

**Insights into the Leadership Styles and Their Influence on  
Projects' Success - A Case Study within the Emirate of Abu  
Dhabi**

تأملات في أنماط القيادة وتأثيرها في إنجاز المشاريع  
دراسة حالة في إمارة أبو ظبي

by:

**Abdulla Mohammed Abdulla Matar Al Remeithi**

**A dissertation submitted in fulfilment  
of the requirements for the degree of  
MSC PROJECT MANAGEMENT**

at

**The British University in Dubai**

**Prof. Udechukwu Ojiako**  
**March 2017**

## DECLARATION

I warrant that the content of this research is the direct result of my own work and that any use made in it of published or unpublished copyright material falls within the limits permitted by international copyright conventions.

I understand that a copy of my research will be deposited in the University Library for permanent retention.

I hereby agree that the material mentioned above for which I am author and copyright holder may be copied and distributed by The British University in Dubai for the purposes of research, private study or education and that The British University in Dubai may recover from purchasers the costs incurred in such copying and distribution, where appropriate.

I understand that The British University in Dubai may make a digital copy available in the institutional repository.

I understand that I may apply to the University to retain the right to withhold or to restrict access to my thesis for a period which shall not normally exceed four calendar years from the congregation at which the degree is conferred, the length of the period to be specified in the application, together with the precise reasons for making that application.

---

Signature of the student

## **COPYRIGHT AND INFORMATION TO USERS**

The author whose copyright is declared on the title page of the work has granted to the British University in Dubai the right to lend his/her research work to users of its library and to make partial or single copies for educational and research use.

The author has also granted permission to the University to keep or make a digital copy for similar use and for the purpose of preservation of the work digitally.

Multiple copying of this work for scholarly purposes may be granted by either the author, the Registrar or the Dean of Education only.

Copying for financial gain shall only be allowed with the author's express permission.

Any use of this work in whole or in part shall respect the moral rights of the author to be acknowledged and to reflect in good faith and without detriment the meaning of the content, and the original authorship.

## **ABSTRACT**

The purposes of this dissertation were to analyze the most dominant leadership style(s) in the UAE, based on the Personality Assessment test results (15FQ+) of the Main Reference Group of 3113 Emirati Employees, and to compare it with the leadership styles of project leaders in one of the Abu Dhabi's Government Entities, based on these project leaders' personality assessment test results (15FQ+). It also tried to analyze the leadership styles that lead to highest project success rates within the Abu Dhabi Government Entity's completed projects.

The outcomes of this research have directly linked some leadership styles to what could make a good project leader in the Emirate of Abu Dhabi. The sample size used in this research, namely 3113 working Emiratis, which is a representative sample of the general population of working UAE nationals within the Emirate of Abu Dhabi, showed obvious patterns in the leadership styles that could be used as part of a prediction model to identify successful project managers. The patterns observed are the same for different groups like Male, Female, and different age groups like 20-30, 30-40, 40-50, and 50-60. Statistical analysis shows that the most dominant leadership styles within the UAE are the Directive and Delegative leadership styles.

It was also observed from the analysis of 54 projects data and the leadership styles of the project managers that project success rates have negative correlation with the Directive leadership style in the UAE.

## خلاصة

الغرض من هذه الأطروحة تحليل أنماط القيادة الأكثر وضوحا و هيمنة في دولة الإمارات العربية المتحدة، استنادا إلى نتائج اختبار تقييم الشخصية المسمى (+15FQ) للمجموعة المرجعية الرئيسية المكونة من 3113 موظف من الإمارات، ومقارنتها مع أنماط قيادة المشاريع للقيادة في إحدى الهيئات الحكومية في إمارة أبوظبي، من خلال نتائج اختبار تقييم الشخصية (+15FQ) لقيادة المشروع في هذه الهيئة، و قد حاولت هذه الأطروحة أيضا تحليل أساليب القيادة التي تؤدي إلى أعلى معدلات نجاح المشاريع من خلال دراسة نتائج المشاريع التي أنجزتها الهيئة الحكومية.

وقد أوضحت نتائج هذا البحث أن هناك ارتباطا مباشرا بين بعض الأنماط و الأساليب القيادية و معدلات نجاح المشاريع في إمارة أبوظبي، كما أن حجم العينة المستخدمة في هذا البحث، أي 3113 موظفا إماراتيا، وهي عينة تمثيلية لعامة المواطنين الإماراتيين العاملين في إمارة أبوظبي، أظهرت أنماطا واضحة في أساليب القيادة التي يمكن استخدامها كجزء من نموذج تنبؤي لتحديد مدى نجاح مديري مشاريع بناء على أنماط قيادتهم، كما أوضحت هذه الأطروحة أن أنماط القيادة هي نفسها للمجموعات المختلفة التي تم تحليل البيانات على أساسها مثل الذكور والإناث، ومجموعات عمرية مختلفة مثل 20-30، 30-40، 40-50، و 50-60، و أظهر التحليل الإحصائي للبيانات أن أساليب القيادة الأكثر انتشارا داخل دولة الإمارات العربية المتحدة هو أساليب القيادة التوجيهية و يليه أسلوب القيادة التفويضية و ظهر من خلال تحليل البيانات لـ 54 مشروعا و أساليب القيادة التي يتبعها مديرو هذه المشاريع أن معدلات نجاح المشاريع في دولة الإمارات العربية المتحدة ترتبط بعلاقة سلبية مع أسلوب القيادة التوجيهية.

## **ACKNOWLEDGEMENTS**

This dissertation was supported by the professors and faculty of the British University in Dubai. The author would like to express his sincere gratitude to everyone who has provided help and assistance throughout the entire process of developing this research, especially to Professor Udechukwu Ojiako for his support.

Furthermore, I would like to extend my thanks and appreciation to all of the research survey respondents that provided their time in completing the questionnaire.

Finally, I would like to express my appreciation to my family for their patience and continued encouragement throughout all the time that has been invested.

Abdulla Al Remeithi

# CONTENTS

Copyright and information to users .....	iii
Abstract.....	iv
خلاصة.....	v
Acknowledgements .....	vi
List of Tables.....	ix
List of Charts.....	x
List of Figures .....	x
1.0 Introduction.....	1
1.1 Background .....	1
1.2 The Government Entity under Study .....	3
1.3 Problem Statement and Approach.....	3
2.0 Literature Review.....	5
2.1 What is a Project?.....	5
2.2 What is project management? .....	6
2.3 The project manager.....	7
2.4 Project manager fit and the project success .....	8
2.5 The Project Leader .....	8
2.6 Personality Attributes and Leadership Styles.....	9
2.7 Cultural Effects on Leadership Styles.....	13
3.0 Research Objectives, Questions, and Approach .....	15
3.1 Objectives of this research .....	15
3.2 Research Questions .....	15
4.0 Research Methodology .....	16
4.1 Sample.....	17
4.2 Measures.....	17
4.3 Methods of Analysis.....	18
4.3.1 Descriptive Statistics .....	18
4.3.2 Correlations .....	18
4.3.3 T-tests .....	18
4.4 Research Limitations and Required Further Research.....	19

5.0	Results and Data Analysis .....	20
5.1	Leadership Styles from the Personality Assessment test (15FQ+) .....	20
5.1.1	The Whole Sampled Emirati Employees Analysis Results .....	20
5.1.2	The Sub-Sample of MALE Emiratis Analysis Results (Size = 1903).....	26
5.1.3	The Sub-Sample of Female Emiratis Analysis Results (Sample = 1210) .....	30
5.2.1	Age 20-30 years .....	36
5.2.2	Age 30-40 years .....	37
5.2.3	Age 40-50 Years .....	38
5.2.4	Age 50-60 years .....	40
5.3	Leadership Styles Effects on the Project Success Rate.....	42
6.0	Discussion .....	46
7.0	Conclusions and Recommendations .....	48
7.1	Conclusions .....	48
7.2	Recommendations .....	48
	References .....	51
	Appendices.....	58

## List of Tables

Table 1 - Sampled Members by Gender .....	20
Table 2 - Absolute Distribution of Employees by their Ranking scores of Types of Leadership	21
Table 3 - Percentage Distribution of Sampled Persons by their Ranking Scores of Styles of Leadership.....	22
Table 4 - Cumulated Absolute Distribution of sampled persons by their Ranking scores of Types of Leadership .....	23
Table 5 - ANOVA TABLE Based on Data in Table No. (3).....	25
Table 6 - Absolute Distribution of Sampled Males by their Ranking scores of Types of Leadership.....	26
Table 7 - Percentage Distribution of Sampled Males by their Ranking scores of Types of Leadership.....	27
Table 8 - Cumulated Percentage Distribution of Sampled Males by their Ranking Scores of Type of Leadership .....	29
Table 9 - ANOVA TABLE Based on Data in Table No. (6).....	30
Table 10 - Absolute Distribution of Sampled Females by their Ranking scores of Types of Leadership.....	31
Table 11 - Cumulated Absolute Distribution of Sampled Females by their Ranking Scores of Type of Leadership .....	32
Table 12 - ANOVA TABLE Based on Data in Table No. (10).....	33
Table 13 - Percentage Distribution of Sampled Females by their Ranking scores of Types of Leadership.....	34
Table 14 - Absolute Distribution of Sampled Persons by their Ranking Scores for Leadership Styles.....	35
Table 15 - Cumulated Absolute Distribution of Sampled members Aged 20-30 Years by their Ranking .....	36
Table 16 - Table 15 - Cumulated Absolute Distribution of Sampled members Aged 20-30 Years by their Ranking.....	37
Table 17 - Cumulated Percentage Distribution of Sampled members Aged 30-40 Years by their Ranking Scores of Type of Leadership.....	38

Table 18 - Cumulated Absolute Distribution of Sampled members Aged 40-50 Years by their Ranking Scores of Type of Leadership.....	39
Table 19 - Cumulated Percentage Distribution of Sampled members Aged 40-50 Years by their Ranking Scores of Type of Leadership.....	40
Table 20 - Cumulated Absolute Distribution of Sampled members Aged 50-60 Years by their Ranking.....	41
Table 21 - Cumulated Percentage Distribution of Sampled members Aged 50-60 Years by their Ranking Scores of Type of Leadership.....	42
Table 22 - Correlation between Project Success Rate and Different Leadership Styles .....	44
Table 23 - Descriptive Statistics between Project Success Rate and Leadership Styles .....	44
Table 24 - Variables Entered/Removed.....	45
Table 25 - Model Summary .....	45
Table 26 - NOVA <sup>a</sup> .....	46
Table 27 - Coefficients <sup>a</sup> .....	46

### **List of Charts**

Chart 1 - Absolute Distribution of Employees by their Ranking Scores on Types of Leadership .....	22
Chart 2 - Absolute Distribution of Sampled Males by their Ranking Scores on Types of Leadership .....	28
Chart 3 - Absolute Distribution of Sampled Females by their Ranking Scores on Types of Leadership ...	31

### **List of Figures**

Figure 1 - Absolute Distribution of Sampled Emirati employees by their Ranking scores of Type of Leadership .....	24
Figure 2 - Cumulated Percentage Distribution of Sampled Males by their Ranking Scores on Type of Leadership .....	29
Figure 3 - Cumulated Percentage Distribution of Sampled Females by their Ranking Scores of Type of Leadership .....	34

## **1.0 Introduction**

### **1.1 Background**

The concept of “project” is not a new one but is as old as human civilization. The Seven Wonders of the World are examples of mega projects that pushed civilizations forward, and are outstanding monuments of what dedicated leadership and project management could achieve (Pellegrinelli, 2011). However, efforts to properly define projects, study how they can be managed successfully, and analyze the effects of leadership upon them can achieve, only transcended in the past 50 years into a formal management discipline (Ibid). Academic, professional and institutional bodies put forth a lot of effort into understanding the nature of projects, how to manage them effectively and efficiently, and how to ensure they achieve their objectives (PMI, 2008a; APMP, 2006). The Project Management Institute (PMI) and UK’s Association of Project Management (APM) for instance, are promoting bodies of knowledge and are providing accreditation to professionalize project management (Ibid).

Many researchers have concluded that proper project management and good leadership can be significant factors and can achieve great successes and realizations in the projects (Duncan & Gorsha, 1983; Munns & Bjeirmi, 1996; Muller & Turner, 2007; Anantatmula, 2010). This is why Organizations, and even countries, working on projects, normally invest on project management and leadership, to be assured of a concrete return from their investment, both on projects and on project management (Thomas and Mullaly, 2007). This is also why the project manager’s career path, compared to a functional manager’s, is becoming more independent, and different models have been developed to ensure that project managers stay abreast with the required knowledge and experience, skills, and training (El-Sabaa, 2001; Holzle, 2010).

Based on the guidance and orders from the Executive Council, most of the government organizations within the Emirate of Abu Dhabi are operating as project-based organizations, to facilitate the monitoring, analysis and improvement of these government-sponsored projects

(Government Structure and System, 2011). It is important, therefore, to identify the means to increase the levels of projects' success (Ibid), and the Government of Abu Dhabi, therefore, has identified the importance of developing leadership and provided many leadership training programs to develop new leaders like Abu Dhabi Leadership Graduate Public Service Fellowship through the at the Harvard Kennedy School (Abu Dhabi Leadership Graduate Public Service Fellowship, 2013) and other Abu Dhabi sponsored trainings (AD Training and Personal Development, 2017).

Understanding the link between preferred leadership styles and their effects on projects may provide the necessary input to increased project success rates within the UAE, as numerous studies have confirmed that there are preferred leadership styles within different cultures and countries (Bass, 1997; Den-Hartog et al., 1999; Ardichvili, 2001; Ardichvili & Kuchinke, 2002; Catana & Pucko, 2012; Ayedh, Othman & Ahed, 2013; Ertureten et al., 2013). Therefore, understanding the culturally preferred leadership style in the UAE is very important, not only to contribute to more successful projects, but also to develop more comprehensive leadership training programs that can add value.

Few researches have been conducted within the UAE to investigate the effects of how leadership and the different leadership styles affect the outcomes of project, especially in the government sector like researches on transformational leadership and service quality in UAE hospitals (Jabnoun & Rasasi, 2005), the study on leadership and teams in IT projects in the United Arab Emirates (Randeree & Ninan, 2011) and the study on the impact of transformational leadership on team performance in UAE (Rao & Kareem, 2015). However, and to the best of the researcher's knowledge, no big scale analyses of leadership styles in the UAE were conducted, especially studies that are based on professional personality assessments and well-established personality tests, to establish a baseline for leadership, and then relate that to the project success rates.

The aim of this research is twofold. It will fill the gap in literature and further contribute to the body of knowledge of this very important topic as it will try to analyze patterns of leadership styles of working Emiratis, and will try to provide a holistic understanding of how project success rates may be influenced by the identified leadership styles. It will also support the researcher's Employer, a Government Entity, through analyzing a set of projects and the

leadership styles of the project leaders to identify actions to improve on the outcomes of projects and their success rates.

## **1.2 The Government Entity under Study**

The projects analyzed within this study and in this research are projects that were carried out by one of the Government Entities in Abu Dhabi. This Government Entity is one of the biggest Government Entities, managing tens of environmental and regulatory projects annually. This Government Entity is responsible for the development of policies and regulations, assessment and permitting of different industrial projects and mega construction projects within Abu Dhabi Emirate.

As part of its directives, this Government Entity has diverse activities and services including but not limited to drafting environmental laws and regulations for the Emirate, developing environmental standard operating procedures and policies as well as the technical guidelines and standard limits within Abu Dhabi, issuing project and personnel permits on all environmental related activities, monitoring compliance of all industrial and construction projects, conducting inspections and audits on all environmental services, initiating environmental and sustainability related projects and cooperating with other government entities to ensure integrated within the Emirate's Economic Vision 2030 (General Secretariat of the Executive Council, 2008). This led to its development into a project-based organization, with focus on project leadership and project success as key attributes to ensure the delivery of its mandates.

The stress on the importance of project leadership is clear through the different mechanisms and processes that are in place to ensure appropriate management, monitoring and assessment of each project, to improve the effectiveness of this Government Entity.

## **1.3 Problem Statement and Approach**

The Government Entity under study manages and operates a lot of environmental related projects in the Emirate of Abu Dhabi. It currently functions as a project-based organization, and due to the enormous number of concurrent projects that it carries on annually, it encounters various types of problems within its projects, from time delays, to high employee turnover rates and low

performance levels. Based on the information from PMOs within the Government Entity under study, various environmental and regulatory projects do not achieve the required results.

This puts a lot of stress and pressure on management to ensure that project leaders complete their projects at the highest success rate possible.

From the analysis of the data collected from various projects over the past three years, the researcher found that some project leaders achieved higher project success rates than others. One of the most common attributes of project management relates to the leadership style of the project leader. Thus, this research aims at trying to evaluate to what extent the project manager's leadership style affect the success of projects they manage in this Government Entity. Due to the lack of literature on project leadership within the UAE, this study will be based on the leadership styles results extracted from an internationally recognized and well-established Personality Assessment Test (15FQ+) (Psytech International, 2016), which will allow to first assess trends of leadership styles within the UAE, and then compare these results with the leadership styles results of the Government Agency's project leaders to identify any correlations between the two. The study will then try to analyze the project success rates of 54 projects completed by the Government Agency's project leaders and try to identify if there are any direct correlations between the leadership styles and the outcomes of projects.

15FQ+ was chosen as a basis of leadership style identification is the availability of a sufficient database on UAE employee assessments conducted over the past few years. The test is one of the accepted psychometric tests done during the hiring process in many government entities in the UAE.

This research was deemed necessary not only to provide support to the Government Entity to achieve higher project success rates through identifying the most appropriate leadership styles to be sought after when choosing project leaders, but also to fill the gap in literature by identifying dominant leadership styles within the UAE and analyzing the possible empirical relationship between the leadership styles of the project leader and the measured project success rate. This will also allow the Abu Dhabi Government to design approaches to develop leadership qualities within their workforce in order to achieve better project results and a big part of the budgets in the Government Entities are allocated to developing new leaders, who are able to ensure the delivery of the Government's Mandates.

## **2.0 Literature Review**

A comprehensive literature review was conducted to understand what project leadership is and how personal attributes contribute to the leadership style, what the dominant leadership styles in the UAE are, and ultimately how leadership styles influence the outcomes of projects and directly affect the project success rate within the context of the UAE.

### **2.1 What is a Project?**

The construction of a new building, the development of computer software, the expansion of sales into new markets, the production of a new product, or a planned change in an organization are all examples of projects. Therefore, projects can vary in scope, size, cost, complexity, duration, or importance to stakeholders. There are different definitions for a project, but most of them highlight the temporal nature of the project to create a unique product, service or result. A project is defined in many ways. “[a] project is a temporary endeavor undertaken to reach some objectives and to deliver some results” (Stal-Le & Marle, 2006). The most accepted and agreed upon practitioners’ definition is the PMI Body of Knowledge definition of a project as “a temporary endeavor undertaken to create a unique product, service, or result. The temporary nature of projects indicates a definite beginning and end. The end is reached when the project’s objectives have been achieved or when the project is terminated because its objectives will not or cannot be met, or when the need for the project no longer exists” (PMI, 2008a, p. 5).

In many organizations, projects and project management have already become an ingrained part of the organizational structure and the term “project” is applied to “the management of whole product life cycles comprising multiple decades to small, short duration units of work that many would consider activities or tasks” (Pellegrinelli, 2011).

Some organizations even evolved around a project-based culture. These project-based organizations function differently from traditional organizations (Sydow et. al., 2004). The

autonomy requirements imposed by the project-based structure on project participants, compared to their embeddedness within organizational and inter-organizational settings in a traditional organizational setting, demands higher levels of integration of project activities within organizational processes (Sydow et. al., 2004). Success within these project-based organizations is therefore dependent upon the decentralization of resources, the high level of coordination, and project managers' abilities to lead (O'Dell and Grayson, 1998). It is also critical to store the knowledge gained from each project and transfer it throughout the organization to ensure improvements over time (Sydow et. al., 2004).

## **2.2 What is project management?**

Project management plays a significant role in the success or failure of a project, as the majority of project failure reasons revolve around the lack of project management, and therefore, it is crucial for any project manager to understand fully what it means to manage a project (Kerzner, 2013). Project management covers all methods and tools to bring the project from start to finish and all the steps taken to achieve objectives and deliver the intended results from the project. Moreover, project management also includes the application of skills, knowledge, resources, and techniques to specific project tasks to achieve its goals or requirements. The PMI's "A Guide to the Project Management Body of Knowledge" identifies the project management main processes as initiating, planning, executing, monitoring and controlling, and closing (Project Management Institute, 2008b, p. 6).

For decades, project management used to be applied informally, but in the last 50 years, it started to develop and emerged as an independent discipline as a consequence to the great demand for its professionals. Consequently, many professional bodies deal with this profession and professionalize its practices have also been emerged and rapidly grown in the mid-20th century, such as the American Project Management Institution (PMI) and the UK Association For Project Management (APM) (Pellegrinelli, 2011).

The traditional views of project management have been greatly challenged by the rapid development of new technologies, globalization and economic integration, global sourcing, among other factors. This requires major changes in project management models and resulted in the rethinking of project management as a whole (Svejvig & Andersen, 2015). With the

emergence of the modern project management as a tool for managing all types of change within all types of organization, researchers now describe its potential to manage a variety of activities (Bryde, 2003). However, the literature itself is still mostly instilled with classical standpoints, which are strongly theoretical. This highlights the importance of a lively and critical review of project management among academics and professionals together (Soderlund, 2004).

Project management is an applied discipline; it should be based on realistic approaches that represent reality and its tools and techniques should be practical, which would allow for a better understanding and anticipation of the project conditions and allow for better decision making (Pettersen, 1991).

### **2.3 The project manager**

Project managers are ultimately responsible for defining, planning, tracking and managing their projects. Their responsibilities include identifying key resources and providing the direction required for meeting the project objectives within schedules, ensuring appropriate management and customer/supplier involvement throughout the life of the project (PMI, 2008a).

Project management literature is full of studies and researches that try to identify the characteristics associated with good project managers, which provide more confidence in the ability of project managers to succeed in their projects (Medina and Francis, 2015; Ahadzie et al, 2014; Ahsan and Khan, 2013; Anderson, 1992). The most important skills and competencies the literature associates with good project managers include job knowledge, technical knowledge and experience, communication, understanding of structure and work organization, and stress and time management skills. They also focus on soft skills and people management skills. However, some studies show differences in the competencies and skills required between different countries and industries (Ahsan and Khan, 2013).

The positive relationships among good project managers, positive project performance and project success provide support that formal project management practices can improve project performance, which justifies “the efforts of professional organizations promoting project management standards, enterprises adopting the standards, and individual practitioners seeking to improve their own skills and knowledge through study and certification” (Papke-Shields et al, 2010).

Experienced project management professionals with evident track records of successful projects are hard to find. Many organizations design and plan the career path of their project managers in relation to other career paths through the training, developing, engaging, and rewarding their project managers, so that project managers are encouraged to follow careers in project management (Holzle, 2010).

## **2.4 Project manager fit and the project success**

Research indicates that projects managed by managers with personality traits that match the project's type are normally more successful than projects managed by managers with personality traits that do not match their project's type, especially with regards to their impact on the customers, their effect on the project team, and the benefit to their organizations (Malach-Pines et. al, 2009). Further research reveals that it could be that the project manager – project fit is influenced by the top management choices, which are based on the fit they anticipate between the project and their perceived understanding about the personality of the project manager (Malach-Pines et. al, 2009).

The project manager – project fit also includes project managers' switching their management styles from traditional to modern depending on the situation or project requirements (Wilemon & Cicero, 1970).

Project manager - project fit is a very important aspect to consider when choosing project managers, or for managers to choose their projects. This, however, on its own does not ultimately ensure project success. Many other factors contribute to project success, including, but not limited to, technical knowledge, communication, synchronization of the project team and support of top managements.

## **2.5 The Project Leader**

The Project Management Institute (PMI), as well as many other project management and academic bodies have conducted many studies and researches to establish the importance of the project manager's leadership style in ensuring the success of the project. Turner and Miller (2005) found that the impact of the project manager was largely ignored in literature on project

success factors. They also found that the relationship between leadership style and nature of the projects and how both relate to project success can only be answered through direct measurement (Turner & Muller, 2005).

The links between project management and leadership skills of the project manager since then started to gain momentum and numerous researches are found in project management literature (Turner & Muller, 2005; Anantatmula, 2010; Lloyd-Walker & Walker, 2011). These researches point out that clear definition of roles within projects is the most detrimental step for successfully managed and led projects. This step will establish solid grounds for the project and make clear the expectations, and employ steady processes. The next step would be to establish trust in managing the project objectives, where project leadership plays a vital role in.

Research also identified that the project leadership role in establishing confidence and proper communications, through technology tools, team development, knowledge sharing and motivation can lead to higher levels of project success (Anantatmula, 2010).

Project managers, therefore, need to develop their leadership skills and develop different leadership styles depending on the type of projects they lead. Managers also need to understand their organizational environments and individuals and develop their own pool of human resources with suitable styles for the projects they lead, and choose managers from that pool with appropriate styles for the projects at hand (Muller & Turner, 2007).

The analysis of the impact of a project manager's leadership styles over the project life-cycle shows that the project manager should exhibit different styles during different stages of the project life-cycle. The total quality of the project is affected by many project inputs. Project managers' quality to lead is one of these factors because they make things happen in projects (Anderson, 1992).

When project managers within the organization are perceived to lack the necessary managerial and leadership skills, organizations can use a number of strategies to improve their capabilities and competence, such as training, mentoring, psychometric analysis of potential project managers, and can also implement early personality assessments to classify their capabilities and leadership skills to prevent such lack of.

## **2.6 Personality Attributes and Leadership Styles**

Project leadership is a complex area to analyze. Looking at different competencies used by project leaders in projects, like conscientiousness, sensitivity and the ability to communicate, Muller and Turner (2010) found significant correlation between them and project success. They even found that strategic perspective was not as desirable as would be thought in project managers.

Muller and Turner looked at different types of projects and found the following:

- (a) Medium complexity projects required emotional resilience and communication. On high complexity projects sensitivity is important.
- (b) On repositioning projects requires motivation, whereas renewal projects requires more self-awareness and communication.
- (c) Fixed price contracts require sensitivity and communication, whereas re-measurement contracts require influence and communication. Transformational style leadership seems to work better for these projects.
- (d) Communication and conscientiousness are important during the life-cycle of the project.

From the above, it can be concluded that different projects and different stages within a project each require different leadership attributes in order for the project to succeed. Project leaders need to develop their leadership styles and competencies and learn from each project.

Lowe et al. (1996) and Steyrer (2008) both independently suggested that leadership is the main component that makes everything works together smoothly towards a united objective and that without clear leadership, all other business resources are incapable. This is because successful business leaders are attentive and can identify their employees concerns, and are on top of new changes to establish effective work environments (Peterson, 1997). Organizations without leadership are like an army without leaders. Labor force needs a skilled leadership and experienced workers to provide guidance and a united instruction for all workers to follow. Leaders are valuable in deploying and communicating new strategic, as well as dealing with and influencing employees to achieve organizational objectives (House, 1995).

All effective businesses and organizations need dynamic leaders. Effective and well-trained leaders are substantial to provide agreed upon objective of the organization and that's why outstanding leadership proficiencies training is necessary to ensure that leaders are on the right road (Zagoršek, 2004). However, Hofstede (2002) has already suggested that almost all leadership training programs are unable to fulfill their goals, which is to develop better

leaders. Ineffective training is the reason of many unsuccessful efforts in leadership development. In addition, the conventional idea is that a simple training course will solve leadership issues, it seldom does. In fact development and training are two very different concepts (Hofstede, 2002).

Den Hartog et al. (2002) indicated that different styles of leadership exist among different societies and that characteristics of leaders vary among cultures. They also proposed that different cultural psychological and social studies show that many cultures do not share the same assumptions with regards to leadership. Klein and House (1995) noted that the most common theories of leadership in literature were North American in character and were based on the assumption of selfhood in contrast to collective styles, intellectually rather than solitary, self-indulgent rather than selflessness. They also found that these theories were based on centralization and democratic management.

Business managers' styles of leadership are very important in formulating enterprise culture (Bass et al. 1995). Lindgreen et al. (2009) indicated that the different styles of leaders produce different results with the same resources. Some are more suited to command their staff and give them directions, while others recognize a more collaborative method and support their staff instead of directing them. Lang et al. (2010) identified that the managers in charge are the independent component affecting the organizational culture. Leaders with a dominating and steering style devise ideas on their own and instruct actions to their workers. Cooperating leaders rise up with ideas with the support of their subordinates at all levels in the enterprise, strengthening employees' abilities to raise organizational performance. Leaders using delegative style delegate almost most productive responsibilities to their subordinates and concentrate on providing their subordinates with everything they need to improve in their careers.

Paris et al. (2009) concluded that there are advantages and disadvantages within each leadership style. The suitable method of leadership for the project or organization is determined by the objectives and culture of that organization enterprise. Some organizations can also support various leadership styles, depending on the necessary responsibilities and needs. For example, Kuchinke (1999) indicated that leaders using laissez-faire method of leadership will insufficiently manage workers and will miss to provide constant returns to those under their responsibility. Under the laissez-faire method of leadership, organizations only succeed if they originally possess highly trained and experienced workers who need little to no supervision.

However, not all workers own those characteristics. The productivity of workers needing supervision is blocked when using this method of leadership. No supervision or efforts are needed from directors when using the laissez-faire method, which can result in poor production, shortage of control and will increase costs.

Without the cooperation of others, the autocratic leadership method endures directors to take decisions alone. Directors hold total authority and enforce their will on workers. No one defies the decisions of autocratic leaders (Northhouse, 1997). The autocratic leadership method is prevailing in some countries such as North Korea and Cuba. This method of leadership is benefiting workers needing close supervision. Creative workers who have group responsibilities hate this style of leadership.

The participative leadership method values the inputs of peers and members of the team, and often times called the democratic leadership method and the final decision is the responsibility of the participative leader (Thoms and Greenberger, 1998). Due to the contribution of workers in decision-making and in giving them the feeling that their opinions matter, this method of leadership raises worker morale. This method helps workers admit to changes easily because they participate in the change process within their organization. This style faces challenges when organizations need to take a decision in a short period of time.

In their book “Bass and Stogdill’s Handbook of Leadership: Theory, Research, and Managerial Applications”, Bass (1990) identified two main styles of leadership, namely transactional and transformational. He indicated that managers who are using the transactional leadership method give their subordinates certain responsibilities to implement and provide punishments or rewards to the members of the team depending on the executed results. Pre-determined objectives are set by the managers and the subordinates together, and subordinates agree to abide by the rules of the organization and directions given to them by the managers to achieve those objectives. The manager owns the power to monitor and assess the results and correct or train workers when they fail to meet these agreed upon objectives. Subordinates will receive bonuses and other rewards when they achieve the objectives of the organization. Within the transactional leadership method, the organization pays the members of the team in return for their work and submission on a short-term responsibility. The director has a right to "punish" the members of the team if their performance doesn't fulfill the acceptable standards. The method of transactional leadership exists in many situations, and it does provide some benefits and has clearly defined

responsibilities and tasks for everyone. Workers, who are stimulated by external rewards, including bonuses and increments, often succeed with this leadership style because this method judges the members of the team on achievement.

Bass (1990) also indicated that transformational leadership method depends on high standards of communication from management to achieve targets. Managers with the transformational leadership style tend to encourage their workers and promote efficiency and productivity through high vision and communication. Triandis (1995) concluded this method of leadership needs the partnership of management and workers to meet targets. Directors concentrate on the complete picture within an organization and envoy smaller responsibilities to the team to achieve targets. This method is based on an idea that the members of the team accept to obey the director to achieve the required results.

Klein and House (1995) showed that there is an increasing awareness for the need to understand the leadership methods in different societies. Bass (1997) suggested that there is a common understanding of the transformational and transactional leadership patterns, and presented supporting proof gathered from organizations in education, military, manufacturing and government, as well as from different sector in various continents. Bass indicated also that the same phenomena can be observed in a large part of cultures and organizations, and exceptions can be understood as a result of unusual features of these cultures and organizations.

## **2.7 Cultural Effects on Leadership Styles**

When studying the cultural effects on leadership styles, numerous studies and researches were conducted. For instance, Elenkov (1998) suggested that the managerial culture in Russia is described by a strong collective mentality and high power range; Russian workers expect a method of an autocratic leadership, which is balanced by the support offered to their subordinates' households. Also, Jung et al. (1995) indicated that the transformational leadership style is more effective in collective societies than in individualistic societies, being reinforce by the obedience characteristics of collective societies and accept for authority. They also concluded that that societies and cultures that are characterized by avoiding high uncertainty may need more transactional-based leadership, while cultures with lower uncertainly avoidance may accommodate more innovative and transformational behavior.

Den-Hartog et al. (1999) in their study covered sixty two different societies, show that although cross-cultural study confirms that various cultural groups are likely to have various concepts of what leadership should entail, certain characteristics related with transformational leadership are commonly adopted as supporting the prominent leadership, and some other leadership characteristics are widely seen as obstructions to prominent leadership.

Ardichvili (2001) compared the different leadership styles of managers and employees within four post-communist countries and found that there are significant differences between managers of different cultures as well as between managers and non-managerial employees of the same cultural background when it comes to work-related values. Ardichvili and Kuchinke (2002) conducted another study and identified significant differences between leadership styles and cultural values of managers and subordinates of each of the six countries of Germany, US and four former USSR countries and that the highest scores across all six countries were observed by contingent reward and inspirational motivation leadership styles.

Furthermore, Packman et al. (2005) identified that there are significant differences between personality traits in their study of three ethnic groups within the same country of New Zealand and between three different countries New Zealand, Australia and South Africa. These differences can be predictive of the job performance of each individual and basis of employee selection.

Finally, Catana and Pucko (2012) concluded in their study of future managers in both Romania and Slovenia that cultural practices of managers of the same background and environment are perceived in the same manner and that value-based and team-oriented leadership styles are appreciated the most while self-centered and conflict inducer leadership style the least.

The above studies show that leadership styles are influenced by the cultures they are incubated in and that clear differences in leadership styles can be observed even within countries that may seem to have cultural similarities.

### **3.0 Research Objectives, Questions, and Approach**

#### **3.1 Objectives of this research**

Objectives of the current research are as follows:

1. To analyze the leadership styles in the UAE and identify the most dominant leadership style(s) of the UAE employees based on the internationally recognized personality test AFQ+.
2. To investigate any links between the project performance success and leadership styles
3. To understand the necessary training and educational requirements to develop leadership training programs to yield the maximum success rate in projects within the UAE.

The importance of this research is that it can contribute to better understanding about the different leadership styles within the UAE and the specific relationship between project manager's leadership style and its implications on their projects' success rates.

Thus, this study contributes to the management literature in general and UAE management and leadership understanding specifically, as it explores leadership styles and reports on empirical evidences that could explain the relationship between the project managers' leadership styles and their projects' success. Also, the results of the study can contribute to the development of better understanding on how to achieve higher project success rates. They can also provide justifications for improving training programs for project managers and leaders, and they serve as a base for further research studies.

#### **3.2 Research Questions**

The main research questions in this study is to examine:

1. What are the most dominant leadership style(s) that the Emirati Managers and employees adapt when they work in the vicinity of Project Management/Leadership?

2. What are the leadership styles of project leaders in the Government Entity and do they relate to the most prominent and culturally influenced?
3. What are the leadership styles that lead to highest project success rates within the Government Entity completed projects?

#### **4.0 Research Methodology**

This aim of this research is to identify the most dominant leadership styles within the UAE through the use of the results of the Personality Assessment test (15FQ+), which is an internationally recognized personality assessment test (15FQ+) (Psytech International, 2016).

The 15FQ+ Test measures the fifteen core personality factors that were identified first by Raymond B. Cattell published his influential book ‘The Description and Measurement of Personality published in 1946 (Psytech International, 2016). Appendix 1 includes Fast Facts about the 15FQ+ Personality Assessment Test. Appendix 2 provides definitions for the different 15FQ+ Leadership Styles.

The 15FQ+ is used as the psychometric analysis test by many government entities and agencies within the UAE, whether during the hiring process of new employees, or for the re-evaluation of existing employees.

Through collaboration with Psytech international, raw data for the results of the 15FQ+ were accessible for research. The raw data in this pool contained the results of **3113** working UAE Nationals, at different organizational levels and in different age groups. These results were analyzed and evaluated as the **Main Group**.

The same 15FQ+ personality assessment was also conducted a number of Project Leaders within the Government Entity, and the results were analyzed and evaluated as the **small group**. The 15FQ+ personality assessments were conducted based on the online version of the test, and were sent to the Project Managers in March 2016, and the test was closed in April 2016. A total of number of respondents was 10 Project Leaders.

Finally, data from the Project Management Office (PMO) in the Government Entity about 54 projects were analyzed and evaluated for project performance and project success rates. These projects were also completed within the last three years managed by the project leaders that were evaluated as the **small group**. The collected data were statistically analyzed to identify patterns and arrive at results.

#### **4.1 Sample**

The raw data for the Main Group used for the purposes of this research were acquired through a non-disclosure agreement with Psytech International that has conducted more than 30,000 personality assessments within the UAE, 3113 of which were working UAE Nationals, and the rest ranged from non UAE nationals and undergraduates. The raw data included the leadership styles results of 3113 Emirati employees from various ages and from both genders. The rest of the data was collected from the Government Entity's Project Management Office (PMO) about 54 projects completed within the past 3 years. The final data set was acquired through conducting the 15FQ+ Personality Assessment Test to the 10 Project Leaders of the 54 projects that were analyzed.

#### **4.2 Measures**

The 15FQ+ provides a comprehensive personality assessment based on 16 personality attributes (Fast Facts about 15FQ+ and the definitions of the different leadership styles that it identifies in included in Appendix 1 and 2 respectively). The personality test includes 200 questions and the results of the test provide information on the leadership style of the respondent. The test identifies 5 different types of leadership styles, namely Directive, Delegative, Participative, Consultative, and Negotiative. The results of each leadership style is calculated from 0-10, 0 being the least and 10 being the maximum. Results of any leadership style above 5.1 mean that the respondent has tendency to use that leadership style.

With regards to the project performance and project success rates, the PMO of the Government Entity provided the project success rate scores of 54 projects, which are assessed based on a project assessment procedure.

### **4.3 Methods of Analysis**

Different statistical analyses methods were used to analyze the data.

#### **4.3.1 Descriptive Statistics**

Data acquired about the leadership styles of 3113 Emirati employees as well as 18 Emirati project leaders were analyzed using the statistical software (SPSS version 22). The purpose of this analysis is to determine the leadership style most dominant within the UAE and compare that with the leadership styles within the Government Entity.

#### **4.3.2 Correlations**

The correlations between the data were used to further define the relationship between the independent and dependent variables. Any correlation is determined in part by the variations in variables of a given sample, so any found correlation would be a property of that specific sample. In this study, the data used was measured using the 15FQ+ personality assessment of the test subjects' leadership styles. Then different norm groups were taken (gender and age groups) to understand the correlations of the data.

#### **4.3.3 T-tests**

T-tests were also used to analyze the data and confirm results. The use of the p-value that is calculated using the t-test is going to be used to measure the consistency in the data and to check if the null hypothesis can be accepted or rejected (Darlington and Hayes, 2017).

#### **4.4 Research Limitations and Required Further Research**

This research has a number of limitations, and further studies are required to validate the results arrived at in this research.

First, the scale of analysis in this research was limited to one Government Entity, which limited the scope of projects to environmental projects. Other types of projects, like construction, industrial, and IT projects may furnish different results. So, a bigger scale study is needed to cover other project types and other Government Entities and Agencies.

Second, the 15FQ+ assessment results, even though validated in the Western World, may have limited validation in the rest of the world, and particularly in this area due to language barriers, especially in personality assessments where the results are totally based on the understanding of the subjects to the questions. Any misunderstood questions by the assessment subjects may skew the results. However, this limitation may have been offset by the size of the sample and the consistency of the results.

Third, most Government Entities are directly funded by the Government, which may have affected the budgets allowed for some of the analyzed projects, and strained project management related activities, like project adjustments, resources and training.

Fourth, this research was based on the project leader's leadership style being one of the major factors in determining the success rate of a project. This premise was validated through previous studies as shown in the literature review, however, many other factors may have affected the rate of success of the projects. The effect of this limitation was reduced by utilizing information of a number of projects for the same project leader, so the results have been averaged and the skewing minimized. However, future studies shall consider normalizing other factors to establish more accurate baselines for a better assessment.

Finally, and most importantly, the assessment of the projects were based on the Government Entity's PMO criteria, which were not validated within this research. This may have skewed the results in any manner and may have given unreliable results. Further researches shall consider stricter project success rate analysis and evaluation criteria, on larger numbers of projects from different Government Entities and Disciplines.

## 5.0 Results and Data Analysis

The collected data for the purposes of this research consists of two sets of data:

1. The first data set shows the 15FQ+ leadership results of 3113 Emirati employees categorized by gender and age, and
2. The second data set shows projects' final scores (project success rates) of 54 projects from the Government Agencies

The two data sets have been classified and prepared for analysis using SPSS package. The analysis is discussed below

### 5.1 Leadership Styles from the Personality Assessment test (15FQ+)

First, a descriptive statistical analysis was carried out on the 15FQ+ results of 3113 Emirati employees. In the second step, significant differences in mean values for the ranking were investigated. Finally, significant differences in mean values for different leadership styles were identified.

#### 5.1.1 The Whole Sampled Emirati Employees Analysis Results

Table No. (1) shows the sampled members by gender. The sample size was 3113 Emirati Employees, 1903 males and 1210 females. Males constituted 61.1 percent and females constitute 38.9 percent.

**Table No. (1)**  
**Sampled Members by Gender**

<b>Gender</b>	<b>Number</b>	<b>Percentage</b>
Male	1903	61.1%
Female	1210	38.9%
<b>Total</b>	<b>3113</b>	<b>100%</b>

**Table 1 - Sampled Members by Gender**

Table No. (2) presents an absolute distribution of sampled members according to their 15FQ+ scores, ranging between 0 and 10, 0 means the least preferable value and 10 represents the most

preferable value, to the types of leadership style (including 5 leadership styles, namely, Directive, Delegative, Participative, Consultative, and Negotiative). Out of the total sample members, 57 members gave the Directive leadership style a score between 9.1 and 10 which means that they preferred this style of leadership, 146 gave the Declarative leader the same scores. The sample members who gave 9.1-10 scores to the rest of leadership styles ranged between 31 for participative leader and 95 for Consultative leader style.

Table No. (2) also shows the highest scores for the distribution for each leadership style highlighted in yellow. These results clearly indicate that the Emirati employees, who completed the 15FQ+, had the highest distribution in Delegative and Directive leadership styles in the 5.1-10 scores, meaning that within each score band (5.1-6, 6.1-7, 7.1-8, 8.1-9, 9.1-10), most Emirati employees preferred these two leadership styles within their vicinity as project leaders.

**Table No. (2)**

Type of Leadership	Scores										Total
	0-1	1.1-2	2.1-3	3.1-4	4.1-5	5.1-6	6.1-7	7.1-8	8.1-9	9.1-10	
Directive leader	30	55	161	311	393	786	634	546	140	57	3113
Declarative leader	41	81	165	309	517	548	506	433	367	146	3113
Participative leader	34	87	203	384	746	689	506	288	145	31	3113
Consultative leader	138	103	259	288	618	457	429	520	206	95	3113
Negotiative leader	89	239	291	376	482	594	501	309	146	86	3113
<b>Totals</b>	332	565	1079	1668	2756	3074	2576	2096	1004	415	

**Table 2 - Absolute Distribution of Employees by their Ranking scores of Types of Leadership**

Table No. (3) presents the percentage distribution of sampled persons members by their ranking scores of styles of leadership. The data shows significant in the percentages of sampled persons according to their ranking scores of the five different styles of leadership. The percentages of

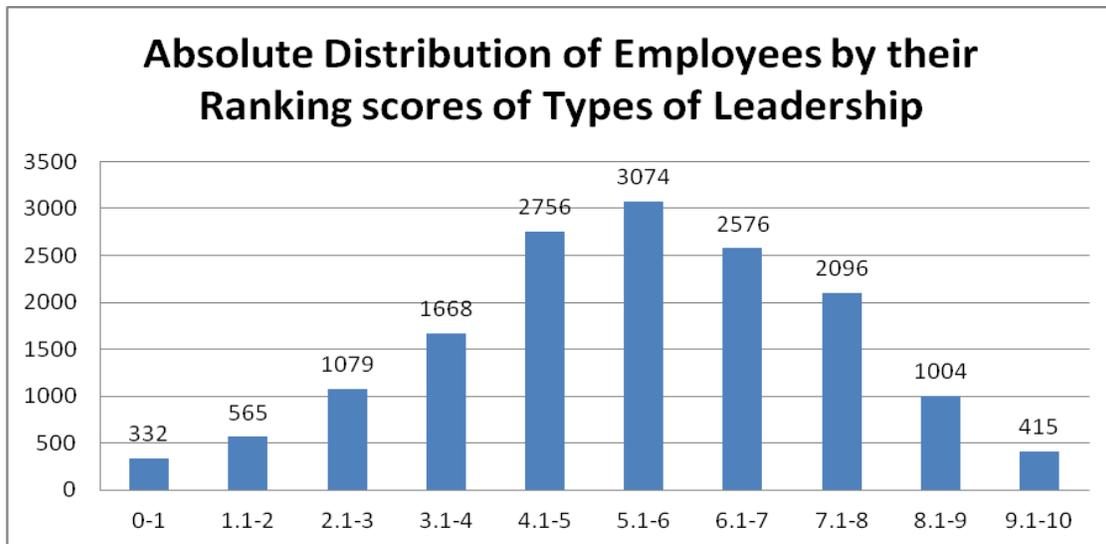
sampled persons ranged between 1 percent of members who gave 0-1 scores to the Directive leader style and 25.2 percent who gave 5.1-6 scores to the same leadership style.

**Table No. (3)**

Type of Leadership	Scores Bands										Total
	0-1	1.1-2	2.1-3	3.1-4	4.1-5	5.1-6	6.1-7	7.1-8	8.1-9	9.1-10	
<b>Directive leader</b>	1.0	1.8	5.2	10.0	12.6	25.2	20.4	17.5	4.5	1.8	100
<b>Delegative leader</b>	1.3	2.6	5.3	9.9	16.6	17.6	16.3	13.9	11.8	4.7	100
<b>Participative leader</b>	1.1	2.8	6.5	12.3	24.0	22.1	16.3	9.3	4.7	1.0	100
<b>Consultative leader</b>	4.4	3.3	8.3	9.3	19.9	14.7	13.8	16.7	6.6	3.1	100
<b>Negotiative leader</b>	2.9	7.7	9.3	12.1	15.5	19.1	16.1	9.9	4.7	2.8	100

**Table 3 - Percentage Distribution of Sampled Persons by their Ranking Scores of Styles of Leadership**

**Chart No. (1)**



**Chart 1 - Absolute Distribution of Employees by their Ranking Scores on Types of Leadership**

Chart No. (1) shows the same distribution with totals for each score band. The chart shows that there are clear leadership tendencies within the Emirati employees as the higher scores were skewed towards the higher scoring bands (5.1-10).

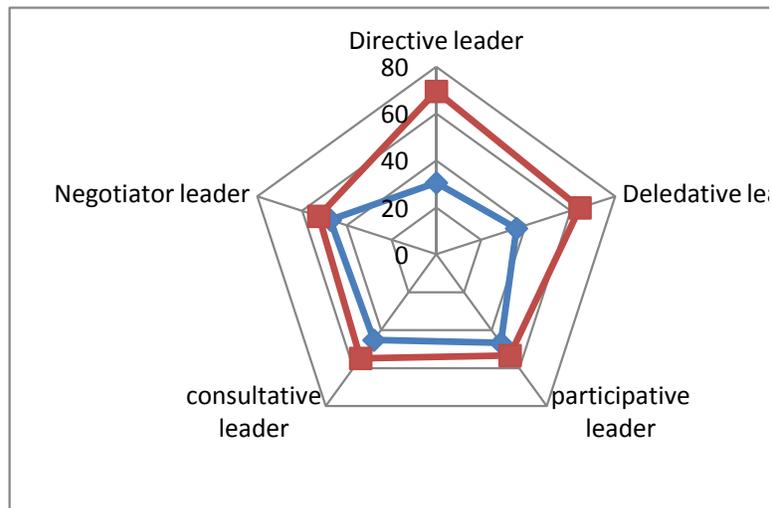
As well, Table No. (3) shows that the results of leadership styles are focused around the high leadership score bands (5.1-10) as these bands show the clear leadership tendencies of the Emirati employees sampled. It shows the Cumulated Absolute Distribution of sampled Emirati employees by their Ranking Scores of Types of Leadership between 5.1 and 10. The data shows that 2163 members gave scores ranged between 5.1 and 10 for the Directive leadership style, 2000 members for the Delegative leadership style, 1707 members gave the same scores for the Consultative leadership style, 1659 sampled members gave the same scores for the Participative leadership style, while 1636 members gave the same scores for the Negotiative leadership style. In comparison, the number of sampled persons who gave 0-5 scores to the 5 styles of leadership ranged between a low of 950 for the Directive leadership style and a high of 1477 for the Consultative leadership style, which is clearly visible from Figure No. (1).

**Table No. (4)**

Type of Leadership	0-5	Percentage score 0-5	5.1-10	Percentage score 5.1-10	Total
<b>Directive leader</b>	950	30.5%	2163	69.5%	3113
<b>Delegative leader</b>	1113	35.7%	2000	64.3%	3113
<b>Participative leader</b>	1454	46.7%	1659	53.3%	3113
<b>Consultative leader</b>	1406	45.2%	1707	54.8%	3113
<b>Negotiative leader</b>	1477	47.4%	1636	52.6%	3113

**Table 4 - Cumulated Absolute Distribution of sampled persons by their Ranking scores of Types of Leadership**

**Figure No. (1)**



**Figure 1 - Absolute Distribution of Sampled Emirati employees by their Ranking scores of Type of Leadership**

The Cumulated Percentage Distribution of sample members by their Ranking scores of Type of Leadership is presented in Table No. (4). The data show that a large number of sample members (69.5 percent) of the total sampled Emirati employees scored between 5.1 and 10 for the Directive leadership style while (30.5 percent) scored between 0 and 5 for this leadership style which means that more than two-third of sample members show high tendencies to use this style of leadership. Similarly, 64.2 percent of sample members out of total sampled persons scored between 5.1 and 10 for the Deledative leadership style. In general, the percentage of members who gave (5.1-10) scores for the different styles of leadership ranged between 69.5 for the Directive leadership style and 52.6 percent for the Negotiative leadership style. This clearly indicates that the Directive and Deledative leadership styles are the most dominant leadership styles for the sampled 3113 Emirati employees who completed the 15FQ+.

#### **Statistical Test: Regression Analysis**

The multiple regression gave a value of multiple  $R = 0.797783792$ . This indicates that the correlation among the independent (the score ranking) and dependent variables (leadership styles) is positive. R Square (the coefficient of determination) = 0.636458978. This means that

close to 64 % of the variation in the dependent variable (leadership styles) is explained by the independent variables.

The Adjusted R Square = -0.045311533 with (F) = 3.501442422 and the Significance of F = 0.353489661. with Degrees of freedom in the numerator =2 and Degrees of freedom in the denominator =2, the tabulated (F) value is (19.00) which is greater than the calculated value thus the null hypothesis can be accepted which means that there is no difference between the variances of the category ranked between 0 and 5 and the category ranked between 5.1 and 10.

**Table No. (5)**

	<b>Df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>Significance F</b>
<b>Regression</b>	2	3.182294891	1.591147	3.501442	0.353489661
<b>Residual</b>	2	1.817705109	0.908853		
<b>Total</b>	4	5			

**Table 5 - ANOVA TABLE Based on Data in Table No. (3)**

### **Statistical T Test**

T test was used to measure the difference between the percentages of two groups of sample members; percentages of members who ranked the leadership styles in the range of (0-5) and percentages that ranked the leadership styles in range of (5.1-10).

The T test has been calculated using data presented in table no. (4), after adding the percentages of sample members who ranked the leadership styles between (0-5) and percentages of members who ranked the leadership styles (5.1-10). The results show that the value of T test is (9, 0.95, and -4.651039655) at degrees of freedom (9) and 0.95 confidence interval. The tabulated value of T is (2.262), which is smaller than the calculated value (-4.640196484); accordingly the null hypothesis can be rejected and there are differences among the means. The calculated t value exceeds that, so the differences among the means are very highly significant. These results

supported our hypothesis stating that there is a difference between the two groups of sampled members according to their attitudes towards the various styles of leadership.

### 5.1.2 The Sub-Sample of MALE Emiratis Analysis Results (Size = 1903)

Table No. (6) presents an absolute distribution of sampled males (sample size = 1903) according to their scores ranging between 0 and 10, 0 means the least preferable value and 10 represents the most preferable value, to the five types of leadership (namely Directive, Delegative, Participative, Consultative, and Negotiative). Out of the total sampled males, the highest scores for the 9.1 and 10 was 97 for the Delegative leadership style, the highest scores for the 8.1 and 9.0 band was 235 also for the Delegative leadership style. The highest scores for the 7.1 and 8.0, 6.1-7.0 and 5.1-6 score bands were 392, 411, 469 respectively, all for the Directive leadership style. This clearly shows that the when significant leadership styles are considered, which are the scores of 5.1 to 10, most Emirati males scored highest within the 15FQ+ in both Directive and Delegative leadership styles.

**Table No. (6)**

Type of Leadership	Scores										Total
	0-1	1.1-2	2.1-3	3.1-4	4.1-5	5.1-6	6.1-7	7.1-8	8.1-9	9.1-10	
<b>Directive leader</b>	10	24	77	155	207	469	411	392	112	46	1903
<b>Delegative leader</b>	20	44	109	180	304	331	328	255	235	97	1903
<b>Participative leader</b>	24	64	142	270	453	405	285	164	78	18	1903
<b>Consultative leader</b>	85	72	159	179	370	280	261	320	125	52	1903
<b>Negotiative leader</b>	53	144	180	228	302	397	303	179	79	38	1903
<b>Totals</b>	192	348	667	1012	1636	1882	1588	1310	629	251	

**Table 6 - Absolute Distribution of Sampled Males by their Ranking scores of Types of Leadership**

Comparing the trends in Table No. (2) and Table No. (6) show that the male sub-sample results matched exactly with the main sample results.

Table No. (7) presents the percentage distribution of Male Emirati sampled members by their ranking scores of styles of leadership. The data show a great difference in the percentages of sampled persons according to their ranking scores of the five different styles of leadership. The percentages of sampled Males ranged between 0.5 percent of members who gave 0-1 scores to the Directive leader style and 24.6 percent who gave 5.1-6 scores to the same leadership style. The data also shows that the heavier weight of the percentages was for the scores between 5.1 and 10 which clearly shows that the Emirati Males have high tendency for leadership. Also, the results show clearly that the highest scores in each score rank from 5.1 to 10 were for Directive and Delegative leadership styles.

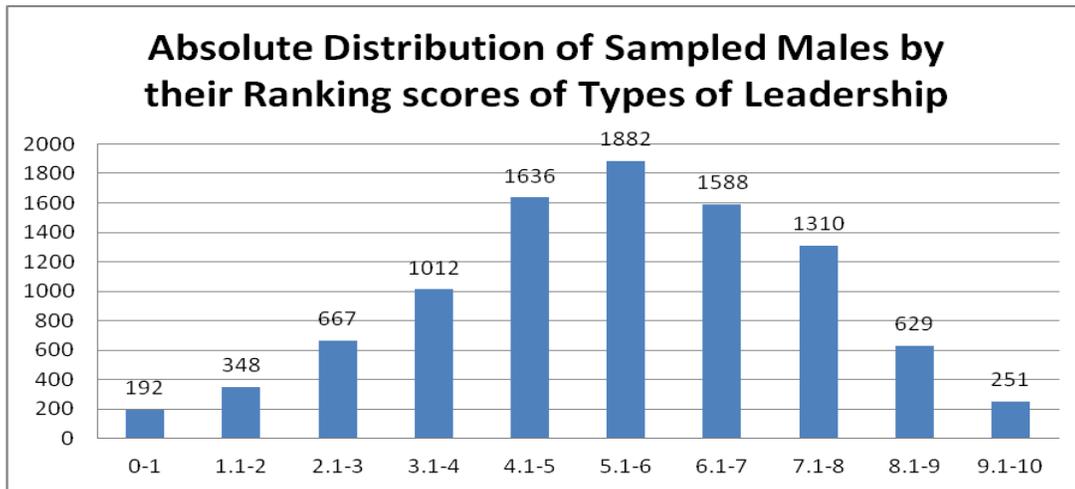
**Table No. (7)**

Type of Leadership	Scores										Total
	0-1	1.1-2	2.1-3	3.1-4	4.1-5	5.1-6	6.1-7	7.1-8	8.1-9	9.1-10	
Directive leader	0.5	1.3	4.0	8.1	10.9	24.6	21.6	20.6	5.9	2.4	100
Delegative leader	1.1	2.3	5.7	9.5	16.0	17.4	17.2	13.4	12.3	5.1	100
Participative leader	1.3	3.4	7.5	14.2	23.8	21.3	15.0	8.6	4.1	0.9	100
Consultative leader	4.5	3.8	8.4	9.4	19.4	14.7	13.7	16.8	6.6	2.7	100
Negotiative leader	2.8	7.6	9.5	12.0	15.9	20.9	15.9	9.4	4.2	2.0	100

**Table 7 - Percentage Distribution of Sampled Males by their Ranking scores of Types of Leadership**

Chart No. (2) shows the same distribution with totals for each score band. The chart shows that there are clear leadership tendencies within the Male Emirati employees as the higher scores are skewed towards the higher scoring bands (5.1-10).

**Chart No. (2)**



**Chart 2 - Absolute Distribution of Sampled Males by their Ranking Scores on Types of Leadership**

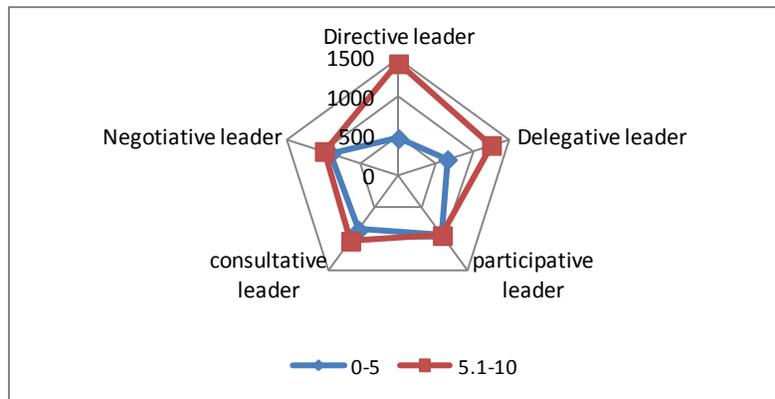
Table No. (8), shows the Cumulated Absolute Distribution of sampled Males by their Ranking scores of Types of Leadership styles they have. The data shows that 1430 males gave scores ranged between 5.1 and 10 to the Directive leader style, 1246 males to the Delegative leadership style while 1038 males gave the same scores to the consultative leader style. In comparison, the number of sample males who gave 0-5 scores to the 5 styles of leadership ranged between 473 to the Directive leader style and 953 to the participative leader style which means that about 48 percent of sampled males are less likely preferred this style of leadership. Figure No. (2) shows clearly that Emirati male employees scored highest within the Directive and Delegative leadership styles in the 15FQ+ Personality Assessment Test.

**Table No. (8)**

Type of Leadership	0-5	Percentage Score 0-5	5.1-10	Percentage Score 5.1-10	Total
Directive leader	473	24.86%	1430	75.14%	1903
Delegative leader	657	34.52%	1246	65.48%	1903
Participative leader	953	50.08%	950	49.92%	1903
Consultative leader	865	45.45%	1038	54.55%	1903
Negotiative leader	907	47.66%	996	52.34%	1903

**Table 8 - Cumulated Percentage Distribution of Sampled Males by their Ranking Scores of Type of Leadership**

**Figure No. (2)**



**Figure 2 - Cumulated Percentage Distribution of Sampled Males by their Ranking Scores on Type of Leadership**

### Statistical Test: Regression Analysis

The multiple regression gave a value of multiple  $R = 0.653870614$ . This indicates that the correlation among the independent and dependent variables is positive.  $R$  Square (the coefficient of determination) =  $0.42754678$ . This means that close to 43 % of the variation in the dependent variable (leadership styles) is explained by the independent variables.

The Adjusted  $R$  Square =  $-0.358679831$  with  $(F) = 1.493735258$  and the Significance of  $F = 0.500784937$ . with Degrees of freedom in the numerator = 2 and Degrees of freedom in the

denominator =2, the tabulated (F) value is (19.00) which is greater than the calculated value thus the null hypothesis can be accepted which means that there is no difference between the variances of the category ranked between 0 and 5 and the category ranked between 5.1 and 10.

**Table No. (9)**

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
<b>Regression</b>	<b>2</b>	<b>2.137734</b>	<b>1.068867</b>	<b>1.493735258</b>	<b>0.500784937</b>
<b>Residual</b>	<b>2</b>	<b>2.862266</b>	<b>1.431133</b>		
<b>Total</b>	<b>4</b>	<b>5</b>			

**Table 9 - ANOVA TABLE Based on Data in Table No. (6)**

**Statistical Test: T-test**

The T test has been calculated using data presented in Table No. (6), after adding the percentages of sample members who ranked the leadership styles between (0-5) and percentages of members who ranked the leadership styles (5.1-10). The results show that the value of T test is (9, 0.95, and -3.685224911) at degrees of freedom (9) and 0.95 confidence interval. The tabulated value of T is (2.262), which is smaller than the calculated value (-3.685224911); accordingly the null hypothesis can be rejected and there are differences among means. The calculated t value exceeds these, so the differences among means are very highly significant.

**5.1.3 The Sub-Sample of Female Emiratis Analysis Results (Sample = 1210)**

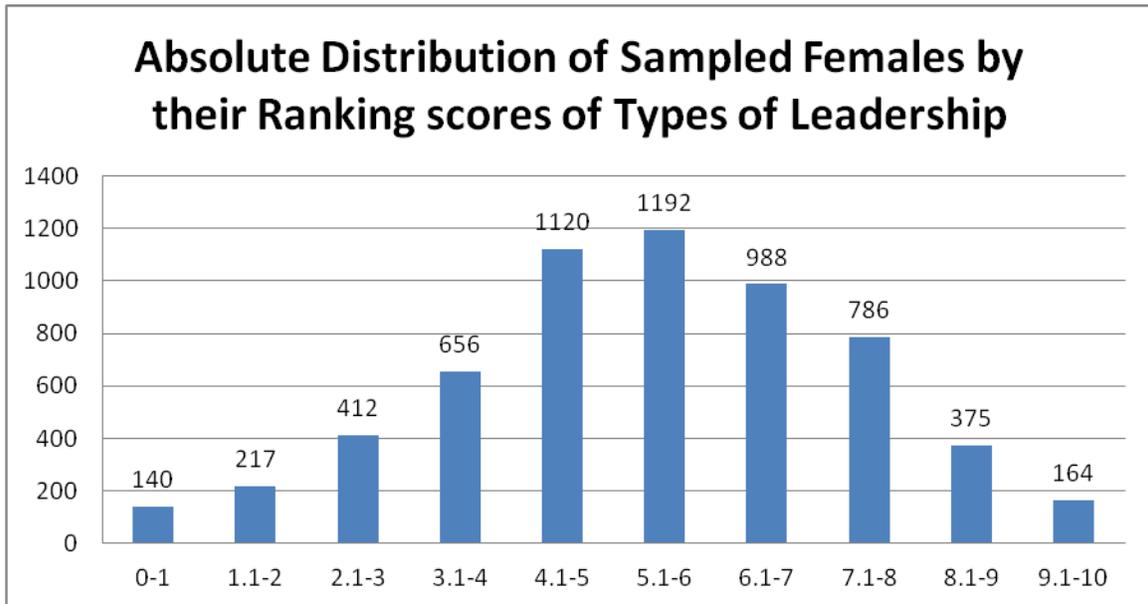
Table No. (10) presents an absolute distribution of sampled females according to their given scores, ranging between 0 and 10, 0 being the least preferred value and 10 represents the most preferable value, to the five types of leadership. Out of the total sampled females, 11 females gave the Directive leader style a score between 9.1 and 10 which means that they preferred this style of leadership, 49 females scored between 9.1 and 10 for the Delegative style and so on. The sampled females showed clear leadership tendencies as the main sample, however, Table No. (10) shows that the distribution is different than the main sample and the male sub sample.

**Table No. (10)**

Type of Leadership	Scores										Total
	0-1	1.1-2	2.1-3	3.1-4	4.1-5	5.1-6	6.1-7	7.1-8	8.1-9	9.1-10	
Directive leader	20	31	84	156	186	317	223	154	28	11	1210
Delegative leader	21	37	56	129	213	217	178	178	132	49	1210
Participative leader	10	23	61	114	293	284	221	124	67	13	1210
Consultative leader	53	31	100	109	248	177	168	200	81	43	1210
Negotiative leader	36	95	111	148	180	197	198	130	67	48	1210
Totals	140	217	412	656	1120	1192	988	786	375	164	

**Table 10 - Absolute Distribution of Sampled Females by their Ranking scores of Types of Leadership**

**Chart No. (3)**



**Chart 3 - Absolute Distribution of Sampled Females by their Ranking Scores on Types of Leadership**

### Statistical Test: T-test

The T-test has been calculated using data presented in Table No. (10), taking females who ranked the different styles of leadership between 0-1 and 9.1-10. The results show that the value of T test is (9, 0.95, and -2.385088894) at degrees of freedom (9) and 0.95 confidence interval. The tabulated value of T is (2.262) which is larger than the calculated value (-2.385088894); accordingly the null hypothesis can be rejected which means that there is difference between means. The calculated t-value is smaller than the tabulated value, so the differences among means are very highly significant.

Table no. (11), shows the Cumulated Absolute Distribution of sampled females by their Ranking scores of Types of Leadership. The data show that 733 males gave scores ranged between 5.1 and 10 to the Directive leader style, 754 males to the Delegative leader style while 640 females gave the same scores to the Negotiative leader style. In comparison, the number of sample females who gave 0-5 scores to the 5 styles of leadership ranged between 465 to the Delegative leader style and 570 to the Negotiative leader style which means that about 47 percent of sampled females are less likely preferred this style of leadership.

**Table No. (11)**

<b>Type of Leadership</b>	<b>0-5</b>	<b>Percentage scores between 0-5</b>	<b>5.1-10</b>	<b>Percentage scores between 5.1-10</b>	<b>Total</b>
Directive leader	477	39.42%	733	60.58%	1210
Delegative leader	456	37.69%	754	62.31%	1210
Participative leader	501	41.40%	709	58.60%	1210
Consultative leader	541	44.71%	669	55.29%	1210
Negotiative leader	570	47.11%	640	52.89%	1210

**Table 11 - Cumulated Absolute Distribution of Sampled Females by their Ranking Scores of Type of Leadership**

### Statistical Test: Regression Analysis

The multiple regression gave a value of multiple  $R = 0.995521075$ . This indicates that the correlation among the independent and dependent variables is positive. R Square (the coefficient

of determination) = 0.991062211. This means that close to 99 % of the variation in the dependent variable (leadership styles) is explained by the independent variables. The Adjusted R Square= 0.486593317 with (F) = 221.768997 and the Significance of F = 0.047429174. with Degrees of freedom in the numerator =2 and Degrees of freedom in the denominator =2, the tabulated (F) value is (19.00) which is smaller than the calculated value thus the null hypothesis can be rejected which means that there is there is difference between the variances of the category ranked between 0 and 5 and the category ranked between 5.1 and 10.

**Table No. (12)**

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
<b>Regression</b>	2	4.955311	2.477655528	221.769	0.047429174
<b>Residual</b>	2	0.044689	0.022344472		
<b>Total</b>	4	5			

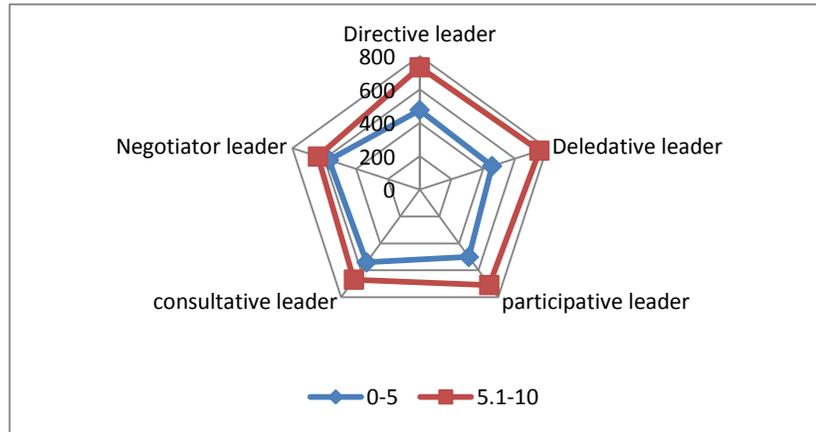
**Table 12 - ANOVA TABLE Based on Data in Table No. (10)**

T test was used to measure the difference between the percentages of two groups of sampled females, ie. percentages of members who ranked the leadership styles (0-5) and percentages who ranked the leadership styles (5.1-10).

The T test has been calculated using data presented in table no. (10), after adding the percentages of sample members who ranked the leadership styles between (0-5) and percentages of members who ranked the leadership styles (5.1-10). The results show that the value of T test is (9, 0.95, and -6.40461728) at degrees of freedom (9) and 0.95 confidence interval. The tabulated value of T is (2.262) which is smaller than the calculated value (-6.40461728); accordingly the null hypothesis can be rejected and that there is a difference between means. The calculated t value exceeds these, so the differences among means are very highly significant.

Figure No. (3) shows that the leadership styles scores for Female Emirati employees closer in range than in Males, which means that Female Emirati employees possess more variations within their leadership styles than their Male counterparts.

**Figure No. (3)**



**Figure 3 - Cumulated Percentage Distribution of Sampled Females by their Ranking Scores of Type of Leadership**

Table No. (13) presents the percentage distribution of sampled females by their ranking scores of styles of leadership. The data show a great difference in the percentages of sampled females according to their ranking scores of the 5 different styles of leadership.

**Table No. (13)**

Type of Leadership	Scores										Total
	0-1	1.1-2	2.1-3	3.1-4	4.1-5	5.1-6	6.1-7	7.1-8	8.1-9	9.1-10	
Directive leader	1.7	2.6	6.9	12.9	15.4	26.2	18.4	12.7	2.3	0.9	100
Delegative leader	1.7	3.1	4.6	10.7	17.6	17.9	14.7	14.7	10.9	4.0	100
Participative leader	0.8	1.9	5.0	9.4	24.2	23.5	18.3	10.2	5.5	1.1	100
Consultative leader	4.4	2.6	8.3	9.0	20.5	14.6	13.9	16.5	6.7	3.6	100
Negotiative leader	3.0	7.9	9.2	12.2	14.9	16.3	16.4	10.7	5.5	4.0	100

**Table 13 - Percentage Distribution of Sampled Females by their Ranking scores of Types of Leadership**

## Analysis by Age

The sampled members classified into 4 age groups (20-30, 30-40, 40-50 and 50-60). Table No. (14), shows the absolute distribution of sampled persons by their ranking scores for the leadership styles. The data show the number of sampled persons aged 20-30 who gave 0-5 scores to the 5 styles of leadership ranged between 414 to the Directive leader style and 599 to the Participative leader style. The number of sampled persons aged 30-40 who gave 0-5 scores to the different styles of leadership ranged between 378 for the Directive leader style and 667 to the Negotiative leader style. Sampled persons aged 40-50 and 50-60 who gave 0-5 scores to the 5 styles of leadership ranged between 123 to the Directive leader and 196 to the Consultative leader style and 26 for the Directive leader style and 51 to the Consultative leader respectively. In general the numbers of sampled persons aged 20-30 and 30-40 who gave low scores to the different styles of leadership are high which means that there is a need for training to these two groups to understand the concepts of the leadership.

An interesting remark that can be deducted from Table No. (14) is that the highest distributions for all age groups who scored between 5.1 and 10 were all in the Directive leadership style and the second highest distributions were in the Delegative leadership style. This clearly indicates that these two leadership styles are the most dominant within the sampled Emirati employees of 3113, which is big and diverse enough to be a representative sample to the Emirati employees.

**Table No. (14)**

Style of Leadership	0-5				5.1-10				Total
	20-30	30-40	40-50	50-60	20-30	30-40	40-50	50-60	
Directive leader	414	387	123	26	880	993	232	58	3113
Delegative leader	451	477	150	35	843	903	205	49	3113
Participative leader	599	619	194	42	695	761	161	42	3113
Consultative leader	550	609	196	51	744	771	159	33	3113
Negotiative leader	591	667	177	42	703	713	178	42	3113

**Table 14 - Absolute Distribution of Sampled Persons by their Ranking Scores for Leadership Styles**

### 5.2.1 Age 20-30 years

Table No. (14), presents the absolute distribution of sampled members aged (20-30 years) by their grouped ranking scores of the styles of leadership. The data shows that a large numbers of sampled members gave high ranks to all styles of leadership reflecting their preference to these styles. The number of sampled members who gave (5.1-10) scores ranged between 695 for the Participative leader style and 880 to the Directive leader style. In comparison, there are a noticeable numbers of sampled members who gave low scores (between 0 and 5 scores) to the 5 styles of leadership and ranging between 414 for the Directive leader style and 599 to the Participative leader style.

**Table No. (15)**

Style of Leadership	0-5	Percentage scores between 1-5	5.1-10	Percentage scores between 5.1-10	Total
Directive leader	414	31.99%	880	68.01%	1,294
Delegative leader	451	34.85%	843	65.15%	1,294
Participative leader	599	46.29%	695	53.71%	1,294
Consultative leader	550	42.50%	744	57.50%	1,294
Negotiative leader	591	45.67%	703	54.33%	1,294

**Table 15 - Cumulated Absolute Distribution of Sampled members Aged 20-30 Years by their Ranking**

Table No. (15) presents the percentage distribution of sampled members aged (20-30 years) by their grouped ranking scores of the styles of leadership. The data show that a large numbers of sampled members gave high ranks to all styles of leadership reflecting their preference to these styles. The percentage of sampled members who gave (5.1-10) scores ranged between 68.01 percent to the Directive leader style and 53.7 percent for the Participative leader style. In comparison, there are a noticeable proportion of sampled members who gave low scores (between 0 and 5 scores) to the 10 styles of leadership and ranging between 46.3 percent to the Participative leader style and 32 percent for the Directive leader style.

### Statistical test

The T test has been calculated using data presented in table no. (15), after adding the percentages of sample members who ranked the leadership styles between (0-5) and percentages of members who ranked the leadership styles (5.1-10). The results show that the value of T test is (9, 0.95, and -9.10365) at degrees of freedom (9) and 0.95 confidence interval. The tabulated value of T is (2.262) which is smaller than the calculated value (-9.10365); accordingly the null hypothesis can be rejected and there are differences among means. The calculated t value exceeds these, so the differences among means are very highly significant. The p-value is < .00001. The result is significant at  $p < .05$ .

### 5.2.2 Age 30-40 years

Table no. (16), presents the absolute distribution of sampled members aged (30-40 years) by their grouped ranking scores of the styles of leadership. The data shows that a large numbers of sampled members gave high ranks to all styles of leadership reflecting their preference to these styles. The number of sampled members who gave (5.1-10) scores ranged between 713 for the Negotiative leader style and 993 to the Directive leader style. In comparison, there are a noticeable numbers of sampled members who gave low scores (between 0 and 5 scores) to the 5 styles of leadership and ranging between 378 for the Directive leader style and 697 to the Collaborative Sub style.

**Table No. (16)**

<b>Type of Leadership</b>	<b>0-5</b>	<b>5.1-10</b>	<b>Percentage scores between 5.1-10</b>	<b>Total</b>
Directive leader	387	993	71.96%	1,380
Delegative leader	477	903	65.43%	1,380
Participative leader	619	761	55.14%	1,380
Consultative leader	609	771	55.87%	1,380
Negotiative leader	667	713	51.67%	1,380

**Table 16 - Table 15 - Cumulated Absolute Distribution of Sampled members Aged 20-30 Years by their Ranking**

### Statistical test

The T test has been calculated using data presented in table no. (16), after adding the percentages of sample members who ranked the leadership styles between (0-5) and percentages of members who ranked the leadership styles (5.1-10). The results show that the value of T test is (9, 0.95, and -6.19664) at degrees of freedom (9) and 0.95 confidence interval. The tabulated value of T is (2.262) which are smaller than the calculated value (---6.19664); accordingly the null hypothesis that can be rejected and there are differences among means. The calculated t value exceeds these, so the difference among the means are very highly significant. The p-value is  $< .00001$ . The result is significant at  $p < .05$ .

Table no. (17), presents the percentage distribution of sampled members aged (30-40 years) by their grouped ranking scores of the styles of leadership. The data show that a large numbers of sampled members gave high ranks to all styles of leadership reflecting their preference to these styles. The percentage of sampled members who gave (5.1-10) scores ranged between 51.7 percent for the Negotiative leader style and 72 percent to the Directive leader style. In comparison, there are a noticeable proportion of sampled members who gave low scores (between 0 and 5 scores) to the 5 styles of leadership and ranging between 28 percent for the Directive leader style and 48.4 percent to the Negotiative leader style.

**Table No. (17)**

<b>Type of Leadership</b>	<b>0-5</b>	<b>5.1-10</b>	<b>Total</b>
Directive leader	28.0	72.0	100.0
Delegative leader	34.6	65.4	100.0
Participative leader	44.9	55.1	100.0
Consultative leader	44.1	55.9	100.0
Negotiative leader	48.3	51.7	100.0

**Table 17 - Cumulated Percentage Distribution of Sampled members Aged 30-40 Years by their Ranking Scores of Type of Leadership**

### 5.2.3 Age 40-50 Years

Table No. (18), presents the absolute distribution of sampled members aged (40-50 years) by their grouped ranking scores of the styles of leadership. The data show that a moderate numbers

of sampled members gave high ranks to all styles of leadership reflecting their preference to these styles. The number of sampled members who gave (5.1-10) scores ranged between 159 for the consultative leader style and 232 to the Directive leader style. In comparison, there are a moderate numbers of sampled members who gave low scores (between 0 and 5 scores) to the 5 styles of leadership and ranging between 123 for the Directive leader style and 196 to the consultative leader style.

**Table No. (18)**

<b>Type of Leadership</b>	<b>0-5</b>	<b>5.1-10</b>	<b>Percentage scores between 5.1-10</b>	<b>Total</b>
Directive leader	123	232	65.35%	355
Delegative leader	150	205	57.75%	355
Participative leader	194	161	45.35%	355
Consultative leader	196	159	44.79%	355
Negotiative leader	177	178	50.14%	355

**Table 18 - Cumulated Absolute Distribution of Sampled members Aged 40-50 Years by their Ranking Scores of Type of Leadership**

### **Statistical test**

The T test has been calculated using data presented in table no. (18), after adding the percentages of sample members who ranked the leadership styles between (0-5) and percentages of members who ranked the leadership styles (5.1-10). The results show that the value of T test is (9, 0.95, and -1.64075) at degrees of freedom (9) and 0.95 confidence interval. The tabulated value of T is (2.262) which is greater than the calculated value (-1.64075); accordingly the null hypothesis can be accepted and there are no differences among means. The calculated t value is less than the tabulated value, so the differences among means are not significant at the level of confidence. The p-value is .059104. The result is not significant at  $p < .05$ . The t-value is -1.64075. The p-value is .059104. The result is significant at  $p < .10$ .

Table no. (17) presents the percentage distribution of sampled members aged (40-50 years) by their grouped ranking scores of the styles of leadership. The data show that a moderate numbers

of sampled members gave high ranks to all styles of leadership reflecting their preference to these styles. The percentage of sampled members who gave (5.1-10) scores ranged between 36.6 percent for the Collaborative Sub style and 72.1 percent to the Reciprocating Sub style. In comparison, there are a moderate proportion of sampled members who gave low scores (between 0 and 5 scores) to the 10 styles of leadership and ranging between 27.9 percent for the Reciprocating Sub style and 63.4 percent to the Collaborative Sub style.

Table no. (19), presents the percentage distribution of sampled members aged (40-50 years) by their grouped ranking scores of the styles of leadership. The data show that a large numbers of sampled members gave high ranks to all styles of leadership reflecting their preference to these styles. The percentage of sampled members who gave (5.1-10) scores ranged between 45.4 percent for the participative leader style and 65.4 percent to the Directive leader style. In comparison, there is a noticeable proportion of sampled members who gave low scores (between 0 and 5 scores) to the 5 styles of leadership and ranging between 34.6 percent for the Directive leader style and 55.2 percent to the Consultative leader style.

**Table No. (19)**

<b>Type of Leadership</b>	<b>0-5</b>	<b>5.1-10</b>	<b>Total</b>
Directive leader	34.6	65.4	100.0
Delegative leader	42.3	57.7	100.0
Participative leader	54.6	45.4	100.0
Consultative leader	55.2	44.8	100.0
Negotiative leader	49.9	50.1	100.0

**Table 19 - Cumulated Percentage Distribution of Sampled members Aged 40-50 Years by their Ranking Scores of Type of Leadership**

#### **5.2.4 Age 50-60 years**

Table no. (20), presents the absolute distribution of sampled members aged (50-60 years) by their grouped ranking scores of the styles of leadership. The data show that a small numbers of sampled members gave high ranks to all styles of leadership reflecting their preference to these styles. The number of sampled members who gave (5.1-10) scores ranged between 33 for the Consultative leader style and 58 to the Directive leader style. In comparison, there is a small

number of sampled members who gave low scores (between 0 and 5 scores) to the 5 styles of leadership and ranging between 26 for the Directive leader style and 51 to the consultative leader style.

**Table No. (20)**

<b>Type of Leadership</b>	<b>0-5</b>	<b>5.1-10</b>	<b>Percentage scores between 5.1-10</b>	<b>Total</b>
Directive leader	26	58	69.05%	84
Delegative leader	35	49	58.33%	84
participative leader	42	42	50.00%	84
consultative leader	51	33	39.29%	84
Negotiative leader	42	42	50.00%	84

**Table 20 - Cumulated Absolute Distribution of Sampled members Aged 50-60 Years by their Ranking**

### **Statistical test**

The T test has been calculated using data presented in table no. (20), after adding the percentages of sample members who ranked the leadership styles between (0-5) and percentages of members who ranked the leadership styles (5.1-10). The results show that the value of T test is (9, 0.95, and -1.44511) at degrees of freedom (9) and 0.95 confidence interval. The tabulated value of T is (2.262) which is greater than the calculated value (-1.64075); accordingly the null hypothesis can be accepted and there are no differences among means. The calculated t value is less than the tabulated value, so the differences among the means are not significant at the this level of confidence. The p-value is .059104. The result is not significant at  $p < .05$ . The t-value is -1.44511. The p-value is .082806. The result is significant at  $p < .10$ .

Table no. (21), presents the percentage distribution of sampled members aged (50-60 years) by their grouped ranking scores of the styles of leadership. The data show that a small numbers of sampled members gave high ranks to all styles of leadership reflecting their preference to these styles. The percentage of sampled members who gave (5.1-10) scores ranged between 39.3 percent for the consultative leader style and 69 percent to the Directive leader style. In

comparison, there are small proportions of sampled members who gave low scores (between 0 and 5 scores) to the 5 styles of leadership and ranging between 31 percent for the Directive leader style and 60.7 percent to the consultative leader style.

**Table No. (21)**

<b>Type of Leadership</b>	<b>0-5</b>	<b>5.1-10</b>	<b>Total</b>
Directive leader	31.0	69.0	100.0
Delegative leader	41.7	58.3	100.0
Participative leader	50.0	50.0	100.0
Consultative leader	60.7	39.3	100.0
Negotiative leader	50.0	50.0	100.0

**Table 21 - Cumulated Percentage Distribution of Sampled members Aged 50-60 Years by their Ranking Scores of Type of Leadership**

### **5.3 Leadership Styles Effects on the Project Success Rate**

Multiple linear regression was used to analyze the data in a predictive manner and to explain the relationships among the independent and dependent variables. To examine the effect of the evaluation of project leaders on the Project Success Rate, the scores given by 54 project leaders to the 5 leadership styles as independent variables while the Project Success Rate is the dependent variable.

The calculated F value is= 14.516. High F value means that there is higher chance that Null Hypothesis can be rejected and alternate accepted, which means that x1, x2, x3, x4 and x5 are different. In this case, it was found to be 14.516, which is high and that means that all independent variables are different. On the other hand, the significant (Sig) is 0.000, which means that there is 100 % confidence that that the independent variables have clear effects on the project success rate.

B value informs us that there is a negative correlation between the consultative style and project success rate. Whereas Directive, Delegative, Participative and Negotiative styles have positive relationship with the Project Success Rate which means that a decrease in 1 of consultative style

variable will decrease the Project Success Rate by the value of B. the positive relationship with the Project Success Rate means that an increase of 1 unit of these variables will increase the Project Success Rate by the B values of these variables. The results call for more efforts to be exerted into increasing the level of awareness towards the various leadership styles especially the one with negative relationship e.g. consultative with the project success rate to increase the effectiveness of these styles while managing a project.

This means that all leadership styles except consultative can be used to predict project success rate. The level of how much they can predict is described in the paragraph below:

Based on the correlations table below, it was observed that participative, negotiative and delegative leadership styles (.714, .425, .311 respectively) strongly and positively correlates with project success rate, which means that project managers who adopted such styles were more successful in running and completing their projects. On the other hand, directive leadership style (-.295) negatively correlates with project success rate, which mean if a project manager adopts this style in managing a project, he will probably yield poor results. Consultative leadership style was the weakest (.184) amongst all in determining project success rate.

**Table No. (22)**

		Project Success Rate
Pearson Correlation	Project Success Rate	1.000
	Directive Leader	-.295
	Delegative	.311
	participative	.714
	Consultative	.184
	Negotiative	.425
Sig. (1- tailed)	Project Success Rate	.
	Directive Leader	.015
	Delegative	.011
	participative	.000
	Consultative	.092

	Negotiative	.001
--	-------------	------

**Table 22 - Correlation between Project Success Rate and Different Leadership Styles**

The Model shows that the value of R is 0.776, R square is 0.602 and adjusted R is 0.560 and the F value is (14.516) which is larger than the tabulated F value at degrees of freedom of 5 and 37. The calculated F value at degrees of freedom of 5 and 54 is (2.634). These results show that the model is appropriate and significant. The results show that the adjusted R<sup>2</sup> of the model is (.560) with the R<sup>2</sup> = (.602) that means that the linear regression explains (60.2 %) of the variance in the data. The results thus suggest that that there are significant relationships among the five independent variables used in the model and the dependent variable represented by the project Success Rate.

The following are the statistical tables that examine the relationship between leadership styles as independent variables:

### Multiple Regression Analysis

**Table No. (23)**

	Mean	Std. Deviation	N
Project Success Rate	79.111	12.20990%	54
Directive Leader	5.754	1.7189	54
Delegative	5.500	2.0275	54
Participative	4.641	1.6496	54
Consultative	3.950	2.3303	54
Negotiative	4.524	2.0861	54

**Table 23 - Descriptive Statistics between Project Success Rate and Leadership Styles**

**Table No. (24)**

Model	Variables Entered	Variables Removed	Method

1	Negotiative, Delegative, Directive Leader, Consultative, participative <sup>b</sup>	.	Enter
---	---	---	-------

- a. Dependent Variable: Project Success Rate  
b. All requested variables entered.

**Table 24 - Variables Entered/Removed**

**Table No. (25)**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.776 <sup>a</sup>	.602	.560	8.09492%

- a. Predictors: (Constant), Negotiative, Delegative, Directive Leader, Consultative, participative

**Table 25 - Model Summary**

**Table No. (26)**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4756.004	5	951.201	14.516	.000 <sup>b</sup>
	Residual	3145.329	48	65.528		
	Total	7901.333	53			

- a. Dependent Variable: Project Success Rate

b. Predictors: (Constant), Negotiative, Delegative, Directive Leader, Consultative, participative

**Table 26 - NOVA<sup>a</sup>**

**Table No. (27)**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	24.286	19.285		1.259	.214
Directive Leader	3.303	2.615	.465	1.263	.213
Delegative	1.979	.896	.329	2.208	.032
participative	6.733	2.174	.910	3.098	.003
Consultative	-3.133	1.389	-.598	-2.257	.029
Negotiative	1.341	1.116	.229	1.201	.235

a. Dependent Variable: Project Success Rate

**Table 27 - Coefficients<sup>a</sup>**

## 6.0 Discussion

The outcome of this research has directly established clear dominance of the Directive and Delegative leadership styles within the Emirati employees within the Emirate of Abu Dhabi. It also linked some leadership styles to what could make a good project leader. It is appropriate to assume that the sample size used in this research, which was 3113 Emiratis, was a representative sample of the general population of working UAE nationals (Male/Female, and different age groups). As is clear from the above data analysis section, results from the study clearly suggest the following:

- The majority of National males (75.1 percent) preferred the Directive leadership style and ranked this style of leadership 5.1-10.

- A large proportion of national females (60.5 percent) ranked the Directive leadership style 5.1-10.
- More than two-third of Nationals aged 20-30 years (68.1 percent) preferred the Directive leadership style.
- A large proportion of Nationals aged 30-40 years (72 percent) preferred the Directive leadership style.
- About two-third of Nationals aged 40-50 years (65.4 percent) preferred the Directive style.
- A large proportion of Nationals aged 50-60 years (69 percent) preferred the Directive leadership style.

When leadership styles were examined against project success rates, the correlation matrix shows that there is a negative correlation between the Directive Leadership style and the Project Success Rate, which means that the increase of use of the directive leadership style will result in a decrease in the project success rate within the context of the UAE project management. Participative leadership style has a strong correlation with the Project Success Rate of (0.714), which means that the use of this leadership style can increase the success rate of the project. Delegation Leadership Style has a positive correlation with Project Success Rate which means that applying this style will increase the success rate. Consultative leadership style has a positive weak correlation with the Project Success Rate of (0.184) which means that it may increase the project success rate when used. However, as defined by Psytech (Appendix 2), it is clear that the consultative leader has some attributes of the directive leader which means that the greater use of this style may negatively affect the project success rate.

In sum, the study clearly shows that the United Arab Emirates project leaders mainly use the Directive and the Delegation Leadership Styles, where 69.5 and 64.2 percent of employees respectively used this style of leadership and it ranked between 5.1-10 in their personality assessment.

## **7.0 Conclusions and Recommendations**

### **7.1 Conclusions**

Overall, the research shows clearly that the Directive leadership style is the most preferable leadership styles among the Nationals of the Arab United Emirates, followed by the Delegative leadership style. This suggests that there is need for further strengthening of other styles of leadership to improve the outputs of project management practices, better project success rates and more effective and efficient organizations.

When leadership styles were examined against project success rates, it was statistically observed that the use of Directive leadership style negatively affected the Project Success Rate within the context of the Government Entity's project management scope. On the other hand, Participative leadership style is the best style in correlation with positive Project Success Rate. The other leadership styles, namely the Delegative, the Collaborative and the Consultative have weaker effects on the project success rate. However, the projects analyzed in this research were all environmental projects and the results may vary with other types of projects or Government organizations.

As the literature review was consulted, this research is the first to identify main leadership styles within the UAE National body, with the same magnitude of sample size.

Finally, the observed patterns in leadership styles most used by the UAE National Employees could be used as part of a prediction model to identify successful project leaders after further researches to confirm the above results are completed.

### **7.2 Recommendations**

Based on the findings, it recommend that a number of public awareness sessions and specific leadership development trainings/programs be conducted under the patronage of the General Secretariat of Executive Council (GSEC) to bring UAE nationals up to speed with the latest

leadership trends to empower employees on what could be perceived as an ideal leadership style for the project they manage, keeping into consideration the different natures of the their sectors including government services, industries, infrastructure development, education, and finance.

Programs can be developed so that UAE Nationals could build their knowledge-base and could practice the different leadership styles based on the project type they will be handling and alternate between different styles based on the changing requirements of their projects over time, “You have to be in it to win it”.

In situations where information becomes scarce or options become limited, people tend to shift to a more dominant, assertive, forthright behavior which could lead individuals to adopt the directive leadership style. When trained, people are made aware that there are other leadership styles that they can try out. Directive seems to be the easiest style of leadership to adopt but the worst and adversely affects project management and project success.

Recommendations for the Government Entities:

- Update the policies and procedures to include leadership styles determination as part of critical selection criteria for project leaders within the Government.
- Update assessment methodologies within the Government Beaurue of Assessment with the latest assessment techniques, approaches and tools.
- Empower UAE HR managers, specialists and executives through proper behavioral and leadership assessment trainings.
- Develop decision making matrices within Government bodies to be able to utilize the best available UAE nationals fit for the projects
- Building a nationwide database at the Government level to include successors for project management when the need arises through quantifying assessment results and include it within the Business Continuity Management Systems.
- Attend conferences and seminars that talk about new findings on leadership, and communicate them to all government bodies.

Finally, the limitations that may have affected the results of this research impose restrictions on the utilization of the results for other research purposes; however, the results that emerged from this research still showed clear outcomes which indicates that the methodology used was appropriate and the rationale was sound. The limitations ranged from the scale of analysis being limited to one Government Entity, and limitations on the number of project leaders who were assessed. This can be overcome in future researches through Government support to conduct bigger scale studies. The validity of the 15FQ+ assessment results may be of concern as well due to the language barrier. The Government funding of the projects may have also strained project management related activities, like project adjustments, resources and training. This would have resulted in skewing of the data. However, the consistency of the results may have proved that the outcomes can be generalized.

The most critical limitations in this research are the premise that the project leader's leadership style is one of the major factors in determining the success rate of a project and even though this premise was validated through previous studies, further studies are needed to normalize other factors. Also, the assessment of the projects were based on the Government Entity's PMO criteria, which were not validated within this research. Further researches shall consider stricter project success rate evaluation criteria while using a larger number of projects from different Government Entities and Disciplines.

## References

- Abdalla, H. J. (2010). The Influence of Transformational and Transactional Leadership on Employee Performance and Organizational Commitment A Case Study in the UAE Public Sector (Unpublished Masters Degree dissertation). British University in Dubai.
- Abu Dhabi Leadership Graduate Public Service Fellowship. (2013, November 13). Retrieved October 15, 2017, from <https://www.abudhabi.ae/portal/public/en/homepage/benefits-for-nationals/training-and-personal-development/abu-dhabi-leadership-graduate-public-service-fellowship>
- AD Training and Personal Development. (2017, February 14). Retrieved October 15, 2017, from <https://www.abudhabi.ae/portal/public/en/homepage/benefits-for-nationals/training-and-personal-development>
- Ahadzie, D. K., Proverbs, D. G., & Sarkodie-Poku, I. (2014). Competencies required of project managers at the design phase of mass house building projects. *International Journal of Project Management* 32 (2014) 958–969.
- Ahsan, K., Ho, M., & Khan, S. (2013). Recruiting project managers: A comparative analysis of competencies and recruitment signals from job advertisements. *Project Management Journal*, 44(5), 36-54.
- Packman, T., Brown, G., Englert, P., Sisarich, H., & Bauer, F. (2005). Differences in personality traits across ethnic groups within New Zealand and across an international sample. *New Zealand Journal of Psychology* , 34(2). Retrieved July 18, 2016.
- AlHarthi, A. S., Al Shehri, O. M., & Al-Khatib, A. J. (2013). LEADERSHIP STYLE AMONG MIDDLE MANAGERS IN SAUDI MINISTRY OF HEALTH. *European Scientific Journal*, 9(26), 153-175. Retrieved July 20, 2016, from <http://eujournal.org/index.php/esj/article/view/1794/1784>
- Anantatmula, V. S. (2010). Project Manager Leadership Role in Improving Project Performance. *Engineering Management Journal* 22.1 (Mar 2010): 13-22.

- Anderson S. D. (1992). Project quality and project managers. *International Journal of Project Management*. Vol 10 No 3 August 1992, 138-144.
- Ardichvili, A. (2001). Leadership styles and work-related values of managers and employees of manufacturing enterprises in post-communist countries. *Human Resource Development Quarterly*, 12(4), 363.
- Ardichvili, A., & Kuchinke, K. P. (2002). Leadership styles and cultural values among managers and subordinates: A comparative study of four countries of the former soviet union, germany, and the US. *Human Resource Development International*, 5(1), 99-117.
- Association of Project Management (APM), 2006. *Body of Knowledge*, fifth ed. APM, High Wycombe, UK
- Bass, B. 1990. *Bass and Stogdill's Handbook of Leadership: Theory, Research, and Managerial Applications*. Third edition. The Free Press. New York.
- Bass, B. 1997. Does the transactional-transformational paradigm transcend organizational and national boundaries. *American Psychologist*, 52: 130–9.
- Bass, B. M., & Avolio, B. J. (1995). Multifactor Leadership Questionnaire. Retrieved July 18, 2016, from <http://www.mindgarden.com/16-multifactor-leadership-questionnaire>
- Bryde, D. J. (2003). Project management concepts, methods and application. *International Journal of Operations & Production Management*, 23(7), 775-793.
- Catana, D., & Pucko, D. (2012). prospective managers about cultural dimensions and leadership styles: A comparison between romania and slovenia. *Studia Universitatis Babes-Bolyai*, 57(3), 27.
- Darlington, R. B., & Hayes, A. F. (2017). *Regression analysis and linear models: concepts, applications, and implementation*. New York: Guilford Press.
- Den-Hartog, D. N., House, R. J., Hanges, P. J. et al. (1999). Culture specific and cross culturally generalizable implicit leadership theories: are attributes of charismatic/transformational leadership universally endorsed? *Leadership Quarterly* 10(2): 219–56.

- Den-Hartog, D. N., Schippers, M. C., & Koopman, P. L. (2002). The impact of leader behaviour on trust in management and co-workers. *SA Journal of Industrial Psychology*, 28(4), 29-34.
- Duncan, G. L., & Gorsha, R. A. (1983). Project Management A Major Factor in Project Success., *IEEE Transactions on Power Apparatus and Systems*, (11), 3701-3705.
- Elenkov, D. (1998). Can American management concepts work in Russia? A cross-cultural comparative study. *California Management Review* 40(4): 133–56.
- El-Sabaa, S. (2001). The skills and career path of an e€ffective project manager. *International Journal of Project Management* 19 (2001) 1-7.
- Ertureten, A., Cemalcilar, Z., & Aycan, Z. (2013). The relationship of downward mobbing with leadership style and organizational attitudes. *Journal of Business Ethics*, 116(1), 205-216.
- Government Structure and System. (2011, June 14). Retrieved October 15, 2016, from <https://www.abudhabi.ae/portal/public/en/abu-dhabi-emirate/government/government-structure-and-system>
- General Secretariat of the Executive Council. (2008). Abu Dhabi Economic Vision 2030. In: Abu Dhabi Government [online]. Accessed October 15, 2016. Available from <https://www.ecouncil.ae/PublicationsEn/economic-vision-2030-full-versionEn.pdf> Abu Dhabi, UAE Nov 2008
- Hofstede, G. (2002) Images of Europe: past, present and future. In: Warner M. and Joynt P. (Eds) *Managing Accross Cultures. Issues and perspectives*, Second United Kingdom: Thomson, pp: 89-102.
- Holzle, K. (2010). Designing and implementing a career path for project managers. *International Journal of Project Management* 28 (2010) 779–786
- House, R. J. (1995). Leadership in 21st century: a speculative inquiry. In A. Howard (Ed.), *The Changing Nature of Work*. San Francisco: Jossey-Bass.

- Jabnoun, N., and Al Rasasi, A., (2005). On Transformational leadership and service quality in UAE hospitals. *Managing Service Quality*, 15(1) pp. 70-81.
- Jung, D. I., Bass, B. M. and Sosik, J. J. (1995). Bridging leadership and culture: a theoretical consideration of transformational leadership and collectivistic cultures. *The Journal of Leadership Studies* 2(4): 3–18.
- Kerzner, H. R. (2013). *Project management: A systems approach to planning, scheduling, and controlling* (11th ed.). US: Wiley.
- Klein, K. J., & House, R. J. (1995). On fire: Charismatic leadership and levels of analysis. *The Leadership Quarterly*, 6(2), 183-198.
- Kuchinke, K. P. (1999). Leadership and culture: work-related values and leadership styles among one company's U.S. and German telecommunication employees. *Human Resource Development Quarterly* 10(2): 135–54.
- Lang R., Catana A., Catana D., Steyrer J. (2010) Impacts of Motives and Leadership Attributes of Entrepreneurs and managers on Followers' Commitment in Transforming Countries: A Comparison of Romania, East Germany and Austria.
- Lindgreen, A., Palmer, R., Wetzels, M., & Antioco, M. (2009). Do different marketing practices require different leadership styles? an exploratory study. *Journal of Business & Industrial Marketing*, 24(1), 14-26.
- Lloyd-Walkera, B., Walker D. Authentic leadership for 21st century project delivery. *International Journal of Project Management*, Volume 29, Issue 4, May 2011, Pages 383–395
- Lowe, K. B., Kroeck, K. G., & Sivasubramaniam, N. (1996). Effectiveness correlates of transformational and transactional leadership: A meta-analytic review of the mlq literature. *The Leadership Quarterly*, 7(3), 385-425.
- Malach-Pines, A., Dvir, D., & Sadeh, A. (2009). Project manager-project (PM-P) fit and project success. *International Journal of Operations & Production Management*, 29(3), 268-291.

- Medina, A., & Francis, A. J., What Are the Characteristics That Software Development Project Team Members Associate With a Good Project Manager? *Project Management Journal*, Vol. 46, No. 5, 81–93, 2015.
- Muller, R., & Turner, R. (2010) Leadership competency profiles of successful project managers. *International Journal of Project Management* 28 (2010) 437–448.
- Muller, R., Turner, J. R. (2007). The Influence of Project Managers on Project Success Criteria and Project Success by Type of Project. *European Management Journal* Vol. 25, No. 4, 2007, pp. 298–309.
- Munns, A. K., & Bjeirmi, B. F. (1996). The role of project management in achieving project success. *International journal of project management*, 14(2), 81-87.
- Northouse, P. G. (1997). *Leadership: Theory and Research*, Thousand Oaks, CA: Sage.
- O'Dell, C., Grayson, J. J., 1998. If only we knew what we know: Identification and transfer of international best practices. *California Management Review* 40/3, 154–174.
- Papke-Shields K. E., Beise C., Quan J. (2010). Do project managers practice what they preach, and does it matter to project success. *International Journal of Project Management* 28 (2010) 650–662.
- Paris, L. D., Howell, J. P., Dorfman, P. W., & Hanges, P. J. (2009). Preferred leadership prototypes of male and female leaders in 27 countries. *Journal of International Business Studies*, 40(8), 1396-1405.
- Pellegrinelli, S. (2011). What's in a name: Project or programme?. *International Journal of Project Management*, 29(2), 232-240.
- Peterson, L. A. (1997). International HRD: What we know and don't know. *Human Resource Development Quarterly*, 8(1), 63-79.
- Pettersen, N. (1991). What do we know about the effective project manager. *Project Management*. Vol 9 No 2 May 1991, 99-104.

- Project Management Institute, 2008a. PMBOK: A Guide to the Project Management Body of Knowledge, fourth ed. Project Management Institute (PMI), Newtown Square, PA, USA.
- Psytech International. (2016). 15FQ+ Technical Manual. Psytech International. UK.
- Randeree, K., & Ninan, M. (2011). Leadership and teams in business: A study of IT projects in the united arab emirates. *International Journal of Managing Projects in Business*, 4(1), 28-48. doi:10.1108/17538371111096872.
- Rao, A. S., & Kareem Abdul, W. (2015). Impact of transformational leadership on team performance: An empirical study in UAE. *Measuring Business Excellence*, 19(4), 30-56. doi:10.1108/MBE-07-2014-0022
- Soderlund, J. (2004). Building theories of project management: past research, questions for the future. *International journal of project management*, 22(3), 183-191.
- Stal-Le Cardinal, J., & Marle, F. (2006). Project: The just necessary structure to reach your goals. *International Journal of Project Management*, 24(3), 226-233. doi:10.1016/j.ijproman.2005.10.002
- Steyrer J., Schiffinger M., Lang R. (2008) Organizational commitment – A missing link between leadership behavior and organizational performance? *Scandinavian Journal of management*, 24(4): 364:374.
- Svejvig, P., & Andersen, P. (2015). Rethinking project management: A structured literature review with a critical look at the brave new world. *International Journal of Project Management*, 33(2), 278-290.
- Sydow, J., Lindkvist, L., & DeFillippi, R. (2004). Project-based organizations, embeddedness and repositories of knowledge: Editorial. *ORGANIZATION STUDIES-BERLIN-EUROPEAN GROUP FOR ORGANIZATIONAL STUDIES-*, 25(9), 1475.
- Thomas, J. & Mullaly, M. (2007). Understanding the value of project management: First steps on an international investigation in search of value. *Project Management Journal*, 38(3), 74-89.

- Thoms, P. and Greenberger, D. B. (1998). A test of vision training and potential antecedents to leaders' visioning ability. *Human Resource Development Quarterly* 9(1): 3–20.
- Triandis, H. (1995) *Individualism and Collectivism*, Boulder, CO: Westview.
- Turner, J. R., & Muller, R. (2005, June). The project manager's leadership style as a success factor on projects: A literature review. Project Management Institute.
- Wilemon, D. L. & Cicero, J. P. (1970). The Project Manager - Anomalies and Ambiguities. *Academy of Management Journal*, September, 1970, 269-282.
- Zagoršek, H. (2004) *Universality versus cultural contingency of leadership: a comparative study of leadership practices in six countries*, Ph. D. diss. Ljubljana: University of Ljubljana, Faculty of Economics.

## Appendices

### Appendix 1: 15FQ+ Fast Facts

<i>Fast Facts</i>	
<h1>Fifteen Factor Questionnaire +</h1> <p>A Comprehensive Assessment for Adults &amp; Young People</p>	
<p><b>15FQ+</b></p> <p>The 15FQ+ provides a comprehensive assessment of personality. Building on the most current research the 15FQ+ is suitable for use in the international business environment. Maintaining the breadth of the original 16 personality factors first identified by Raymond B Cattell, the 15FQ+ sets new standards for reliability and validity. The test materials have been carefully designed to make them easier and quicker to complete, score and profile.</p>	<h1>15FQ+</h1> <p>FIFTEEN FACTOR QUESTIONNAIRE +</p> <h2>KEY FACTS</h2> <p><b>What it Measures</b> A comprehensive, trait-based assessment of personality across 16 primary personality factors.</p> <p><b>Use With</b> A comprehensive assessment for adults and young people.</p> <p><b>Use For</b> Selection, individual and team development, coaching and guidance.</p> <p><b>Administration &amp; Scoring</b> Paper-and-pencil or computerised administration through the GeneSys Assessment System, with manual and automated scoring options.</p> <p><b>Report Options</b> Range of profile and narrative reports for decision-makers, and feedback reports for respondents.</p> <p><b>Qualification</b> Level B</p> <p><b>Timing</b> 30 minutes + administration time</p> <p><b>Cost</b> 4-6 Credits per scored assessment</p>
<p><b>What the 15FQ+ Measures</b></p> <p>The 15FQ+ measures the same personality factors discovered by Cattell and colleagues over 50 years ago with higher reliability and validity than has to date been possible. In addition, 15FQ+ measures a number of criterion measures such as Emotional Intelligence, Team Role, Management and Subordinate styles and Counter-Productive Work behaviour.</p>	
<p><b>Reports for 15FQ+</b></p> <p>Through the GeneSys Assessment System a range of reports for decision-makers and candidates are available, supported by an extensive norm base. Extended reports include Team Roles, Leadership and Subordinate Styles, Career Themes and Strengths and Development Needs. GeneSys also includes a Job Match profile where a respondent's profile is compared to the ideal for a given role with an Interview Prompt report providing questions to guide a feedback interview.</p>	
<p><b>The Test</b></p> <p>This new edition of the 15FQ remains true to the original version of this test, which measured fifteen of the core personality factors first identified by Cattell in 1946. However, by taking advantage of recent developments in psychometrics and information technology, Psytech have produced a shorter, yet more reliable measure of these primary personality factors. Most significantly, the 15FQ+ incorporates a number of recent psychometric innovations; making these developments widely available to the test user for the first time. These innovations include the addition of a measure of Factor β (intellectance), which was excluded from the first edition of this test for theoretical and practical reasons. In addition 15FQ+:</p> <ul style="list-style-type: none"><li>• Uses international 'business' English</li><li>• Avoids race and gender bias</li><li>• Can be completed in under 30 minutes</li><li>• Is scored and profiled in under 10 minutes</li><li>• Is supported by a wide range of expert reports</li></ul> <p>Criterion scores also available for:</p> <ul style="list-style-type: none"><li>• Emotional intelligence</li><li>• Counter productive work behaviour</li><li>• Team roles</li><li>• Leadership and Management Styles</li><li>• Career Themes</li></ul>	
	

Discover Potential.  
[www.Psytech.com](http://www.Psytech.com)

## Appendix 2: Definitions of 15FQ+ Leadership Styles



Discover Potential.  
[www.Psytech.com](http://www.Psytech.com)

### **Directive Leader**

Directive Leaders are characterized by having firm views about how and when things should be done. As such they leave little leeway for subordinates to display independence, believing that they should adhere to the methods and schedules as originally laid down. Having a high goal-orientation and being particularly concerned with results the Directive Leader will tend to closely monitor the behavior and performance of others. This may lead them to be perceived as a little cool and detached. This impression may be reinforced by the fact that they will be lead by their own opinions rather than inviting others to contribute their ideas. Being a particularly self-directed leader may lead to the ideas of others to be excluded from consideration at the expense of their own. However, this will only prove to be problematic should their own judgment and abilities be called into question.

### **Delegative Leader**

As the name suggests, the style of Delegative Leaders is characterized by delegating work to subordinates. Since their style is not strongly democratic, the process of delegation may not involve consultation. As a result, subordinates will generally be assigned work rather than have active input into how projects should be conducted. However, once the work has been assigned only little direction will be provided and subordinates will largely be expected to work with the minimum of supervision. Although such a leadership style may not be everybody's preference those who are naturally independent may enjoy the freedom allowed by such managers.

### **Participative Leader**

Participative leaders are primarily concerned with getting the best out of a team as a whole. Hence, they encourage contributions from all members of a team and believe that by pooling ideas and coming to a consensus view the best solutions to problems will naturally arise. They are unlikely to impress their own wishes and opinions onto the other members of the group but see their role as an overseer of the democratic process. This will involve ensuring each member of the group is given the opportunity to express their opinion and that no one member imposes a disproportionate influence on group decisions.

### **Negotiative Leader**

Negotiative Leaders motivate subordinates by encouraging them, through incentives etc., to work towards common objectives. Hence, through a process of negotiation attempts will be made to arrive at some mutually equitable arrangement with the other members of the team so as to motivate them to work in a particular way. Negotiative Leaders tend to rely on their skills of persuasion to achieve their stated goals. Many Negotiative Leaders have well developed image management skills and they typically utilize these to moderate their approach according to the circumstances in which they find themselves. This capability, coupled with a desire to achieve, can mean that sometimes they adopt unconventional methods to achieve their desired objectives.

### **Consultative Leader**

The Consultative Leadership Style combines elements of both democratic and directive leadership orientations. They value group discussion and tend to encourage contributions from the separate members of the team. However, although group discussions will be largely democratic in nature, Consultative Leaders typically make the final decision as to which of the varying proposals should be accepted. Hence, the effectiveness of this leadership style will be dependent upon the individual's ability to weigh the advantages and disadvantages of each of the varying ideas produced by the members of the group and their capacity to encourage them to accept a final decision that may not necessarily be that favored by the majority.