary of the frequencies, Pearson Correlation (r), p values and Coefficient of Determination (r^2) is presented. The quantitative analysis of the interview responses to the ten interview questions by 20 respondents is done using the Gioia method of three-stage coding to inductively extract key themes and constructs to develop grounded theory. A review of the qualitative and quantitative analysis shows some consistency that culture influences behavior and has an impact on project execution and perceptions of project outcome. The next chapter covers detailed evaluation of the qualitative and quantitative analysis results.

Chapter Six: Analysis of Research Findings

This chapter presents the discussion regarding the analysed data collected by aligning the literature review and research questions with results from data collected. The findings from the quantitative and qualitative analysis are discussed individually and provide evidence of a consistency between the quantitative and qualitative results regarding the finding that culture has an impact on behaviour and project execution and perceptions of project outcome. These findings are then compared with relevant theory in the literature review and reviewed with the research question to check if the dissertation has answered the research question and met the aim and objectives of the research within the specific context of mitigating the challenges with project execution in the researchers organization.

6.1: Discussion of Survey Results

Section A – Demographics

The analysis of the socio-demographic variables of sex, age, nationality, and educational qualification was provided in the previous section.

Section B - Project Management

Project Management Standards Used

69% of the respondent's stated that their organizations have their own proprietary/customised project management standards to guide project delivery. Some specific examples include: **Chevron**: Chevron Project Development and Execution Process. **Mobil**: EMCAPS. **NLNG**: Project Management Guide structured after SHELL Opportunity Realisation Process. **Shell**: Project standard used is Shell project management system. 31% of the respondents stated that PMBOK project management standard is used to complement the proprietary/customised project management standard for project delivery in

their organization. Project delivery in the six organizations is implemented through a structured process within the framework of a formal project guide or standard.

Structure and Composition of Projects – Number of Professional Disciplines

The survey results reveal that majority of the project practitioners have more than six professional disciplines involved in their projects. A relatively high number have between 4 and 6 professional disciplines involved in their projects. The results show that project practitioners in the six Oil and Gas Companies in this study are involved in managing multi-disciplinary professional and resources in the implementation of projects. This study therefore suggests that the ability to manage resources with diverse professional background should be a requisite competency and skill for the project practitioners.

Structure and Composition of Projects – Number of Cross Discipline Teams

The survey reveals that over 50% of the respondents interact with more than six cross discipline teams in the projects they implement. Another 40 % have between 4 and 6 cross discipline teams involved in their projects. The results show that most respondents are involved in managing cross discipline teams and resources in the implementation of projects. This study therefore suggests that the ability to manage projects with cross discipline teams should be a requisite competency and skill for the project practitioners.

Survey Section B Question 3: How is Project Success Defined in Your Organization?

The result of the SPSS analysis is shown in table below.

Survey Section B Question 3 Analysis Result

Definition of Project Success	Frequency %	SD	Literature Reference
1. Project success is defined as meeting project requirements	99.1%	.703	Pinto and Slevin (1987)
2. Project success is defined as delivering benefit to the customer	90.3%	.765	Pinto and Slevin (1987), De Wit (1988), Shenhar et al (2002).
3. Project success is defined as delivering benefit to the organisation	88.4%	.787	Shenhar et al (2002).
4. Project success is not constrained to achieving cost, schedule and scope	48.6%	1.26	Baccarini (1999)
5. Project success is defined as the perceived usefulness and adoption of project outcome by the client	62%	.804	De Wit (1988)
6. Project success definition goes beyond the achievement of project specifications and delivery time, with emphasis on meeting the aspirations of the various stakeholders	77.6%	.770	Ofori (2013).

Table 54: Survey Section B Question 3 Analysis Result

From the perspective of existing literature, the results displayed in the above table reveal that

four out of the six definitions for project success derived from existing literature are strongly supported by project practitioners as shown by the high frequency scores.

The different definitions of project success supports Crawford (2000) who argue that project success is a matter of perception and that a project will be perceived to be an overall success in different ways. The results of this study also support Fremen and Beale (1992) who posit that project success means different things to different people.

Supporting Objective Q**uestion 1:** *How is project success defined in the Oil and Gas sector of a developing economy like Nigeria?*

The results of the frequency, SD and ranking in this study show that *most respondents define project success as meeting project requirements, delivering benefit to the organization, meeting the aspirations of stakeholders and delivering benefit to the customer*.

This definition captures two of the three dimensions in the study by Shenhar et al (2002) where the authors argue that to accommodate the various viewpoints in project management literature, thirteen successes measure are adopted and arranged in three dimensions: meeting design goals, benefit to the customer, and benefit to the organization.

Survey Section C Question 1: What do you perceive as culture in a Project?

The frequency scores of the results and literature reference is shown in the below table.

Survey Section C Question 1 Analysis Result

Perception of Culture	**Frequency %**	**SD**	**Literature Reference**
1. I perceive culture as the way in which people solve problems and reconcile dilemmas in a project team	61.2%	.983	Schein (1985), (Leung and Bond, 2004).
2. I perceive culture as the set of values that influence an individual's responses to different situations in a project team	86.4%	.813	Cerimagic (2010)

3. I perceive culture as the way people do things, which can make the difference between a successful and unsuccessful project	85.4%	.851	Davidson (2003)
4. I perceive culture as a pattern of beliefs, norms and expectations that shape the behaviour of individuals and groups in the project team	88.3%	.843	Schwartz and Davis (1981) cited in Davidson (2003)
5. I perceive culture as the behaviours and traits that determine honesty/openness, communication, trust, co-operation, and job satisfaction	79.6%	.947	Hofstede (2010) , Cheung et al. (2003)

Table 55: Survey Section C Question 1 Analysis Result

From the above table, the results of this study reveal that culture is perceived by project practitioners from different perspectives as indicated in the different definitions, frquency scores and literature references. The different definitions with similar high frequency scores support the complex nature of culture as articulated by three different scholars. Eberlein (2008) argues that the intangible nature and cultural differences makes it difficult to agree on a composite definition of culture. Bertalanffy (1973) shares this view by asserting that a tangible and undisputed converging understanding and definition of culture is difficult. The intangible nature of culture is further supported in the study by Kroeber and Kluckhohn (1952) where they shared 160 different definitions of culture without agreeing on one definition.

In arriving at how project practitioners in the Oil and Gas industry of a developing economy like Nigeria perceive culture, this study attempts to combine the perceptions into a consolidated definition. Accordingly, from the perspective of project management practice in the Oil and Gas industry in Nigeria, this study propose a definition of culture as *a pattern of beliefs, norms and expectations of individuals or teams that define their behaviour and approach to solving problems / reconciling dilemmas, which can influence the outcome of project as either successful or failed.*

Survey Section C Question 2: To what extent do you agree with the following statements regarding culture and project management activities in your organisation?

This section of the survey questionnaire sought to understand the extent to which project practitioners agree with statements extracted from literature regarding the impact of culture on project management activities in their respective organizations. The intent is to find answers to the research question and supporting objective question 2 of this study. Supporting objective question 2 states that: Does culture have an impact on project delivery success in O&G projects in developing economies such as Nigeria*?*

To answer the research question and supporting objective questions, this study relied on seventeen statements / propositions obtained from literature and project management journals as the theoretical statements for respondents to express their views using a 5 – point Likert scale from strongly agree to strongly disagree. The results of the frequency scores and standard deviation together with their literature references are summarised in the below table.

Survey Section C Question 2 Analysis Result

Statements / Proposition	**Frequency %**	**SD**	**Literature Reference**
1. Culture is the fourth significant constraint in project management (in addition to time, cost and scope)	44%	.966	Muriithi and Crawford (2003), Henrie and Sousa-Poza (2005), Kliem (2004), Davidson (2003), Atsu et al (2010)
2. Project managers in my company are sensitive to cultural diversity and have a strong commitment towards cultural issues	70%	.810	Eberlein (2008), Cerimagic (2010), Eberlein (2008), Moran et al (2014), Okolie and Okoye (2012), Earley and Mosakowski (2000), Ochieng and Price (2009), Marquardt and Hovarth (2001)
3. Formal awareness of cultural diversity in the project team improves morale and productivity of team members	84%	.554	Davidson (2003), Jackson et al. (1992).
4. The cultural back-ground of project team members should be considered when allocating resources in project	79.8%	.098	APM (2000), Ofori (2013), Cerimagic (2010), Cerimagic (2010), Muriithi and Crawford

teams in my company			(2003), Okolie and Okoye (2012), Earley and Mosakowski (2000), Jackson et al. (1992).
5. My organisation has a training program for project managers to help them manage multi-cultural teams	66%	.983	Eberlein (2008), Trompenaars and Hampden-Turner (1997), Cerimagic (2010), Brewster and Pickard, 1994; Kealey and Protheroe, 1996; Harris and Brewster, 1999, Black and Mendenhall (1990), Eberlein (2008), Moran et al (2014), Earley and Mosakowski (2000), Ochieng and Price (2009),
6. The presence of several national cultures in a project team has a negative effect on team cohesion and teamwork.	72%	.775	Eberlein (2008), Kliem (2004), Cerimagic (2010), Eberlein (2008), Jackson et al. (1992), Marquardt and Hovarth (2001), Maina and Gathenya (2013)
7. In some of my projects, the existence of multi-cultured teams has directly been identified as the reason for project failure.	8%	.974	Eberlein (2008), Muriithi and Crawford (2003), Henrie and Sousa-Poza (2005), Kliem (2004), Muriithi and Crawford (2003), Atsu et al (2010), Okolie and Okoye (2012), Ochieng and Price (2009) , Jackson et al. (1992), Marquardt and Hovarth (2001), Eriksson et al (2002)
8. I have experienced situations where people from different nationalities did not trust each other resulting in poor project delivery.	34%	.949	Muriithi and Crawford (2003), Henrie and Sousa-Poza (2005), Kliem (2004), Cerimagic (2010)
9. The multi-cultural composition of project teams influences the behaviour of team members and how they manage situations.	80%	.657	Eberlein (2008), Kliem (2004), Davidson (2003), Cerimagic (2010), Muriithi and Crawford (2003), Eberlein (2008), Hofstede (1984), Earley and Mosakowski (2000), Jackson et al. (1992), Marquardt and Hovarth (2001)
10.In some projects I have been engaged in, misunderstandings and conflicts between team members have been attributed to cultural differences	55%	.887	Eberlein (2008), Kliem (2004), Cerimagic (2010), Eberlein (2008), Kayworth and Leidner (2000), Ochieng and Price (2009), Eriksson et al (2002), Maina and Gathenya (2013)
11. For projects to be successful, the project manager must take cultural factors like traditions, values, customs, and beliefs into consideration at the project planning stage	89%	.668	Eberlein (2008), Muriithi and Crawford (2003), Henrie and Sousa-Poza (2005), Kliem (2004), Cerimagic (2010), Muriithi and Crawford (2003), Muriithi and Crawford (2003),

			Eberlein (2008), Atsu et al (2010), Hofstede (1984), Okolie and Okoye (2012), Earley and Mosakowski (2000), Ochieng and Price (2009), Jackson et al. (1992), Marquardt and Hovarth (2001), Eriksson et al (2002), Maina and Gathenya (2013), Ofori (2013)
12. Project managers from different cultures have different approaches to managing their projects	65%	.821	Trompenaars and Hampden-Turner (1997) , Hofstede (1991), Cerimagic (2010), Brewster and Pickard, 1994; Kealey and Protheroe, 1996; Harris and Brewster, 1999, Black and Mendenhall (1990), Muriithi and Crawford (2003), Muriithi and Crawford (2003); Onyemelukwe (1973), Hofstede (1984), Ochieng and Price (2009), Marquardt and Hovarth (2001), Shore and Cross (2004), Ika (2012)
13. From my experience in project management, managing projects in developed nations is different from managing in developing nations	70%	.964	Trompenaars and Hampden-Turner (1997) , Hofstede (1991), Cerimagic (2010), Black and Mendenhall (1990), Muriithi and Crawford (2003), Muriithi and Crawford (2003); Onyemelukwe (1973), Hofstede (1984), Ochieng and Price (2009), Shore and Cross (2004), Ika (2012)
14. In the projects I have managed, cultural differences has influenced team communication and coordination	68%	.777	Kliem (2004), Benitez Codas (2006), Davidson (2003),Cerimagic (2010), Eberlein (2008), Kayworth and Leidner (2000), Ochieng and Price (2009), Maina and Gathenya (2013)
15. In some projects I have worked, appointing a project manager from the host community influenced project success.	20%	.943	Cerimagic (2010), Brewster and Pickard, 1994; Kealey and Protheroe, 1996; Harris and Brewster, 1999, Muriithi and Crawford (2003)
16. The organisational culture i.e. the way we do things influences project success	86%	.792	Davidson (2003), Muriithi and Crawford (2003),Eriksson et al (2002), Shore and Cross (2004), Ika (2012), Maina and Gathenya (2013) , Maina and Gathenya (2013), Belassi et al., 2007; Shore, 2008; Wang and Liu,

			2007; Yazici, 2009.
17. The work environment, which includes trust and goal congruence, in which the project team operates has a positive influence on project performance	80.4%	.239	Kliem (2004), Benitez Codas (2006), Culp and Smith (2005), Atsu et al (2010), Thamhain (2004), Howell and Shea (2001), Liberatore and Wenhong (2010)

Table 56: Survey Section C Question 2 Analysis Result

The seventeen propositions are further discussed to review their consistency with theory in literature. The objective is to establish whether there is a theoretical basis for their practical application by project practitioners in practice.

Proposition 1:

This proposition has a medium statistical frequency score of 44%. This suggests that about 44% of the respondents agree with the proposition. This proposition is consistent with the findings from some research studies in literature as indicated in the table above. Atsu et al (2010) conclude that the culture of the nation does influence the success of the project. Muriithi and Crawford (2003) suggest that culture could be classified as a fourth significant constraint and contend that the use of tools and techniques contained in the knowledge and practice guides like PMBOK1 will not enhance project success if they run counter to the culture of the country. Henrie and Sousa-Poza (2005) argue that cultural knowledge and awareness is a significant requirement for project success. Davidson (2003) posits that culture affects employee behaviour and their way of doing things which can make the difference between a successful and unsuccessful organization. The result of this survey and the findings from literature tends to support the proposition of culture as a constraint to successful project implementation.

From the statistical frequency score result of 44% from the survey and the views in literature; this proposition is a valid conclusion of this study. What needs to be determined is a mathematical / quantitative measure of its significance in project management relative to time, cost and scope.

Proposition 2:

From the survey, this proposition has a relatively high statistical frequency score of 70%. This suggests that about 70%, of the respondents agree with the proposition. This sensitivity to cultural diversity is consistent with the findings from some research studies in literature. Eberlein (2008) argue that organizations should develop managers with multi-cultural mind-set with the requisite and relevant skills to manage challenges associated with working in cross-cultural teams. Trompenaars and Hampden-Turner (1997) argue that there is the need for cultural awareness in international organizations. According to Cerimagic (2010), culture affects the project manager's work. Moran et al (2014) assert that to be more effective, project managers must understand how to manage cultural differences, because if not understood, the cost can be significant. Okolie and Okoye (2012) argue that when working in Nigeria, project managers should consider the cultural values of their host community and that of their workers, as these affect project outcome. Earley and Mosakowski (2000) contend that multicultural teams are preferred by project managers, because they are perceived to out-perform monoculture teams.

From the statistical frequency score result of 70% and the view by different authors in literature, this proposition is considered to be a valid conclusion of this study.

Proposition 3:

From the survey, this proposition has a very high statistical frequency score of 84%. This suggests that about 84% of the respondents strongly agree with the proposition. This result is consistent with the findings from some research studies in literature. According to Davidson (2003), there is a correlation between culture and employee behaviour, which has a contributory input to project performance. Jackson et al. (1992) argue that culturally diverse teams perform better than homogenous teams, when it comes to identifying problems and generating solutions.

From the very high statistical frequency score result of 84% from the survey and the views in literature, this proposition is considered to be a valid conclusion of this study.

Proposition 4:

From the survey, this proposition has a statistical frequency score of 79.8%. This suggests that about 80% of the project practitioners agree with this proposition. This result is consistent with the findings in existing literature. APM (2000) argue that the cultural back-ground of project team members need to be considered when constituting project teams. Ofori (2013) argue that project teams in the implementation of projects should consider socio-cultural factors. Muriithi and Crawford (2003) posit that cultural differences within a country could negatively impact on project delivery. Okolie and Okoye (2012) argue that when working in Nigeria, project managers should consider the cultural values of their host community and that of their workers for a successful project delivery.

From the statistical frequency score result of 80% from the survey and the outcome of research work referenced in literature, this proposition is considered to be a valid conclusion of this study.

Proposition 5:

From the survey, this proposition has a statistical frequency score of 66%. This suggests that about 66% of the respondents agree with this proposition. This result is supported by some findings in literature. Cerimagic (2010) which opined that without appropriate cross-cultural training and preparation, expatriates working outside their home countries are more likely to fail compared to locals with the same competencies and skills. Eberlein (2008) argue that organizations should develop managers with a multi-cultural mind-set to manage challenges with working in cross-cultural teams. According to studies by Brewster and Pickard (1994), Kealey and Protheroe (1996), Harris and Brewster (1999) and Black and Mendenhall (1990), cross-cultural training would help an expatriate perform in an unfamiliar host country. Moran et al (2014) argue that to be more effective; project managers should understand how to manage culturally differences, because if not understood, the cost can be significant. Cerimagic (2010) asserts that when posted to work in any country, it is important for project managers to learn as much as possible about the host country's culture in order to be able to

avoid misunderstandings and conflict. Muriithi and Crawford (2003) are of the view that a good understanding of cultural differences can determine how managers successfully apply management theories in different countries and cultures.

From the statistical frequency score result of 66% from the survey and the outcome of research work referenced in literature, this proposition is considered to be a valid conclusion of this study.

Proposition 6:

From the survey, this proposition has a statistical frequency score of 72%. This suggests that about 72% of the respondents agree with the proposition. This result is supported by the following findings derived from research in literature. Eberlein (2008) contend that where several national cultures are present in a project team, the project team tends to be more of a heterogeneous team rather than homogeneous team. Eberlein (2008) further posit that misunderstanding between project team members are to a large extent rooted in cultural differences. Kliem (2004) concluded that people from some nationalities may not have good working relationship with people from other nationalities, resulting in mistrust and poor team work, with resultant impact on project delivery.

From the statistical frequency score result of 72% from the survey and the outcome of research work in literature; this proposition is a valid outcome of this research.

Proposition 7:

From the survey, this proposition has a low statistical frequency score of 8%. This suggests that about 8% agree with this proposition. The views from literature are explored. Kliem (2004) argues that additional risks and challenges to successful delivery of international projects are introduced due to “geographical and cultural differences”. According to Muriithi and Crawford (2003), the difference in values of people from the different cultures within a country could negatively impact on projects delivery. Muriithi and Crawford (2003) argue that culture is a potential reason for project failure in developing countries. With specific reference to project management practice in Nigeria, Okolie and Okoye (2012) argue that

there should be adequate consideration of workers cultural values and beliefs for a successful project delivery. Ochieng and Price (2009) state that since multicultural project teams involve people from different cultures, there is no guarantee that the use of project management practices and procedures alone, without consideration for appropriate management of cultural differences, will result in successful project outcomes. Henrie and Sousa-Poza (2005) assert that cultural awareness is a significant requirement for project success. Benitez Codas (2006) argue that it is important for project managers to facilitate communication between people from different cultural backgrounds "as this might make the difference between success and failure in international projects." Atsu et al (2010) contend that the culture of the nation does influence the success of the project. Ika (2012) contend that to produce the desired project outcome, project management approach should be tailored to the prevailing culture. The research by Belassi et al. (2007); Shore (2008); Wang and Liu (2007) and Yazici (2009) all conclude that one common organizational factor that has been linked to project performance is culture.

Even though literature suggest that culture influences project success (Okolie and Okoye, 2012) and culture is a potential cause of project failure (Muriithi and Crawford, 2003), the statistical frequency score of 8% suggest that this proposition is supported by very few respondents. Accordingly, this proposition is not fully supported by this study. Further research is recommended.

Proposition 8:

From the survey, this proposition has a statistical frequency score of 34%. This suggests that about 34% of project practitioners agree with this proposition. This result is compared with the outcome of research in literature. Cerimagic (2010) argue that not managing cultural differences in a project team can result in misunderstandings and conflicts. Cerimagic (2010) posit that the behaviours of different nationals is often a source of problems and misunderstandings. Kliem (2004) argue that people from some nationalities may not have good working relationship with people from other nationalities, resulting in mistrust and poor

team work, with resultant impact on project delivery.

With a statistical frequency score result of 34% from the survey and the outcome of research work in literature; this proposition is a valid conclusion of this research.

Proposition 9:

From the survey, this proposition has a high statistical frequency score of 80%. This suggests that about 80% of project practitioners strongly agree with the proposition. From the definitions of culture captured in this study, a cluster of different cultures and nationalities in a project team will most likely influence the behaviour of the team members and how they manage situations, including project execution (Trompenaars & Hampden-Turner ,1997) and Hofstede ,1991). Kliem (2004) argues that people from some nationalities may not have good working relationship with people from other nationalities, resulting in some negative behaviour like mistrust and poor team work, with a resultant impact on project delivery. Cerimagic (2010) argues that cultural differences can influence how the employees manage situations, and affect the behaviour of employees on projects. This proposition is very important for project management practice because culture influences behaviour, which has an impact on project delivery. Kayworth and Leidner (2000) posit that cultural differences could significantly affect the ability of project team members to communicate ideas and to coordinate the project.

With a high statistical frequency score result of 80% from the survey and the findings in literature, this proposition is supported by this research.

Proposition 10:

From the survey, this proposition has a statistical frequency score of 55%. This suggests that about 55% of project practitioners strongly agree with this proposition. This result is compared with the outcome of research in literature. According to Eberlein (2008), misunderstandings between project team members are to a large extent rooted in cultural differences. Cerimagic (2010) posit that not managing cultural differences in a project team can result in misunderstandings and conflicts between team members. Ochieng and Price

(2009) argue that communications within multicultural project environments can be effective when project managers demonstrate an awareness of cultural differences. Kayworth and Leidner (2000) posit that cultural differences could significantly affect the ability of project team members to communicate ideas and to coordinate the project.

With a statistical frequency score result of 55% from the survey and the findings from literature; this proposition is supported by this research.

Proposition 11:

From the survey, this proposition has a very high statistical frequency score of 89%. This suggests that 89% strongly agree with this proposition**.** This proposition is compared with the results from research in literature. This proposition is derived from one of the conclusions in the research by Maina and Gathenya (2013). They conclude that for projects to be successful, the project manager must take cultural factors of traditions, values, customs, and beliefs into consideration at the project planning stage. The very high statistical mean score from this study validates the conclusion of Maina and Gathenya (2013). According to Ofori (2013), project teams in the implementation of projects should consider socio-cultural factors. In an article by APM (2000), it is argued that the cultural back-ground of project team members need to be considered when constituting project teams. Okolie and Okoye (2012) posit that there should be adequate consideration of workers cultural values and beliefs for a successful project delivery. Ika (2012) argue that to produce the desired project outcome, project management approach in an organization should be tailored to the prevailing values and culture.

On the basis of the very high statistical frequency score result of 89% from the survey and the findings from research work in literature, this proposition is supported by this research.

Proposition 12:

From the survey, this proposition has a statistical frequency score of 65%. This suggests that about 65% of the project practitioners agree with this proposition. This proposition is compared with the results from research in literature. Cerimagic (2010) argues that to be

successful, project managers must choose the correct style of leadership corresponding to the culture and values of the country they work. Accordingly, Black and Mendenhall (1990) conclude that cross-cultural training is a critical factor in the preparation of expatriates on their overseas assignments. Muriithi and Crawford (2003) assert that a good understanding of cultural differences can determine how managers successfully apply management theories in different countries and cultures. Hofstede (1984) in his extensive research on national culture allude to the fact that a management technique or philosophy that is appropriate in one national culture is not necessarily appropriate in another culture. One implication of this allusion is that a project practitioner who successfully manages a project in a cultural setting could face a lot of challenges managing a similar project in a completely different culture. Ochieng and Price (2009) aptly explains this where they posit that since multicultural project teams involve people from different cultures, there is no guarantee that the use of project management practices and procedures alone, without the appropriate management of cultural differences, will result in successful project outcomes. Okolie and Okoye (2012) conclude that there should be adequate consideration of workers cultural values and beliefs for a successful project delivery in Nigeria. Shore and Cross (2004) summarise the discussions on this proposition where they opine that project management approach is influenced by culture.

On the basis of the statistical frequency score result of 65% from the survey and the findings from research work in literature; this proposition is supported by this research.

Proposition 13:

From the survey, this proposition has a relatively high statistical frequency score of 70%. This suggests that about 70% of the project practitioners agree with the proposition. This proposition is compared with the results from research in literature. The research by Muriithi and Crawford (2003) from a developed nation perspective and Onyemelukwe (1973) from a developing nation context concludes that managing projects in developed nations is different from managing projects in developing nations. Ochieng and Price (2009) argue that it is very important when bringing in experienced expatriate project managers from developed

countries to work in developing countries, for the organizations to develop the ability of the project manager to understand everyday issues from different cultural perspectives.

On the basis of the relatively high statistical frequency score of 70% from the survey and the findings from in literature, this proposition is supported by this research.

Proposition 14:

Research has consistently ranked communication as top CSFs. If cultural differences influence team communication in project management practice, then this proposition can draw conclusion that culture is a CSF in project management practice. From the survey, this proposition has a relatively high statistical frequency score of 68%. This suggests that about 70% of the project practitioners agree with this proposition. This proposition is compared with the results from research in literature. Kayworth and Leidner (2000) reveal that cultural differences could significantly affect the ability of project team members to communicate ideas and to coordinate the project. Maina and Gathenya (2013) conclude that organizational culture which supports communication and team cohesion has a positive influence on the effectiveness of the team leader and team satisfaction. According to Benitez Codas (2006), it is important for project managers to facilitate the efficient communication and rapport between people from different cultural backgrounds "as this might make the difference between success and failure in international projects."

On the basis of the relatively high statistical frequency score of 68%from the survey and the findings from research work in literature, this proposition is supported by this research.

Proposition 15:

From the survey, this proposition has a relatively low statistical frequency score of 20%. This suggests that about 20% of the project practitioners agree with this proposition. This proposition is compared with the results from research in literature. Okolie and Okoye (2012) conclude that when working in Nigeria, project managers should consider and take into consideration the cultural values of their host community and that of their workers as these

affect the project outcome. Cerimagic (2010) that a project practitioner from the host country with knowledge of the prevailing culture will effectively manage misunderstandings and conflicts, thereby enhancing the chances of project success. On the basis of the relatively low statistical frequency score of 20% from the survey and the limited research reference in literature, this proposition is not fully supported by this study. Further research is recommended.

Proposition 16:

From the survey, this proposition has a very high statistical frequency score of 86%. This suggests that about 86% of the project practitioners strongly agree with this proposition. This proposition is compared with the results from research in literature. Maina and Gathenya (2013) indicate that there is a positive linear relationship between project success and the organizational culture. This finding is consistent with the high frequency score of this proposition. Davidson (2003) argues that culture can make the difference between a successful and unsuccessful organization. Muriithi and Crawford (2003) argue that culture is a potential reason for project failure in developing countries arising mainly due to the prevailing different cultural contexts. Studies by Belassi et al (2007), Shore (2008), Wang and Liu (2007) and Yazici (2009) all concur that one organizational factor that has been linked to project performance is culture. On the basis of the very high statistical frequency score of 86% from the survey and the result of studies in literature, this proposition is supported by this study.

Proposition 17:

From the survey, this proposition has a very high statistical frequency score of 80.4%. This suggests that about 80% of the project practitioners strongly agree with this proposition. This proposition is compared with the results from research in literature. This proposition is motivated by the desire to test in a developing nation context, the conclusion by Liberatore

and Wenhong (2010) that creating a positive work environment, which includes trust and goal congruence, has a positive effect on project performance. Thamhain (2004), Howell and Shea (2001) in a developed nation context argue that there is a relationship between work environment and project performance. Culp and Smith (2005) posit that the key to project success is to spend as much time to the relationship between team members as to the scope and procedures. From experience in practice, this current study opines that spending time on building relationship between project team members enhances team bonding, with consequential positive impact on project delivery.

On the basis of the very high statistical frequency score of 80% from the survey and the result of studies in literature, this proposition is supported in a developing nation context by this current study.

6.2 Critical Success Factors in Project Management Practice

This section of the survey questionnaire sought to understand the extent to which project practitioners agree with statements extracted from literature regarding culture as a critical success factor in project management activities in their respective organizations. The intent is to find answers to the research question and supporting objective questions 3 of this study.

To answer **Supporting Objective Question 3**, *Is culture a factor for the success of projects in the O & G sector of a developing economy like Nigeria?*, this study relied on statements from literature and results from the survey in this study.

The analysed results received from the respondents are now discussed in the sections that follow.

Do project practitioners formally identify critical success factors that enable perceived success of projects in their organisation?

From the survey, 97.1% of respondents did indicate that CSFs were formally identified in their organizations. On the basis of this result confirming an awareness of the concept of

critical success factors in the six organizations, this study progressed to evaluate the extent to which project practitioners in the organizations considered culture as a CSF in the project management practice in their respective organization.

Survey Section D Question 2: Which of the following project factors are considered as critical success factors for projects in your organisation?

From the results of the frequency analysis in the below table, top management support ranked number one critical success factor as indicated by the frequency score of 91%. Clearly defined technical task ranked number 2 with a frequency score of 90%. Personnel competence with a frequency score of 88% was ranked the number 3 critical success factor. Project Mission with a frequency score of 87% was ranked the number 4 critical success factor. Client acceptance with a mean score of 85% was ranked number 5 by the respondents. The focus of this dissertation, culture, was ranked number 8 with a relatively high frequency of 76%. This result suggests that a relatively high number of project practitioners in the IOC's surveyed are of the opinion that culture is a CSF for project execution.

Survey Section D Question 2 Analysis Result

Project Critical Success Factor	**Frequency %**	**Ranking**	**SD**
1. Project Mission	87%	4	.867
2. Top Management Support	91%	1	.842
3. Updated Project Schedule/Plans	82%	6	1.070
4. Client Consultation	79%	7	.912
5. Culture	76%	8	.784
6. Personnel Competence	88%	3	.810

7. Clearly defined Technical Task	90%	2	.785
8. Client Acceptance	85%	5	.925
9. Monitoring and Feedback Embedded in the Project Process	74%	10	.904
10. Communication	74%	9	.785
11. Trouble-shooting Skills	68%	11	.969
12. Level of Sustainability Compliance	60%	12	.945

Table 57: Survey Section D Question 2 Analysis Result

For the purpose of discussion, the survey results of this study are compared with results of similar studies, in addition to findings in existing literature to make sense of the analysed data and draw relevant conclusions for this current study regarding culture as a critical success factor in project management practice. On the basis of this current study's concurrence to proposition 13 that *managing projects in developed nations is different from managing projects in developing nations,* the discussion will be from two perspectives: developed nation and developing nation perspective.

From the survey in this study, culture with a very high statistical frequency score of 76% was ranked as number eight out of the twelve CSFs considered. The high statistical frequency score of 76% indicates that over 75% of the project practitioners who participated in the survey consider culture as a CSF for project delivery in their organizations. For this study, although culture was ranked eight out of twelve, the high statistical frequency score necessitates further analysis. Starting with the results of this study, looking at other CSFs, the narrative on the seventeen propositions did suggest that culture has influence on some of the other CSFs with higher statistical frequency scores and ranking. For example, a look at the result and discussion of proposition 2, 5, 9, 10, 12, 13, 15 and 16 of this study suggest that the culture has an influence on the effectiveness of top management support, which was ranked

number one, with a high frequency score of 91%. Secondly, proposition 3, 4, 5, 7, 9, 12 and 17 of this study suggest that culture has an influence on personnel competence which is ranked number three with a high mean score of 88%. Thirdly, proposition 1, 7, 8, 11, 12, 13 and 16 of this study suggest that culture has an influence on client acceptance which is ranked number five with a high mean score of 85%. Fourthly, proposition 9, 10, 11, 12, 14, and 16 of this study suggests that culture has an influence on the approach to updating project schedule/plans which is ranked number six with a high mean score of 82%. In addition to the propositions from this study, relating this to Hofstede's study on the dimensions of culture discussed in the literature review section, there will be a significant difference regarding how project schedule/plans are updated between cultures on extreme ends of Uncertainty Avoidance Index and Long Term Orientation / Short Term Orientation Index. Similarly, on the basis of the research on Lewis' Model of Cultural Types discussed in the literature review section, the approach to updating project schedule/plans will be significantly different between Linear Active, Multi Active and Reactive culture. Finally, proposition 10 and 14 of this study suggest that culture has an influence on communication which is ranked number nine with a high mean score of 74%.

Applying this logic to the results of the study of CSF in developed and developing countries, the results of the studies reveal that culture has an influence on the top ranked factors. Starting with the developed nation context, the CSFs identified across publications by Hyvari 2006 show that the top five factors include Project Mission, Client Acceptance, Top Management Support, Communication and Project Schedule/Plans. The results of the propositions in this current study suggest that culture, even though not ranked as a CSF in developed countries studies, has an influence on all the top five factors identified. From the developing nation perspective, the results of critical success factors identified in the studies by Atsu et al (2010) and CHAOS (1994) show that the top five factors include Available Funds, Top Management Support, Training, Motivation and Proper Planning. The result of

the propositions in this current study suggest that culture, even though ranked number 12 out of seventeen as a critical success factor in the study by Atsu et al (2010) , has an influence on all the top five factors identified in the studies by Atsu et al (2010) and CHAOS (1994). On the basis of the existing literature on CSFs in developed and developing countries and results of the propositions discussed in this chapter, this current study is inclined to draw the conclusion that culture is a CSF for project execution in Nigeria. This study recommends that studies similar to the structure of this current research be carried out to investigate the extent to which culture can be considered as a critical success factor, specifically in developed and developing countries where such studies have not been carried out in extant literature.

Survey Section D Question 3: Culture as an enabler of perceived project success in developing countries.

The aim of this survey question is to answer **Supporting Objective Question** 4 i.e. *Is culture an enabler of project success in the O & G sector of a developing economy like Nigeria?*

Survey Section D Question 3 Analysis Result

Factor	Frequency %	Ranking
1. Effective Communication, Coordination and Commitment	29%	1
2. Project Organisation Structure	13%	4
3. Effective Planning	18%	3
4. Project Sustainability	8%	6
5. Teamwork	24%	2
6. Organisational Culture	10%	5

Table 58: Survey Section D Question 3 Analysis Result

The results of this study reveal that Effective Communication, Coordination and Commitment with a statistical frequency score of 29% was ranked number one, Team work

with a statistical frequency score of 24% was ranked number two while Effective Planning with a statistical frequency score of 18% was ranked number three as enablers of project success. Although Organisational Culture with a relatively low statistical frequency score of 10% was ranked number five, the previous discussion in this study shows that culture has an influence on the top three enablers of project success.

Survey Section D Question 5: Culture as a Project Need that Enables Perceived Project Success

The aim of this survey question is to answer **Supporting Objective Question** 4 i.e. *Is culture an enabler of project success in the O & G sector of a developing economy like Nigeria?*
The research by Culp and Smith (2005) identified three important basic needs of project team members, which if satisfied by the project manager, will most likely influence project success. The three needs are discussed in details in the Literature review chapter.

According to Culp and Smith (2005), for a project to be successful, the project manager needs to spend an equal amount of time on all three needs and argue that the main reason for project failure is that project managers do not spend an equivalent amount of time on each of the three needs (Culp and Smith, 2005). The study, which surveyed thousands of project practitioners over a thirty year period, established that relationship-building behaviour was the primary cause of project success, and of project failure, when missing, while technical ability was rated as the least influence of project success, and of project failure, when missing (Cerimagic, 2010). For the purpose of this study, cultural need was included as the fourth need with the aim to investigate the rating of the cultural need relative to the other three needs. The results are shown in the bellow table.

Survey Section D Question 5 Analysis Results

Project Need	Mean	Rating
1. **Content needs** – project scope, budget, expenditure, resources and schedule	96%	2
2. **Procedural needs** – the procedures that govern how the project is implemented	96%	2
3. **Relationship needs** – how project teams relate or interact with themselves and other stakeholders	98%	1
4. **Cultural needs** – cultural differences, cultural awareness, sensitivity to cultural diversity, values, customs and beliefs	78%	3

Table 59: Survey Section D Question 5 Analysis Results

From the results of the survey depicted in the table 57, relationship needs, content needs, and procedural needs had very close ratings of 98%, 96% and 96%. This is consistent with extant literature which argues that for projects to be successful, managers need to spend equal number of time on the three contending needs (Culp and Smith, 2005). Cultural need, which was introduced in this study to test its rating relative to the three aforementioned needs, had a frequency score of 78%. This suggests that although cultural needs are perceived as a strong need by a high number of project practitioners, it does not attract the same attention compared to the other three.

The findings of this study where project practitioners focus less on people issues, including cultural related issues, could be a possible reason for the high rate of project failure in developing countries as suggested by Culp and Smith (2005) and some propositions earlier mentioned. According to Culp and Smith (2005), when project managers give adequate attention to relationship building needs, it results in high performing teams. Conversely, when project managers do not give adequate attention to relationship building needs, Culp and Smith (2005) assert that this will have a negative impact on the project team.

Based on the above finding from their study, Culp and Smith (2005) conclude that "the key to project success is to spend as much time to the relationship side of the triangle of needs as to

the content and procedural needs" (p. 4). From hindsight of this finding on project needs, this current study will proffer necessary recommendations and actions that will help project practitioners enhance the chances of project success and / or mitigate the chances of project failure in developing countries in general and Nigeria in particular.

6.3 Hypotheses Conceptual Framework

The data collected was analysed through the method of inferential analysis aimed at establishing if there is a relationship between the variables and concepts defined by the conceptual model that underpin this study. Specifically, at the macro level, the inferential analysis aims to investigate and establish if there is a correlation between one independent variable or predictor i.e. culture and two dependent variables i.e. human behaviour and perceptions of project results as shown in the conceptual frameworks (Fig 21; Fig 22). According to Easterby-Smith et al (2008), researchers have an important task of identifying the main dependent and predictor variables: it is the predictor variables which are assumed to be influencing the dependent variables (pg. 91). To do this, Easterby-Smith et al (2008) posit that a method of measuring the variables will be defined, relevant hypotheses will be set and each of the hypotheses will then be tested to find out the degree of correlation between the predictor and dependent variables. For this study, twelve hypotheses $\mathbf{H_B}$, $\mathbf{H_{B1}}$ - $\mathbf{H_{B5}}$, $\mathbf{H_R}$, $\mathbf{H_{R1}}$ - $\mathbf{H_{R4}}$, and $\mathbf{H_M}$ were proposed as depicted by the conceptual framework in figures 20 and 21.

For this study, the Pearson Correlation (r) was selected to test the degree of correlation between the predictor and dependent variables. The basis for selecting Pearson Correlation is derived from the approach used in studies by Ohaeri (2013) and Ralf Muller et al (2014) to test relationship between variables. As earlier explained, the Coefficient of Determination (r^2) was calculated for all the correlations to show the amount of shared variance between the predictor and dependent variables.

Hypothesis H_B: There is a relationship between culture and the behaviour exhibited by project team members.

Proposition number 9 of this study reveals that the multi-cultural composition of project teams influences the behaviour of team members and how they manage situations. The Pearson correlation results shows that the behaviour exhibited by project team members is positively correlated ($p = 0.020$, $r = 0.852$, $r^2 = 0.726$) with project success and positively correlated ($p = 0.195$, $r = 0.51$) with culture as defined in this study.

Hypothesis H_{B1}: The presence of several national cultures in a project team has a negative impact on team cohesion and teamwork.

Proposition number 6 of this study indicates that the presence of several national cultures in a project team has a negative impact on team cohesion and teamwork. The Pearson correlation results shows that the team cohesion and teamwork exhibited by project team members is negatively correlated ($p = 0.014$, $r = - 0.244$, $r^2 = 0.059$) with culture. **Hypothesis H_{B2}: The presence of individuals from different nationalities in a project team increases the chances of mistrust between team members.**

Proposition number 8 indicates that the presence of individuals from different nationalities in a project team increases the chances of mistrust between team members. The Pearson correlation results shows that the trust between team members is negatively correlated ($p = 0.042$, $r = - 0.673$, $r^2 = 0.453$) with culture.

Hypothesis H_{B3}: Formal awareness of cultural diversity by the project team improves morale and productivity of team members

Proposition number 3 reveals that formal awareness of cultural diversity by the project team improves morale and productivity of team members. The Pearson correlation results shows that morale and productivity of team members is positively correlated {($p = 0.000$, $r = 0.418$), ($p = 0.002$, $r = 0.307$) and ($p = 0.071$, $r = 0.477$, $r^2 = 0.227$)} with cultural diversity as defined in this study.

Hypothesis H_{B4}: Cultural differences in project team increases the propensity for misunderstanding and conflicts between team members

Proposition number 10 indicates that the respondents agree that cultural differences in project team increases the propensity for misunderstanding and conflicts between team members. The Pearson correlation results show that misunderstanding and conflicts between team members is positively correlated ($p = 0.084$, $r = 0.406$, $r^2 = 0.165$) with cultural differences between team members as defined in this study.

Hypothesis for H_{B5}: Cultural differences between team members have a negative impact on team communication and coordination

Proposition number 14 shows that cultural difference between team members has a negative impact on team communication and coordination. The Pearson correlation results show that team communication and coordination is positively correlated ($p = 0.009$, $r = 0.256$, $r^2 = 0.065$) with misunderstandings and conflicts between team members arising from cultural differences between team members as defined in this study.

Hypothesis for H_R: There is a relationship between culture and perceptions of project success or failure

Proposition number 7 shows the existence of multi-cultured teams contributed to project failure. The Pearson correlation results show that project failure is positively correlated ($p = 0.012$, $r = 0.902$, $r^2 = 0.814$) with culture as defined in this study.

Hypothesis for H_{R1}: There is a relationship between culture and perceptions of project success or failure

Proposition number 16 shows that the organisational culture i.e. the way things are done in an organisation influences project success. The Pearson correlation results shows that project success is positively correlated ($p = 0.120$, $r = 0.231$, $r^2 = 0.053$) with culture as defined in this study.

Hypothesis H_{R2}: There is a correlation between project teams with people from different nationalities and perceptions of project failure.

Proposition number 11 posits that for a project to be successful, the project manager should consider cultural factors (e.g. traditions, values, customs, and beliefs) at the project planning stage. The Pearson correlation results show that project teams with people from different nationalities is positively correlated ($p = 0.066$, $r = 0.190$, $r^2 = 0.036$) with culture as defined in this study.

Hypothesis H_{R3}: The organizational culture i.e. "the way we do things" in a company has an influence on perceptions of project success

Proposition number 16 shows that the organizational culture i.e. "the way we do things" in a company has an influence on project success. The Pearson correlation results show that organizational culture is positively correlated ($p = 0.004$, $r = 0.282$, $r^2 = 0.079$) with project success as defined in this study.

Hypothesis H_{R4}: The appointment of a project manager from the host community is positively related to perceptions of project success.

Proposition number 16 shows that the appointment of a project manager from the host community is positively related to project success. The Pearson correlation results show that the appointment of a project manager from the host community is positively correlated ($p = 0.059$, $r = 0.557$, $r^2 = 0.311$) with project success as defined in this study.

Hypothesis table for H_{M1}: Managing projects in developed nations is different when compared to developing nations

Proposition number 16 shows that managing projects in developed nations is different from managing in developing nations. The Pearson correlation results show that the difference between managing projects in developed nations and managing projects in developing nations is positively correlated ($p = 0.065$, $r = 0.518$, $r^2 = 0.268$) with culture as defined in this study.

6.4 Qualitative Data Analysis and Discussion

In order to gain better understanding and insight of the results from the quantitative survey, a qualitative approach is adopted for the study, using structured interviews. This mixed approach (triangulation) design was selected to optimize the reliability, validity and generalizability of this research (Saunders et al, 2003). The previous chapter provides details of the interview questionnaire structure, approach for data collection and analysis of data collected.

6.4.1 Correlation between Culture and Behaviour

Question 1: What do you think about the relationship between culture and the behaviour exhibited by project team members?

The interviews conducted in this study reveal that the culture of an individual influences the behaviour of the individual in their approach to projects implementation. This is aligned with the research by Nei-Ching Yeh (2009) who argues that culture is an influential factor and determinant of how people behave. Proposition number 9 of this study supports this view, especially for a developing nation like Nigeria. A review of literature argues that the multi-cultural composition of project teams influences the behaviour of team members and how they manage situations (Cerimagic, 2010; Eberlein, 2008; Kliem, 2004; Davidson ,2003; Muriithi and Crawford ,2003; Marquardt and Hovarth ,2001;Earley and Mosakowski ,2000; Hofstede ,1984; Jackson et al. ,1992). The implication of this result for practice is that an awareness of the relationship between culture and behaviour is critical for project managers, and it is important that project managers recognise the culture of individual team members as culture influences their behaviours, affects team dynamics and project delivery.

Question 2: What impact does the presence of several national cultures in a project team have on team cohesion and teamwork?

The interviews conducted in this study reveal different views regarding the influence of the presence of several national cultures in a project team on team cohesion and teamwork. The presence of several national cultures in a project team will have positive impact on team cohesion and teamwork, where the team members understand each other's' culture and are willing to learn from each other. From the quantitative survey, proposition number 6 of this study supports the notion that the presence of several national cultures in a project team has a negative effect on team cohesion and teamwork (Maina and Gathenya, 2013; Cerimagic ,2010; Eberlein ,2008; Kliem ,2004; Marquardt and Hovarth ,2001Jackson et al. ,1992).

Question 3: What influence does the presence of individuals from different cultures in a project team have on the level of trust between team members?

The interviews conducted in this study reveal that the presence of individuals from different cultures in a project team has the potential to create an atmosphere of distrust amongst the team members. The research by Muriithi and Crawford (2003), Henrie and Sousa-Poza (2005), Kliem (2004) and Cerimagic (2010) support these views from the qualitative survey. The findings of this study agree with the studies by Arino et al (2001), Branzei et al (2007) and Farris et al (1973). The implication for practice is that project practitioners from different culture working in a project team should relate with each other with an open mind and strive to trust each other.

Question 4: What effect does the presence of individuals from different cultures in the project team have on the morale and productivity of team members?

The interviews conducted in this study reveal that the presence of individuals from different cultures in the project team has a dual positive and negative effect on the morale and productivity of team members. The interviews reveal that if members overcome their cultural differences, the presence of individuals from different cultures in the project team tends to boost morale, creativity and productivity. Conversely, where cultural differences are neglected, it could have a negative effect on morale and productivity. The findings are consistent with research by Davidson (2003) and Jackson et al. (1992) who contend that formal awareness of cultural diversity in the project team improves morale and productivity of team members. The implication for practice is that project managers need to be aware that multi-cultural teams are usually high performance teams with high productivity level and morale, mainly due to the fact that their group perception is broadened, ideas are varied and the decision making process are usually more robust. The quantitative survey result of this study as encapsulated by proposition number 3 supports this view.

Question 5: What effect do you think people from different cultures in project team have on misunderstanding and conflicts between team members?

The interviews conducted in this study reveal that lack of sensitivity to cultural difference is one of the major causes of misunderstandings and conflicts in a team and these conflicts can be mitigated if individuals respect individual cultural differences. Existing literature reviewed conclude that misunderstandings and conflicts between team members have been attributed to cultural differences {Maina and Gathenya (2013), Cerimagic (2010), Ochieng and Price (2009), Eberlein (2008), Kliem (2004), Eberlein (2008), Eriksson et al (2002), Kayworth and Leidner (2000)}. A key learning from this study for project managers in practice is that at the beginning when setting up a project team, conflicts arise from expecting others to accept and treat the new mix with fixated beliefs, but as the team works together, the conflicts reduce, as integrations and mutual trust builds up.

Question 6: What impact do team members from different cultures have on team communication and co-ordination?

The interviews conducted in this study reveal that project team with people from different cultural settings have a negative impact on communication and co-ordination, which could affect trust, cohesion and team identity. According to literature reviewed, cultural differences has influence on team communication and coordination (Maina and Gathenya ,2013; Cerimagic ,2010; Ochieng and Price ,2009; Eberlein ,2008; Kliem ,2004; Benitez Codas ,2006; Davidson ,2003; Kayworth and Leidner ,2000). One of the findings from the interviews is that knowing what is offensive to other culture could mitigate the negative impact on team communication and co-ordination. Accordingly, this current study recommends that project managers in practice should apply the principles in the studies by Hofstede's and Lewis to manage cultural differences.

Correlation between Culture and perceptions of Project Success

Question 1: Do you think culture influences project success or failure? Please explain your answer.

The interviews conducted in this study reveal that culture has an impact on project success and failure. Culture enhances leveraging on diverse knowledge and skill to improve outcomes of decision making and performance of the project team member that will lead to project success. Culture may lead to project failure because of its complexity and communication challenges which make team member to invest more time and effort in encoding and decoding messages. On this basis, under identical organization systems, culture could be a determinant for project success or failure. The findings from the interviews are consistent with literature reviewed. Some studies argue that for projects to be successful, the project manager must take cultural factors like traditions, values, customs, and beliefs into consideration at the project planning stage {Maina and Gathenya (2013), Ofori (2013), Okolie and Okoye (2012), Cerimagic (2010), Atsu et al (2010), Ochieng and Price (2009), Eberlein (2008), Eberlein (2008), Henrie and Sousa-Poza (2005), Kliem (2004), Muriithi and Crawford (2003), Muriithi and Crawford (2003), Muriithi and Crawford (2003), Eriksson et al (2002), Marquardt and Hovarth (2001), Earley and Mosakowski (2000), Hofstede (1984), Jackson et al. (1992)}.

Question 2: How do you think the organizational culture i.e. "the way we do things" in a company influence perceptions of project success?

The interviews conducted in this study reveal that organizational culture influence project success in different ways. If cultural beliefs (the way people do things) are not in consonance with best practices, the organization suffers a lot, including negative impact on project delivery. Another finding for application in practice is that when every team member has a full understanding of and commitment to the prevalent organizational culture, things work

seamlessly, leading to project success amongst other achievements. From the interviews, this current study can conclude that a culture that encourages open communication and new ideas, top management support and empowerment, collective responsibility and recognition are usually more successful. The studies by Davidson (2003), Muriithi and Crawford (2003), Eriksson et al (2002), Shore and Cross (2004), Ika (2012), Maina and Gathenya (2013) , Maina and Gathenya (2013), Belassi et al., 2007; Shore, 2008; Wang and Liu, 2007; Yazici, 2009 all argue that the organisational culture in an organisation influences project success.

Question 3: Do you think the appointment of a project manager from the host community will enhance the chances of perceptions of project success? Please explain

The interviews conducted in this study reveal that appointing a project manager form the host community may not influence project success, but the strategy has its advantages and disadvantages. The appointment of a project manager from the host community will not explicitly enhance the chances of project success, because a project manager with the right competence, skill and experience should be able to adapt to environmental changes and succeed. The interviews reveal that a project manager, who is well grounded in project management, must have acquired knowledge and skill to manage and drive projects to success, notwithstanding whether he is from the host community. However, the interviews reveal that where project managers are equally competent, there is an added advantage to have somebody that understands the community and can work with the host community. A key finding of this study for practice is that appointing a project manager from the host community will not enhance project success if the project manager lacks basic project management competency and the skills of managing a multicultural team. Proposition number 15 of this study with a low frequency score of 20% from the quantitative survey does not explicitly support the view that appointing a project manager from the host community influenced project success.

6.4.2 Correlation between Managing Projects in Developing and Developed Nations

Question 10: Do you think managing projects in developed nations e.g. USA, UK is different when compared to managing projects in developing nations e.g. Nigeria, Ghana? Please explain your answer.

The interviews put forward some reasons why managing projects in developed nations is different from managing projects in developing nations as follows.

- In developed countries, the basic infrastructure is available, resulting predictable occurrences and little surprises during project execution.
- In developed countries, practitioners demonstrate higher standard to professionalism and in addition there are also procedures in place to deal with project development.
- In developed nations, technology for communication and information sharing are more effective to alleviate cultural challenges compared to developing nations where this is lacking.
- Some factors such as the political, economic, operational, social, and physical problems that most often cause project delays and failures on projects implemented are better controlled in developed nations.
- The different environmental and cultural beliefs affect the people's attitude to work and their value definition which ultimately influence project success or failure.

The interviews put forward some reasons why managing projects in developed nations is not different from managing projects in developing nations as follows.

- What really matters is the constitution of the project team and the leadership skill of the project manager, notwithstanding the location where the project is executed.
- The Project Management Processes are standardized and employed globally in the execution of projects and as such the processes adopted in managing projects in

developed nations e.g. USA, UK is the same employed in managing projects in developing nations like Nigeria and Ghana.

A review of literature argues that managing projects in developed nations is different from managing in developing nations (Ika ,2012; Ochieng and Price, 2009; Cerimagic ,2010; Shore and Cross ,2004; Muriithi and Crawford ,2003; Muriithi and Crawford ,2003; Black and Mendenhall ,1990; Trompenaars and Hampden-Turner ,1997; Hofstede ,1991; Hofstede ,1984; Onyemelukwe ,1973). From the above arguments, this study, on the basis of the qualitative results and extant literature posits that managing projects in developed nations is different from managing in developing nations.

Chapter 6 covers the discussion around the quantitative and qualitative analysis structured in line with the responses to the questions from the questionnaire and the interview. In so doing, the aim of the study, the answers to the supporting objectives questions and the answer to the research question were achieved. Specifically, the aim of this study which is to understand the impact of culture on project execution in the O & G industry of a developing economy from the perspective of the six leading IOC's operating in Nigeria was explained. The answers to the five supporting objectives were derived. In response to the research question, this study found that culture has an impact on project execution and therefore posits that a non-technical cultural approach to improve project execution in the six leading IOC's in the O& G industry of Nigeria should be explored. The hypotheses and conceptual framework of the study were quantified using the Pearson Correlation and Coefficient of Determination values. To provide more insight to the quantitative analysis, this study discussed in details the outcome of the qualitative analysis in relation to the correlation between culture and behaviour, correlation between culture and perceptions of project outcome and correlation between managing projects in developing and developed countries. The seventeen propositions were discussed in details and consistency with literature was established.

Chapter Seven: Conclusions

Preamble

This chapter concludes the dissertation by summarizing the main findings, highlighting answers to the research questions and enumerating the contributions to practice and theory. The key findings of this research include providing an empirical evidence of a correlation between culture and project delivery performance. The dissertation also answered the main research question by revealing that culture has an impact on project delivery performance. These findings resulted in the recommendation that project practitioners should consider applying a non-technical cultural approach to improving project delivery performance. From an action research perspective, the results of the dissertation are of significant benefit to my practice, from the context that the ongoing culture alignment journey initiative in Nigeria LNG Ltd can be more effectively applied towards improving project delivery performance. Following the rigorous research protocols involved here, the data collected from practitioners across the top Oil and Gas companies in Nigeria and my findings have been disseminated across my practice and I have received senior management endorsement. This means that specific research actions of this dissertation will be implemented and a time frame of two years is recommended to assess the impact on project delivery performance. The plausibility of taking relevant actions in my own practice is discussed in details. This chapter also discusses the limitations of the dissertation and enumerates recommendation for future research opportunities.

The dissertation conducted an empirical study in six IOC's in Nigeria to investigate the impact of culture on project delivery in a developing country. 103 project practitioners participated in the quantitative survey while interviews were conducted with 18 project practitioners for the qualitative survey. Chapter two of the dissertation provides details of the theoretical background that underpins the research. The research by Wursten (n.d.) posits that the work of managers is constrained by its cultural context, which Peter Drucker supports by

stating that “what managers do is the same all over the world, how they do it is determined by culture and tradition”. This led to the conclusion by Wursten (n.d.) that it is impossible to coordinate the actions of people without a deep understanding of their values, beliefs and expressions. Eberlein (2008) concluded that a good understanding of the concept of cultural differences is important to project practitioners and recommend that organizations should develop managers with multi-cultural mindset with the relevant skills to manage challenges associated with working in cross-cultural teams. This led to the conclusion that culture is a potential reason for project failure in developing countries arising mainly due to the prevailing different cultural contexts (Muriithi and Crawford, 2003). The findings of this dissertation concur with these theoretical observations. Henrie and Sousa-Poza (2005) also argue that cultural knowledge and awareness in the management of projects is significant requirement for project success by project professionals. Despite the impact of culture in project management and project delivery performance as outlined, there is limited analysis in literature regarding the impact of culture in project management and delivery performance in developing countries. According to Henrie and Sousa-Poza (2005), “project team culture is a research area where little data and information are available”. This gap in culture related research in project management and delivery performance is collaborated by Gurung and Prater (2006). It is also argued that western management practices and tools from developed countries frequently fail because they do not achieve acceptance in the developing countries (Stuckenbruck & Zomorrodian, 1987, p. 174). To date, there is no specific study investigating the impact of culture on project delivery performance in the Oil and Gas industry in Nigeria, a critical issue within my organisation. The goal of this study was an effort to address this research gap by providing project practitioners with data, analysis and concrete actions that could support project delivery performance from a non-technical cultural perspective. To achieve this, a number of research questions as enumerated in chapter one guided this study.

7.1: Review of Dissertation Research Question

In this section, we highlight whether the dissertation has answered its research question and research objectives. To do this, we refer to the main research question (MRQ) and five supporting objectives questions (SOQs).

Supporting Objectives Questions (SOQs)

From a practice perspective, the **first question** sought to gain deep understanding to how project success is defined in the Oil and Gas sector of a developing economy such as Nigeria. From the findings it was evident that project success is understood as meeting project requirements, delivering benefit to the organization, meeting the aspirations of stakeholders and delivering benefit to the customer. This finding, which is consistent with the definitions in literature, was expected as the project practitioners in the IOC's are PMI certified PMP's and their understanding of project success are expected to be in tandem with globally accepted definition of project success.

From a practice perspective, the **second question** sought to understand the impact of culture on the delivery of projects in the Oil and Gas sector of a developing economy such as Nigeria. The findings from the surveys indicate that culture has an impact on project delivery in the O&G projects in developing economies such as Nigeria. It is evident from the survey results of this dissertation, reference Table 56, that the views of the project practitioners are consistent with findings from previous studies as encapsulated in the literature reviewed. In addition, the conceptual framework reference figures 21/22, of the dissertation reveals a correlation between culture and perceptions of project results. This correlation has a high statistical significance in the sample population of project practitioners in the O & G industry of Nigeria. The findings reveal that an awareness of organizational and national cultural factors when applied appropriately impact the outcome of project execution in the O & G sector of a developing country like Nigeria.

From a practice perspective, the **third question** sought to find out if culture is a CSF for the outcome of projects execution in the Oil and Gas sector of a developing economy such as Nigeria. From the findings, this dissertation concludes that culture is a factor for successful project execution in the O & G sector of a developing economy like Nigeria. The dissertation further recommends that studies similar to the structure of this current research be carried out to investigate the extent to which culture can be considered a factor for successful project execution, specifically in developed and developing countries where such studies have not been carried out. Our findings further reveal that CSFs are formally identified in the six organizations involved in this research. Culture is considered a CSF in project execution in the Oil and Gas sector of a developing country like Nigeria. The result of this study ranked culture as number nine out of twelve CSFs.

From a practice perspective, the **fourth question** sought to find out if culture is an enabler of project success in the Oil and Gas sector of a developing economy such as Nigeria. The result of the dissertation and extant literature reveals that culture has an influence on the top three enablers of project success, which are communication, team work and effective planning. In addition, the findings of this study reveal that when project practitioners focus more on technical issues and less on people issues, including cultural related issues, this lack of focus could be a possible reason for the high rate of project failure in developing countries as suggested by Culp and Smith (2005). The result of this study identified and ranked six enablers of project success in the oil and gas sector of a developing country like Nigeria. Unsurprisingly effective communication, coordination and commitment were ranked first in our findings. This was followed by Teamwork (Ranked: 2) and effective planning (Ranked: 3). Although Organizational culture is ranked number 5, our findings reveal that culture has an influence on the top 2 enablers, namely effective communication and teamwork. The research by Maina and Gathenya (2013), Cerimagic (2010), Ochieng and Price (2009), Eberlein (2008), Benitez Codas (2006), Kliem (2004), Davidson (2003) and Kayworth & Leidner (2000) argue that cultural differences has influenced team communication. This

conclusion was corroborated by the findings of this dissertation where 68% of the practitioners surveyed concurred that in the projects they have managed, cultural differences has influenced team communication. Similarly, the research by Maina and Gathenya (2013), Cerimagic (2010), Eberlein (2008), Kliem (2004), Marquardt and Hovarth (2001) and Jackson et al. (1992) posit that the presence of several national cultures in a project team has a negative effect on team cohesion and teamwork. The finding from this dissertation indicates that 72% of the practitioners agree with this conclusion. This dissertation therefore argues that culture can be considered as an enabler of project success.

From a practice perspective, the **fifth question** sought to find out if the success factors identified in studies involving developed nations were similar to those for developing nations, using the Oil and Gas sector of a developing economy such as Nigeria as a case study. The findings of this dissertation reveal that the ranking of the CSFs in developed nations (Hyvari, 2006) are similar to the ranking of critical success factors in a developing nation like Nigeria (this study). Interesting exceptions are highlighted below:

- Client consultation is ranked high (average number 2) in developed nations compared to a low ranking (number 10) in Nigeria, a developing nation.
- Personnel competence is ranked low (average 10) in developed nations compared to a high ranking (number 3) in Nigeria, a developing nation.
- Culture is not ranked in the studies of critical success factors in developed nations compared to its ranking (number 9) in this study covering the Oil and Gas industry in Nigeria, a developing nation.

Ranking of CSFs in developed countries v/s CSF in developing country (Nigeria)

Critical Success Factors	Developed Nations					Developing Nation (Nigeria)
	Hyvari (2006)	Finch (2003)	Delisle & Thomas (2002)	Pinto & Presscott (1988)	Pinto & Slevin (1987)	This Study Akade (2016)
Project Mission	6	7	1	1	1	2
Top Management Support	4	6	9	7	2	1
Project Schedule/Plans	5	5	5	9	3	6
Client Consultation	2	1	2	2	4	10
Personnel Competence	9	10	10	10	5	3
Clearly defined Technical Task	7	9	4	3	6	4
Client Acceptance	3	4	6	4	7	5
Monitoring and Feedback	10	3	3	5	8	8
Communication	1	2	8	6	9	7
Trouble-shooting	7	8	7	8	10	12
Culture	N/A	N/A	N/A	N/A	N/A	9
Level of Sustainability Compliance	N/A	N/A	N/A	N/A	N/A	11

Table 60: Ranking of CSFs in developed countries v/s CSF in developing country (Nigeria)

Main Research Question (MRQ)

From a practice perspective the **main research question** sought to understand the impact of a non-technical cultural approach to the improvement of project delivery in the Oil and Gas sector of a developing economy such as Nigeria. The literature reviews suggest that despite studies of CSF's in project management, the rate of project failure in the Oil and Gas was still relatively high (Maina and Gathenya, 2014; Ofer and Shlomo, 2005). Furthermore, extant literature also posit that CSF related studies on project management in developing countries

have paid little attention to the impact of culture on projects delivery in the O & G industry in Africa in general and Nigeria in particular (Ofori 2013; Eberlein 2008; Awuah 2008, Gurung and Prater, 2006; Henrie and Sousa-Poza, 2005; Ramage and Armstrong 2005; Eriksson et al, 2002; Kruglianskas and Thamhain, 2000). In his research in Ghana which is a developing country with similar cultural setting like Nigeria, Awuah (2008) contend that some of the project management challenges in developing countries like Ghana include cultural related issues. From experience in the authors practice, despite the technical related effort, project delivery performance needs improvement. This reinforces the aim of this action research study to explore a non-technical cultural approach to addressing the challenges with project delivery in the authors practice. The timing is just right, considering the ongoing culture alignment journey in the author's practice as explained in chapter one. The results of this study reveal that culture is a CSF in project execution and enabler of project execution outcome with a strong impact on project execution to the extent that this study considers culture as the fourth significant constraint in project management in addition to time, cost and scope. This dissertation therefore concludes that a non-technical approach to project execution could have a positive impact on the improvement of project execution in a developing economy like Nigeria. This will be implemented through an action research approach in the author's practice at Nigeria LNG Limited.

7.1.1 Conceptual Framework

The dissertation developed a conceptual framework comprising twelve hypotheses $\mathbf{H_B}$, $\mathbf{H_{B1}}$ - $\mathbf{H_{B5}}$, $\mathbf{H_R}$, $\mathbf{H_{R1}}$ - $\mathbf{H_{R4}}$, and $\mathbf{H_M}$, to test the relationship between culture (independent variable) and seven dependent variables under two major constructs of human behaviour and project results (independent variables). The twelve hypotheses were defined and described in sections 3.5 and 5.4respectively. The relevance of the twelve hypotheses to project execution in my practice is explained in section 7.2.1.

The findings of this study reveal that:

- There is a correlation between culture and five constructs of human behaviour namely.
  - Cohesion and Team Work - $\mathbf{H_{B1}}$
  - Mistrust - $\mathbf{H_{B2}}$
  - Morale and Productivity - $\mathbf{H_{B3}}$
  - Misunderstanding and Conflicts - $\mathbf{H_{B4}}$
  - Communication and Co-ordination - $\mathbf{H_{B5}}$
- There is a correlation between culture and perceptions of Project Results

The conceptual framework shows a strong correlation between culture and two variables: project execution outcome and human behaviour as indicated by the Pearson correlation factor (r). The results also reveal a high statistical significance within the O&G project practitioner's population as indicated by the p values. This means that the findings from the project practitioners in the sample used for the survey in representative of the views of the extended O&G project practitioner's population i.e. if the survey is repeated for a different sample; it will most likely to produce a similar result. The lower the p value the stronger the significance.

7.1.2 Theoretical Model: Facets of Culture Management in Project Execution

Building on the conceptual framework and correlation analysis in chapters five and six, this dissertation goes further to conceptualizes the impact of culture management on project execution as a model of multidimensional constructs composed of four facets namely: behavioural, motivational, performance and cross-cultural cognition as shown in the theoretical model in figure 23 below. The theoretical model in figure 22 is developed from the research article on cultural intelligence by Ott and Michailova (2016). According to Easterby-Smith et al (2008), the plausibility of a particular model needs first to be established from theory, and then translated into formal causal conceptual models that can be tested statistically by using quantitative evidence to assess whether the model is consistent with data (p.281). Accordingly the conceptual model of this study is developed from the theoretical model derived from literature reference Ott and Michailova (2016), to conceptualise the main thrust of this dissertation by depicting the impact of culture on project execution in a developing economy reference the conceptual model in figure 24. The conceptual model in figure 24 therefore depicts and summates this dissertation which prescribes a non-technical cultural approach aimed at improving project execution in the Oil & Gas industry in a developing economy, based on the outcome of a survey carried out on experienced project practitioners drawn from the six leading international Oil & Gas companies operating in Nigeria.

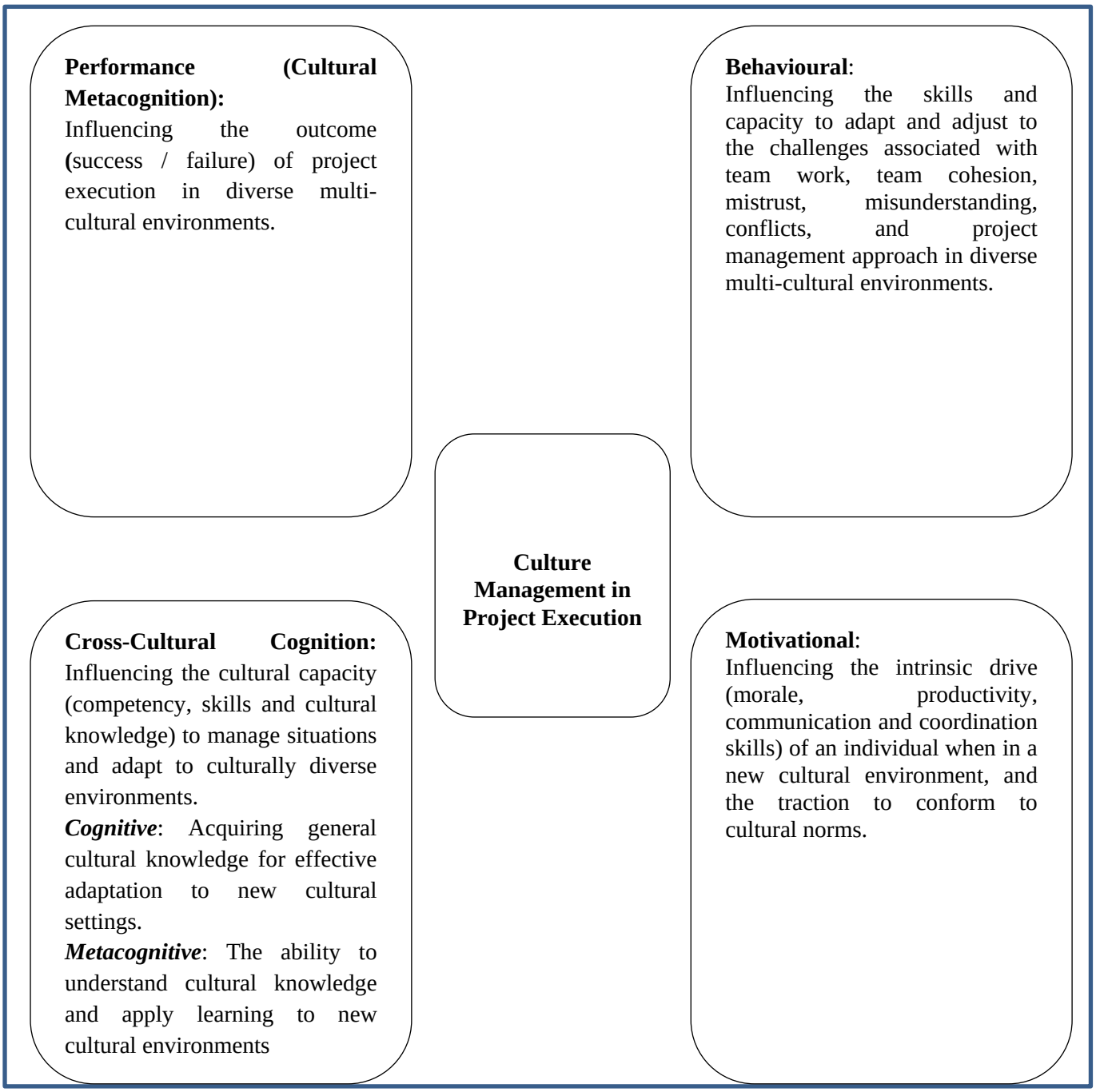

Figure 23: Theoretical Model on the Facets of Culture and Project Execution

Source: Research article on cultural intelligence by Ott and Michailova (2016)

According to Ott and Michailova (2016), whereas the impact of culture as an influence on behaviour, motivation and performance is lucid, the cross-cultural cognition facet, which describes the cognitive and metacognitive ability of project practitioners to improve their capacity to adjust to new multi-cultural environments through cultural training and application of cultural related strategies, is further supported by literature. A summary of

various research work on cultural training and their relevance to this dissertation is highlighted in the below table 61. This thesis therefore proposes training in the strategy that will help develop the ability of project practitioners to adjust to new cultural environments with consequential impact on increasing project execution performance. The findings in articles referenced in table 61 below supports the recommendation for training in the framework proposed by this thesis.

According to Thomas et al (2008), training will focus on enhancing cross-cultural skills in the following areas:

Perceptual Skills – how project practitioners perceive and interpret their colleague's behaviours.

Relational Skills – how project practitioners develop and maintain relationships with their colleagues.

Adaptive Skills – ability of project practitioners to quickly adapt to new cultural environments and interact effectively to achieve results.

Improving Cross-Cultural Cognition - Summary of Research Articles

Thesis propositions	Alignment with theory
This thesis proposes a model to develop project team members to adapt and adjust to a new cultural environment through training and exposure. The theoretical model in figure 23 is developed from the research article on cultural intelligence by Ott and Michailova (2016). This theoretical model is then further developed to a conceptual model which conceptualise the main thrust of this dissertation depicting the impact of culture on project execution in a developing economy reference figure 24.	The propositions are building on notions of cultural Intelligence (CQ) as an individual's capability for successful adaptation to new cultural settings, especially for expatriates and its effects on adjustment, performance and general effectiveness during international assignments (Earley and Ang 2003, p. 9).
Supports the views of this thesis that individuals need to adjust to new cultural settings instead of forcing their cultural beliefs which results in conflicts. In addition, it supports my thesis regarding the correlation between culture and conflicts/misunderstandings between team members.	Although high CQ helps to avoid cultural failures, individuals should focus more on understanding and adjusting their views of others, instead of learning to produce behaviours that circumvent cultural conflicts (Blasco et al. , 2012).
This thesis framework will propose that organizations use the CQS to measure the CQ of project practitioners before and after culture training sessions to measure the impact of the training on CQ.	CQ can be measured using a Cultural Intelligence Scale (CQS) (Ang et al. 2007).
Relevant to the framework of this thesis that propose training of project practitioners to enhance their ability to adjust to new cultural environment.	Organizations should provide extensive training for employees to develop their Cultural Intelligence (CQ) to improve working relations. MacNab (2012) has developed a seven-stage CQ training framework for this purpose.
Relevant to the framework of this thesis that propose training of project practitioners to enhance their ability to adjust to new cultural environment.	CQ (cultural competence) can be increased and developed through 1). International exposure/assignments and cultural exposure (Engle and Crowne, 2014). 2). Cross-cultural experiential training and education (MacNab et al., 2012).
Relevant to the framework of this thesis that	Triandis (2006) encourages organizations to

propose training of project practitioners to enhance their ability to adjust to new cultural environment.	provide extensive training for employees to overcome their ethnocentrism (i.e. judging another culture solely by one's own culture) and develop CQ to improve working relations.
Relevant to the framework of this thesis that propose training of project practitioners to enhance their ability to adjust to new cultural environment.	Training was a step in the right direction in developing cultural competence (Fischer, 2011).
Relevant to this thesis which seeks to study the impact of culture on performance of project practitioners on project execution.	Chen et al. (2011) and Lee et al. (2013) demonstrate that CQ has a positive and significant direct impact on job performance and cross-cultural effectiveness.
This supports my thesis that reveals a strong correlation between culture and communication between team members.	Bucker et al. (2014) also reveal a positive and significant relationship between CQ and communication effectiveness.
This supports the main thrust of this thesis which seeks to understand and apply in practice how cultural non-technical solution can improve project execution performance.	Malek and Budhwar (2013) find that motivational and behavioural CQ directly influence contextual performance and conclude that these facets help individuals to perform non-technical responsibilities, which may then indirectly increase task performance.
The framework of this thesis seeks to help individuals with adjusting to new cultural settings, which is expected to improve their effectiveness on project execution.	Lee et al. (2014) concluded that CQ has no direct influence on cultural effectiveness and must first positively influence adjustment before effectiveness is achieved.
Supports the conclusion of this thesis that culture has an influence on project practitioners' leadership of team members.	Rockstuhl et al.(2011) argue that leaders who work in cross-border contexts need the abilities to function in diverse environments where the social problems typically associated with leadership are compounded by the influence of culture.
Intercultural cooperation, negotiations, and creative collaborations are all important ingredients for effective project management. This suggests that Culture has an influence on effective project management with its consequential impact on project execution.	Some studies confirm the positive influence of CQ on intercultural cooperation (Mor et al. 2013), intercultural negotiations (Groves et al. 2015; Imai and Gelfand 2010), intercultural creative collaborations (Chua et al. 2012) and its role in reducing anxiety during cross-cultural interactions (Bucker et

	al. 2014).
This supports one of the hypotheses that reveal a strong correlation between culture and conflicts between individuals due to cultural differences.	Ramsey et al. (2011) hypothesized that when there is greater distance between cultures, the individual tends to experience more strain.
This thesis proposes a conceptual model reference figure 24, depicting how people can be developed to adapt and adjust to a new cultural environment through training and exposure.	We can conclude, however, that the uses of structured training programs and education interventions have been more effective in developing CQ (Ott and Michailova, 2016).
This thesis seeks to find out whether culture has an impact on performance with specific reference to project execution performance.	Previous research demonstrated that expatriate adjustment is important for higher performance (Hechanova et al. 2003)
This thesis is a contribution towards answering the performance aspect of this research question with specific reference to and focus on the impact of culture on project execution performance.	Does being from a specific cultural context and interacting with members of another specific culture change the relationships between CQ and adjustment, effectiveness or performance? Research along these lines would also be a response to calls or careful contextualization in both management (Bamberger 2008 and IB research (Michailova, 2011).
This thesis proposes a framework where the cultural awareness of people is developed with the objective to increase their motivation with impact on job performance.	Project teams where there is a formal awareness of cultural diversity tends to have team members who are more motivated and productive (Jackson et al., 1992).
This thesis proposes a framework where the cultural awareness of people is developed with the objective to increase their motivation with impact on job performance.	Davidson (2003) argues that formal awareness of cultural diversity in the project team improves morale and productivity of team members
This thesis proposes a framework where organizations have a structured training program on culture to help project practitioners improve their skills to collaborate better in multi-cultural teams. The recommendations of this thesis will leverage on the ongoing culture awareness initiative in my organization to formulate the structured training program.	Training program help project managers to enhance their capacity to manage multi-cultural teams (Eberlein ,2008; Trompenaars and Hampden-Turner .1997; Cerimagic ,2010; Brewster and Pickard, 1994; Kealey and Protheroe, 1996; Harris and Brewster, 1999; Black and Mendenhall ,1990; Moran et al ,2014; Earley and Mosakowski .2000; Ochieng and Price ,2009)
This thesis proposes training as a strategy to	Brislin and Yoshida (1994) argues that cross-

improve cultural awareness with the objective to improve project practitioner's ability to adapt to new cultural situations and environments.	cultural training programs should be used to enhance people's awareness of cultural differences with the objective to mitigate the stress associated with their attempt to adjust to a different culture.
This thesis proposes that training programs should be designed to help project practitioner's perform in new cultural environments.	Cross-cultural training programs should be viewed as a program designed to assist people who cross cultural boundaries (Brislin and Yoshida, 1994).
This thesis proposes that training programs should be designed to help project practitioner's perform in new cultural environments.	Training can assist people in overcoming obstacles that could interfere with enjoying their cross-cultural experiences (Brislin and Yoshida, 1994).
This thesis proposes that training programs should be designed to help project practitioner's perform in new cultural environments.	Cross-cultural training should help people accomplish the tasks associated with their work in a new cultural environment similar to their own cultural environment (Brislin and Yoshida, 1994).
This will be incorporated in the training program proposal of this Thesis.	Cross-cultural training programs should include 1. Strategies on how to manage culture- shock, 2. Awareness of culture and cultural differences, 3. Challenges to people's emotional balance that may arise from intercultural experiences (Brislin and Yoshida, 1994).

Table 61: Improving Cross-Cultural Cognition - Summary of Research Articles

7.1.3 Conceptual Model: The Impact of Culture on Project Execution in a Developing Economy

Anon (2013) defines a model as something that is used to represent something else; typically used in place of the original. Physical, Conceptual and Simulation models are the three main types of models. A conceptual model is a model that exists in one`s mind and expressed on paper which depicts a logical relationship between all the related variables and constructs (Anon, 2013). Unlike theories which are proven, models are not proven. In a more abstract way, it can be considered as a theoretical construct that represent something using the set of variable quantities and the logical and quantitative relationships among them. The model attempts to idealize the situation within the given framework, by making assumptions to

simplify or remove the error included by natural variations in the concerned system. For this study, the conceptual model captures the dissertation through a combination of the conceptual framework and the hypotheses for the purpose of providing a concise summation of this study. Accordingly, the culmination of all the research effort in this dissertation on the impact of culture on project execution in a developing economy through a research study of six international oil and gas companies is depicted in the conceptual model in figure 24. This conceptual model combines and shows the link between the hypotheses, key findings of this research; the findings from existing literature directly related to this research, the four facets of culture management (Performance, Behavioural, Cross-Cultural Cognition and Motivational) derived from the theoretical model by Ott and Michailova (2016) and the impact of culture management on project execution.

The findings of the quantitative analysis, table 50, reveal that there is a strong correlation between culture and behaviour. This correlation is supported by the behavioural aspect of the facet of culture management in the conceptualisation by Early and Angs (2003) cited in Ott and Michailova (2016). From table 56, since existing research referenced in this dissertation suggest that the behaviour exhibited by project practitioners' (which influences team work & cohesion, morale & productivity, trust, team communication & co-ordination, approach to managing projects, misunderstandings & conflicts, managing situations etc) impact project execution, this dissertation therefore argues/concludes that culture, which has a strong correlation with behaviour, will have an impact on project execution.

The result of the quantitative analysis of this dissertation from the context of four variables, namely culture, people from different nationalities, organizational culture and the appointment of a project manager from the host community reference figure table 50, reveal that there is a strong correlation between culture and project outcome (success or failure) reference figure 21. This correlation is supported by the performance (cultural metacognition) aspect of the facet of culture management in the conceptualisation by Thomas *et al* (2008) cited in Ott and Michailova (2016). From table 56, since existing research referenced in this

dissertation suggest that organizational culture i.e. the way things are done in an organization, impact project execution, this dissertation therefore argues/concludes that culture, which has a strong correlation with project outcome, will have an impact on project execution.

From the foregoing, any strategic actions that will help project practitioners improve project execution from a cultural context should be implemented by organizations, including my practice. With reference to table 61, extant research argues that cross-cultural training enhances the capacity of project practitioners to adapt to new cultures. This is supported by the cross-cultural cognition aspect of the facet of culture management. This dissertation therefore argues/concludes that if appropriately implemented, cross-cultural training has the potential to enhance the adjustment of project managers to new cultural situations, with consequential impact on project execution. Thomas et al (2008) suggest that training programs should focus on enhancing cross-cultural skills in the following areas: Perceptual Skills, Relational Skills and Adaptive Skills.

The result of the quantitative analysis of this dissertation from the context of variable H_{B3} reference table 50, reveal that there is a correlation between formal awareness of cultural diversity in the project team and improvement in the morale and productivity of team members. Furthermore, the quantitative analysis of this dissertation, reference table 56 reveal that project teams where there is a formal awareness of cultural diversity tends to have team members who are more motivated and productive. These results are collaborated by findings in extant research (Davidson, 2003 and Jackson et al., 1992). The above is supported by the motivational aspect of the facet of culture management. This dissertation therefore argues/concludes that formal awareness of cultural diversity improves morale & productivity, which enhances motivation with resultant impact on project execution.

In the next section 7.2, this study articulates how the conceptual model will be actualised in practice through a wider action research process that is ongoing and will be implemented in the researchers practice.

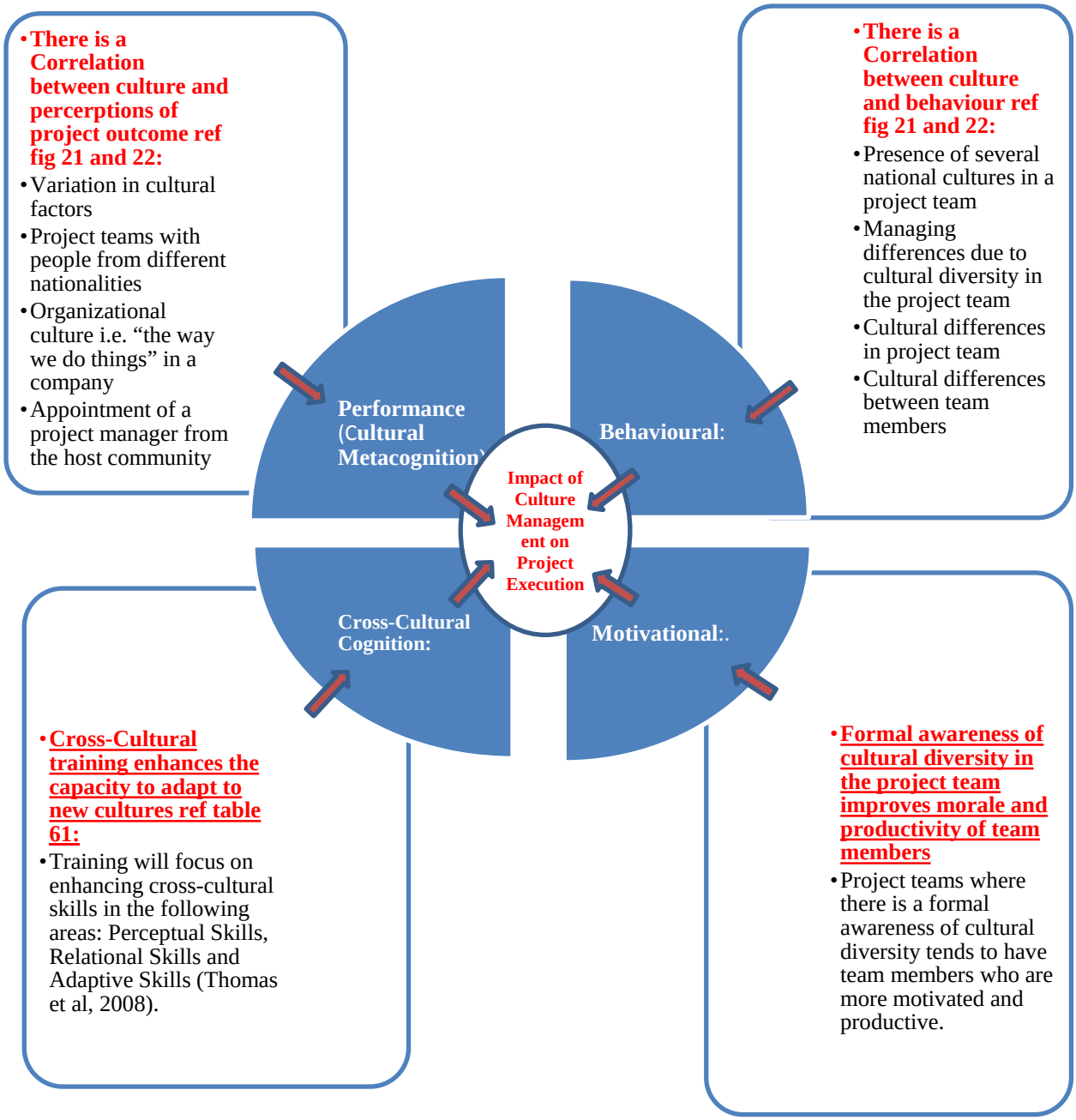

Figure 24: Conceptual Model - Impact of Culture on Project Execution in a Developing Economy

7.2 Implications of the Study

This section covers the implications of the study for practitioners in practice and also the implications for the development of academic and professional knowledge.

7.2.1 Implications / Recommendations for Practitioners

Implications

The finding of the dissertation regarding the impact of culture on project outcome will contribute significantly to project practitioner's application of non-technical cultural approach towards improving project execution in the O and G industry of a developing nation.

Practical Implications and Application in my Practice

This research therefore proposes the following recommendations, from a cultural perspective and aligned with relevant propositions and hypotheses, to the project managers responsible for projects execution in my practice and other organizations involved in this study.

- Project Managers should have a formal awareness of cultural diversity in constituting their project team as this improves morale and productivity of team members (reference proposition # 3 and hypothesis H_{B3} ($p = 0.071$, $r = 0.477$, $r^2 = 0.227$).
- Organizations should have a training program for project managers to help them manage multi-cultural teams (reference proposition # 5). This is because the presence of several national cultures in a project team has a negative effect on team cohesion and teamwork (reference proposition # 6 and hypothesis H_{B1} ($p = 0.014$, $r = - 0.244$, $r^2 = 0.059$).
- To prevent poor execution of projects, Project Managers should develop robust strategies towards team building to mitigate challenges due to team members from different nationalities and cultures. This is because the results of this research suggest

that: [1] people from different nationalities do not trust each other, resulting in poor project execution (reference proposition # 8 and hypothesis H_{B2} ($p = 0.042$, $r = -0.673$, $r^2 = 0.453$) and [2] misunderstandings and conflicts between team members have been attributed to cultural differences (reference proposition # 10 and hypothesis H_{B4} ($p = 0.084$, $r = 0.406$, $r^2 = 0.165$)

- Project Managers are strongly advised to consider cultural factors like traditions, values, customs, and beliefs into consideration at the project planning stage to enhance the chances of perceptions of project success (reference proposition # 11 and hypothesis H_{R1} ($p = 0.120$, $r = 0.231$, $r^2 = 0.053$)
- In recruiting project practitioners to manage projects, organizations need to be aware that project managers from different cultures have different approaches to managing their projects (reference proposition # 12 and hypothesis H_M ($p = 0.065$, $r = 0.518$, $r^2 = 0.268$).
- This study therefore argues that a project practitioner who successfully manages a project in a cultural setting could face a lot of challenges managing a similar project in a completely different culture, unless the project management approach is adjusted accordingly. Consequently, the implication for practice is that organizations should have a structured orientation program to support project managers in adjusting to new cultures, when faced with such situations.
- This study posits that the organizational culture i.e. the way things are done in the organization has an influence on perceptions of project success (reference proposition # 16 and hypothesis H_{R3} ($p = 0.004$, $r = 0.282$, $r^2 = 0.079$) Accordingly, this research recommends that organizations should have a formal well defined culture identity aligned to their vision and mission.
- This study therefore complements the ongoing culture alignment journey in researchers practice with the objective to achieve consistency in her 5 Core Values and 10 Behaviors by all staff, as this will have positive impact on the organizations

bottom line (Davidson, 2003), her image and project execution {Maina and Gathenya, 2013), Belassi et al (2007), Shore (2008), Wang & Liu (2007) and Yazici (2009)}.

- This study recommends that other oil and gas Companies in Nigeria, especially the other five involved with this research, should embark on a culture alignment journey similar to the current exercise in researchers practice,where applicable.
- To enhance project execution performance, Project Managers should ensure they institute a conducive and professional work environment characterised by trust and homogeneity of project goals. One of the finding of this this study is that the work environment, which includes trust and goal congruence, in which the project team operates, has a positive influence on project outcome (reference proposition # 17).

In hindsight of researchers experience in project execution in researchers practice, the theory from the literature review and the findings of this study, a summary of the potential benefits to the researchers practice is tabulated using the below action plan v/s potential benefit format.

Potential benefits of research findings to researchers practice

Action Plan	Potential Benefit to Researchers' Practice
Project Managers should have a formal awareness of cultural diversity when constituting their project team	Improvement in morale and productivity of team members. Increase the likelihood of project outcome.
Introduce training program for project managers structured to develop skills and competency in managing multi-cultural teams.	This will mitigate the negative effect team cohesion and teamwork due to the presence of several national cultures in project teams. Improved team work and cohesion is expected to improve effectiveness of project delivery. Table 61 presents a summary of research to support the recommendation of this dissertation for cultural training.
Project Managers should develop robust strategies towards team building activities.	Will help mitigate challenges with misunderstandings and conflicts between team members due to team members coming from different nationalities and cultures. Quick win will be eliminating mistrust resulting in improved project execution.
Project Managers should embed cultural factors like traditions, values, customs, and beliefs at the project planning stage.	This strategy is expected to enhance the chances of project outcome.
Project department should have a structured on-boarding program to support project managers from different cultures in adjusting to the new cultures in Nigeria and my organization.	This strategy is expected to enhance the chances of project outcome.
Organizations should have a formal well defined culture identity aligned to their vision and mission reference. The ongoing culture alignment journey in Nigeria LNG Limited should continue with more focus on the project department. Other Oil and Gas Companies in Nigeria should embark on a similar culture alignment journey.	The organizational culture i.e. the way things are done in the organization is expected to influence project outcome
Project Managers should institute a conducive and professional work environment characterised by trust and homogeneity of project goals.	This is expected to enhance project outcome because this study revealed that work environment, which includes trust and goal congruence, in which the project team operates, has a positive influence on project execution.

Table 62: Potential benefits of research findings to researchers practice

Practical Application in Researchers Practice

The findings of this dissertation, which reveal a correlation between culture and project execution and consequential outcome supports the action to apply the Culture Alignment Journey 10 Behaviours towards improving project execution in researchers practice. Based on the premise that the 10Bs are accepted by staff as drivers of a positive self-reinforcing culture, the dissertation proposes to deploy them alongside the project management process in reviewing the effectiveness of the assurance process that control project execution. Whenever projects are reviewed, with specific reference to schedule and budget performance, project practitioners should simultaneously review applicable 10Bs which, if appropriately applied, contributed to the success or, if neglected, contributed to the failure. This will confirm whether the 10Bs can be further elevated to the level of a non-technical cultural factor towards improving project execution and outcome.

7.2.2 Theoretical Implications

1. This study propose a definition of culture as a pattern of beliefs, norms and expectations of individuals or teams that define their behaviour and approach to solving problems / reconciling dilemmas, which can influence the outcome of project as either successful or failed.

2. This study presented seventeen propositions which compared the results of the survey in this study form the perspective of Nigeria a developing nation with the results from previous studies from the perspective of both developed nations and other developing nations. The results of the survey provide the following data as contribution to project management literature.

- The low statistical frequency score of 8% suggest that the proposition # 7 of this study which propose that the existence of multi-cultured teams has directly been identified as the reason for project failure does not support the finding in the research by

Muriithi and Crawford (2003) that culture is a potential reason for project failure in developing countries arising mainly due to the prevailing different cultural contexts.

- The statistical frequency score of 65% for proposition # 12 of this research supports Hofstede (1984) that a management technique or philosophy that is appropriate in one national culture is not necessarily appropriate in another culture. This research also supports the study of Shore and Cross (2004) that project management approach is influenced by culture.
- The high statistical frequency score of 70% for proposition # 13 of this research supports the findings from the research works of Muriithi and Crawford (2003) from a developed nation perspective and Onyemelukwe (1973) from a developing nation context which conclude that managing projects in developed nations is different from managing projects in developing nations.

3. The findings of this study reveal that project practitioners focus more on technical related issues and less on relationship / cultural related issues, and this could be a possible reason for the high rate of project failure in developing countries (Culp and Smith, 2005). The study by the Centre for Creative Leadership (CCL) in 2009 to determine project success and failure factors, established that relationship-building behaviour was the primary cause of project success, and of project failure, when missing, while technical ability was rated as the least influence of project success, and of project failure, when missing (Cerimagic, 2010).

7.3 Limitations of this Study

- Although the results show that culture: is a critical success factor, is an enabler of project success, has an impact on project success and where not understood could contribute to project failure, the results do not explicitly show that neglecting culture as a single factor directly results in project failure.
- The study obtained and analyzed data from 103 project practitioners working in six Oil and Gas Companies in Nigeria. The sample size was considered adequate in terms

of the methodology and the p value indicates a good statistical significance. Yet a larger sample size i.e. a higher number of respondents could have enhanced the generalization of the dissertation results in the research population. Amongst the six Companies, response to the survey was received from only four project practitioners in one of the Companies, Mobil. Obtaining data from more respondents from Mobil would have provided a much better representation of the views of project practitioners working in Mobil.

7.4 Recommendations for Future Research

1. Future research on three of the seventeen propositions in this research will be useful.

- **Proposition # 1:** Culture is the fourth significant constraint in project management (in addition to time, cost and scope). (Frequency Score = 44%).
- **Proposition # 7:** In some of my projects, the existence of multi-cultured teams has directly been identified as the reason for project failure (Frequency Score = 8%).
- **Proposition # 15:** In some projects I have worked, appointing a project manager from the host community influenced project success (Frequency Score = 20%).

2. This study recommends that studies similar to the structure of this current research be carried out to investigate the extent to which culture can be considered as a CSF, specifically in developed and developing countries where such studies have not been carried out in literature.

3. To stimulate research in literature, and enrich knowledge in the subject of culture as a CSF in project management in developing nations, this study recommends the following:

- Future studies in other Oil and Gas Companies in Nigeria will be useful.

- Research to compare the results in any one of the Companies in different countries and / or cultural setting will be very beneficial to practitioners in practice and scholars in academics.
- Future studies in other sectors in Nigeria are recommended with the objective to compare the results with the Oil and Gas sector.
- Future studies on CSF should include culture in the list to find out its ranking relative to the factors listed in existing literature.

The next section focuses on the plausibility of the practical application in researcher's organization.

7.5 Testing the Plausibility of Recommendations in Researchers Practice

7.5.1 Introduction

Arising from the challenges with project execution due to schedule and cost overruns in researchers practice, the researcher embarked on this dissertation with the aim to investigate the impact of culture on project execution. Based on the researchers' exposure to project management in the O & G industry, the researcher has been involved in technical centric initiatives and effort to address the challenges with minimal success. This is consistent with conclusions in literature on project management, reference the research by Maina and Gathenya (2014), Pakseresht and Asgari (2012) Ika et al (2012), Nethathe et al (2011), Cogliandro (2007), Hyvär (2006) and Ofer & Shlomo (2005) etc, discussed extensively in section 1.2 covering the research problem. These studies are convergent on the recommendation to exploring non-technical centric approach to addressing the challenges with project execution, because technical centric approach has not yielded the desired results. In fact, Rondinelli (1979) went further to state that most of the studies on CSFs have focused on developed countries with little attention given to projects in developing countries, despite the importance of projects in developing countries. The few studies on project management in developing countries have paid little attention to the impact of culture on projects execution

in the O & G industry in Africa in general and Nigeria in particular (Ofori 2013, Eberlein 2008, Awuah 2008, Gurung and Prater ,2006, Henrie and Sousa-Poza ,2005, Ramage and Armstrong 2005, Eriksson et al, 2002; Kruglianskas and Thamhain, 2000). This is consistent with the research by Ramage and Armstrong (2005) who argued that fully understanding the rational/scientific factors is difficult unless the political/cultural factors are taken into account. In other words, to understand the factors that impact project success, it is important to fully understand the impact of cultural factors. Accordingly, this current study on the impact of culture on projects execution in the O & G industry in Nigeria aims to extend our understanding on the influence of non-technical cultural factors on project success and propose a framework / model to improve project execution and enhance its outcome in the researchers practice from a non-technical cultural approach by providing empirical evidence.

7.5.2 Importance of Taking Action in Researchers Practice / Workplace

This section narrates the importance of taking action in researchers practice to support the resolution of the challenges with project execution. One motivation for this dissertation is researcher's interest to support the on-going Culture Alignment Journey in researcher's organization. Like most organizations in the Oil and Gas sector in Nigeria, the researcher's organization in rising to the challenges and headwinds in the sector took a strategic decision to proactively take measures to mitigate the impact on her business performance. According to the immediate past MD/CEO of Nigeria LNG Limited, "The Culture Alignment Journey is a very important journey for the company to assure our preparedness against the headwinds ahead of us and we all have a stake to ensure the continued success of our great company". In support of the Culture Alignment Journey in researcher's organization, this dissertation sought to understand the influence of culture on project management with the objective to apply its findings to support various initiatives on project execution. The importance of taking action to resolve the problem with project execution in researchers practice has wider implications for project management practitioners and scholars as the outcome will contribute

to finding answers to some gaps in literature, described in chapters 1 and 2. According to Morris (2000), "The challenge of research in project management today, I contend, is to build a broad, multi-industry, theoretically grounded, explanation of what is required to initiate and accomplish projects successfully. Research has a fundamental role to play in building this theoretical framework". This research effort is a contribution geared towards closing this gap in existing literature through actions that can be applied by project practitioners in researchers practice, and where applicable, other Oil and Gas organizations in developing economies experiencing similar challenges with project exection, to enhance success during projects execution. .

7.5.4 Plausibility of Proposed Actions in Researchers Practice

Before proceeding to implement the recommendations of this dissertation, it is very important to test and confirm the plausibility of taking action in researchers practice i.e. what are the constraints or bottlenecks to implementing the recommendations? . Project execution is a critical Key Result Area where top management and project department practitioners in researchers practice would like to see significant improvements in KPIs (Cost, Schedule and Quality). Accordingly, the plausibility of implementing the proposed actions of this dissertation will not be a challenge in researchers practice. Researchers focus is to do the needful to ensure that the proposed actions are implemented at the earliest opportunity. The researcher as a member of the project management team, and by extension an insider, access to implement the recommendations will not be a problem. To further enhance the confidence level of the plausibility of the proposed actions, interview sessions were conducted with selected key project practitioners who are key players in project execution in researchers practice. The outcome of the interviews with the project practitioners, including relevant validation of the plausibility of proposed actions, is captured in appendix 5. To maintain anonymity, the names of the respondents are coded with identity numbering. In summary, there was consensus with the project practitioners interviewed that the recommendations of

this current research are plausible for implementation in researchers practice. The project practitioners further propose that implementation of the recommendations should be aligned with the on-going culture alignment journey in researchers practice.

Implementing research action items as an insider has its challenges. According to Coghlan and Brannick (2010), the challenges associated with conducting action research in researchers practice include pre-understanding, role duality, ethics, organizational politics etc, and researcher is very conversant with the mitigating measures (reference Table 12.1, Coghlan and Brannick, 2010, p. 154) to manage these challenges without impacting negatively on researchers career when the research is completed.

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Appendices

Appendix 1 Research Questionnaire

Section A: DEMOGRAPHICS

Sex
☐ Male
☐ Female

Age Group
☐ 18 - 25 Years
☐ 26 - 35 Years
☐ 36 - 45 Years
☐ 46 - 55 Years
☐ >55 Years

Nationality
☐ Asian
☐ African (Non-Nigerian)
☐ European
☐ Nigerian
☐ North American
☐ South American
☐ Other……..

Number of Years in Project Practice
☐ 1 – 5 Years
☐ 6 – 10 Years
☐ 11 – 15 Years
☐ 16 – 20 Years
☐ > 20 Years

Organisation currently working for
☐ Shell
☐ Agip
☐ Total
☐ Mobil
☐ Chevron
☐ NLNG

Number of Years in Organisation
☐ 1 – 5 Years
☐ 6 – 10 Years
☐ 11 – 15 Years
☐ 16 – 20 Years
☐ > 20 Years

Current Position in Organisation
☐ Project Engineer
☐ Senior Project Engineer
☐ Principal Project Engineer
☐ Project Lead
☐ Project Manager
☐ Other…….

Number of people supervised

☐ None
☐ 1 – 5
☐ 6 – 10
☐ 11 – 20
☐ > 20

Highest Education Qualification Level
☐ A Level/NVQ/Diploma
☐ Higher National Diploma/Certificate
☐ Bachelor's Degree
☐ Master's Degree/ Postgraduate diploma
☐ Doctorate
☐ Other…….

Section B: PROJECT MANAGEMENT

1. What formal Project Management standards are used in your organisation? Please tick as appropriate

☐ PMBOK
☐ Prince 2
☐ My organization has a proprietary/customized standard (please specify)

2. Indicate the structure and composition of your projects (tick as appropriate):

	1	2	3	4	5	6	More than 7
How many professional disciplines are involved in your projects? (such as: engineering; construction; IT; Electrical; Geologists; etc)							
As part of your project how many cross – discipline teams (such as: engineering; construction; IT; Electrical; Geologists; etc) are you managing?							

3. How is project success defined in your organisation?

(1- Strongly Disagree; 2- Disagree; 3- Neutral; 4 – Agree; 5 - Strongly Agree)

S/N.	STATEMENT	1	2	3	4	5
a	Project success is defined as meeting project requirements	☐	☐	☐	☐	☐
b	Project success is defined as delivering benefit to the customer	☐	☐	☐	☐	☐
c	Project success is defined as delivering benefit to the organisation	☐	☐	☐	☐	☐
d	Project success is not constrained to achieving cost, schedule and scope.	☐	☐	☐	☐	☐
	Project success is defined as the perceived usefulness and adoption of project outcome by the client	☐	☐	☐	☐	☐
e	Project success definition goes beyond achievement of project specifications and delivery time, with emphasis on meeting the aspirations of the various stakeholders	☐	☐	☐	☐	☐
f	Enhanced strategic potential					
g	Enhanced our ability to innovate in our area					

4. Which three of the following are most important in defining project success? Rank in order:
(1- Most important, 6 – Less important)

S/N.	Factor	1	2	3	4	5	6
a	Meeting project requirements.		☐	☐	☐	☐	☐
b	Delivering benefit to the customer		☐	☐	☐	☐	☐
c	Delivering benefit to the organisation		☐	☐	☐	☐	☐
d	Project achieving scope, schedule and cost		☐	☐	☐	☐	☐
e	Perceived usefulness and adoption of project outcome by the client		☐	☐	☐	☐	☐
f	Delivering benefit to various stakeholders		☐	☐	☐	☐	☐

Section C: CULTURE

1. What do you perceive as culture in a Project?

(1- Strongly Disagree; 2- Disagree; 3- Neutral; 4 – Agree; 5 - Strongly Agree)

S/N.	STATEMENT	1	2	3	4	5
a	I perceive culture as the way in which people solve problems and reconcile dilemmas in a project team	☐	☐	☐	☐	☐
b	I perceive culture as the set of values, established early in life and difficult to change, that control or influence an individual's responses to different situations that occur in a project team	☐	☐	☐	☐	☐
c	I perceive culture as the way people do things which can make the difference between a successful and unsuccessful project	☐	☐	☐	☐	☐
d	I perceive culture as a pattern of beliefs, norms and expectations that shape the behaviour of individuals and groups in the project team	☐	☐	☐	☐	☐

e	I perceive culture as the behaviours and traits that determine honesty/openness, communication, trust, co-operation, and job satisfaction	☐	☐	☐	☐	☐

f	Please expand on what you perceive as culture in a Project?

2. To what extent do you agree with the following statements regarding culture and project management activities in your organisation? Please tick the appropriate box
(1- Strongly Disagree; 2- Disagree; 3- Neutral; 4 – Agree; 5 - Strongly Agree)

S/N.	STATEMENT	1	2	3	4	5
a)	Culture is the fourth significant constraint in project management (in addition to time, cost and scope)	☐	☐	☐	☐	☐
b)	Project managers being sensitive to cultural diversity and having a strong commitment towards cultural issues	☐	☐	☐	☐	☐
c)	Formal awareness of cultural diversity by the project team improves morale and productivity of team members	☐	☐	☐	☐	☐
d)	The cultural back-ground of project team members is considered when allocating resources in project teams in my organisation	☐	☐	☐	☐	☐
e)	My organisation has a training program for project managers to effectively manage multi-cultural teams	☐	☐	☐	☐	☐
f)	The presence of several national cultures in a project team influences team cohesion and teamwork	☐	☐	☐	☐	☐
g)	In a project I have been engaged in, the existence of multi-cultured teams was a contributory factor that resulted in project failure	☐	☐	☐	☐	☐
h)	I have experienced situations where people from different cultural background did not trust each other, resulting in poor project delivery	☐	☐	☐	☐	☐
i)	The multi-cultural composition of project teams influences the behaviour of team members and how they manage situations	☐	☐	☐	☐	☐
j)	In some projects I have been engaged in, misunderstandings and conflicts between team members have been attributed to cultural differences	☐	☐	☐	☐	☐
k)	For a project to be successful, the project manager should consider cultural factors (e.g. traditions, values, customs, and beliefs) at the project planning stage	☐	☐	☐	☐	☐
l)	Project managers from different cultures have different approaches to managing their projects	☐	☐	☐	☐	☐
m)	From my experience in project management, managing projects in developed nations is different from managing in developing nations	☐	☐	☐	☐	☐
n)	In the projects I have managed, cultural differences has influenced team communication and coordination	☐	☐	☐	☐	☐
o)	In some projects I have been engaged in, appointing the project manager from the host community influenced project success	☐	☐	☐	☐	☐
p)	The organisational culture i.e. “the way we do things” in my organisation influences project success	☐	☐	☐	☐	☐
q)	The work environment, which includes trust and goal congruence, in which the project team operates has a positive influence on project performance	☐	☐	☐	☐	☐

3. The following statement best describes the culture in my organization

(1- Strongly Disagree; 2- Disagree; 3- Neutral; 4 – Agree; 5 - Strongly Agree)

S/N.	STATEMENT	1	2	3	4	5
a	The focus is on how work is carried out rather than the achievement of the goals or results	☐	☐	☐	☐	☐
b	Business ethics and honesty matters most compared to meeting the customer's requirements	☐	☐	☐	☐	☐
c	There is a lot of control and discipline and people are very cost-conscious, punctual and serious	☐	☐	☐	☐	☐
d	The identity of an employee is determined by the boss and/or the unit in which one works rather than determined by his profession and/or the content of the job	☐	☐	☐	☐	☐
e	New employees are immediately integrated/well received and employees are open both to insiders and outsiders	☐	☐	☐	☐	☐
f	There is heavy pressure to perform the task with little or no consideration for the welfare of employees	☐	☐	☐	☐	☐
g	The culture in my organization has an influence on project performance	☐	☐	☐	☐	☐

4. To what extent do you agree or disagree with the following statements regarding the culture in your organization?

(1- Strongly Disagree; 2- Disagree; 3- Neutral; 4 – Agree; 5 - Strongly Agree)

S/N.	Power Distance	1	2	3	4	5
a	Major decisions regarding site project issues, always take place after consulting project team members.	☐	☐	☐	☐	☐
b	I am always encouraged to raise any project concern with my supervisor	☐	☐	☐	☐	☐
c	Project decisions is exclusively a management function	☐	☐	☐	☐	☐
d	I am always being consulted by my supervisor regarding preparation of project plans and policies	☐	☐	☐	☐	☐

S/N.	Collectivism	1	2	3	4	5
a	Project decisions made by me alone are usually more effective than decisions made in consultation with my team members.	☐	☐	☐	☐	☐
b	My team members often collaborate and support me in resolving project issues	☐	☐	☐	☐	☐
c	Project success has a lot of personal meaning to me and my team members	☐	☐	☐	☐	☐

d	Responsibility for Project success or failure is shared by project team members rather than a single individual	☐	☐	☐	☐	☐

S/N.	Femininity	1	2	3	4	5
a	Managers and supervisors do encourage feedback regarding project issues from team members.	☐	☐	☐	☐	☐
b	When team members ignore project procedures, I feel it is none of my business.	☐	☐	☐	☐	☐
c	I feel nervous or tense at work	☐	☐	☐	☐	☐
d	It is always important to have good working relationship with my supervisor.	☐	☐	☐	☐	☐

S/N.	Uncertainty Avoidance	1	2	3	4	5
a	Generally team members follow project procedures without being told to do so	☐	☐	☐	☐	☐
b	Project failure just happen, there is little anyone can do to avoid them.	☐	☐	☐	☐	☐
c	I am rarely worried about meeting project objectives	☐	☐	☐	☐	☐
d	Project procedures should not be broken even when I believe it affects the project	☐	☐	☐	☐	☐

S/N.	Long Term Orientation	1	2	3	4	5
a	Project implementation is a top priority of my company	☐	☐	☐	☐	☐
b	Measurement of project performance is usually based on past events on site	☐	☐	☐	☐	☐
c	I prefer to work safety even if it costs a lot.	☐	☐	☐	☐	☐
d	The policy of my company does not encourage safe behaviour on site.	☐	☐	☐	☐	☐

Section D: CRITICAL SUCCESS FACTORS

1. **Do you formally identify critical success factors that enable success of projects in your organisation?**

☐ Yes
☐ No

2. Which of the following project factors are considered as critical success factors for projects in my organisation? Rate from 1- Not important to 5- very important)

S/N	PROJECT FACTOR	1	2	3	4	5
a)	Clearly stated Project Mission	☐	☐	☐	☐	☐
b)	Top Management Support	☐	☐	☐	☐	☐
c)	Updated Project Schedule/Plans	☐	☐	☐	☐	☐
d)	Client Consultation	☐	☐	☐	☐	☐
e)	Professional Behaviour and Culture	☐	☐	☐	☐	☐
f)	Personnel Competence	☐	☐	☐	☐	☐
g)	Clearly defined Technical Task	☐	☐	☐	☐	☐
h)	Client Acceptance	☐	☐	☐	☐	☐
i)	Monitoring and Feedback embedded in the project process	☐	☐	☐	☐	☐
j)	Communication process defined	☐	☐	☐	☐	☐
k)	Trouble-shooting skills	☐	☐	☐	☐	☐
l)	Level of sustainability compliance	☐	☐	☐	☐	☐

3. Rank the factors below as barriers to project success in your organisation
(1– highest…….6 lowest)

S/N	FACTOR	1	2	3	4	5	6
a)	Lack of finance	☐	☐	☐	☐	☐	☐
b)	Lack of experienced & competent personnel	☐	☐	☐	☐	☐	☐
c)	Low management support	☐	☐	☐	☐	☐	☐
d)	Conflicting organisational priorities	☐	☐	☐	☐	☐	☐
e)	Ineffective stakeholder engagement	☐	☐	☐	☐	☐	☐
f)	Insensitivity to cultural differences	☐	☐	☐	☐	☐	☐

4. Rank the factors below as enablers of project success in your organisation?
(1– highest ……..6 lowest)

S/N	FACTOR	1	2	3	4	5	6
a)	Effective communication, coordination and commitment	☐	☐	☐	☐	☐	☐
b)	Project organisation structure	☐	☐	☐	☐	☐	☐
c)	Effective planning	☐	☐	☐	☐	☐	☐
d)	Project Sustainability	☐	☐	☐	☐	☐	☐
e)	Teamwork	☐	☐	☐	☐	☐	☐
f)	Organisational Culture	☐	☐	☐	☐	☐	☐

5. Rate the importance of paying attention to the following project needs as enabler of project success
(1– Extremely Low; 2 – Low; 3 – Medium; 4 – High; 5 – Extremely High)

S/N	PROJECT NEED	1	2	3	4	5
a)	Content needs – project scope, budget, expenditure, resources and schedule	☐	☐	☐	☐	☐
b)	Procedural needs – the procedures that govern how the project is implemented	☐	☐	☐	☐	☐
c)	Relationship needs – how project team relate or interact with themselves and other stakeholders	☐	☐	☐	☐	☐
d)	Cultural needs – cultural differences, cultural awareness, sensitivity to cultural diversity, values, customs and beliefs	☐	☐	☐	☐	☐

Results

If you would like to be informed about the results of the survey, please enter you e-mail address here

Appendix 2 Research Questionnaire data exported in Excel File

Excel Raw Data Comprehensive.xls

Appendix 3 Interview Questions

Structured Interview Questions

Correlation between culture and behaviour

Q1: What do you think about the relationship between culture and the behaviour exhibited by project team members?

Q2: What impact does the presence of several national cultures in a project team have on team cohesion and teamwork?

Q3: What influence does the presence of individuals from different cultures in a project team have on the level of trust between team members?

Q4: What effect does the presence of individuals from different cultures in the project team have on the morale and productivity of team members?

Q5: What effect do you think people from different cultures in project team have on misunderstanding and conflicts between team members?

Q6: What impact do team members from different cultures have on team communication and co-ordination?

Correlation between culture and project success

Q1: Do you think culture influences project success or failure? Please explain your answer.

Q2: What influence do you think multi-cultured project teams have on project success or failure?

Q3: How do you think the organizational culture i.e. "the way we do things" in a company influence project success?

Q4: Do you think the appointment of a project manager from the host community will enhance the chances of project success? Please explain your answer.

Correlation between managing projects in developing and developed countries

Q1: Do you think managing projects in developed nations e.g. USA, UK is different when compared to managing projects in developing nations e.g. Nigeria, Ghana? Please explain your answer.

Appendix 4 Interview Questions Data Transcribed in Excel File

Qualitative Interview Survey Summary_05272015.xls

Appendix 5 Plausibility of Implementing Research Recommendation in my Practice

Respondent ID	Comments
# 001	Reference to our discussion on the subject of culture as a critical success factor for project management and execution in developing economy. I did take a closer look at the research works and recommendations. They are very thoughtful. My profound agreement is with you all the way taking into consideration that skill and technical capability is not to be equated to communication in project delivery. This communication can only be activated by good understanding and knowledge of the culture. Summarily, culture remains the critical success factor in project management and execution.
# 002	Subsequent to the interview session I had with you and also based on my detailed study of the action plan, I agree with your recommendations. I also believe that Project Managers should be patient with their multi-national and multi-cultural team members and should not adopt "one cap fits all" approach, because what is acceptable in one nationality or culture may not necessarily be acceptable in another.
# 003	I fully agreed with your recommendations as outlined in the attached. Honestly cultural differences have always been a major task to deal with because this always lead one sect of people within the project of the same culture to feel been segregated, and of course causing racial discrimination. This was the main problem that happened during the base project (Train 1 & 2) from the start in June 1996 till first run-down of Train 1 in year 2000. In other to stop this and bring unity of purpose into the Expansion Projects, the Project Manager has to reorganise the Construction Team with the idea that two persons of the same cultural area should not lead a

	section. For example Mechanical or Project Services unit. That is, if the head of that unit is a Dutch the deputy should be from another cultural area (Nigerian, Phillipino, Italian etc.). With this idea the unity that could bring the projects to a success was achieved.
# 004	I agree with your recommendations as they will surely enhance and assure project delivery irrespective of where the project is to be executed. On training of project managers the training should include taking them through a certification examination like the PMP where elements of handling a multi-cultural team is tested with scenario based questions to produce better project managers. Team building cost indeed should be consciously built into project costs and implemented as you rightly pointed. Cost saving should not be at the expense of team building and events like boat cruise, team lunch or dinner, etc., should be regularly organised during the life of the project for project team members, families, and key stakeholders. True! Project managers should institute a conducive and professional work environment in collaboration with the organisation by setting up a structure that supports project processes rather than using the "functional organisation" processes which may generate conflicts and adverse impact on projects. A structure that aligns with and supports the project will have positive influence on project performance.
# 005	Dear Sir, See my comments below before reply your original mail As a project practitioner, the plausibility of the recommendations below will impact greatly on project delivery, because project success is built on team work with clear understanding of individual roles and cultural

	differences. Though, the culture alignment journey in NLNG as highlighted in the recommendations is a step in the right direction to educate staff on the impact of the company core values and 10 behaviors on project performance, and how this could further drives the company's organizational goals and objectives. Additionally, the culture as critical success factor in project management should be top down approach with the provision of required tools to measure the impact over time on project delivery and performance. Thanks Respectfully,
#006	Agree with the recommendations. However the findings will apply only to Middle and top level Project executives. The field or frontline Leadership need to have technical ability to identify, understand and manage the Technical risks in Project Management, which is crucial for the success of the Project as well. With reference to the recommendation that Project Managers are strongly advised to consider cultural factors like traditions, values, customs, and beliefs into consideration at the project planning stage to enhance the chances of project success, it is suggested that the culture as applicable for the geographical location of the project and that of majority of team members shall be looked into.
#007	I agreed with the findings of this research and the recommendations. Recent experiences in our organisation relates clearly to the need for Project Managers/Leaders to be more sensitive to issues of culture and diversity of integrated project teams, including those project team members providing services from different parts of the globe.

	Also, there is evidence that multinational organisations (ours inclusive) are beginning to recognise the impact of Project Managers approach/understanding of cultural influences because such organisations have initiated activities similar to your recommendations which includes specialist consultants coaching of Project Managers, 360degree feedback sessions within project teams, people surveys, team events, and other similar efforts. Focused implementation of the stated recommendations has potential to significantly improve project delivery in our organisation.
#008	Excellent works and good findings. Culture as you rightly emphasized is a Key Critical Success factor in all facet of life, coincidentally NLNG has also realise this as a key element we need to focus on if we are to ride on our successes, and this is a journey that has paid off looking at where we are now as a company, speaking with the same voice and have the same attitude and culture alignment. Today if we look at why Iraq War has not been considered a success story, we can definitely link the root to not fully understanding the cultural diversity at play in that country and how this risk could have been better manage in executing the war. In addition to your valid findings and recommendations, please see below my contributions for your consideration: Early identification of Cultural Diversity as a key Risk Category when developing the Risk Register and during Risk management workshop on our projects, as at today Risk focuses on the TECOP Category of risks (i.e. Technical, Economics, Commercial, Organizational and Political).

	This will help in identifying upfront during the early phases of the project, the right mitigations just as you have indicated in some of your recommendation and how this could be better implemented within the project, to ensure overall success of the project. Also apart from Project Managers that requires formal awareness of cultural diversity in constituting their project team, on boarding for project staff in a multi-cultural team, should also include culture awareness programme to allow for seamless integration with team members from other nationalities.

Appendix 6 Conceptual Model

Conceptual Models.docx