



Leadership Styles in the UAE Construction Industry

Dissertation

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Abstract

The construction industry is one of the leading industries in which various sectors are interrelated. Any organization requires well developed and skilled leaders to be sustainable in the industry. A strong leadership style is imperative for the success of every organization and the performance of the industry largely depends on the skills of the leaders and their management tactics. This dissertation discusses the influence of different leadership styles on the performance of the construction industry and the various factors affecting those leadership styles. Historical data suggest that the construction industry lacks effective leadership practice, which has eventually prevented it from accomplishing better results and performances.

The construction industry of the United Arab Emirates (UAE) is expansive and requires effective leadership strategies for its development and growth. For the success of the construction industry, transformational and transactional leaderships should be followed for the managers to deal with changing situations effectively. These forms of leadership are important because they adapt with each situation and satisfy the current organizational requirements. To enhance the level of productivity and create a successful industry, transformational and transactional leaderships are extremely important.

This dissertation elaborates on the aspect of leadership and its impact on the success of an organization, particularly in the construction industry. Effective leadership practice can significantly increase the profitability of the construction industry in UAE. Moreover, experiences of the leaders and their decision making ability are important considerations that greatly affect the success of an organization. The effectiveness of an organization depends on its leadership style and the way the leader addresses various situations to derive proper and relevant output. The findings obtained from this study revealed that the age of the leader plays a significant role in

determining the leadership style. To a major extent, aged leaders tend to apply transformational leadership styles more often compared to their younger peers. In addition to transformational leadership styles, aged leaders also use transactional styles to motivate their subordinates within the workplace. Conversely, the tendency of leaders to use transformational or transactional styles of leadership had almost no correlation with the gender of the leader. While gender had no significance on the adaptation of leadership styles among the sampled respondents, the correlation between the nationality of the leaders and the leaders' choice of transactional and/or transformation leadership styles were prominent. However, due to their educational level, most leaders prefer using a transformational leadership style. The independent variable (i.e., education) in this context had little significance in the adaptation of transactional leadership choices. A similar correlation was observed between the work experience of the leaders and their selection of leadership styles, whereby a longer work experience showed a positive correlation with their adaptation of a transformational leadership style but not with transactional leadership attributes. Furthermore, organizational positioning had a strong correlation with the leaders' choices of transformational or transactional leadership styles. Conclusively, Structural Equation Modelling (SEM) has been applied to conduct a simultaneous test of the entire system of variables in the hypothesized model to determine the extent of transformational and transactional leadership style on the organization's performance. The outcome latent construct is measured by Extra Effort, Satisfaction, and Effectiveness. Results showed that both transformational and transactional leadership style have positive outcomes on organization's effectiveness and employees' satisfaction.

Keywords: Construction industry, Transactional leadership, Transformational leadership, Decision making, Skills, Teamwork, Organizational Culture

Abbreviations

(AGFI) Adjusted Goodness of Fit Index

(ANOVA) Analysis of variance

(CEO) Chief Executive Officer

(CFI) Comparative Fit Index

(CN) Critical N

(Con_Rew) Contingent Reward

(COO) Chief Operating Officer

(Ex_effort) Extra Effort

(GDP) Gross Domestic Profit

(GFI) Goodness of Fit Index

(H) Hypothesis

(IFI) Incremental Fit Index

(Influ_A) Idealized Influence (Attributed aspect)

(Influ_B) Idealized Influence (Behavior aspect)

(Ins_Moti) Inspirational Motivation

(Ins_Stim) Intellectual Stimulation

(Ind_Cons) Individual Consideration

(IT) Information Technology

(KMO) Kaiser-Meyer_Olkin

(Laiss_Fa) Laissez-faire Leadership

(LMX) Leader-Member Exchange

(MIST) Minimum Industry Safety Standard

(MLQ) Multifactor Leadership Questionnaire

(MLQ) Multiple Leadership Questionnaire

(MOE_Pass) Management-by-Exception (Passive)

(MOE_Acti) Management-by-Exception (Active)

(NFI) Normed Fit Index

(OIM) Offshore Installations Manager

(PCA) Principal Components Analysis

(RMSR) Root Mean Square Residual

(RMR) Root Mean Square Residual

(SEM) Structural Equation Modeling

(SPSS) Statistical package for the social sciences

(UAE) United Arab Emirates

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Chapter 1

Introduction

Over the years, scholars and practitioners have sought for a definition of leadership. As early as 1935, Tead defined leadership as “the activity of influencing people to cooperate toward some goal which they come to find desirable”. Three years later, Barnard (1938) came up with this explanation:

“Leadership is the indispensable social essence that gives common meaning to common purpose to create the incentive and infuses the subjective aspect of countless decisions with consistency in a changing environment”. More recently, the definition of leadership became clearer, focusing on the leader’s influence and the members’ participation. One definition that reflects this is Clark’s (2008), who expounded:

“Leadership is a process by which a person influences others to accomplish an objective and directs the organization in a way that makes it more cohesive and coherent. Leaders carry out this process by applying their leadership attributes, such as beliefs, values, ethics, character, knowledge and skills”.

This definition points to the fact that leadership is central to the success of a team. It plays a monumental role in various fields and leadership styles can differ from one industry to another depending on its nature and goals. Dubrin (2004) describes leadership style as a combination of one’s behaviour and attitude, which determines how he deals with his group members and how they will relate to him on a regular and predictable basis. Thus, the leader’s style is his relatively consistent pattern of behaviour that characterizes him or her.

This study investigates leadership styles in the in the construction industry of the United Arab Emirates. Learning about such leadership styles becomes significant because it has not been fully explored in the context of this country's construction industry. Knowledge about this would be very beneficial to contractors, consultants, managers, etc. so they can apply it to their practice as leaders in a variety of projects. It also has major implications in Human Resource Management because it is responsible in evaluating the performance of employees in their jobs, and the leadership they follow plays a huge role in their motivation, job satisfaction and quality of performance. The government can also derive benefits from this study as it keeps them informed about how leadership works in this industry and the processes involved in the construction business. Such information can help them in crafting guidelines that they can prescribe to construction business in terms of achieving a successful, safe and profitable construction industry which significantly contributes to the country's economy.

This chapter provides an overview of the study including impact of leadership styles on followers, leadership styles applied in various fields such as Oil & Gas, IT and Communication. Next, effectiveness of different leadership styles in construction industry will be highlighted followed by overview of the construction industry of the UAE. Then, leadership in construction industry will be highlighted at high level and the objective of this study along with the gap it's trying to fill will be provided.

1.1 Impact of Leadership Styles on followers

Leadership theories have undergone developments shifting the focus from leaders' charismatic traits, imbuing them with extraordinary qualities that make their followers rely on them (Yukl, 2006) to more contemporary transformational leadership theory (Bass, 1985) which emphasise the

leader's empowerment of his followers to function on their own even without him. This theory highlights what the leader is able to accomplish with his team rather than on his own personal characteristics and how he relates with his followers. He is able to make his followers prioritise the good of the whole group, organisation or society over their own self-interests. On the other hand, Bass (1985) also identifies Transactional Leadership, which focuses on the routine transactions of the group, giving more attention and recognition to members who meet the group's standards. This is known as contingent reinforcement. Bass (1985) describes transformational leadership as one that empowers group members and motivates them beyond their own expectations of their own performance. This leader encourages the achievement of more collective goals instead of just focusing on individual personal goals.

Although there are several leadership styles established and critiqued by scholars in the literature, such as autocratic, bureaucratic, democratic, participative, situational, transactional and transformational, Mosadeghrad (2003) asserts that not everyone can agree on a certain style with the most effective results in terms of organisational behaviour. Each situation requires a specific leadership style and it is up to the leader to know exactly how to behave to manage his team. There is no one ideal leadership style for every situation because a leader may have the knowledge and skills to apply in one situation but not for another because it may require a different set of knowledge and skills (Rad and Yarmohammadian, 2006).

Mumford and Licuanan (2004) enumerated the elements that shape the impact of leader behaviour on workers' creativity and innovation. One is the innate creativity of the followers that the leaders should strive to nurture and encourage to take flight. Other elements include work group processes guided by clarity of objectives, emphasis on quality, participation and support for innovation; leader control of rewards; job characteristics such as job complexity and challenge; and

organizational climate and structure. Mumford, Connelly, & Gaddis, (2003) identify that leaders should possess substantial technical and professional expertise as well as substantial creative thinking skills in order to implement a more participative style of leadership. These researchers argue that creative thought on the part of leaders begin with evaluation of their followers' ideas. This evaluation stimulates brainstorming efforts of both leaders and followers where idea generation becomes active.

1.2 Leadership Styles Applied in Various Fields

In creative industries such as Advertising and innovative areas such as Information Technology (IT), leaders are responsible for encouraging their staff and followers' creativity, which can be the core of the business. Hence, transformational leadership is necessary, by way of practicing a more participative style of leadership to engage workers to unleash their creative ideas with their leaders. This style has a system of values that govern behaviour and is committed to implement open communication between the leaders and the members, with consensus and compromise being common practices in resolving conflict. Transformational leadership allows the sharing of decision-making processes with group members (Dubrin 2004). Followers' ideas are reshaped and reformed based on their leader's expertise and professional experiences (Mumford & Licuanan, 2004). Leaders, especially in IT should be able to nurture a culture where everyone's ideas are valued and maintain a balance of freedom to experiment and an agreed system of evaluation. Generally, they facilitate a harmonious relationship between the external and internal cultures, with the external culture consisting of "technological innovations, population change, new patterns of trade, fluctuation in fiscal and monetary policies, global competition, the increasing strains on natural resources and the effects of all of these on how customers and clients are thinking and

feeling” (Robinson, 2011, p. 98). Internal culture involves social behaviours and practices accepted in the organization which gives it its distinctive feel.

In health care, the Resonant Leadership theory based on Goleman et al.’s (2002) concept of emotional intelligence argues that leaders should be sensitive to their followers’ emotions because it affects their well-being and performance and vice versa. Such emotional maturity is a mark of a transformational leader. On the other hand, the Leader-Member Exchange (LMX) links leadership processes with patient outcomes (Graen & Uhl-Bien, 1995). Simply explained, followers’ perceptions of their leaders can dictate how they will behave in their jobs and in the quality of service they will deliver to their customers or patients. Again, this prioritization of the achievement of organisational goals over personal ones characterises Transformational leadership. In general, the health care industry recognizes the need for the effectiveness of leader practitioners in providing quality health care (Nolan et al. 2012). Outcomes of transformational practitioner care include high patient satisfaction, resolution of the disease condition, and adherence to treatment recommendations (Budd et al., 2009). It is suggested that such practitioners talk with patients to adapt to medical regimens and know patient preferences to be able to provide disease prevention counselling, health education, and health promotion activities.

In the oil and gas industry, leadership styles may vary according to the context it is used. For example, autocratic style of leadership or management is needed in matters related to safety such as adhering to the Minimum Industry Safety Standard (MIST) applicable to the entire United Kingdom offshore oil and gas sector. This standard assesses risk, manual handling, safe working conditions and identifies the hazards in the offshore environment (Management styles in the oil and gas industry, 2015). Employees are expected to comply with the instruction provided by the Offshore Installations Manager (OIM) at all times to assure their safety. However, when the leader

needs to involve his employees to find out about their opinions or feedback before he reaches a final decision, a democratic style of leadership is most effective. This not only empowers the employees to speak out but it also helps the leader assess a more realistic scenario from people who have experienced the work first hand (Management styles in the oil and gas industry, 2015). This is transformational leadership at work. Like the oil and gas industry, leadership in the construction industry should help create a well-rounded, safe, rewarding and challenging work environment so that workers are motivated to work at their best in contributing to the creation of a safe working and living environment (Management styles in the oil and gas industry, 2015). Effective leadership is vital in an organization to attain goals and promote professional achievement at an individual level (Loo, 2002).

1.3 Effectiveness of different Leadership Styles in Construction Industry

The construction sector is an industry in which the application of transactional and transformational leadership and practices are highly relevant (Newton, 2009; Briggs, 2008). Effectiveness of different leadership styles varies according to the job roles. For example, literature argues that a participatory leadership in the construction industry is necessary for executives, while project managers and superintendents must possess autocratic styles of leadership. The dimensions of transactional and transformational leaderships have a separate impact on organizational performance. Bass (1990) contends that the transactional style is based on an exchange that one gets for something he does while a transformational style is based on building engagement and participation, in effect, leading them to perform better altogether. For example, compromising on the appropriate salary of a construction worker based on what he can do and the quality of his work is part of a project manager's transactional style of leadership while coaching a new worker in not

only the skills needed for the job but also the necessary attitude to complete it demonstrates transformational leadership.

Transformational leadership entails knowledge of conflict management. In general, leaders such as the project manager, project engineer and superintendent in construction sites must be able to satisfy the conflicting requirements of multiple players while simultaneously supporting organizational success (Goetsch and Davis, 2006). In addition, transformational leadership must facilitate successful growth of professional careers in the same field. Such leadership style is essential for the execution of projects (Cooper, Scandura & Schriesheim, 2005). Effective leadership entails knowing how to motivate people under their supervision because transformational leaders are adept in the use motivation to express their high expectations of their employees (Bass, 1990). This characteristic is positively related to self-confidence, conviction, self-control, ability to handle conflict and tolerance for stress. The information gained from research studies on the positive relationship between transformational leadership and emotional intelligence is highly valuable to organizations.

1.4 Overview of the Construction Industry of the UAE

The UAE is considered the second largest economy in the Arab nations and is among the high-income countries (Schiliro, 2013) in the world. From 2000 to 2012, the annual GDP growth rate of the UAE was averaged at 4.7%, which was good enough considering the severe global economic crisis of 2009 (Schiliro, 2013). The downfall of the world economy did not stop the UAE construction industry from building. The recession in 2007 eventually took its toll on the UAE construction industry in 2009, specifically affecting Dubai due to its non-oil sector's linkages to global trade and financial markets as well as the drop in real estate prices. The global correction

in residential real estate markets has caused the dramatic 35% decline in house prices and construction activity in the UAE. Hundreds of construction problems have been abandoned or suspended because of financial constraints (Lobel, 2015). Economy bounced back and the following years saw the steady progress of the construction industry. In 2012, the UAE economy grew 4% despite the difficulties created through Euro zone and the negative global prospects (Schiliro, 2013). As foreigners are allowed to buy properties in 2002, the construction industry further booms. Several properties are sold almost immediately with only a few regulations to comply with (Lobel, 2015). The UAE attracts foreign investments especially in the construction industry raising its status as a source of funding for the global economy. Such status and significant growth in its economy has made the country a dynamic environment for business opportunities, hence bringing in more investments from outside the UAE.

According to Harris (2014), investment in infrastructure development is expected to boost the UAE's construction sector. The UAE is set to spend \$329 billion on major construction projects in the next 15 years, up to 2030. Mega construction projects worth \$40 billion are due for delivery in 2016 (Sophia, 2013). Dubai is set to receive 25 million visitors during the Expo, while Expo-related expansion plans alone are expected to create 300,000 jobs over the next few years. With the UAE hosting mega events such as Expo 2020, the construction industry is anticipated to grow even more (Sophia, 2013). In 2015, property prices slightly decrease as the government implements new regulations amidst a weakening global market. Still, constructions continue especially since there are proposed projects for the first rainforest in the desert as well as the biggest mall and observation wheel in the world which are all envisioned in the Dubai in the near future (Lobel, 2015). The UAE had overtaken Saudi Arabia as the biggest construction market in the Middle East for the first time since the financial crash (Deloitte GCC Powers of Construction

2013 report by CPI Financial Inn). The economic impact of this news in the construction industry of UAE is immense. Property prices rise by over 30% as a result of the announcement that Dubai will be the host for Expo 2020 (Lobel, 2015). The value of the UAE's construction industry for the year 2014 is \$315 billion (Harris, 2014). The property and construction sector in Dubai contributes approximately 21% of the Emirate's GDP, which amounts to nearly \$38 billion in 2012. The construction industry contributed 10.6% in 2008 and 10.3% in 2011 to the GDP of the UAE (Dubai Chamber, 2013). It is forecasted to grow from 11.1% of the GDP in 2015 to 11.5% by 2021. UAE has become a haven for employment for workers in the construction industry. It has welcomed foreign workers from South Asia (India, Pakistan, Bangladesh and Sri Lanka), other Arab, European and Western countries. The Ministry of Labour Statistics showed that over 1.47 million construction workers are employed there in 2014. This represents 33.45% of the work force in the country. With 58,000 registered construction companies, it represents 18.51% of the total number of business establishments that contribute to the economy of the country and of that number, about 6,000 companies are registered as special grade companies (Ministry of Labour, 2014).

1.5 Leadership in the Construction Industry

Leadership is becoming increasingly recognized in the construction industry and it is the most important skill that a construction manager can possess (Berry & Cartwright, 2000). This is because they need to have a way of relating to people, as they are the ones responsible for carrying out the operation of projects (Rutherford, 2004). Although leadership has been essential in ensuring the success of construction projects, several managers and workers have failed to realize their objectives because of the bad leadership characterized by them (Makilouko, 2004). From this

aspect, it is evidenced that leadership is essential for a successful implementation of a project. Similarly, there are reasons why leadership has become an issue in the construction industry because of its necessities as will be outlined in the subsequent paragraphs.

Leadership has become an issue in the construction industry since a leader may be required to work in many construction sites, which may be situated away from his or her home (Rutherford, 2004). Leaders need to understand the underlying cultural practices of different countries since they travel from country to country. This will enable them to relate well with the people they interact with, which contributes to the success of the project. It requires multicultural leadership styles, which enable them to understand the underlying issues with the local people in order to deliver as expected. From this scene, it is evidenced that leadership is a very essential issue in construction because a leader must be able to maintain the team cohesion to avoid cross-cultural problems and understand foreign cultures (Makilouko, 2004). Since the UAE welcomes a wide diversity of professionals from various cultural backgrounds, leaders should be able to brief their workers on the culture of UAE and how to adapt to it in order to live and work harmoniously with the locals. Diversity of culture means there is diversity in viewpoints, attitudes, ideas, practices, etc. that are brought into the team from a variety of backgrounds (Hofstede, 2001; Lane et al., 2009). Although there is a great tendency for workers from different cultures to develop conflicts, in general, cultural diversity enhances rather than worsen the performance of teams (Suwannarat & Mumi, 2012). An adequate understanding of the culture of others is essential in order to have good interaction with each other. One needs to be able to adapt and make a conscious effort to learn from others so that the elements of their culture may be integrated into their own (Lin, 2004). The 21st century leadership has been marked by different technological advancements and globalization, which has put the pressure on the construction industry. This has made more leaders

to acquire human resource skills, which can enable them to deal with the resources used in the implementation of the projects. The process of globalization has eased the flow of workforce from all parts of the world hence there is need to have a competent leadership, which can steer the project forward and ensure desired progress. Therefore, leadership in the construction business is essential as nothing happens without his work force. This puts the construction industry leadership to have certain knowledge in relation to team building, planning and organization (Rutherford, 2004). Leadership in the construction business can only become an issue and a challenge if the leaders are not able to organize their workforce and show them the direction, which the organization should take. This may interfere with the projects' operation and fail to deliver the expected outcomes.

1.6 Objective of the Study

The primary objective of this study is to explore leadership styles in the construction industry of the UAE in relation to some key demographic factors such as the leader's age, gender, nationality, work experience, educational level achieved and organisational position. In addition, this dissertation analyses the construction industry of the UAE and the importance of leadership styles. It highlights how transformational and transactional leadership style works and how demographic factors in the company affect leadership. An overview of the construction industry of the UAE has also been provided in this study. This study is considered significant because the qualities required to show leadership can be demonstrated by all types of people in many different ways and as we have seen with many differing styles. They can all be equally effective or ineffective in performing a leadership role. However, people working in construction industry need to understand their style of leadership and how this may impact on others. This study will provide a

useful instrument by which developers, contractors and consultants working within the construction sector of the UAE can evaluate the significance of demographic factors in relation to leadership style. This study is unique as it examine transformational and transactional leadership style within a contemporary regional context. A number of studies have been carried out in the UAE that suggest leadership in UAE's culture nurtures consultative and participative tendencies. These are all outdated by more than a decade and no recent study in the UAE's construction sector exists and none which explore leadership styles' in relation to key demographic factors (Kasim & Abdul Ghaffar, 2012).

Within this research, there will be some key questions raised to explore what kind of relationship exists between age and style of leadership in UAE construction industry. Moreover, the question will search if there a significant correlation between gender of the leader and type of leadership style. In addition, research questions will test if leadership style differs by nationality of a leader, level of education or organization position. Subsequently, the study develops a series of hypotheses is to be tested, using a multifactor leadership questionnaire (MLQ). Results from testing the hypothesis will be presented and a discussion that will lead to a conclusion will be highlighted. The contributed factors of Transformational leadership style, which are Idealized Influence (Attributed aspect), Idealized Influence (Behavior aspect), Inspirational Motivation, Intellectual Stimulation and Individual Consideration are going to be measured by Extra Effort, Satisfaction and Effectiveness. The nature of relationship of the factors highlighted are targeted to be analysed. Furthermore, Transactional leadership style contributed factors, which are Contingent Reward, Management by Exception (Passive), Laissez-faire Leadership and Management by Exception (Active) is going to be measured by Extra Effort, Satisfaction and Effectiveness. The nature of relationship of the factors highlighted are targeted to be analysed.

1.7 Conclusion

It has been established that leadership, most especially, transformational and transactional leadership is crucial to the performance of teams and organization ultimately. The leader's behaviours, attitudes and way of relating to members have a corresponding effect on the members' delivery of tasks assigned to them thereby translating it to the achievement of organisational goals. In the UAE construction industry, projects necessitate effective leaders who can motivate their workers to deliver high quality work and meet deadlines set by customers. This dissertation delves into the demographic factors that affect leadership in the construction industry in the UAE, specifically the factors of age, gender, nationality, educational achievement, work experience and organisational position of the leaders and the leadership's tendencies towards either transactional or transformational styles.

1.8 Outline of the Thesis

Following this chapter, Literature Review chapter of this thesis will be highlighted and different theories relevant to the construction industry will be discussed within the same chapter. There will be a discussion of how much a qualified leader in the construction industry can save of the total cost of the project. In addition, how personal traits of a leader play crucial role in leadership qualities. Black and Mouton's model, which explains various leadership approaches in four quadrants will be discussed and how it is applied to the construction industry. Then, leadership styles will be discussed and how different leadership styles produce different results will be highlighted. Coaching, affiliate, democratic and autocratic leadership styles will be discussed in short, but transformational and transactional leadership styles will be discussed in full range as it

resemble the aim of this study. As leadership is influenced by a number of factors, a discussion over different elements impacting leadership such as style, teamwork, skills and participation will be discussed and a table summarizing author's point of view on the same will be presented.

Following the Literature Review chapter, Research Methodology and Hypothesis chapter will be presented. A chapter of which quantitative versus qualitative research methodology will be discussed and why quantitative approach is more appropriate for this study will be highlighted. Advantages of Multifactor Leadership Questionnaire will be highlighted one of them is the 360° capabilities that is useful for assessing perceptions of leadership effectiveness among team leaders, supervisors, managers and executives in various levels in an organization. Then, applications and description of the MLQ (5X Short and 5X Long) will be discussed. There will be a section within this chapter to discuss the research uses of the MLQ along with its theoretical background and development. A section also going to be introduced about research questions of this study and hypothesis generated for each and every research question. There are six research questions of which addresses the six demographic factors. Each and every research question will have three different hypothesis to be tested. Ethical consideration section will be the last sections of this chapter.

After the Research Methodology and Hypothesis chapter, Results and Discussion chapter will be presented where the first section will provide an overview for treatment of missing values and outliers. In addition, normality distribution check results will be highlighted. The second section will provide an analysis of the respondent profile as well as a summary of demographic data of participants. Also, Principal Components Analysis (PCA) method been highlighted and Bartlett's Test between Transformation and Transactional factors were conducted and the results will be reflected. The third section of the results chapter will touch base on the research questions and

hypothesis were they are presented to identify what this study is particularly interested in and the hypotheses the researcher initially has as gleaned from the literature. The research questions and hypothesis will discuss age, gender, nationality, level of education, years of work experience and organization position with respect to transformational leadership style and transactional leadership style. Then, Structural Equation Modelling (SEM) chapter will be highlighted and within this chapter there will be a simultaneous test of the entire system of variables in the hypothesized model to determine the extent to which it is consistent with the data applied. The maximum likelihood estimation technique will be used to estimate the models because this technique has generally been found to generate reliable results even in situations where the data may violate the assumptions of SEM such as normal distribution and large sample size (Chou & Benter, 1995). Following the introduction, the measurement model will be explained. Then, an assessment of the structural model-1 will be presented that is the impact of transformational leadership on the outcome of which will include Conceptual Model to be tested, Pathway Coefficient for the structured model, Model estimation and hypotheses testing. Similarly, assessment of the structured model 2 will presented that will address the impact of transactional leadership on the outcome going through the same tests. Finally, the assessment of Outcome Latent Construct for both transformational leadership and transactional leadership will be highlighted.

Following the SEM chapter, Conclusion chapter will be highlighted. Within this chapter, the content of research will be highlighted along with major points this study revealed. The hypothesis obtained from literature review will be discussed of which will cover six different demographic dimensions i.e. age, gender, nationality, work experience, educational level and organizational position. The findings of the study will be discussed in a full section that will include the different correlations between transformational and transactional leadership style when compared to the six

demographic dimensions. Recommendations section will follow that will include the imperative need to have full awareness of leadership styles and its effect on the team and the construction projects as a whole. In addition, the recommendations section will highlight the future studies that could be conducted in other countries or a cross cultural comparison of leadership styles in other industries apart from the construction industry. Theoretical contribution will be highlighted in which theory from literature review will be linked to findings obtained. Practical implications will follow where the writer will demonstrate his opinion about findings obtained.

Chapter 2

Literature Review

2.1 Introduction

It is important to understand the theories on leadership as well as the studies already conducted by scholars and researchers. This chapter presents those theories especially the ones relevant to the construction industry and how it affects the booming construction projects in the United Arab Emirates. Within this chapter, leadership theories that are relevant to the construction industry are discussed. Then leadership styles follow, discussing various styles reported on in the literature. It then focuses on transformational and transactional styles of leadership. This is followed by the identification of elements that affect leadership in the construction industry such as the leader's age, gender, nationality, level of education, work experience, and position in the organization.

2.2 Leadership Theories Relevant to the Construction Industry

Recent researches illustrate that qualified leadership in the construction industry can save up to 10 per cent of the total costs. The savings could be made via practicing leadership traits such as making wise rapid decisions of which shorten the processes (Skipper & Bell, 2008). To acquire a culture of high productivity and improve the construction industry, leadership styles and their essence play a central role (Berry & Cartwright, 2000). The industry must establish professionals to work at different levels of construction projects. Managerial positions in the construction industry fall under project executives, project managers, field engineers and office engineers (Collinson, 2005). A successful executive must be intelligent, imaginative and inspirational. This

means effective leaders in the construction industry must have the capacity to make important decisions rapidly while satisfying each player in the industry (Cooper, Scandura & Schriesheim, 2005). Leadership plays a crucial role in the industry of construction. The leadership models in the construction industry range from contingency and transformational models to autocratic models. Project managers are required to be relationship-oriented and socially independent. Leaders in the industry of construction must maintain good relationship among the stakeholders (Berry & Cartwright, 2000). Civil engineers have been trained maintain good interpersonal relationships (Cooper, Scandura & Schriesheim, 2005). Leaders must create understanding among stakeholders and the project teams. This entails developing a vision and transferring it to team members (Collinson, 2005). Leadership in the construction industry is therefore viewed as personal traits, implicit motives and self-acquired cognitive behaviors (Heller, 2004). The leader must have a special ability to understand and operate situational variables. Research shows that the contingency mode of leadership is the most widely used (Cooper, Scandura & Schriesheim, 2005). Studies show that authentic, charismatic, spiritual and coaching are also classified as forms of leadership in the industry of construction (Ingirige, 2004).

The personal traits of a leader play a crucial role in the determination of leadership qualities and style (Chan & Connolly, 2006). This approach presumes that leaders are born with leadership traits that can determine the success of an organization or specifically a construction company (Andi, Santoso & Tali, 2004). The innate leadership traits tend to give leaders an upper hand in the construction industry. However, it is hard to have predefined and universal personal traits in leaders (Collinson, 2005). Therefore, the theory is viewed as ambiguous. This idea is countered by a theory that proposes that leadership depends on skills and behaviors more than personal traits (Dainty & Price, 2002). In a turbulent construction market, leaders should be allowed to pick the

best leadership style rather than use a predefined set of traits associated with successful management (Andi, Santoso & Tali, 2004).

Studies in leadership may be categorized in various approaches. The behaviour approach in studying leadership focuses on the leader's typical pattern of behaviours in the management of his team. For example, it may ask what kind of behaviours is exhibited by the ideal project leader. The power-influence approach, which is more leader-centred, assumes that power is used not only to manage subordinates but also to influence peers, superiors, and even people outside the organization. This approach honours the project head's ideas and opinions in finalizing decisions for the project. It is assumed that he was bestowed this power because he earned it either by having proven his worth through his past successful projects, or he is armed with laudable commendations from credible sources because of his skills, education and expertise. Still another leadership approach is the situational approach which views leadership as influenced by various elements such as the characteristics of followers, the nature of the work, the type of organization and the nature of the external environment. Finally, the integrative approach involves more than one type of leadership variable and incorporates other perspectives of leadership (Yukl, 2006).

Several models of leadership have been proposed over the years. One model that has been exhausted in the business world is Blake and Mouton's Leadership model which explains various leadership approaches in four quadrants, as follows:

Figure 1: The Blake Mouton Grid

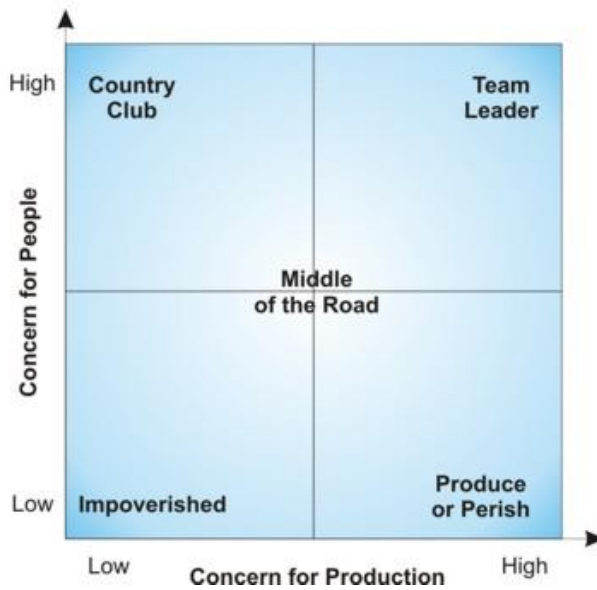


Figure 1. The Blake Mouton Grid (Manktelow & the Mind Tools Team (2014))

According to this framework, there are four main kinds of leaders. Each leadership approach is based on its position on two axes, the “concern for people axis” and the “concern for production or task axis”. Applying this framework to the construction industry, the first quadrant, the Country Club leader is characterized by being high on his concern for people and relationships but low in his concern for production and tasks. This leader tries to maintain the good rapport of his team, making everyone feel good about their jobs. However, his concern for the completion of their tasks at high quality may not be as important for him as his workers’ motivational level and job satisfaction. This means if the team does not deliver the expected work and does not meet required deadlines, he tries to understand and even makes excuses for them. He is averse to punishing any team member for fear of upsetting them. Consequently, this may adversely affect the project especially when the workers become complacent in their tasks and exploit the kindness and consideration of their leader. On the other hand, if the leader has positively motivated them and they appreciate his benevolence, then the team can take the initiative to work harder in order to

give back to their leader. The leader is responsible in maintaining their motivation to be productive at work. The Team Leader is one who may be considered the ideal leader, being high on his concern for his workers as well as his concern for their production. This leader can sustain his friendly relations with his workers while efficiently motivating them to do their tasks well and with high quality. He can be strict with them so as to push them to produce the results he wants, thereby meeting the deadlines required by the clients and the quality of work they deserve. Under this kind of leadership, not only are the workers happy and content but they are also fulfilled in being able to contribute much to the project. The Impoverished leader is low on both concern for people and concern for their task/production. He is known for ‘delegating and disappearing’, not caring for the consequences of his behaviour while putting the blame on someone else when the project fails. He is not dedicated to the project and does nothing to increase the team’s productivity. This results in the low morale of the team and the loss of motivation of the workers to work hard and perform well. This kind of leader is at risk of being replaced anytime due to his inefficiency which may cause the downfall of the project. Lastly, the ‘Produce or Perish or Authoritarian’ leader may not be high on his concern for his workers but highly concerned about their productivity. His main priority is the accomplishment of the tasks he gives his team members, without regard for their personal situations. This kind of leader may be effective in projects with very short deadlines because the workers are pushed to deliver on time. However, it may also result in low morale and dissatisfaction among the workers who seek more personal approaches in leadership (Blake & Mouton, 1985). There is much to be learned from each type of leader. Although the Team Leader was adjudged to be the best, there are benefits to be gained from the other types of leadership in this model (Blake & Mouton, 1985). While the Impoverished leader is inefficient, his team members learn to develop self-reliance in order to survive since they cannot rely on their leader.

A sense of discipline is instilled in the members of a team led by an Authoritarian leader especially those who may be motivated to complete the tasks. With the Country Club leadership, members with low self-esteem will benefit from its emphasis on making each other “feel good”. Good leaders can discern which type of leadership to employ depending on the situation in order to achieve the best outcomes.

Some leadership traits include adaptability, intelligence and flexibility (Collinson, 2005). Construction managers must have the skills to handle uncertainties or unexpected changes. Emotional intelligence demands that managers must incorporate both natural and professional skills to maximize the skills and potential of the construction workers.

2.3 Leadership Styles

Different leadership styles produce different results depending on the nature of construction and the stage in construction. The choice of a leadership style should motivate stakeholders to offer maximum commitment with an aim of delivering excellence. The quality and style of leadership in construction industry play a pivotal role in the delivery of stakeholders’ expectations (Ejohwomu & Proverbs, 2005). Goleman, Boyatzis & McKee (2002) have identified various emotional leadership styles that have posed great influences on various members of organizations. The Visionary leadership style uses inspiration, self-confidence, self-awareness and empathy. This kind of leader embodies a purpose they live for and attunes it to values shared by the people they lead. Having empathy as a strong competency, this leader has the ability to sense how others feel and understand their perspectives, so he can articulate a truly inspirational vision to them. The visionary mode comes naturally to “transformational” leaders or those who seek positive changes for an organization. It has been established that the transformational leadership style considered

as one of the most effective ways of leading people to fulfilling the goals of the organization (Burns, 1978; Bass & Avolio, 1996; Tichy & Devanna, 1986). This ability to communicate one's feelings and solicit empathy as well as motivation from others separates a charismatic leader from an ordinary one. Transformational leadership is intrinsically based on the process of motivation. This kind of leadership lies on the ability of the leader to inspire the employees to put effort into a task (Kouzes & Posner, 2007). Under this leadership, charisma is viewed as necessary but insufficient. This style of leadership aims at transforming both the industry and the employees. The leaders paint the image of an ideal future and develop a desire for the employees to achieve it. Another emotional leadership style is the coaching style characterized by deep conversations with a member of a team that goes beyond short-term concerns, but more of an exploration of the person's dreams, life goals and career hopes. Although such coaching focuses on personal development rather than on accomplishing tasks, this leadership style generally predicts and outstandingly positive emotional response and better results because the leaders invest on establishing rapport and trust with the members of the organization. It follows that members are more open to listening to performance feedback, with the view that it serves their own aspirations and not just their superiors' interests. The Coaching leadership style works best with employees showing initiative and hunger for professional development. On the other hand, this style will not succeed with employees who lack motivation or require constant direction and feedback. The effective coach possesses the sensitivity and expertise needed to prop members towards their goals and communicates a belief in people's potentials and an expectation that they can do their best (Goleman, Boyatzis & McKee, 2002). The Affiliative Leadership style puts less emphasis on accomplishing tasks and goals and more on employees' emotional needs. Such leaders strive to keep people happy, and create harmony in the workplace to build team resonance (Goleman,

Boyatzis & McKee, 2002). The Democratic Leadership Style engages members to air their perspectives regarding an issue, giving each equal consideration. It works well to surface ideas about how to implement the common vision or to generate fresh ideas for executing it (Goleman, Boyatzis & McKee, 2002). This style builds on the emotional competencies of teamwork and collaboration, conflict management and influence, especially if the group is strongly diverse.

The leadership and management styles should be applied after a close analysis of the nature of construction project. Different managerial positions possess unique leadership patterns. Moreover, the leadership styles tend to vary in the different managerial positions (Berry & Cartwright, 2000). Some construction managers achieve different results when they use different leadership styles (Johnson & Duberly, 2000). Construction managers have a tendency to use supportive style during pre-contract stages and feasibility study (Fraser, 2000). However, they change to a directive style as construction progresses. The situational variables and personal orientation of the project managers tend to be independent of one another in the industry of construction. A study revealed that the managers, who favour team-style leadership score highly on effectiveness (Andi, Santoso & Tali, 2004). The production style of leadership proved to score the lowest according to the same study. The leadership style that involved compromise was found to have average results (Kagioglou, 1998). Studies show that the relationship-oriented style of leadership tends to deliver more results compared to the task-oriented leadership style. Most of relationship-oriented styles of leadership tend to be supportive (Toor & Ofori, 2008). Research shows most contractors prefer a relationship oriented style of leadership. This is different from consultants who seem to have less preference for a relationship-oriented style of leadership (Goetsch & Davis, 2006). Senior managers are seen to lead by example, but exercise tight control over performance. In the industry

of construction, the project manager is viewed as among the most importance positions that influence success. Site managers impact on the quality of the project (Collinson, 2005).

Autocratic leaders are known to make decisions and just announce them. Research shows that this kind of leadership attracts alternative decisions and identifies problems with much ease. Participative leadership entails using various procedures in the process of decision- making (Collinson, 2005). This allows other stakeholders to participate and influence the decision of the leader (Cooper, Scandura & Schriesheim, 2005). This attribute is considered vital in the construction industry. Participative leadership in the construction industry includes consultations and joint decision-making processes (Berry & Cartwright, 2000). This encourages decentralization, delegation and power-sharing (Goetsch & Davis, 2006). Indirect supervision of subordinates is known as free-rein leadership. This leadership style allows construction workers and stakeholders to function with minimal direct supervision. According to Cooper, Scandura & Schriesheim, the subordinates are allowed to demonstrate their capability through performance as opposed to meeting the supervisory criterion (Cooper, Scandura & Schriesheim, 2005). Free-rein leadership style is known to develop the most effective self-managed teams. In the industry of construction, the styles used have a profound effect in the morale of the subordinates (Cooper, Scandura & Schriesheim, 2005). Furthermore, site managers tend to show stronger task orientation than occupational groupings. Transformational leaders are inspirational and offer intellectual challenges to their subordinates. The transactional model was developed in 1970. This model demands that leaders deal with day to day interactions with their subordinates (Berry & Cartwright, 2000). Emotional intelligence is related to some components of transactional leadership in construction industry. The laissez faire style of leadership tends to be hands off and avoids taking responsibilities. This style of leadership is dangerous in construction industry (Cotton, Sohail &

Scott, 2005). Laissez-faire leadership fails to follow up on requests and does not readily express opinions. Contemporary leadership styles aim at removing communication barriers, which is important in modern construction ventures. (Andi, Santoso & Tali, 2004).

Emotional intelligence plays a major role in dealing with multiple stakeholders, who have different capacities to comprehend and process information (Fraser, 2000). With the increasing need to adopt more ways of counterchecking on the globalization effects, the construction industry sometimes finds it difficult to cope with the first changes. It comes with uncertainties that construction leaders are not willing to cope with resulting to serious challenges to the existence of the industry. Such changes call for strong leadership, which ensures that the workforce enjoys a conducive work environment. This aids in their performance in the dynamic changing industry (Ashby & Miles, 2002).

The Transactional leadership of contingent reward factor is developed upon a bargained exchange system where the leader in the construction industry agrees with the subordinates to achieve the organizational goals jointly. Under the contingency factor, the leader is bound to reward the juniors in the industry of construction (Berry & Cartwright, 2000). This leadership style demands clarity in terms of the organizational goals. The leader must be able to acknowledge when organizational goals are achieved and give advice when the subordinates digress (Dainty & Briscoe, 2001). This style is different from leadership by exception. Under the active management by exception, the leader is supposed to issue standards of compliance to the employees in a construction project. The leader of manager is supposed to explain the components of substandard performance (Deasterby-Smith, 2003). This leadership is perceived to be strict since the leader may punish the subordinates for being noncompliant with the issued standards. Construction projects demand strict legal and professional codes of compliance and this style of leadership is used to ensure excellence in

construction projects (Hersey & Johnson, 2008). Management by exception entails strict monitoring of mistakes and taking corrective actions as soon as need dictates. However, the passive management by exception entails leadership without giving standards of compliance or specifying agreements. Nonetheless, the leader is expected to respond when problems become apparent (Egan, 1998). This style of leadership does not respond to problems systematically and is seen to be unprofessional in the industry of construction (Ejohwomu & Proverbs, 2005).

2.4 Transformational and Transactional Leadership Style in Full Range

Transactional leadership can be attributed in various forms. In its constructive form, transactional leadership is enhanced by working with individuals or groups, establishing and defining agreements or contracts to achieve specific work objectives, learning individuals' abilities, and outlining the expectations in compensation and rewards once assigned tasks are successfully completed. In terms of corrective form, transactional leadership is direct towards actively establishing standards. In its passive form, transactional leadership involves waiting for mistakes to happen before an action is taken while in its active form, transactional leadership closely monitors the occurrence of errors and both forms focuses on identifying mistakes.

Surveys were conducted on all levels of managers, students and project leaders globally asking them to describe the characteristics and behaviours of the most effective leaders they have worked in the past. Remarkably, responses encompassed much more than the reward for efforts exchange behaviour and corrective orientation that characterizes transactional leadership. Instead, they described leaders who had the greatest influence on them as transformational: inspirational, intellectually stimulating, challenging, visionary, development oriented and determined to maximize performance. In many cases, the term "charisma" was used.

Some of the key differences in the manner both great and ordinary political leaders were raised by James McGregor Burns (1978). As we began to collect and analyse data, a new model of leadership began to take shape (Bass, 1985). This new model incorporated a broader range of behaviours, from the least potent Laissez Faire leadership to the most potent Idealized (charismatic) leadership. Thus, our objective was to expand the range of leadership styles assessed by the raters and their associates to what many people have described as “exemplary” leadership.

A purely transactional approach will likely fall short as a basis for long term development and significant individual and organizational change because of the resource constraints under which most leaders operate. Nevertheless, leaders of more effective organizational systems will use contingent reinforcement to accomplish lower order objectives those objectives that are the result of achieving expected performance given the ordinary goals set by the leader, associates, and the organization. To complete higher order objectives those commonly associated with highly successful organizational systems another leadership orientation must be discussed: one that is at the higher range of the full range of leadership development and transformational leadership. The use of transactional leadership must take into account individual needs. When these needs are elevated, the leadership exchange begins its shift from transactional to transformational leadership. The focus on the identification of needs and their elevation is what constitutes the base of transformational leadership.

Transformational leadership is related to inspiring associates to perform over and above their initial expectations. This expectation is linked to an initial level of confidence or efficacy in the associates' perceived ability and motivation. Thus, associates' perceptions of self-efficacy or confidence, as well as their developmental potential, are enhanced through the transformational leadership process.

Transformational leadership transforms goals and objectives in order to develop others into leaders and/or a collective leadership group, such as in self-directed teams (Avolio, Bass, & Jung, 1996). They shift from being purely transactional to being transformational because of a developmental orientation. The process of transforming associates does not merely empower them or delegate to them the responsibility for fulfilling a goal; rather, it develops their capability to determine their own course of action, if they lack that ability. Eventually, they will be in a position to assume some of the leader's responsibilities. In essence, the associates become leaders and leaders become exemplary associates.

The higher order changes that arise from transacting to transforming leader associate relationships show that the transaction based changes in associates represent small, but often significant, improvements in their effort and or performance. For example, in a public school setting, transactional leadership operates successfully when students pursue goals, such as a parent's approval for achieving good grades, the social approval of peers or teachers and the winning of a scholarship or admission to a selective college. These are all examples of exchanging effort for specific rewards. Students at John F. Kennedy High School in Silver Spring run a leadership centre and participate in building its programs and projects. They find their own niche to pursue and work together by transforming negative peer influence into a positive developmental experience. They are highly regarded as being able to shape the perspectives of their teachers in their ability to accomplish their goals.

Burns (1978) describes transformational leaders as raising associates' consciousness levels about the importance and value of designated outcomes and ways of achieving them. They also inspire associates to transcend their own immediate self-interest for the sake of the mission and vision of the organization. Associates' confidence levels are thus raised and their needs broadened by the

leader to support development to a higher potential. The heightened motivation is linked to five empirically derived factors of transformational leadership (Bass, 1985): Idealized Influence (Behaviours and Attributes), Inspirational Motivation, Intellectual Stimulation and Individualized Consideration.

2.5 Elements Impacting Leadership in the Construction Industry

Leadership is influenced by a number of factors, which affect their success of delivering the expected outcomes. Since the immemorial time, projects have been carried out with the mandate of meeting the expected outcomes. However, leaders are influenced by factors with some beyond their control as others are due to lack of preparedness among the leaders. Furthermore, these elements bring challenges to the construction industry as they may need technical expertise in implementing which may not be available at the time. With the rapid evolving of globalization, project managers in the construction are forced to move in every corner of the world in implementing project hence encounter different challenges as they get in different environments they are not used to. The construction industry is increasingly becoming complex and uncertain. It is subject to global competitiveness and changing regulations. Leadership must incorporate the multicultural requirements of the global market and apply managerial skills that are becoming more and more necessary (Cotton, Sohail & Scott, 2005).

Regimbald (2002) elaborated on the influence methods expected by project team members and choosing leadership models for projects. His study was influenced by the globalizing world which requires organizations to put structures which are complex and specialize in assigned projects to ensure they meet the positive outcomes. The study also took into consideration the organizational culture, process and strategic direction in influences the behaviour of individual implementing the

project. The analysis of the result from the study revealed that there is a link between the results if influences of project managers, perception of team members and the four models of leadership. The objective of the study was to determine if the project managers could apply leadership theories in successfully managing projects. The conclusion of the study was that leadership styles of project managers are essential for the success of the projects and should be adopted by organization in ensuring they meet the objectives. This study reveals that leadership styles and perceptions of the workforce in regard to the construction project are very critical for the success. The same findings were also supported by Opfer, Kloppenborg and Shrinberg (2002). According to their findings, certain leadership styles make some leaders more successful than others. Similarly, they found that some organizational cultures and environments foster and support the effectiveness in leadership in the construction industry. The study also focused and identified specific leadership factors and behavior characteristics leading to the success of individuals.

Correspondingly, Casper's (2002) study on using emotional intelligence to improve project performance found that projects don't fail, but people do. He asserted that over 90 per cent of the projects' success in the construction industry lies with the individuals' emotional intelligence. The use of emotional intelligence can create a project environment where individuals motivate themselves and maximize their potentials towards solving problems, aligning the team, communicating clearly and making strategic leadership decisions. Other studies conducted by Loo (2002) also revealed that a mixture of both technical and people-oriented best practices marked by good leadership is critical for the improvement of construction projects. Setting up a good organizational culture, which promotes thriving will motivate the workforce, hence give their best towards fulfilling the goals of the projects. The two studies support organizational culture and

leadership styles as crucial elements towards successful implementation of projects in the construction industry.

The need of construction projects to have a sound leadership has been echoed by many researchers due to its critical values and roles in ensuring success. In a study conducted by Brouer and Schwedhelm (2002), project management is found to take place under difficult circumstances compared to line management. It therefore requires project managers to have above average leadership skills to allow them to successfully complete the project. The challenges characterized by the role of project managers make them to retreat to the role of project administrator, thus, giving up in the standards of leadership. Such practice impacts the outcome of the project. It is crucial for project managers to build their leadership skills and pursue the necessary education to enable them to carry out successful project management. Innovative leadership models and holistic concepts of management will be essential as they will be directly applied to project management. Cheung, Lam and Yue (2001) assert that project leaders should design a construction project in a collective manner involving a team of different specialists from various organizations. The lack of direct relationships among the project stakeholders is unhealthy for the successful implementation of projects. In an empirical survey they conducted, the results indicated that charismatic and participative leadership behaviours in the project design result in the satisfaction of team members. This study used the same subjects used by Miller (2001) on the concept of teams and leadership. According to his study, there are four basic categories of team members namely: directors, socializes, relaters and thinkers. Each strength and weakness of these team members has a direct impact on the success of the project. It is very important for project managers to understand personal styles of individuals to understand the stress patterns, frame challenges that can maximize the impact of team members. This is because organizations no longer dwell so much on hierarchies

and projective works, which has brought flexibility in the construction industry. The table below highlights authors' point of views on elements impacting leadership:

Table 1. Authors' point of views on elements impacting leadership:

Author	Leadership style	Teamwork	Skills	Participation
Miller (2001)	x	x		
Cheung, Lam and Yue (2001)	x	x		
Brouer and Schwedhelm (2002)	x			x
Casper (2002)	x		x	
Loo (2002)	x		x	
Opfer, Kloppenborg and Shrinberg (2002)	x	x		
Regimbald (2002)		x		x
Cotton, Sohail and Scott (2005)	x			

It can be seen that leadership style is valued much in the construction industry when implementing projects. The project leader or manager carries with him a heavy burden in ensuring that he meets the goals of the project and achieves success. In many instances, project leaders have shifted their loyalty and returned to their previous posts as mere administrators as they find out that the burden is too heavy for them to carry. It is evident from this chart that the literature review puts a premium on leadership style over other elements because of its strong influence on the workers of a construction project. The elements of teamwork, skills and participation are relatively equal in weight in the studies that have been done on organizational success. Apart from leadership skills, these other elements should also be enhanced and maximized.

2.5.1 Age

Starting with Age component, a leader's age may affect how his members relate to him. Kearney (2008) contends that transformational leadership, even if it has been established as an effective leadership style, may be affected by the age of the leader. Older leaders implementing a transformational leadership style gain the respect and obedience of the team. However, transformational leaders with the same age as their members may not. Younger leaders tend to be more aggressive and impulsive and are more likely to have a transactional leadership style in order to gain the cooperation of their members (Politis, 2006).

Eagly, Johannesen-Schmidt & Engen (2003) observed that the young leaders in the construction companies are more concerned about the present issues and focus less on the resolution of any prevailing issue. This is mainly because of the highly competitive market in the UAE and the behavioural traits of young individuals. They are more enthusiastic and make decisions based on their point of view. This aspect of leadership, which is more concerned with the present issues rather than focusing on such issues in the future is known as the transactional form of leadership. However, aged leaders or senior leaders make decisions based on the situation for the success of organisation and hence, follow the transformational leadership style (Howell & Avolio, 1993).

2.5.2 Gender

Gender also plays a role in leadership. Men and women are not only viewed differently in their biological make-up but also in their personal and professional qualities (Brandser, 1996). Lantz (2008) claims that there are gender differences in leadership perspectives. For example, women executives are most likely to be department heads but men executives are most likely to occupy higher positions such as Chief Executive Officer (CEO), Chief Operating Officer (COO), vice president or even president. This supports the glass ceiling phenomenon which is the

“Unseen, yet unbreakable barrier that keeps minorities and women from rising to the upper rungs of the corporate ladder, regardless of their qualifications or achievements” (Federal Glass Ceiling Commission, 1995, p. 4).

One reason for this is that women are perceived to be too emotional and less competitive than men. Bechman et al. (2008) suggest that women are less risky, confident and competitive, which are qualities associated with leaders. On the other hand, Omair (2010) argue that women leaders are more transformational than their male counterparts, hence, more effective for the organization. Eagly (2007) has differentiated leadership of men and women under two major characteristics. Communal traits such as kindness, concern for others, warmth and gentleness are associated more with women while agentic traits such as confidence, aggressiveness and self-direction are associated more with men. Stereotypically, leadership is ascribed more with agentic traits, which means men are seen as more natural leaders, leaving women leaders at a disadvantage. This implies that women leaders face a double bind (Eagly & Carli, 2004) because they are expected to be both: communal leaders due to traits believed to be inherent in the female gender role as well as agentic leaders due to traits believed to be inherent in a leader. Balancing such traits may be a challenge for women leaders since these traits can counter each other. It is commonly believed that women lack the stereotypical agentic qualities of a good leader because they are not tough enough and do not take charge. However, if a woman leader displays agentic characteristics such as being directive and assertive, she is viewed as being unfeminine. Such a situation leaves women leaders with difficulties in finding an appropriate and effective leadership style (Eagly, 2007). On the other hand, Kemp et al. (2013) observed that the female leaders are much more effective than male leaders in building greater communication among the team members of an organization. It is

evident from the fact that female leaders are effective in monitoring and controlling situations for the benefit of the organization.

2.5.3 Nationality

In terms of nationality, UAE leaders have been observed to be more ‘passive-avoidant’ than their American and European counterparts (Bealer & Bhanugopan, 2014). They are not articulate of their vision as well as important beliefs and values they hold, which are necessary traits of transformational leaders. Hence, it can be assumed that UAE leaders are more transactional in their dealings with their members than both US and European leaders (Bealer & Bhanugopan, 2014). The construction industry in the UAE is usually comprised of cross-cultural teams so leaders should be able to implement transformational leadership practices (Mohamad, 2012). Ofori & Toor (2009) discussed research that depicted cross-cultural leadership practices in the construction sector of the UAE. In this sector, a significant amount of interaction occurs between the stakeholders and the management heads or leaders. This is due to the complex political environment in the UAE and the politics need to be addressed accordingly for the growth of the construction segment. The authors found that leaders who are born and bred in their own country are more committed to the goals of their projects due to their dedication to their country’s development.

2.5.4 Level of Education

Leithwood & Jantzi (2000) contend that effective and transformational leaders possess high educational qualifications in their respective profiles. Several educational institutes in the UAE that develop leadership skills make students class leaders for a certain period such that the students can be more acquainted with the skills of effective and transformational leadership. In the long run, these students tend to become transformational leaders which are the ideal leaders in the

construction business in the UAE (Leithwood & Jantzi, 2000). When leaders are more educated, they know how to use their charisma to motivate their employees to boost organisational productivity.

2.5.5 Work Experience

Randeree & Chaudhry (2012) conducted a survey among 600 individuals belonging to the top three construction departments in the UAE. According to the survey, 50 percent of the respondents stated that their satisfaction level towards their assigned jobs increased considerably because of the prevailing transformational leadership-based practices within their respective organizations. Moreover, the participants revealed that the prevalence of transformation leadership definitely helped fulfilling the targets of the organization by strengthening the decision-making procedures of the business leaders. From the survey, it was revealed that experienced leaders were able to provide proper guidance and make effective decisions for the success of the organization (Randeree & Chaudhry, 2012).

2.5.6 Organizational Position

In Balasubramanian (2012), it was shown that high-level leaders have more power to undertake certain decisions that benefit the construction organizations in the UAE with due consideration to the prevailing political, social and cultural issues within the nation. This might be because the high-level leaders are more likely to possess a rapport with the top political leaders or political personalities of the nation. It is widely anticipated that a leader with a higher position can easily resolve the issues discussed above by undertaking mutual benefits of both parties involved. This is because the high-level leaders are more likely to fulfil the requirements of all of the subordinates of the organizations at large (Balasubramanian, 2012).

2.6 Conclusion

This chapter has presented various theories on leadership and how it impacts organizational success. In various studies reviewed, leadership has been shown to be the most important element in ensuring the success of organizational projects. This is especially true for the construction industry. This chapter also reviewed the elements and factors that may affect the success of a leadership. This study will explore the relationship between age, gender, nationality, educational achievement, work experience and organizational position of leaders and their style of leadership among special contractor engineers in UAE construction sector.

Chapter 3

Research Methodology and Hypotheses

3.1 Introduction

The hypotheses for the research questions posed for this study are presented in this chapter as well as the research method and instrument used to gather data. It mainly uses questionnaires, specifically the Multifactor Leadership Questionnaire (MLQ) to determine the effects of certain factors such as age, gender, nationality, level of educator, years of experience and position in the organization of a leader on the transactional and transformational style of leadership in the construction industry of the United Arab Emirates.

This chapter provides a review of research methods in terms of quantitative and qualitative and reasons why quantitative research method is more appropriate for this study. Followed by a review of literature on the MLQ. Next, the research questions and hypotheses are presented pertaining to leadership in the construction industry in the UAE, specifically on the effect of the leader's age, gender, nationality, educational level, work experience and organizational position on leadership style adopted. The research methodology as well as the data collection, instrument and analysis are elaborated on next, followed by a description of the respondent profile.

3.2 Research Methods

The distinctions between quantitative and qualitative research are well studied. The former methods phenomena such as brand awareness, brand penetration, product preferences that reveal numbers and percentages of which at least within the constraints of a given sample, have the status of "facts". Qualitative research, in contrast, is used when more in depth understanding of consumer

attitudes, behavior and motivations is required (Potter & Wetherell 1987). The quantitative search for ‘facts’ can be usefully thought of as a series of ‘what?’ questions (e.g. *what* number or percentage of people prefer product ‘A’ to product ‘B’, or what number of people in a given population have been sick in the past week). In contrast, qualitative research is almost universally associated with ‘why?’ questions that reference its emergence in motivational research and the suggestion that we can get to ‘deeper’ levels through such interrogative strategies (Glaser & Strauss 2006).

Before considering the paradigmatic differences between quantitative and qualitative research, the paradigm must be defined. Lincoln and Guba (1985) defined paradigm as a systematic set of beliefs together with their associated methods. Paradigm is an understanding about the phenomenon based on the set of assumptions and beliefs. However, paradigm also includes approaches governing the system of beliefs (Lincoln & Guba, 1985). While quantitative research is rooted in the positivist paradigm, qualitative research is based on phenomenological paradigm (Firestone, 1987). The ontology, epistemology and methodology of the positivist paradigm that is the basis for quantitative research will be explained in the following section.

3.2.1 Quantitative Research Method

Quantitative researchers aim to describe the causes of changes in social facts through objective measurement and quantitative analysis (Firestone, 1987). Quantitative researchers use numbers to study the phenomenon. The researcher goal is to quantify the participant responses and then, understand them to make decisions. The researchers usually are outsiders and do not affect the outcome of the quantitative research. Quantitative research also focuses on proving or disproving

a hypothesis based on a large number of participants feedback. The idea is also to generalize on larger population by conducting analysis using statistical tools such as SPSS.

3.2.1.1 Positivism - Basis for Quantitative Research

Schwandt (2001) stressed that positivism is based on experimentation that experience is the sole basis for generating knowledge. However, Merriam (2002) mentioned knowledge is logically bounded by general laws and is observable. Merriam (2002) further highlighted, quantitative research worldview believes on single measurable, observable and provable truth. The above explanations emphasize that positivism stresses on the role of general laws and assumptions. Assuming the fundamental factors for a phenomenon and then, searching for the effects of those factors. Rees (1980) defined positivism as philosophies characterized by an extremely positive evaluation of science and scientific method (Lincoln & Guba, 1985). Positivism assumes that if there is a problem, there occurs a solution. The link between cause and effect is the symbol of the positivist paradigm. The empirical analytical view as proposed by Coomer (1984) matches the positivist paradigm. Coomer stressed that positivism rests on cause and effect, therefore helpful in providing a solution to the technical problems.

3.2.1.2 Ontology

According to Schwandt (2001), ontology is concerned with understanding the things that create the world. Ontology of positivist paradigm is rooted deeply into realism as Gough (2002) confirmed. Ontology of positivism paradigm is like a stable external reality or a law. The positivist researchers pursue the interrelationship between the factors, which are part of a basic of materialism and realism (Lather, 1991). For example, a research study conducted to explore the

causes of turnover local engineers in the field of Oil & Gas using survey and statistical techniques may operate on positivist paradigm.

3.2.1.3 Epistemology

The epistemology according to Schwandt (2001) is the study of the nature of knowledge and justification. However, Gough (2002) defines the epistemology of the positivism paradigm as objective, detached observer. Lather (1991) defined the epistemology of the positivism paradigm as Single truth. Researchers in positivism paradigm pursue to establish a relationship often between cause and effect. For example, a research study conducted to find a relationship between workers performance and motivation to perform better will seek a single truth thereby falling under positivist paradigm.

3.2.2 Qualitative Research Method

In qualitative research, the researchers explore the meaning as understood by the participants. The qualitative researchers also pursue understanding of the phenomenon as formed by the meanings that people explain to them by using different methods such as interview, case study and observation (Denzin & Lincoln, 2005). Wiersma and Jurs (2009) explain the qualitative research as the perceptions of those being studied that are important and to extent possible, these perceptions are to be captured in order to obtain an accurate measure of reality.

The qualitative researchers should not enforce their perceptions of the phenomenon to understand the participant's views. Rather the participant's perceptions should be used to measure the situation and produce knowledge, which is the basis for further theoretical explanations. In a qualitative study, the interpretations of the participants are captured based on the participants' perceptions and understanding of the phenomenon (Swanson, Watkins, & Marsick, 2005).

3.2.2.1 Interpretivism - A Basis for Qualitative Research

According to Schwandt (2001), interpretivism means the approaches to study social life that accord in a central place as a method of the human sciences of which assume the meaning of human action is inherent in that action and the task of the researcher is to extract that meaning. This suggests that interpretivism pursues meaning by exploring and analyzing. The findings in the interpretivist research gives scope for multiple representations and interpretations (Merriam, 2002). The researchers who base their research on interpretivist paradigm pursue multiple explanations and analyze responses in many different ways to reveal the meaning.

3.2.2.2 Ontology

According to Schwandt (2001), ontology is concerned with understanding the things that create the world. In addition, Schwandt (2001) stresses that ontology is following meaning by understanding the reality. Gough (2002) defines ontology as what is the nature of reality. Similarly, Gioia and Pitre (1990) stressed that ontology emphasizes on understanding natural occurrences. The ontology of the interpretivism paradigm is experienced world (Habermas, 1972; Lather, 1991) of which the researchers consider life experiences of the participants as an essential part of their research.

3.2.2.3 Epistemology

According to Schwandt (2001), the epistemology is the study of the nature of knowledge and justification. In contrast with Schwandt, Gioia and Pitre (1990) describe epistemology as basic understanding about knowledge structure of the phenomenon. The epistemology of the interpretivism paradigm as mentioned is imagined (Gough, 2002). Thus, researchers focus on the

aspect of epistemology that focuses on the knowledge about the phenomena and the rationale behind the study. According to Lather (1991) and Habermas (1972), the epistemology of the interpretivism paradigm is multiple realities. Thus, researchers try to find more than one explanations for the phenomenon under consideration. Instead of having one answer, the researchers focus on pursuing multiple answers.

3.3 Why Quantitative Research Method is more appropriate for this Study

In previous section, differences between quantitative and qualitative research paradigms have been presented. It is evident that the differences between the two paradigms are significant and guide the approaches of quantitative and qualitative research. Quantitative paradigm utilizes positivist paradigm to support objective nature of reality. Positivists believe that reality can be explained through observation. Positivists also believe in predicting the research outcomes by controlling the research variables. Quantitative research utilizes scientific methods including experiments and do not directly influence the research outcomes by their presence. Thus, it is one of the points taken in consideration for selecting quantitative approach. Qualitative research follows a somewhat different approach in investigating the research problem and believes that reality cannot be understood as it is constantly shaped through social interactions. The interpretivist paradigm, which is the basis for qualitative research believes in multiple truths and pursue to explain the construction of knowledge and not just whether the knowledge is constructed or not. Therefore, qualitative approach is not suitable for this study. In qualitative research, the researchers cannot detach themselves from the researched phenomenon as they bring in their subjective experiences and make the conclusion to some extent open for questions. Thus and when compared to quantitative approach, qualitative approach was not selected for this study. However, one of the

most important aspect of any research is the tool used to collect data and the following section will provide full details about the MLQ tool used in this study.

3.4 Description and Applications of the MLQ

The extent of MLQ's usage is comprehensive that it includes field and laboratory research to study transformational, transactional, and passive leadership styles. The instrument can appropriately be used for selection, transfer and promotion activities as well as for individual, group, or organizational development and counselling.

This study contains 45 items of the current questionnaire, MLQ (5X-Short). These items identify and measure key leadership and effectiveness behaviours shown in prior research to be strongly linked with both individual and organizational success. Each of the nine leadership components along a full range of leadership styles is measured by four highly inter-correlated items that are as low in correlation as possible with items of the other eight components. On the other hand, MLQ (5X-Long) adds two items per component that tend to load on more than one component, i.e., transformational items within scales also correlate with other transformational scales. Although MLQ (5X-Long) is very useful for training and coaching purposes, it is less useful for research studies. Over the last two and half decades, the MLQ has been the principal means by which we were able to reliably differentiate highly effective from ineffective leaders in our research in military, government, educational, manufacturing, high technology, church, correctional, hospital, and volunteer organizations (Bass & Avolio, 1993a, Bass & Avolio, 1999; 2004; Berson, 1999). The MLQ has been used with a wide variety of rater and ratee groups.

There is more variability in MLQ ratings of a designated leader as the number of the leader's raters increases (Avolio, Bass, & Yammarino, 1988). The collection of more people, who have

completed the MLQ includes all managerial levels of Fortune 500 and 1,000 firms; a variety of government and other not-for-profit agencies; and smaller firms in manufacturing, service, and high-technology industries throughout the United States, as well as in many other countries around the globe. Both men and women have completed the MLQ for their male and female leaders (Bass & Avolio, 1995; Bass, Avolio, & Atwater, 1996). Raters have varied in age across the entire working life-span and have differed widely in educational backgrounds from less than a high school degree to a doctorate (Bass & Avolio, 1994). There are over thirty countries using various forms of the MLQ in numerous languages, business and industrial firms, hospitals, religious institutions, military organizations, government agencies, colleges, primary schools, and secondary schools. The MLQ has been shown to be equally effective when supervisors, colleagues, peers, or direct reports rate the leader. The resulting trends in general has been consistently the same. Specifically, the psychometric properties of the MLQ are comparable for direct reports and for colleagues or peers rating leaders. However, the way in which raters are contacted and selected does make a difference. Seltzer and Bass (1990) found that despite the anonymity of the data processing, if the raters were selected and contacted by the leader rather than by an independent authority, the ratings appeared to be inflated. For this reason, ideally, a coordinator, as designated in the following section on “Administration and Use,” should be employed to distribute the MLQ to raters. With the Mind Garden Web based system invitations come from invite@mindgarden.com. A description of the Mind Garden Web based system is at www.mindgarden.com/web.htm. As previously mentioned, for feedback from raters at organizational levels below the leader, anonymity requires at least three raters. For feedback from peers, at least two raters are required. But feedback from above requires only one rater; thus, ratings from one's supervisor are not anonymous and may be inflated as a consequence.

Eagly, Johannesen-Schmidt, and Van Engen (2003) and Bass, Avolio, & Atwater, 1996) suggest that while age is unrelated to MLQ results, female leaders tend to score higher in transformational and lower in transactional leadership than their male counterparts. Their initial findings indicate that there has been no evidence to direct any systematic difference in ratings as a function of race or ethnicity of the rater group or target leader. Numerous versions have been used extensively in organizations found in the United States as well as in Belgium, Canada, Germany, Switzerland, Great Britain, India, Ireland, the Netherlands, Italy, Spain, Japan, Israel, New Zealand, Taiwan, Australia, South Africa, Mexico, Venezuela, China, Malaysia, Singapore, and Korea. Successful translations of the MLQ have been completed in numerous languages, including Italian, Spanish, French, German, Dutch, Norwegian, Hebrew, Chinese, Arabic, Japanese, Korean, and Indonesian. Commercial translations of the MLQ scales and report are available in English, German, Italian, Portuguese, Spanish, Swedish and Turkish.

3.5 Advantages of MLQ

An MLQ if pointed towards the ineffective end of the range assesses perceptions of leadership behaviours that represents avoidance of responsibility and action. This refers to Laissez Faire leadership. On the other hand, an MLQ directed towards the most effective end of the range assesses perceptions of leadership behaviours that generate the higher order of development and performance effects is known as transformational leadership. The range of ineffective and effective leadership behaviours in the MLQ is normally broader than other leadership surveys commonly in use. Therefore, the MLQ is more suitable for administration at all levels of organizations and across different types of production, service, and military organizations (see Bass, 1998).

MLQ has multiple advantages. One of them is the 360° capabilities which is useful for assessing perceptions of leadership effectiveness among team leaders, supervisors, managers and executives in various levels in an organization. For instance, the leadership behaviours of a non-supervisory project leader can be observed by his or her co-workers, or the leadership behaviours of a CEO can be observed by his or her senior vice presidents and board members. The MLQ can also be used for ratings of leaders internally from peers or direct reports in any organization or industry and externally such as clients or customers. Also, considerable evidence has been accumulated indicating that the MLQ factors can be universally applied across cultures. Another significant advantage of the MLQ over other leadership surveys is its emphasis on development. The survey includes items that measure a leader's effect on both the personal and intellectual development of self and others. Leaders must develop themselves in order to effectively develop others.

Lastly, the MLQ is based on a model that is easy to understand. The model focuses on a leader's performance on a range of leadership styles and towards the directions he or she may pursue to be a more effective leader. Perhaps most important, the full range model links each leadership style to the expected performance outcome, which has been shown through literally hundreds of prior studies to support this connection (see for example, Dum dum, Sivasubramaniam and Avolio, 2002).

3.6 Research Uses of MLQ

MLQ scores may support the varying impact that different types of leaders have on their associates, teams and organizations. The pattern of leadership is measurable among business and industrial managers, military officers, school principals, religious ministers, government administrators,

sports coaches, and others whose degree and style of leadership affects associates' satisfaction, team effectiveness, and organizational success (Bass & Avolio, 1993a).

These MLQ scores are useful in understanding early developmental factors and experiences that contribute to the wide range of adult leadership styles observable in organizations. Distinctively, early developmental experiences data can be gathered by in-depth life history interviews or responses to biographical information. The leader then becomes aware of these personal developmental experiences that may be limiting effective leadership (Avolio, 1994; 2004). Training or individual counselling, as described earlier, can then address those areas where previous developmental experiences have left an individual unprepared for the challenges of leadership.

MLQ scores can be useful for evaluative research before and after training. They can be used to reflect policy changes in the organization and changes over time. The MLQ can assess individual or group leadership profiles in an organization. It is also used to show how leadership cascades from one level of an organization to the next. Different units within an organization can also be compared with respect to specific performance criteria by means of contrasting individual leaders with aggregated leadership scores. The focus of the aggregation may be across project teams, departments, divisions, office and plant locations, regions, and countries. Thus, the MLQ can be used at either an individual level of analysis or, when appropriate, can be aggregated for relevant group comparisons (Avolio & Bass, 1995). A wide variety of propositions about transformational leadership lending themselves to experimental verification are available from the models of transformational leadership provided in the past several years by Bass (1985a), Tichy and Devanna (1986), Avolio and Bass (1988a), Kuhnert and Lewis (1987), Howell (1988), Shamir (1991), Shamir, House, and Arthur (1993), Bass and Avolio (1994), Bass, Avolio, & Atwater (1996), and

many others. Jointly, these models suggest potential areas for future research programs on transformational and transactional leadership at the individual, group, and organizational levels. It is not surprising that the MLQ has been the subject of study and method in numerous doctoral dissertations, theses, and research investigations, many of these in Europe, Asia, Africa, and elsewhere. In the following section, we shall discuss the origins of transformational and transactional leadership and compare the strengths and weaknesses of each leadership orientation of the Full Range of Leadership Development model.

3.7 Theoretical Background and Development of MLQ

Downton (1973) first distinguished Transformational leadership from transactional leadership to account for the differences among revolutionary, rebellious, reform and ordinary leaders. However, Downton's conceptualization did not take hold until Burns' seminal work on political leaders appeared in 1978. According to Burns (1978), political transactional leaders motivated associates by exchanging rewards for services rendered.

Zaleznik's (1977) argument of managers corresponds to Burns's differentiation of transactional versus transforming leaders. Zaleznik believes that managers' survey their associates' needs and set goals for them based on what they can rationally expect from their associates. Bass (1985, 1985) extended the definition of a transactional leader to the military, industrial, public, and educational sectors. Paraphrasing Burns, he described such leaders as those who:

1. Knows what their associate aspires to gain from their work, and ensures that they achieve it, if their performance so permits.
2. Rewards and promises are given depending on the associate's levels of effort.
3. When a job is done, ensures that associates needs and expectations are met.

The difference between a transformational and transactional leader surpasses by merely recognizing associate's' needs, but by engaging the latter to increase his level of maturity. Transformational leaders engage the full person so that associates are developed into leaders. Such leadership can occur top-down, but it also can occur between two associates, and bottom-up where someone influences his or her leader to reconsider the focus, mission, or vision he or she is pursuing. Again, paraphrasing Burns, Bass (1985, 1985) described transformational leaders as those who:

1. Increases associates' ability to achieve significant outcomes and the ways for accomplishing them.
2. Encourage associates to set-aside their self-interest for the team's benefit, organization, or larger policy.
3. Develop associates' needs to higher levels in such areas as achievement, autonomy, and affiliation, which can be both work related and not work related

Transformational leadership boosts others to improve and achieve beyond standard expectations. Associates exert more effort at work because they see the sacrifices their leader is making to achieve the mission. They also typically identify with the mission being pursued and the support they receive to achieve the mission. Through this process of personal identification, their motivational level is raised, their self-efficacy is enhanced, and their willingness to accept extraordinary challenges is much greater (Shamir, 1990). The transformational and transactional leadership process builds trust, respect, and a wish to work collectively toward the same desired future goals.

Transformational leadership has been observed at all organizational levels in industrial, educational, government and military settings (Avolio & Yammarino, 2002; Avolio, Bass, & Jung,

1996; Avolio & Bass, 1988a; Bass & Avolio, 1993, 1994; Boyd, 1988; Deluga, 1988; Koh, 1990). In other leadership research, both transactional and transformational leadership have been shown to exist to some degree at all levels of various profit, non-profit and military organizations. Transformational leaders have been identified among non-supervisory project directors at the lowest level of management, as well as among high ranking managers at the top levels. Often and in different circumstances, both transactional and transformational leadership have been exhibited by the same leader, as we expect they should be exhibited in varying degree over time.

3.8 Literature Review of the Development of the Multifactor Leadership

Questionnaires (MLQ)

A considerable number of empirical researches and various meta-analyses have delivered evidence of a positive relationship between transformational leadership and a variety of employee outcomes tested in diverse organizational settings (Judge & Piccoli, 2004). The most investigated performance indicators include the job satisfaction, commitment and also leader effectiveness. In addition, a recent meta-analyses steered by Piccoli et al (2012) compared the relative significance of some of the leadership styles, namely; transactional, laissez faire, initiating structure, transformational, contingent reward and consideration in explaining job satisfaction and leader effectiveness. The results showed that transformational and consideration leadership styles are the most significance predictors of two employee outcomes. Barling, Weber and Kelloway (1996) found that offering training to managers on transformational leadership behaviors caused a significant increase in their attitude towards subordinates' organizational commitment. A good number of the aforementioned research work has been just narrowed to western countries, though, recently researchers in Arab and Islamic nations recognized the significance of transformational

leadership due to its contribution to better organizational outcomes particularly with increasing globalization and the moral dimension in-built in transformational leadership which is having similarity to the Islamic approach to leadership (Mohamad, 2012).

Transformational leadership has been viewed as the most popular approach in the perspective of seeking explanation on how leaders and other stakeholders influence on organizational performance. It has displayed a consistent relationship with a number of performance indicators in transversely different cultures (Bass & Avolio, 2000). However, when transformational leadership has been compared to other parts of the world, quite few studies have deliberated on it in developing countries and particularly in the case of Egypt (Shahin and Wright, 2004).

Organizational commitment in the United Arab Emirates' construction sector and job satisfaction are two attitudes that are linked to various work outcomes, for example, the performance of employees and turnover intentions. Despite the long standing acknowledgement that the two attitudes are related, the direction of the relationship is still controversial (Lumley et al, 2011; Lok and Crawford, 2004). Effective organizational culture characterized by adaptability, consistency, involvement, and mission, was argued to be a significant predictor of the performance of the organization across different cultures (Fey & Denison, 2003). Nevertheless, less attention was focused on its impact on attitudinal outcomes for example the job satisfaction and organizational commitment (Momeni, Marjani & Saadat, 2012).

The investigation of the MLQ has put a cross-sectional examination on various research studies from books, dissertations, conference papers, journals and technical reports. The MLQ approach has been widely used in the study of leadership structures and leadership styles in various organizational settings i.e. from military, manufacturing, religious and educational institutions as highlighted in Appendix 1.

3.9 Research Questions and Hypotheses

The following research questions are presented to identify what this study is particularly interested in and the hypotheses the researcher initially has as gleaned from the literature.

3.9.1 Q1. What kind of relationship exists between age and style of leadership in UAE construction industry?

Leaders in the construction sector of the UAE are more likely to exhibit leadership traits of transactional style rather than transformational. According to Behery (2008), leaders in the UAE are concerned with cost benefit analysis. In this context, it is important for the leaders to make effective decisions. As per the views of Politis (2006), age is an important aspect in determining the effectiveness of leadership. Observably, young leaders are more aggressive and take prompt decision, hence follow the transactional form of leadership. On the other hand, senior leaders, who act according to the situations, generally follow transformational leadership wherein age is an important element as young leaders of the UAE are concerned with gaining the maximum output from an individual project. This type of approach is observed in the transactional form of leadership, wherein the sole objective is to generate maximum efficiency (Barbuto, Frirz, Matkin, & Marx, 2007). Thus, this study explores the relationship between age and style of leadership in UAE construction sector. The hypotheses for this research question were as follows:

***H_{1a}** Leadership style differs by age of the leader*

***H_{1b}** There is a significant correlation between age of a leader and Transformational leadership style*

***H_{1c}** There is a significant correlation between the age of a leader and Transactional leadership style.*

3.9.2 Q2. What kind of relationship exists between gender and style of leadership in UAE construction industry?

Omar (2010) suggested that the female leaders are more transformational in nature than the males because female leaders are more honest in their works. This aspect is also observed in the construction segment of the UAE, wherein the female leaders are found to remain ethical and honest while making effective decisions. This certainly raises the motivation of the employees by directing them with appropriate and effective working procedures or guidelines (Kemp et al., 2013). As a result, the female leaders with transformational leadership skills are more effective for the construction organizations (Omar, 2010). This study explored the relationship between gender and style of leadership in UAE construction sector with the following hypotheses:

H_{2a} Leadership style differs by gender of the leader

H_{2b} There is a significant correlation between gender of the leader and transformational leadership style

H_{2c} There is a significant correlation between gender of the leader and Transactional leadership style

3.9.3 Q3. What kind of relationship exists between nationality and style of leadership in UAE construction industry?

Toor & Ogunlana (2008) suggested that modern construction companies are facing more cross-cultural projects. Moreover, the UAE national leaders are noticeably more aware of the local needs and demands with regard to the above stated segment (Bass & Avolio, 2000). They are also familiar with local labourers and their working styles. These aspects typically encourage effective

and transformational leadership-based practices in the construction projects in the UAE (Mohamad, 2012). According to Toor & Ofori (2008), the construction companies of the UAE possess several obligations related to political, cultural and social challenges. These challenges make the construction-related activities or projects to be quite difficult for the leaders. Controlling such aspects requires a higher level of transformational leadership. This also requires the knowledge of the local politics, and the social and cultural aspects of these politics. The leaders that are more familiar with the local political, social and cultural challenges would be more effective and these leaders can be considered as transformational leaders. This study explored the relationship between nationality and style of leadership in UAE construction sector and had the following hypotheses:

H_{3a} Leadership style differs by nationality of a leader

H_{3b} There is a significant correlation between nationality of a leader and Transformational leadership style

H_{3c} There is a significant correlation between nationality of a leader and Transactional leadership style

3.9.4 Q4. What kind of relationship exists between level of education and style of leadership in UAE construction industry?

The literature reports that transformational leaders make decisions based on various aspects, and the success of these leaders depends on their expertise and behaviour as learned from their education. More educated leaders are charismatic and know how to motivate the employees and enhance their productivity to improve the organization. This study explored the relationship

between education level and style of leadership in UAE construction sector and had the following hypotheses:

H_{4a} Leadership style differs by education level of a leader

H_{4b} There is a significant correlation between education level of a leader and Transformational leadership style

H_{4c} There is a significant correlation between education level of a leader and Transactional leadership style

3.9.5 Q5. What kind of relationship exists between years of experience and style of leadership in UAE construction industry?

The more experience an individual has in performing a professional task, the more likely that the individual would act as an effective transformational leader and implementing such leadership style. Randaree & Chaudhry (2007) suggested that the UAE is a country with a rapidly developing construction sector. This can be clearly seen in the city of Dubai. The construction of the region has been noticeably high due to the transformational leadership practices prevalent amid the construction companies. The UAE has critical concerns regarding environmental changes that accompany developing construction projects. Such projects often require effective transformational leadership with a high level of experience and professional competency. This could be one reason for the experienced leaders to adopt firmer and more effective decisions (Fotwe & McCaffer, 2000). This explored the relationship between years of experience and style of leadership in UAE construction sector. The following hypotheses were held:

H_{5a} Leadership style differs by years of work experience of a leader

H_{5b} There is a significant correlation between years of work experience of a leader

and Transformational leadership style

H_{5c} There is a significant correlation between years of work experience of a leader

and Transactional leadership style

3.9.6 Q6. What kind of relationship exists between organization position and style of leadership in UAE construction industry?

It is hypothesized that a leader with a more senior position in an organization is more likely to adopt a transformational leadership style. High-level leaders are more likely to follow and apply an effectual transformative leadership approach. This is mainly because high-level leaders are more likely to undertake reliable and effective decisions (Fotwe & McCaffer, 2000). Considering the competitive nature of the construction industry in the UAE, a leader with higher-level authority or power will be more accustomed to adopt a transformational leadership style (Toor et al., 2007). This study investigated if high-level leaders are more likely to implement transformational leadership. The following are the hypotheses:

H_{6a} Leadership style differs by organizational position of a leader

H_{6b} There is a significant correlation between organizational position of a leader and Transformational leadership style

H_{6c} There is a significant correlation between organizational position of a leader and Transactional leadership style

3.10 Research Methodology

The main research method used in this study is the dissemination of questionnaires, specifically the Multiple Leadership Questionnaire (MLQ). Questionnaires have been described as “very versatile data-gathering method; they are cheap, easy to administer, whether it be to three people

or 300, and can be used to gather a great variety of data of both quantitative and qualitative nature.” (Campbell et al., 2004, p. 146). This research instrument has been proven to be an efficient tool serving the researcher’s time well because of the convenience of collecting a huge amount of information in just one attempt, as compared to interviews, which may go on over a period of time (Cohen et al., 2000). Respondents can just complete the questionnaires in one sweep with a group or on their own available time (Gillham, 2000). Respondents can also choose to be anonymous as their identities are not required, but only their demographic information if it is part of the variables being studied in the research (Cohen et al., 2000; Gillham, 2000). Such anonymity may free the respondents from their inhibitions and make them more willing to write about issues and opinions more openly than they would in a face-to-face situation such as in interviews. Although questionnaires have been proven to be efficient tools in research, they also have disadvantages. One is that the only data collected may come from a variety of tick boxes and brief responses. This means that the data to be mined from the respondents need to have more breadth than depth (Watzlawick et al., 1967; Oppenheim, 1992) so follow-ups to questions may be necessary. However, if there is no one to prompt the respondents with further information or more detail in their answers, the respondents will rely on their own understanding. In relation to this, another disadvantage is that the questionnaire or survey cannot interpret questions for participants who may be unclear about what is being asked, so each participant has to decipher what they are being asked independently (Oppenheim, 1992).

3.11 Data collection Instrument and Analysis

Data collection for this study was undertaken with civil engineers working in UAE in the second quarter of 2014. Because the construction industry of the UAE has a uniquely diverse group of

contractors, three internal contractors and three external contractors from different origins were selected for the study to cover such diversity as follows:

Table 2. Special Grade Contractors:

Contractor	Volume of Trade in AED/Year	Year
A	1.42 billion	2013
B	1.01 billion	2013
C	1.12 billion	2013
D	1.78 billion	2013
E	1.33 billion	2013
F	1.21 billion	2013

The multiple leadership questionnaire (MLQ) is used in an organization to recognize the character of the leaders with transformational and transactional qualities. This form of questionnaire is used to identify the leadership behaviour that the organization should incorporate and most suited to identify the type of leadership style implemented within an organization (Bass, 2000). The license for the MLQ used in this study was purchased through Mind Garden, Inc. The first section solicited an MLQ which contained 45 questions to measure transformational and transactional leadership styles. Respondents were asked to provide ratings for these measures on a five-point Likert scale ranging from “0 = Not at all” to “4 = frequently, if not always”. The second section covered the demographic data of respondents that includes age, gender, years of experience in construction industry, level of education and nationality. Each participant was given the choice to participate in the research as stated in the informed consent form handed to each participant. Cover letters were attached to indicate the purpose of the questionnaire and to assure the confidentiality of the

questionnaires returnee. The scope of this study was explicitly cross-sectional, and the questionnaire was restricted to a predetermined period to control for factors that could change the results. For the analysis to be effective, missing data were removed and the completed responses were analysed to get effective results. The data of the survey was analysed using multiple regression tool in the SPSS software. Correspondingly, the following statistical tests were conducted with regard to pretesting examination, descriptive statistics, factor analysis, SD, mean and check for assumptions – linearity, equal of variance and normality. A scatter diagram, dictation and treatment of outliers along with Cronbach's Alpha and Kuder Richardson KR 20 for internal consistency and validity of scale were the undertaken pretesting examinations. To test the correlation of coefficient (r) for the hypothesis, the relationship between X and Y was conducted. The Pearson product moment correlation and the correlation matrix along with the P-test and T-test were also conducted. The coefficient of determination (R square) amount of variance was explained and ANOVA, if available, was explained. With regard to the post-hoc hypothesis test, the size and power analysis along with Eta square (η^2) for practical significance were used.

3.12 Ethical Considerations

Ethical considerations were at the forefront of the researcher's mind when conducting this study. Kvale and Brinkmann (2009) argue that ethical decisions made throughout the research process should consider four ethical rules that need to be followed when doing research with human participants. The participants' consent has been secured before letting them do tasks for the purpose of the study. The next rule is confidentiality. This has been ensured as some of the participants may be hesitant to share information that they may deem too sensitive. Assuring them that their identities will not be revealed may encourage them to be more honest in answering the

questionnaires. Consideration of the consequences of the task has been addressed. Participants have been kept safe and comfortable at all times and should they feel any discomfort or have any misgivings about their participation, they have been allowed to withdraw their participation if they wish. The researcher's role has been clarified as to its limits. For this study, the researcher's role is to disseminate the questionnaires and collect them for analysis. This study complied with ethical standards and considerations in conducting research with human participants (Kvale & Brinkmann, 2009).

3.13 Conclusion

It can be seen that quantitative research method is more appropriate for this study as it reveals numbers and percentages of which is needed to reflect the status of facts. While quantitative research is rooted in the positivist paradigm needed for this study, qualitative research is based on phenomenological paradigm (Firestone, 1987). This study contains 45 items of the current questionnaire, MLQ (5X-Short). These items identify and measure key leadership and effectiveness behaviours shown in prior research to be strongly linked with both individual and organizational success. The MLQ is more suitable for administration at all levels of organizations and across different types of service. This section highlighted the research questions and what this study is particularly interested in. in addition, this section reflected the hypotheses that the research initially gleaned from the literature. Relationship between age, gender, nationality, level of education, years of experience and organization position have been discussed in relation to style of leadership in UAE construction industry. This study covered three internal contractors and three external contractors from different origins working in the UAE. This section also highlighted the ethical consideration of the study of which covered the participants' consent, confidentiality and researcher's role.

Chapter 4

Results & Discussion

4.1 Introduction

Within this chapter, results will be highlighted and discussed. The first section of the results will provide an overview for treatment of missing values and outliers. In addition, normality distribution check results will be highlighted. The second section will provide an analysis of the respondent profile as well as a summary of demographic data of participants. Also, Principal Components Analysis (PCA) method been highlighted and Bartlett's Test between Transformation and Transactional factors were conducted and the results will be reflected. The third section of the results chapter will touch base on the research questions and hypothesis were they are presented to identify what this study is particularly interested in and the hypotheses the researcher initially has as gleaned from the literature. The research questions and hypothesis will discuss age, gender, nationality, level of education, years of work experience and organization position with respect to transformational leadership style and transactional leadership style.

4.2 Data Preparation and Assumption Check

4.2.1 Treatment of missing values

The missing values were ranged from 0% to 4.3 %. Missing values were substitute with Neutral Value (Mean). Therefore, the mean of the variable remain unchanged and other statics such as correlations, are not affected much (Malhotra & Dash, 2011).

4.2.1.1 Treatment for outliers

To ensure that the relations were not attributable to one or a few outliers, the scatterplots and Boxplot were used to examine presence of any outliers and to check for normality. Table 2 shows treatment of outliers. Only few outliers (Only 6 cases in total) that deviated by more than three standard deviations were found and were replaced with series mean. Table below reflects treatment of outliers at construct level:

Table 3 Treatment of Outliers:

Construct	Outlier (Response No)	Treatment
ID_InfluenceA	Not found	No action required
ID_InfluenceB	Not found	No action required
Ins_Motiv	Not found	No action required
Int_Stimula	Not found	No action required
Ind_Consider	Not found	No action required
Con_Reward	6, 10	Replaced with Mean value of 2.94
MOE_Passive	Not found	No action required
Laiss_Faire	Not found	No action required
MOE_Active	Not found	No action required
EX_Effort	219	Replaced with Mean value of 2.85
Satisfact	6, 108, 219	Replaced with Mean value of 3.14
Effective	Not found	No action required

4.2.2 Examination for Normality

Normal Q-Q Plots have used to check for normality. Preliminary analysis revealed that Data were normally distributed. All the constructs form a normal distribution with mostly negatively skewed and cases fall more or less in a straight line.

4.3 Data Analysis

4.3.1 Respondent Profile

In total, 773 questionnaires were distributed and 393 were returned, representing a response rate of 51%. The questionnaire survey contained two distinct sections. The respondent's age breakdown was: 22% (n=87) aged between 18 to 29 years old, 53% (n=207) aged between 30 to 44 years old, 20% (n=77) aged between 45 to 55 years old and 5% (n=21) aged above 55 years. The respondents' gender breakdown was: 91.6% (n=358) male and 8.2% (n=32) female. The respondents' years of experience breakdown was: 14% (n=56) had less than a year's work experience in the current organization, 26% (n=101) had work experience between 1 to 3 years in the current organization, 30% (n=119) had work experience between 3 to 7 years in the current organization and 30% (n=117) had more than 7 years of work experience in the current organization. Respondents' level of education breakdown was: 2% (n=9) were high school graduates, 11% (n=44) were diploma-in-engineering holders, 58% (n=227) were bachelor degree holders and 28.6% (n=112) had post-graduate qualification. Respondents' nationality breakdown was: 13% (n=50) were local emirate citizens and 87% (n=340) were non-locals.

Table 4. Summary of Demographic Data of Participants:

Characteristics	Frequency	Valid %
Age Group		
18-29	87	22.2

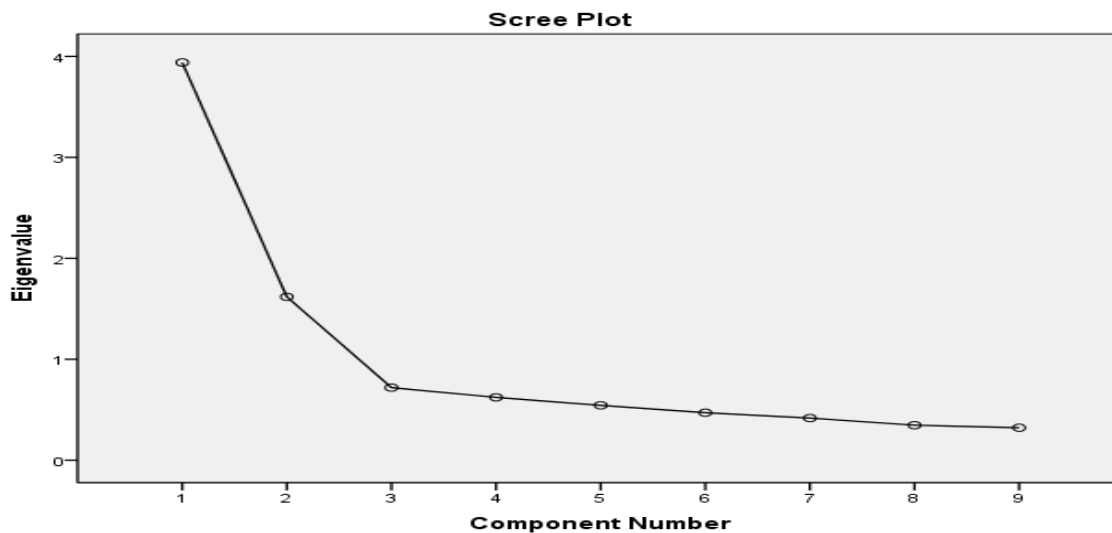
Characteristics		Frequency	Valid %
	30-44	207	52.8
	45-54	77	19.6
	55 and Above	21	5.4
Gender			
	Male	358	91.6
	Female	32	8.2
Nationality Group			
	Local	50	12.8
	Expatriate	340	87.2
Education Level			
	High school	9	2.3
	Diploma	44	11.2
	Bachelor	227	57.9
	Post Grad	112	28.6
Work Experience			
	Less than a year	56	14.2
	1-3 years	101	25.7
	3.1 to 7 years	119	30.3
	More than 7 years	117	29.8
Organization Level			
	Clerical	50	12.9
	Professional	142	36.5
	First line	48	12.3
	Middle M	96	24.7
	Executive	30	7.7
	Other	23	5.9

Table below reflects number of respondent in each independent variables:

		Age	Gender	Nationality	Education Level	Work Exp	Org_Level
N	Valid	392	391	390	392	393	389
	Missing	381	382	383	381	380	384

4.3.2 Factor Analysis

An explorative factor analysis was employed in order to determine which of items formed related subsets. Principal Components Analysis (PCA) method was used to extract the underlying factors affecting the style of leadership. Result of factor analysis extracted two components. They are named as transformational leadership style and transactional leadership style. KMO and Bartlett's Test between Transformation and Transactional factors were conducted. Bartlett test of Sphericity achieved significant and Kaiser Meyer Olkin measure of sampling adequacy is .856 which is far greater than .6. Total variance explained by two factors is 61.75 %. Scree plot in graph 1 graphically displays the eigenvalues for each factor and suggests that there are two predominant factors:



4.4 Research Questions & Hypothesis

Preliminary analysis was performed to ensure no violation of the assumptions of normality, linearity and homogeneity of variance of the data were tested. Levene's test for equality of variance (Homogeneity of variance) was conducted before interpreting the results, and equal variances were assumed. Normality of distribution has been tested using Kolmogorov-Smirnov

test. Instead, Shapiro Wilk statistical could also be used if we had a smaller sample, ie, 50 or less. In the test of normality, the null hypothesis showed equality between the actual distribution of the variables and the expected distribution. The variable was thus observed to be normally spread. An α of .05 was used for all statistical tests. Using of $\alpha = .05$ is the most common value in social science research (Huck, 2012). In regards to decision rule, if the data base *p- Value* is equal or smaller than 0.05, H_0 will be rejected. The following research questions are presented to identify what this study is particularly interested in and the hypotheses the researcher initially has as gleaned from the literature.

4.4.1 Q1. What kind of relationship exists between age and style of leadership in UAE construction industry?

Leaders in the construction sector of the UAE are more likely to exhibit leadership traits of transactional style rather than transformational. As highlighted previously by Behery (2008), leaders in the UAE are concerned with cost benefit analysis. In this context, it is important for the leaders to make effective decisions. As per the views of Politis (2006), age is an important aspect in determining the effectiveness of leadership. Observably, young leaders are more aggressive and take prompt decision, hence follow the transactional form of leadership. On the other hand, senior leaders, who act according to the situations, generally follow transformational leadership wherein age is an important element as young leaders of the UAE are concerned with gaining the maximum output from an individual project. This type of approach is observed in the transactional form of leadership, wherein the sole objective is to generate maximum efficiency (Barbuto, Frirz, Matkin, & Marx, 2007). This study explores the relationship between age and style of leadership in UAE construction sector and the following research questions have been developed:

H_{1a} Leadership style differs by age of the leader

***H_{1b}** There is a significant correlation between age of a leader and Transformational leadership style*

***H_{1c}** There is a significant correlation between the age of a leader and Transactional leadership style.*

As highlighted previously, the purpose of research questions above is to examine whether age of a leader have any significant influence on his leadership style in construction industry. The dependent variable (leadership style) includes transformational leadership style and transactional leadership styles whereas an independent variable included in this experiment is age of a leader. An ANOVA test showed that age of a leader makes a significant overall difference between transformational leadership style ($M = 2.8607$, $SD = .46113$, $F = 8.930$, $p < .000$) and transactional leadership style ($M = 1.9664$, $SD = .45240$, $F = 11.116$, $p < .000$). Pearson's correlations were performed to test the relationship between the age of a leader, and the style of leadership. A significantly positive correlation has been found between age of a leader and the transformational style of leadership ($r = .161$; $p = .001$). That means, a senior age leader is more likely to practice transformational leadership style. On the other hand, a significant negative correlation has been found between age of a leader and transactional style of leadership ($r = -.27$; $p = .001$). The following table provides a summary of results highlighted:

Table 5: Mean, Standard Deviation and Significance of the Data

	Age	N	Mean	SD	r	Df	F	Sig
Transformation	18-29	87	2.6813	.47354				
	30-44	207	2.9270	.42110				
	45-54	77	2.8125	.49809				

	55 and Above	21	3.1264	.39403				
	Total	392	2.8607	.46113	.161**	3	8.930	.000
Transactional	18-29	87	2.1762	.45493				
	30-44	207	1.9452	.44429				
	45-54	77	1.8607	.43687				
	55 and Above	21	1.6945	.19030				
	Total	392	1.9664	.45240	-.270*	3	11.116	.000
** . Correlation is significant at the 0.01 level (2-tailed). * . Correlation is significant at the 0.05 level (2-tailed).								

The results show a strong correlation between the age of leaders and their adopted style of leadership was observed as highlighted by Fotwe & McCaffer (2000). Older and more matured leaders usually make choices between transformational and transactional styles of leadership. The younger leaders, being more “in the present” and may not have developed the necessary foresight are able to cope with their situation using a more transactional type of leadership (Eagly et al., 2003). Aged leaders within the construction industry of the UAE are expected to have gained sufficient experience to select the best-suited leadership style to be implemented within the work environment. Since the older leaders are assumed to have gained enough wisdom, they are able to use a more transformational type of leadership and are empowered to inspire their younger team members. These, in turn, proved that age has a strong effect on leadership styles adopted by the leaders. This study revealed a significant correlation between age and transformational leadership style. However, when searching for similar facts in the secondary sources available online and

those considered for this study, the limited data negatively affected the results. Thus and when compared to hypothesis generated, the following results have been achieved:

Table 6 Hypothesis (Based on AGE):

	Hypothesis (Based on AGE)	Supported
<i>H_{1a}</i>	Leadership style differs by age of the leader	Yes
<i>H_{1b}</i>	There is a significant correlation between age of a leader and Transformational leadership style	Yes
<i>H_{1c}</i>	There is a significant correlation between age of a leader and Transactional leadership style	Yes

4.4.2 Q2. What kind of relationship exists between gender and style of leadership in UAE construction industry?

As highlighted previously by Omair (2010), who suggested that the female leaders are more transformational in nature than the males because female leaders are more honest in their works. This aspect is also observed in the construction segment of the UAE, wherein the female leaders are found to remain ethical and honest while making effective decisions. This certainly raises the motivation of the employees by directing them with appropriate and effective working procedures or guidelines (Kemp et al., 2013). As a result, the female leaders with transformational leadership skills are more effective for the construction organizations (Omair, 2010). This study explores the relationship between gender and style of leadership in UAE construction sector and the following research questions have been developed:

H_{2a} Leadership style differs by gender of the leader

H_{2b} There is a significant correlation between gender of the leader and transformational leadership style

H_{2c} There is a significant correlation between gender of the leader and Transactional leadership style

As mentioned earlier, the purpose of research questions above is to examine whether the gender of a leader have any significant influence on his leadership style in construction industry. The dependent variable (leadership style) includes transformational leadership style and transactional leadership styles whereas an independent variable included in this experiment is gender of a leader. Both an ANOVA and Pearson's correlations test failed to show any significant the relationship between the gender of a leader, and the style of leadership. However, only 8.2% (n=32) respondents were female respondent and it could be reason for insignificant results. The following table provides a summary of results highlighted:

Table 7: Mean, Standard Deviation and Significance of the Data:

	Gender	N	Mean	SD	R	Df	F	Sig
Transformational	Male	358	2.8567	.46107				
	Female	32	2.8735	.46042				
	Total	391	2.8601	.46160	.059**	2	1.491	.226
Transactional	Male	358	1.9620	.44477				
	Female	32	1.9807	.51784				
	Total	391	1.9662	.45296	.077*	2	2.658	.071
**. Correlation is significant at the 0.01 level (2-tailed).								
*. Correlation is significant at the 0.05 level (2-tailed).								

The results showed surprising evidence that at least for the participants of this study, gender does not affect leadership styles. The leaders depicted limited or no differences in their choice of leadership styles when considering the gender variances. No correlation was found between the gender of the leaders and their leadership approaches. This finding contradicts the work of Omair (2010), who found that female leaders are more transformational in nature than the male leaders. Male managers are not likely to use transactional leadership, a trait which was expected,

considering that the majority of workers in the construction industry within the UAE are males. Similarly, this study showed that within the construction industry of the UAE, female managers are not likely to use transformational leadership traits. However, contradictory views were obtained from the research literature. Kemp et al. (2013) find women leaders to be more effective than male leaders in terms of communication and rapport building among team members. Also, according to Watts (2009), women in the construction industry as leaders have to face considerable obstructions to be successful. Being an Arab country, the UAE imposes stringent expectations for women, because their culture places women in a more conservative and more domestic role while men are hailed to be the breadwinners who work outside the home to be able to provide for their families. Such barriers for women shape their leadership styles as different from those adopted by their male counterparts. The findings from this study may imply that women leaders are already being seen as becoming equal to men leaders, at least for the participants in this study. Such change in perspective is a refreshing concept because both genders are expected to be transformational as well as transactional depending on the purpose and context of their leadership. Thus and when compared to hypothesis generated, the following results have been achieved:

Table 8 Hypothesis (Based on Gender):

	Hypothesis (Based on Gender)	Supported
<i>H_{2a}</i>	Leadership style differs by gender of the leader	No
<i>H_{2b}</i>	There is a significant correlation between gender of the leader and Transformational leadership style	No
<i>H_{2c}</i>	There is a significant correlation between gender of the leader and Transactional leadership style	No

4.4.3 Q3. What kind of relationship exists between nationality and style of leadership in UAE construction industry?

As highlighted previously by Toor & Ogunlana (2008) that modern construction companies are facing more cross-cultural projects. Moreover, the UAE national leaders are noticeably more aware of the local needs and demands with regard to the above stated segment (Bass & Avolio, 2000). They are also familiar with local labourers and their working styles. These aspects typically encourage effective and transformational leadership-based practices in the construction projects in the UAE (Mohamad, 2012). According to Toor & Ofori (2008), the construction companies of the UAE possess several obligations related to political, cultural and social challenges. These challenges make the construction-related activities or projects to be quite difficult for the leaders. Controlling such aspects requires a higher level of transformational leadership. This also requires the knowledge of the local politics, and the social and cultural aspects of these politics. The leaders that are more familiar with the local political, social and cultural challenges would be more effective and these leaders can be considered as transformational leaders. This study explored the relationship between nationality and style of leadership in UAE construction sector and had the following hypotheses:

***H_{3a}** Leadership style differs by nationality of a leader*

***H_{3b}** There is a significant correlation between nationality of a leader and Transformational leadership style*

***H_{3c}** There is a significant correlation between nationality of a leader and Transactional leadership style*

The purpose of this experiment was to examine whether nationality of a leader have any significant influence on his leadership style in construction industry. The dependent variable (leadership style)

includes transformational leadership style and transactional leadership styles whereas an independent variable included in this experiment is nationality of a leader (two major groups were included namely local and expatriates). An ANOVA test showed that nationality of a leader makes a significant overall difference between transformational leadership style ($M = 2.8603$, $SD = .46104$, $F = 7.505$, $p < .006$) and transactional leadership style ($M = 1.9647$, $SD = .45278$, $F = 33.979$, $p < .000$). Pearson's correlations were performed to test the relationship between nationality of a leader, and the style of leadership. A significantly positive correlation has been found between nationality of a leader and the transformational style of leadership ($r = .138$; $p = .001$). A closer look shows that expatriates ($M = 2.88$) are practicing more transformational leadership style compared with local leaders ($M = 2.69$). On the other hand, a significant negative correlation has been found between nationality of a leader and transactional style of leadership ($r = -.284$; $p = .001$). Mean score demonstrated that local leader ($M = 2.23$) trends to use more transactional style of leadership compared with expatriate leaders ($M = 1.91$). The following table provides a summary of results highlighted:

Table 9 Mean, Standard Deviation and Significance of the Data:

Transformational	Nationality	N	Mean	SD	R	Df	F	Sig
	Local	50	2.6949	.32308				
	Expatriate	340	2.8846	.47349				
	Total	390	2.8603	.46104	.138**	1	7.505	.006
Transactional	Local	50	2.2993	.41594				
	Expatriate	340	1.9154	.43738				
	Total	390	1.9647	.45278	-.284*	1	33.979	.000

** . Correlation is significant at the 0.01 level (2-tailed).* . Correlation is significant at the 0.05 level (2-tailed).

The study also focused on testing the correlation between nationality of the leaders in the UAE construction industry and their adopted leadership approaches. It was in this context that the study revealed a positive correlation between nationality and the choice of leadership styles among leaders of the construction industry. The findings revealed that local managers are more likely to use transformational leadership traits similar to the findings of Ofori & Toor (2009). The study revealed that non-local managers are more likely to exhibit transactional leadership traits all of which were also observed in Mohamad (2012), Toor and Ogunlana (2008) and Bass and Avolio (2000). The nationality of a leader can affect the leadership style he will adopt. Because local leaders are more knowledgeable about their country's socio-political culture as well as the native culture of their workers, they are more able to relate to them and become more transformational as a leader. On the other hand, it is likely that foreign leaders need to test the waters first with their local team members and resort to a more transactional style of leadership because they have to exchange favours and dealings to get things done more efficiently. Thus and when compared to hypothesis generated, the following results have been achieved:

Table 10 Hypothesis (Based on Nationality):

	Hypothesis (Based on Nationality)	Supported
<i>H_{3a}</i>	Leadership style differs by nationality of a leader	Yes
<i>H_{3b}</i>	There is a significant correlation between nationality of a leader and Transformational leadership style	Yes
<i>H_{3c}</i>	There is a significant correlation between nationality of a leader and Transactional leadership style	Yes

4.4.4 Q4. What kind of relationship exists between level of education and style of leadership in UAE construction industry?

The literature reports that transformational leaders make decisions based on various aspects, and the success of these leaders depends on their expertise and behaviour as learned from their education. More educated leaders are charismatic and know how to motivate the employees and enhance their productivity to improve the organization. This study explored the relationship between education level and style of leadership in UAE construction sector and had the following hypotheses:

H_{4a} Leadership style differs by education level of a leader

H_{4b} There is a significant correlation between education level of a leader and Transformational leadership style

H_{4c} There is a significant correlation between education level of a leader and Transactional leadership style

The purpose of this experiment was to examine whether education level of a leader have any significant influence on his leadership style in construction industry. The dependent variable (leadership style) includes transformational leadership style and transactional leadership styles and an independent variable included in this experiment is education level of a leader. An ANOVA test showed that education level of a leader makes a significant overall difference on transformational leadership style ($M = 2.8607$, $SD = .46113$, $F = 12.866$, $p < .000$) but no significant difference on transactional leadership style ($M = 1.9684$, $SD = .45299$, $F = .367$, $p = .777$). Pearson's correlations were performed to test the relationship between education level of a leader, and the style of leadership. A significantly positive correlation has been found between education level of a leader and the transformational style of leadership ($r = .267$; $p = .001$). A closer

look shows that post graduates ($M = 3.0746$) are practicing highest degree of transformational leadership style followed by bachelor degree holders ($M = 2.7814$). On the other hand, no significant correlation has been found between education level of a leader and transactional style of leadership. That implies, more education a leader will have, a better chances to adopt transactional leadership style but transactional style of leadership is not being influenced with level of education of respective leaders. The following table provides a summary of results highlighted:

Table 11 Mean, Standard Deviation and Significance of the Data:

	Edu Level	N	Mean	SD	r	Df	F	Sig
Transformational	High school	9	2.7543	.59045				
	Diploma	44	2.6951	.47731				
	Bachelor	227	2.7914	.46674				
	Post Grad	112	3.0746	.35263				
	Total	392	2.8607	.46113	.267**	3	12.866	.000
Transactional	High school	9	2.0613	.49770				
	Diploma	44	1.9606	.35967				
	Bachelor	227	1.9524	.48918				
	Post Grad	112	1.9965	.40693				
	Total	392	1.9684	.45299	.015*	3	.367	.777
**. Correlation is significant at the 0.01 level (2-tailed).								
*. Correlation is significant at the 0.05 level (2-tailed).								

The study showed that managers with higher levels of education are more likely to use transformational leadership traits. This is supported by Leithwood & Jantzi (2000) who foresee

leaders with high educational attainments as more likely to become transformational leaders. However, leaders with high levels of education are not limited to using only transformational styles of leadership, because they have the choice to also use transactional leadership when they think it is more appropriate. Leaders with a more basic educational level are not automatically programmed to use transactional leadership styles as well. The UAE is known for importing professionals to oversee its construction projects and those selected usually have at least a college degree. Laborers may be hired even without a degree, as they are not expected to be given leadership positions unless they are extraordinarily brilliant in their jobs. Still, education trains future leaders to conduct themselves well and to make wise decisions with regards to their specialized work. Thus and when compared to hypothesis generated, the following results have been achieved:

Table 12 Hypothesis (Based on Education Level):

	Hypothesis (Based on Education Level)	Supported
H_{4a}	Leadership style differs by education level of a leader	Yes
H_{4b}	There is a significant correlation between education level of a leader and Transformational leadership style	Yes
H_{4c}	There is a significant correlation between education level of a leader and Transactional leadership style	No

4.4.5 Q5. What kind of relationship exists between years of experience and style of leadership in UAE construction industry?

The more experience an individual has in performing a professional task, the more likely that the individual would act as an effective transformational leader and implementing such leadership style. As highlighted previously by Randaree & Chaudhry (2007) that the UAE is a country with a rapidly developing construction sector. This can be clearly seen in the city of Dubai. The construction of the region has been noticeably high due to the transformational leadership practices prevalent amid the construction companies. The UAE has critical concerns regarding environmental changes that accompany developing construction projects. Such projects often require effective transformational leadership with a high level of experience and professional competency. This could be one reason for the experienced leaders to adopt firmer and more effective decisions (Fotwe & McCaffer, 2000). This explored the relationship between years of experience and style of leadership in UAE construction sector. The following hypotheses were held:

H_{5a} Leadership style differs by years of work experience of a leader

H_{5b} There is a significant correlation between years of work experience of a leader and Transformational leadership style

H_{5c} There is a significant correlation between years of work experience of a leader and Transactional leadership style

The purpose of this experiment was to examine whether number of years of work experience a leader have makes any significant influence on his leadership style in construction industry. The dependent variable (leadership style) includes transformational leadership style and transactional

leadership styles, and an independent variable included is years of work experience of a leader. An ANOVA test showed that years of work experience of a leader makes a significant overall difference on transformational leadership style ($M = 2.8607$, $SD = .46055$, $F = 7.338$, $p < .000$) and moderately significant difference on transactional leadership style ($M = 1.9678$, $SD = .45259$, $F = 2.681$, $p = .047$). Pearson's correlations were performed to test the relationship between years of work experience of a leader, and the style of leadership. A significantly positive correlation has been found between years of work experience of a leader and the transformational style of leadership ($r = .199$; $p = .001$). A closer look shows that leaders with above seven years of work experience in the current organization ($M = 2.9825$) are practicing highest degree of transformational leadership style followed by leaders with above three years of work experience in the current organization ($M = 2.9003$). On the other hand, no significant correlation has been found between number of year work experience of a leader and transactional style of leadership. That implies, more longer time a leader will work in an organization, a better chances to adopt transactional leadership style but transactional style of leadership is not being influenced with years of work experience of respective leaders. The following table provides a summary of results highlighted:

Table 13 Mean, Standard Deviation and Significance of the Data:

	Work Exp	N	Mean	SD	r	Df	F	Sig
Transformational	Less than a year	56	2.7917	.40948				
	1-3 years	101	2.7110	.51159				
	3.1 to 7 years	119	2.9003	.46582				
	More than 7 years	117	2.9825	.39053				
	Total	393	2.8607	.46055	.199**	3	7.338	.000

Transactional	Less than a year	56	1.8949	.38499				
	1-3 years	101	2.0735	.48701				
	3.1 to 7 years	119	1.9476	.42132				
	More than 7 years	117	1.9318	.47211	*			
	Total	393	1.9678	.45259	-.037	3	2.681	.047
**. Correlation is significant at the 0.01 level (2-tailed).								
*. Correlation is significant at the 0.05 level (2-tailed).								

The study demonstrated that managers, who have more years of experience, are more likely to use transformational styles of leadership. According to the study of Randeree & Chaudhry (2012), experienced leaders provide proper guidance and make effective decisions for the success of the organization. The more experience gained by a leader, the better he becomes in the technical side of the work as well as the way it should be done and how to encourage the team members to collectively work towards organizational goals. Experienced leaders can be more transformational and impactful with their team members. At the same time they can also be flexible enough to use transactional styles of leadership if need be. However, inexperienced or those still gaining enough experience as leaders are more likely to resort to transactional leadership styles to get their team members to complete their assigned tasks. Thus and when compared to hypothesis generated, the following results have been achieved:

Table 13 Hypothesis (Based on years of work experience):

	Hypothesis (Based on years of work experience)	Supported
<i>H_{5a}</i>	Leadership style differs by years of work experience of a leader	Yes

<i>H_{5b}</i>	There is a significant correlation between years of work experience of a leader and Transformational leadership style	Yes
<i>H_{5c}</i>	There is a significant correlation between years of work experience of a leader and Transactional leadership style	No

4.4.6 Q6. What kind of relationship exists between organization position and style of leadership in UAE construction industry?

It is hypothesized that a leader with a more senior position in an organization is more likely to adopt a transformational leadership style. High level leaders are more likely to follow and apply an effectual transformative leadership approach. As highlighted previously, this is mainly because high level leaders are more likely to undertake reliable and effective decisions (Fotwe & McCaffer, 2000). Considering the competitive nature of the construction industry in the UAE, a leader with higher-level authority or power will be more accustomed to adopt a transformational leadership style (Toor et al., 2007). This study investigated if high level leaders are more likely to implement transformational leadership. The following are the hypotheses:

H_{6a} Leadership style differs by organizational position of a leader

H_{6b} There is a significant correlation between organizational position of a leader and Transformational leadership style

H_{6c} There is a significant correlation between organizational position of a leader and Transactional leadership style

The purpose of this experiment was to examine whether organizational position a leader hold have any significant influence on his leadership style in construction industry. The dependent variable

(leadership style) includes transformational leadership style and transactional leadership styles, and an independent variable included is organizational position of a leader. An ANOVA test showed that organizational position of a leader makes a significant overall difference on transformational leadership style ($M = 2.8601$, $SD = .46245$, $F = 9.340$, $p < .000$) and significant difference on transactional leadership style ($M = 1.9651$, $SD = .45260$, $F = 5.979$, $p = .000$). Pearson's correlations were performed to test the relationship between organizational position of a leader, and the style of leadership. A significantly positive correlation has been found between organizational position of a leader and the transformational style of leadership ($r = .172$; $p = .001$). A closer look shows that first line managers ($M = 3.0235$) are practicing highest degree of transformational leadership style followed by middle managers ($M = 2.9451$). On the other hand, significant negative correlation has been found between organizational position of a leader and transactional style of leadership. The following table provides a summary of results highlighted:

Table 14 Mean and Standard Deviation of the Data:

	Org Level	N	Mean	SD	r	Df	F	Sig
Transformational	Other	23	2.8000	.23587				
	Clerical	50	2.4931	.58249				
	Professional	142	2.8952	.43864				
	First line	48	3.0235	.33023				
	Middle M	96	2.9451	.42607				
	Executive	30	2.8187	.47759				
	Total	389	2.8601	.46246	.172**	5	9.340	.000
Transactional	Other	23	2.3570	.35662				
	Clerical	50	1.9957	.53277				

	Professional	142	1.9820	.41075				
	First line	48	2.0189	.46782				
	Middle M	96	1.8277	.39619				
	Executive	30	1.8869	.52631				
	Total	389	1.9651	.45260	-.213*	5	5.979	.000
** . Correlation is significant at the 0.01 level (2-tailed). * . Correlation is significant at the 0.05 level (2-tailed).								

It was expected that senior managers are more likely to use transformational traits within the construction industry of the UAE, which this study supported. Junior managers are expected to follow the rules and implement procedures. Thus, transactional leadership style traits would be more likely to be implemented by junior managers. As the leaders begin developing their decision-making abilities, they evolve and gradually overcome their limitations of followership tendencies. This finding is supported by Balasubramanian (2012), who found that leaders in high organizational positions are more empowered to make decisions they deem would benefit the whole company considering the prevailing political, social and cultural climate. This is because their positions enable them to interact more frequently with top political leaders or personalities giving them the confidence to be more transformational in their leadership style. It is more likely that their high positions also enable them to do the work of their team members or junior leaders who are doing work at a more basic level. Hence, leaders in higher organizational positions have the option to choose whatever leadership style they think would be beneficial for all concerned, while leaders below them are more likely to use a more transactional leadership style. Thus and when compared to hypothesis generated, the following results have been achieved:

Table 14 Hypothesis (Based on Organizational Position):

	Hypothesis (Based on organizational position)	Supported
H_{6a}	Leadership style differs by organizational position of a leader	Yes
H_{6b}	There is a significant correlation between organizational position of a leader and Transformational leadership style	Yes
H_{6c}	There is a significant correlation between organizational position of a leader and Transactional leadership style	Yes

4.5 Conclusion

The findings show that age, work experience, nationality, educational level and organizational position have significant influence on transformational leadership style and transactional leadership style. An ANOVA tests showed that age of a leader makes a significant overall difference between transformational leadership style and transactional leadership style. Also, nationality of a leader makes a significant overall difference between transformational leadership style and transactional leadership style. Furthermore, education level of a leader makes a significant overall difference on transformational leadership style, but no significant difference on transactional leadership style. In addition, years of work experience of a leader makes a significant overall difference on transformational leadership style and moderately significant difference on transactional leadership style. Likewise, organizational position of a leader makes a significant overall difference on transformational leadership style and significant difference on transactional leadership style. However, both an ANOVA and Pearson's correlations test failed to show any significant the relationship between the gender of a leader, and the style of leadership. Thus, it is concluded that construction engineer's adaptation of a certain style of leadership such as transformational and transactional is dependent on fundamental demographic factors.

Chapter 5

SEM Results

5.1 Introduction

As increasing demands are made on all organizations to improve their performance, to anticipate change and develop new structures, effective leadership performance may be essential to ensure that change leads to increased effectiveness, efficiency and profitability (Pittaway *et al.*, 1998; Zhao and Merna, 1992). Lowe *et al.* (1996) found that individuals, who exhibited transformational leadership were perceived to be more effective leaders with better work outcomes than were individuals who exhibited only transactional leadership. Also, the subordinates' satisfaction with their supervision in organizations has been found to be related to the leadership behavior used by managers (Rahim, 1989).

Within this chapter, Structural Equation Modelling (SEM) to conduct a simultaneous test of the entire system of variables in the hypothesized model to determine the extent to which it is consistent with the data (Byrne, 1994) were applied. The maximum likelihood estimation technique was used to estimate the models because this technique has generally been found to generate reliable results even in situations where the data may violate the assumptions of SEM such as normal distribution and large sample size (Chou & Benter, 1995). Following the introduction, the measurement model will be explained. Then, an assessment of the structural model 1 will be presented that is the impact of transformational leadership on the outcome of which will include Conceptual Model to be tested, Pathway Coefficient for the structured model, Model estimation and hypotheses testing. Similarly, assessment of the structured model 2 will presented that will address the impact of transactional leadership on the outcome going through the same tests.

5.2 Measurement Model

The methodology used to test the congeneric models is the strictly confirmatory approach (Joreskog and Sorbom, 1993). This form of confirmatory test is considered the most rigorous, since the focus is on accepting or rejecting a given model. In this approach, the researcher uses data to either accept or reject a single a priori measurement model. Similar to the present study, a priori models may be derived from a combination of both theory and data (Joreskog and Sorbom, 1993). The covariance matrix and parameter estimates from the items in each a priori dimension were obtained using LISREL (8) and the maximum likelihood method is used to test the model fit in order to analyse each congeneric model (Joreskog and Sorbom, 1988). The maximum likelihood method of estimation with medium to large samples, even with any violations of the multinormality assumptions of the model, has been shown to be relatively robust (Tabachnick and Fidell, 2001). The statistics used to evaluate model fit are parameter estimates (Lambda), t-values and goodness of fit indices. The Lambda coefficients indicate the loading of the latent variable on the items. The associated t-values indicate whether or not a Lambda coefficient is significantly different from zero (Byrne, 1994). T-values greater than 2.00 are regarded to be statistically significant (Byrne, 1994). The goodness of fit indices used in this study are measures of incremental fit. Incremental fit indices test the incremental fit of each a priori model over that of a null model. Thus, incremental fit indices provide measures of the proportional improvement in the fit of a substantive model relative to a null model. The null model specifies zero or null covariance among the manifest variables (manifest variables in the present study are the items in each dimension) and is the most widely accepted form of the null model (Widaman and Thompson, 2003). The model being tested hypothesises that the covariance among the items significantly differs from zero (Widaman and Thompson, 2003). The commonly used incremental fit indices are relatively independent of the sample size. Thus, they are appropriate goodness of

fit measures for smaller to medium samples (Widaman and Thompson, 2003). The model fit was estimated using the Comparative Fit Index (CFI), the Incremental Fit Index (IFI) and the Root Mean Square Residual (RMSR) (Bentler, 1990; Bollen, 1989; Pedhazur and Pedhazur-Schmelkin, 1991). The CFI is the index of choice for model fit where the sample size is relatively small (Bentler, 1990). The IFI was also developed to take into account the issue of small sample size (Bollen, 1989). CFI and IFI values greater than 0.9 are generally accepted as indicating a good model fit (Bollen, 1989). The value of the Root Mean Square Residual (RMSR) is interpreted in relation to the sizes of the observed variances and covariances, with obtained RMSR values indicating the average discrepancy between the samples observed and hypothesized correlation matrices (Hu and Bentler, 1998). A RMSR value of 0.05 or less indicates a good fit (Byrne, 1998) with values between 0.05 and 0.08 indicating an acceptable fit (Hu and Bentler, 1998). The standardised measure of RMSR will be used for ease of comparison across scales.

5.3 Assessment of the Structural Model 1: Impact of Transformational Leadership on Outcome

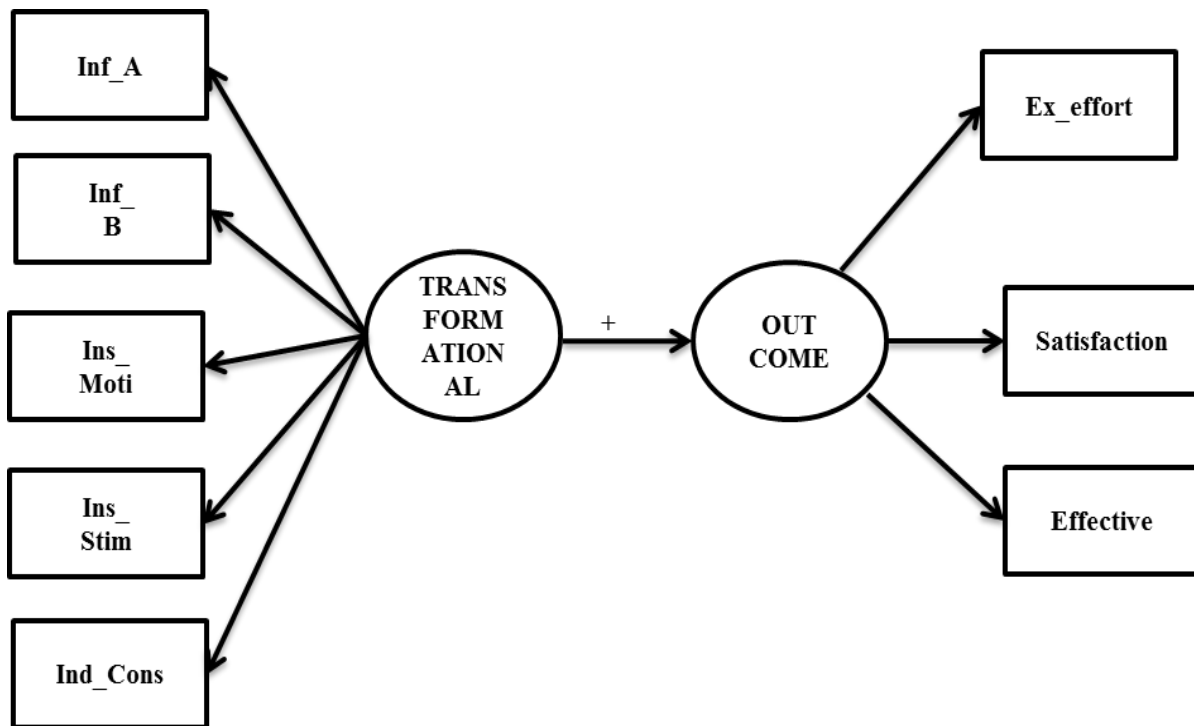
Table 15: Parameter Estimates λ , λ error, t-values, and R² for Pathways defined in the structural model

<i>Pathways from Scale variables to Latent Constructs</i>	<i>λ (β)</i>	<i>λ error</i>	<i>t-value</i>	<i>R²</i>
Transformational Leadership Latent Construct				
Influ_A → TRANSFORMATION	0.44	0.23	14.31	0.45
Influ_B → TRANSFORMATION	0.40	0.16	15.44	0.51
Ins_Moti → TRANSFORMATION	0.45	0.10	18.71	0.67
Ins_Stim → TRANSFORMATION	0.43	0.14	16.75	0.57
Ind_Cons → TRANSFORMATION	0.38	0.24	12.70	0.38

Outcome Latent Construct				
Ex_effort → Outcome	0.44	0.22	14.65	0.47
Satisfaction → Outcome	0.47	0.16	16.90	0.59
Effectiveness → Outcome	0.54	0.092	20.16	0.76
Pathways between Latent Constructs (TRANSFORM vs OUTCOME)				
TRANSFORMATION → OUTCOME	0.81	0.03	28.63	
Goodness of Fit Statistics: Degrees of Freedom = 19, Squares Chi-Square = 35.80 (P = 0.011), (RMSEA) = 0.047, 90 Percent Confidence Interval for RMSEA = (0.022 ; 0.071), P-Value for Test of Close Fit (RMSEA < 0.05) = 0.54; Normed Fit Index (NFI) = 0.99; Comparative Fit Index (CFI) = 0.99; Incremental Fit Index (IFI) = 0.99; Critical N (CN) = 399.49; Root Mean Square Residual (RMR) = 0.0094; Goodness of Fit Index (GFI) = 0.98; Adjusted Goodness of Fit Index (AGFI) = 0.96				

5.3.1 Assessment of the Structural Model 1: Impact of Transformational Leadership on Outcome

(Figure 2: Conceptual Model to be tested)



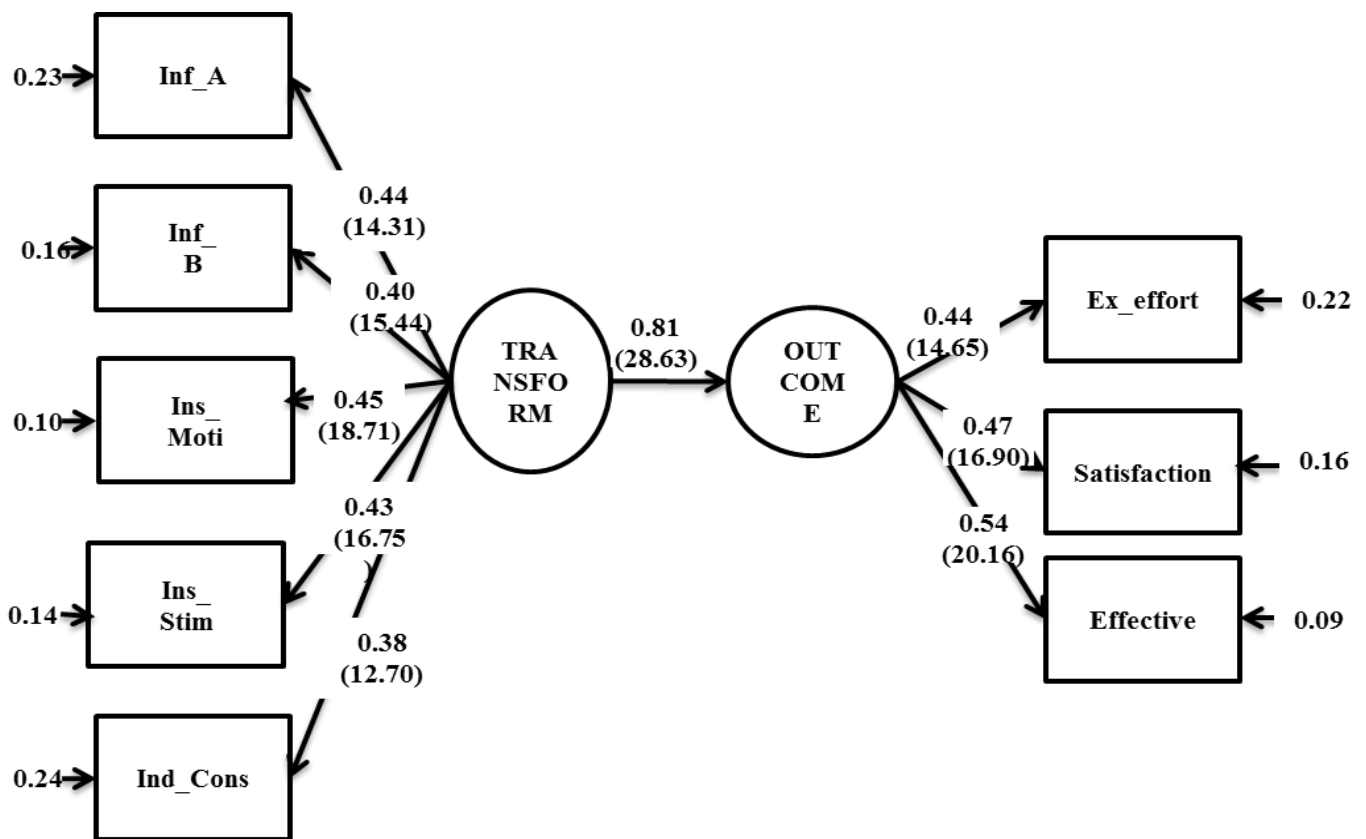
Summary of the Conceptual Model:

Transformational leadership style is based on five factors. Those factors are Idealized Influence (Attributed aspect), Idealized Influence (Behavior aspect), Inspirational Motivation, Intellectual

Stimulation and Individual Consideration. Bass and Avolio (1990), Bryman (1992) and Lowe *et al.* (1996) have confirmed that each of those factors are positively contributed toward transformational leadership style. The outcome latent construct is measured by Extra Effort, Satisfaction, and Effectiveness (Howell and Avolio, 1993; Tracey and Hinkin 1996). Following section presents details on the nature of relationship found in this study.

5.3.2 Assessment of the Structural Model 1: Impact of Transformational Leadership on Outcome

(Figure 3: Pathway Coefficient for the structured model)



For Transformational Leadership structural model, absolute fit indices determine how well the prior model fits the data. Degrees of Freedom = 19, Squares Chi-Square = 35.80 and $p < .011$, $RMSR = 0.047$ ($< .05$), $GFI = 0.98$, $AGFI = 0.96$ demonstrate that model is a good fit to data.

Moreover, incremental fit statistics (NFI= 0.99, CFI= 0.99, IFI= 0.99, and RMR= .009) also indicate that Transformational Leadership model is a good fit to the data. The direct path coefficient between Transformational Leadership style and Outcome are highly correlated and statistically significant ($\beta=0.81$, $t\text{-value}=28.63$). That means transformational style of leadership has a positive influence on achieving successful outcome of the organization. This finding is consistent with previous research suggesting that transformational leadership is positively correlated with subordinate satisfaction, commitment and performance (Bass and Avolio, 1990; Lowe *et al.*, 1996; Bass, 1998).

As shown in the table, the direct path coefficient between Idealized Influence (Attributed aspect) and Transformational leadership style latent construct indicates that Transformational leadership style is significantly and positively ($\beta=0.44$, $t\text{-value}=14.31$) affected by Idealized Influence (Attributed aspect). Furthermore, Idealized Influence (Attributed aspect) explains 45% of the variance of Transformational leadership latent construct. More specifically, Idealized Influence (Attributed aspect) helps to promote Transformational leadership among managers which is concurring with literature (Bryman, 1992).

Table 1 shows that the direct path coefficient between Idealized Influence (Behavior aspect) and Transformational leadership style latent construct are also positive and statistically significant. It means that Idealized Influence (Behavior aspect) is significantly and positively ($\beta=0.40$, $t\text{-value}=15.44$) contributed to Transformational leadership style that is in line with literature (Howell and Avolio, 1993). Furthermore, Idealized Influence (Behavior aspect) explains 51% of the variance of Transformational leadership latent construct. More specifically, Idealized Influence (Behavior aspect) helps to promote Transformational leadership among managers (Howell and Avolio, 1993).

In addition and as shown in the table, the direct path coefficient between Inspirational Motivation and Transformational leadership style latent construct indicates that Transformational leadership style is significantly and positively ($\beta=0.45$, $t\text{-value}=18.71$) influenced by Inspirational Motivation. Moreover, Inspirational Motivation explains 67% of the variance of Transformational leadership latent construct. As highlighted by Tracey and Hinkin (1996), Inspirational Motivation is the most influential factor that promoting Transformational leadership among managers.

Table 1 shows that the direct path coefficient between Intellectual Stimulation and Transformational leadership style latent construct are also positive and statistically significant. It means that Intellectual Stimulation is significantly and positively ($\beta=0.43$, $t\text{-value}=16.75$) contributed to Transformational leadership style. This finding is consistent with previous research suggesting that transformational leadership is positively correlated with subordinate satisfaction, commitment and performance (Bass and Avolio, 1990; Lowe *et al.*, 1996; Bass, 1998). Furthermore, Intellectual Stimulation explains 57% of the variance of Transformational leadership latent construct. More specifically, Intellectual Stimulation helps to promote Transformational leadership among managers. Finally, as shown in Table, the direct path coefficient between Individual Consideration and Transformational leadership style latent construct indicates that Transformational leadership style is significantly and positively ($\beta=0.38$, $t\text{-value}=12.70$) influenced by Individual Consideration. Moreover, Individual Consideration explains 38% of the variance of Transformational leadership latent construct. However, Individual Consideration is the least influential factor that promoting Transformational leadership among managers that contradicts with what has been highlighted in literature by Zhao and Merna (1992).

The table below highlights the outcome of latent constructs:

Table 16 Assessment of Outcome Latent Construct Covariance Matrix:

	Influ_A	Influ_B	Ins_Moti	Int_Stim	Ind_Con s	Ex_Effor	Satisfac	Effectiv
Influ_A	0.43							
Influ_B	0.20	0.32						
Ins_Moti	0.19	0.18	0.30					
Int_Stim	0.18	0.16	0.20	0.32				
Ind_Cons	0.19	0.16	0.16	0.15	0.39			
Ex_Effor	0.16	0.12	0.16	0.15	0.13	0.41		
Satisfac	0.17	0.15	0.17	0.17	0.14	0.22	0.38	
Effectiv	0.18	0.17	0.20	0.19	0.19	0.24	0.25	0.38

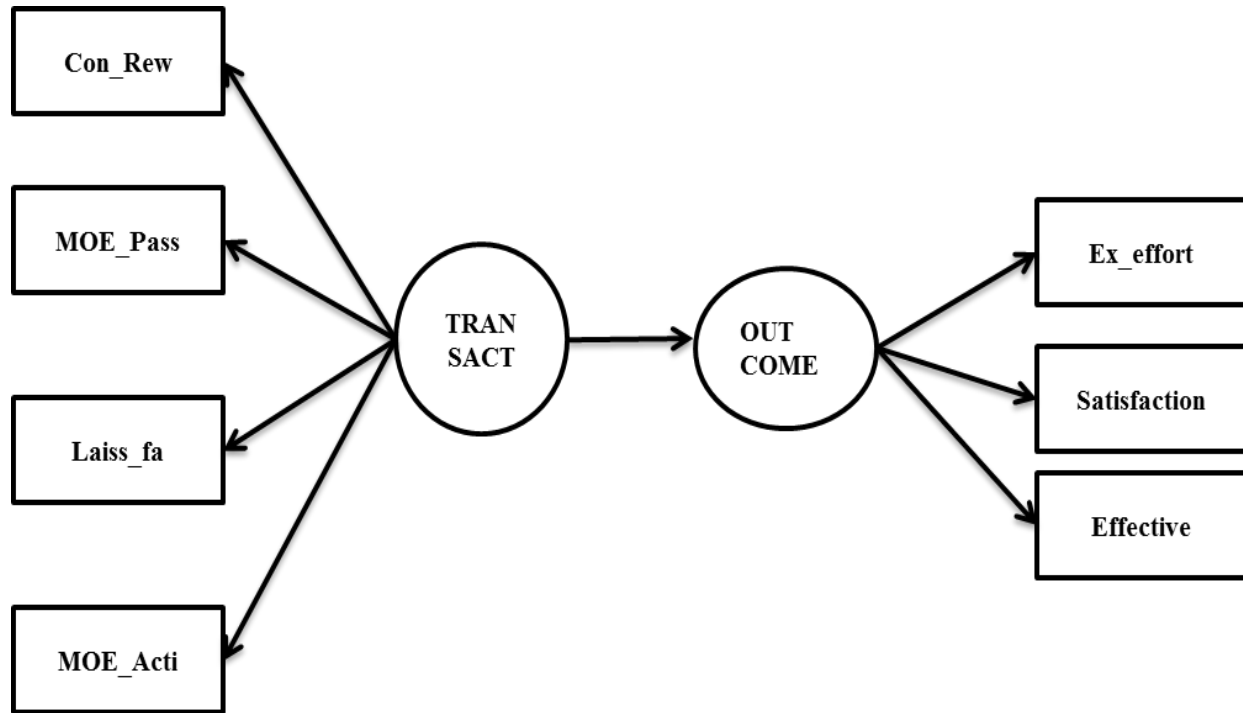
5.4 Assessment of the Structural Model 2: Impact of Transactional Leadership on Outcome

Table 6 Parameter Estimates λ , λ error, t-values, and R^2 for Pathways defined in the structural model:

<i>Pathways from Scale variables to Latent Constructs</i>	λ (β)	λ error	t-value	R^2
Transactional Leadership Latent Construct				
Con_Rew → TRANSACTIONAL	0.43	0.18	12.08	0.51
MOE_Pass → TRANSACTIONAL	- 0.13	0.68	-2.81	0.026
Laiss_Fa → TRANSACTIONAL	- 0.34	0.61	-7.06	0.16
MOE_Acti → TRANSACTIONAL	0.27	0.52	6.17	0.12
Outcome Latent Construct				
Ex_effort → Outcome	0.44	0.22	14.65	0.47
Satisfaction → Outcome	0.47	0.16	16.52	0.58
Effectiveness → Outcome	0.55	0.087	20.08	0.77
Pathways between Latent Constructs (TRANSFORM vs OUTCOME)				
TRANFORMATION → OUTCOME	0.87	0.05	16.89	
Goodness of Fit Statistics: Degrees of Freedom = 13, Squares Chi-Square = 204.70 (P = 0.0), (RMSEA) = 0.19, 90 Percent Confidence Interval for RMSEA = (0.17 ; 0.22), P-Value for Test of Close Fit (RMSEA < 0.05) = 0.00; Normed Fit Index (NFI) = 0.80; Comparative Fit Index (CFI) = 0.81; Incremental Fit Index (IFI) = 0.81; Critical N (CN) = 51.75; Root Mean Square Residual (RMR) = 0.079; Goodness of Fit Index (GFI) = 0.87; Adjusted Goodness of Fit Index (AGFI) = 0.72				

5.4.1 Assessment of the Structural Model 2: Impact of Transactional Leadership on Outcome

(Figure 4: Conceptual Model to be tested)

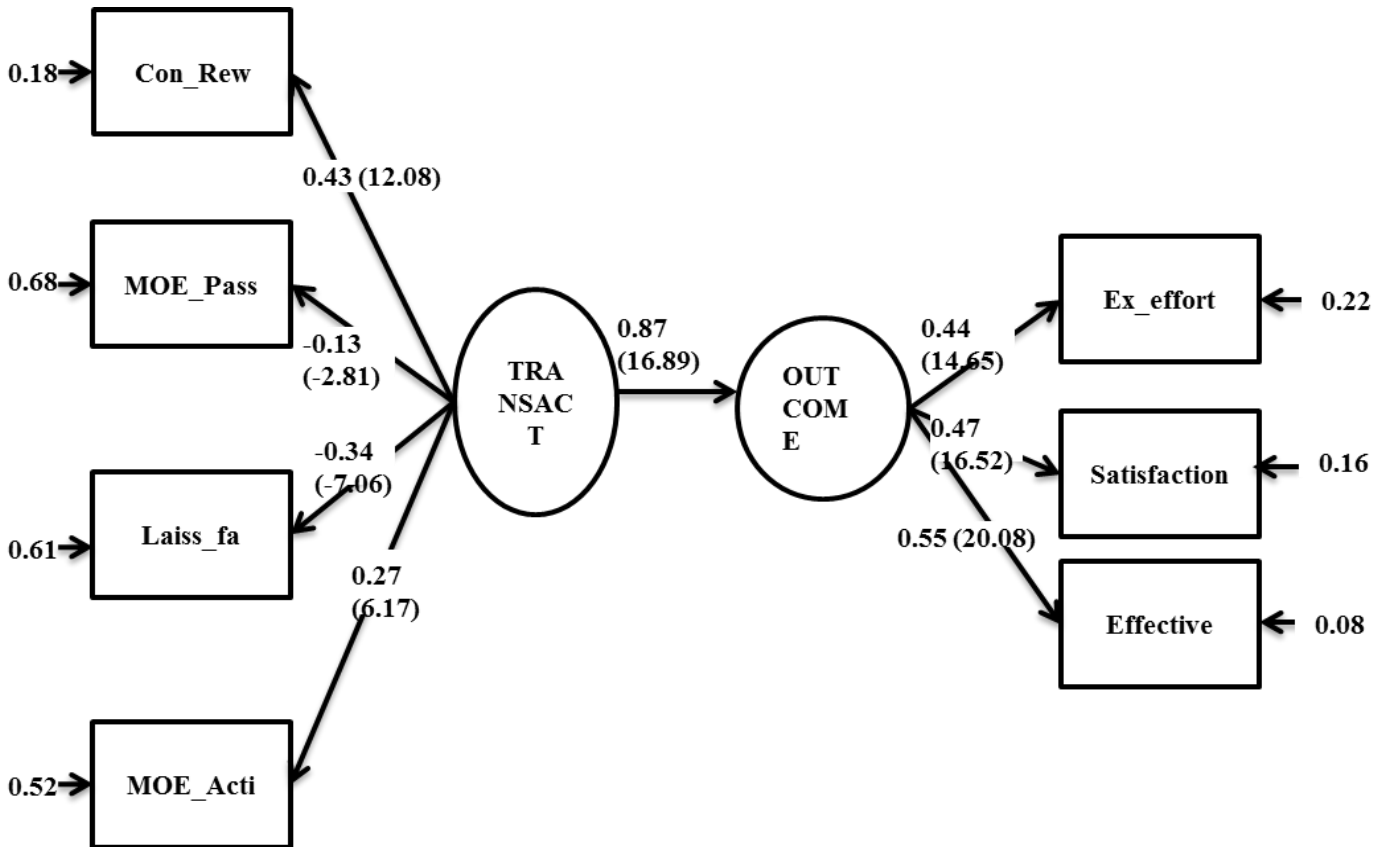


Summary of the Conceptual Model:

Transactional leadership style is based on four factors. Those factors are Contingent Reward, Management by Exception (Passive), Laissez-faire Leadership and Management by Exception (Active). Bass and Avolio (1990), Bryman (1992) and Lowe *et al.* (1996) have confirmed that each of those factors are positively contributed toward transformational leadership style. The outcome latent construct is measured by Extra Effort, Satisfaction, and Effectiveness (Howell and Avolio, 1993; Tracey and Hinkin 1996). Following section presents details on the nature of relationship found in this study.

5.4.2 Assessment of the Structural Model 2: Impact of Transactional Leadership on Outcome

(Figure 5: Pathway Coefficient for the structured model)



For Transactional Leadership structural model, absolute fit indices determine how well the prior model fits the data. Degrees of Freedom = 13, Squares Chi-Square = 204.70 and $p < .00$, RMSR = 0.19, GFI = 0.87, AGFI = 0.72 demonstrate that model is not a good fit to data. Moreover, incremental fit statistics (NFI = 0.80, CFI = 0.81, IFI = 0.81, and RMR = .079) also indicate that Transactional Leadership model is failed to prove an acceptable fit to the data. However, the direct path coefficient between Transactional Leadership style and Outcome are highly correlated and statistically significant ($\beta = 0.87$, $t\text{-value} = 16.89$). That means Transactional style of leadership has a positive influence on achieving successful outcome of the organization. This finding is

consistent with previous research suggesting that transformational leadership is positively correlated with subordinate satisfaction, commitment and performance (Bass and Avolio, 1990; Lowe *et al.*, 1996; Bass, 1998). As shown in the Table, the direct path coefficient between Contingent Reward and Transactional leadership style latent construct indicates that Transactional leadership style is significantly and positively ($\beta=0.43$, $t\text{-value}=12.08$) affected by Contingent Reward. Furthermore, Contingent Reward explains 51% of the variance of Transactional leadership latent construct. More specifically, Contingent Reward helps to promote Transactional leadership among manager that is remarkably concurring with literature (Bryman, 1992). Contingent Reward is the most significant factor for Transactional leadership practices (Howell and Avolio, 1993). As shown in Table, the direct path coefficient between Management by Exception (Passive) and Transactional leadership style latent construct indicates that Transactional leadership style is negatively but significantly ($\beta=-0.13$, $t\text{-value}=-2.81$) affected by Management by Exception (Passive) that is not in line with literature and research of Howell and Avolio (1993). Furthermore, Management by Exception (Passive) explains only 2.6% of the variance of Transactional leadership latent construct. More specifically, Management by Exception (Passive) has a very weak relationship with transactional leadership practices and explains very marginal variance of it. In other words, this study found that Management-by-Exception (Passive) is not an appropriate leadership tool rather more management tool of which is in line with literature (Howell and Avolio, 1993).

As shown in Table, the direct path coefficient between Laissez faire Leadership and Transactional leadership style latent construct indicates that Laissez faire Leadership influences Transactional leadership style negatively but in a significantly ($\beta=-0.34$, $t\text{-value}=-7.06$) way. Furthermore, Laissez faire Leadership explains only 16% of the variance of Transactional leadership latent

construct. In other words, this study found that Laissez-faire Leadership is not an appropriate leadership tool rather more management tool. Such a finding is concurring with literature of which highlighted that Laissez-faire Leadership has the highest negative relationship between income and organization commitment (Pittaway *et al.*, 1998; Zhao and Merna, 1992).

As shown in Table, the direct path coefficient between Management by Exception (Active) and Transactional leadership style latent construct indicates that Transactional leadership style is significantly and positively ($\beta=0.27$, $t\text{-value}=6.17$) affected by Management by Exception (Active). However, Management by Exception (Active) explains only 12% of the variance of Transactional leadership latent construct. More specifically, Management by Exception (Active) helps to promote Transactional leadership among managers, which is in line with what Lowe *et al.* (1996) highlighted in his research. The table below highlights the outcome of latent constructs:

Table 18 Assessment of Outcome Latent Construct (Covariance Matrix):

	Con_Rewa	MOE_Pass	Laiss_fa	MOE_Acti	Ex_Effor	Satisfac	Effectiv
Con_Rewa	0.36						
MOE_Pass	-0.04	0.69					
Laiss_fa	-0.18	0.39	0.72				
MOE_Acti	0.11	0.11	0.07	0.59			
Ex_Effor	0.16	-0.02	-0.05	0.13	0.41		
Satisfac	0.16	-0.04	-0.13	0.16	0.22	0.38	
Effectiv	0.21	-0.05	-0.16	0.16	0.24	0.25	

5.5 Conclusion

In conclusion, Idealized Influence (Attributed aspect), Idealized Influence (Behavior aspect), Inspirational Motivation, Intellectual Stimulation and Individual Consideration are positively contributed toward transformational leadership style. In addition, Transformational leadership style has positive outcome on Extra Effort, Satisfaction and Effectiveness of the Organization. The direct path coefficient between Transformational Leadership style and Outcome are highly correlated and statistically significant ($\beta=0.81$, $t\text{-value}=28.63$). Moreover, incremental fit statistics (NFI= 0.99, CFI= 0.99, IFI= 0.99, and RMR= .009) also indicate that Transformational Leadership model is a good fit to the data. On the other hand, Contingent Reward and Management by Exception (Active) are positively correlated with transactional leadership style while Management by Exception (Passive) and Laissez-faire Leadership are negatively correlated with transactional leadership style. Also, transformational leadership style has positive outcome on Extra Effort, Satisfaction and Effectiveness of the Organization. Structural model with a Degrees of Freedom = 13, Squares Chi-Square = 204.70 and $p<.00$, RMSR =0.19, GFI= 0.87, AGFI = 0.72 demonstrate that model is not a good fit to data. Moreover, incremental fit statistics (NFI= 0.80, CFI= 0.81, IFI= 0.81, and RMR= .079) also indicate that Transactional Leadership model is failed to prove an acceptable fit to the data. However, the direct path coefficient between Transactional Leadership style and Outcome are highly correlated and statistically significant ($\beta=0.87$, $t\text{-value}=16.89$).

Chapter 6

Conclusion

6.1 Introduction

Within this chapter, the content of research will be highlighted along with major points this study revealed. The hypothesis obtained from literature review will be discussed of which will cover six different demographic dimensions i.e. age, gender, nationality, work experience, educational level and organizational position. The findings of the study will be discussed in a full section that will include the different correlations between transformational and transactional leadership style when compared to the six demographic dimensions. Recommendations section will follow that will include the imperative need to have full awareness of leadership styles and its effect on the team and the construction projects as a whole. In addition, the recommendations section will highlight the future studies that could be conducted in other countries or a cross cultural comparison of leadership styles in other industries apart from the construction industry. Theoretical contribution will be highlighted in which theory from literature review will be linked to findings obtained. Practical implications will follow where the writer will demonstrate his opinion about findings obtained.

6.2 Content of Research

In recent years, the construction industry across the globe has witnessed significant growth. The construction industry of the UAE is also experiencing similar growth. Research has shown that the leadership within the construction industry plays an imperative role in the success of the industry (Brouer & Scwedhelm, 2002). In this regard, the leadership style adopted by the managers in the

construction industry has been shown to have a strong influence on the performance of the team members and in the accomplishment of the project goals. This study analysed the construction industry of UAE and the importance of leadership styles within the industry. For this study, hypotheses were drawn and tested. It explored the relationship of the factors of age, gender, nationality, work experience, educational level and organizational position of leaders with their adoption of transactional and transformational leadership styles. It used the Multifactor Leadership Questionnaires (MLQ) to gather data from leaders who were the participants of this study. The findings of the study revealed various important facts regarding the dependency of leadership approaches and the corresponding choices made by the within the construction industry. Among the many factors assumed to influence the choices of the leaders in adopting the most suitable leadership styles are their age, gender, organizational positioning, work experience, nationality and educational levels. Based on a quantitative research approach, the study identified varying results by considering the correlation between the stated variables and the leaders' choices of leadership styles.

6.3 Summary of Findings

It was found in this study that the age of the leader plays a significant role in determining their leadership style. Older and more mature leaders who are assumed to have gained the necessary knowledge, skills and wisdom needed for the job, adopt a more transformational leadership style as compared to their younger counterparts. Younger leaders who tend to live more in the moment and want to speed up their progress over their competitors, tend to adopt more a transactional leadership style, expecting their workers to give back to the company what is due, in exchange for the pay and benefits they receive. With regards to the factor of gender, it was found that there was

no correlation between the gender of the leader and their tendency to use transformational or transactional leadership styles. This finding is not consistent with what was reported in the literature wherein women leaders tend to be more transformational than men leaders because of their communal traits and better communication skills while men leaders tend to be more transactional in their leadership style. The participants in this study, regardless of their gender, used transformational as well as transactional leadership depending on the purpose and context of their leadership. While gender had no significance on the adoption of leadership styles among the sampled respondents, the correlation between the nationality of the leaders and the leaders' choice of transactional and/or transformation leadership styles were prominent. Local leaders who were natives of UAE adopted more transformational leadership styles because they knew the culture better, including the socio-political climate they live in, hence, they are more able to relate to workers. Foreign leaders adopt a more transactional leadership style, exchanging favours for efficient performance of their workers. The educational level attained by leaders can also determine their leadership style. Those who have higher educational attainment such as post-graduate Master's or Doctoral degrees, use more transformational styles. They also resort to using transactional leadership when the situation calls for it. Leaders who have lower educational levels are likely to use both transformational and transactional leadership styles. A similar correlation was observed between the work experience of the leaders and their selection of leadership styles, whereby a leaders with more work experience showed a positive correlation with their adaptation of a transformational leadership style. This is because from their vast work experience, they have gained the skills and qualities needed to keep a team going to deliver efficient performance. Less experienced leaders are more likely to adopt transactional leadership styles with their members. Organizational positioning had a strong correlation with the leaders' choices of transformational

or transactional leadership styles. The higher leaders are in their position with the company, the more they are likely to use transformational leadership styles. This is because in their high positions, they are able to interact with more people from various positions, even those outside their industry such as politicians, clients, etc., so they develop more transformational qualities effective for socialisation purposes. Their subordinates benefit from such qualities because they themselves are on the receiving end of transformational leadership. Leaders in lower organisational positions tend to be more transactional in their dealings with their staff because they are still learning much about their positions. However, as they gain more experience and advance in the corporate ladder, they develop more transformational leadership qualities. In addition, Idealized Influence (Attributed aspect), Idealized Influence (Behavior aspect), Inspirational Motivation, Intellectual Stimulation and Individual Consideration are positively contributed toward transformational leadership style. Also, Transformational leadership style has positive outcome on Extra Effort, Satisfaction and Effectiveness of the Organization. On the other hand, Contingent Reward and Management by Exception (Active) are positively correlated with transactional leadership style while Management by Exception (Passive) and Laissez-faire Leadership are negatively correlated with transactional leadership style. Also, transformational leadership style has positive outcome on Extra Effort, Satisfaction and Effectiveness of the Organization. In summary, this study has revealed the followings:

1. Age of the leader plays a significant role in determining their leadership style.
2. Younger leaders tend to adopt more a transactional leadership style.
3. Old aged leaders tend to adopt more a transformational leadership style.
4. There was no correlation between the gender of the leader and their tendency to use transformational or transactional leadership styles.

5. Local leaders who were natives of UAE adopted more transformational leadership styles.
6. Foreign leaders adopt a more transactional leadership style
7. Leaders, who have higher educational attainment such as post-graduate Master's or Doctoral degrees, use more transformational styles.
8. Leaders, who have lower educational levels, are likely to use both transformational and transactional leadership styles.
9. Leaders with more work experience showed a positive correlation with their adaptation of a transformational leadership style.
10. The higher leaders are in their position with the company, the more they are likely to use transformational leadership styles.
11. Leaders in lower organizational positions tend to be more transactional in their dealings with their staff
12. Both transformational and transactional leadership style have positive outcomes on organization's performance and employees' satisfaction.

6.4 Recommendations

With the rapid growth and development of the construction industry in the UAE, it is imperative that leaders, project managers, project engineers, supervisors, consultants, etc. need to be evaluated upon hiring as to the various factors that may affect their leadership style. On their part, leaders need to be more aware of their own leadership styles and its effect on the team and the construction projects as a whole. They need to be able to find the most appropriate leadership approaches in dealing with various members of their team as well as the external stakeholders of the construction project such as clients, government officials and society in general. Future research on the area of

leadership in the construction business could benefit from more in depth questionnaires dealing with respondents' feelings, attitudes and beliefs. This may require a more qualitative approach using interviews or focus group discussions. In addition, apart from self-report questionnaires, a more rounded questionnaire such as the 360-degree evaluation of each member of the organization may be used. This means that aside from self-report evaluations, respondents will also evaluate other members of the organization such as their peers in the same position, their supervisors and their staff working for them. Since this study tackled six variables to study in relation to leadership as well as the transactional and transformational leadership styles, future studies may dwell on just one or two variables and conduct a more intensive and thorough research on it. It can also expand to other countries or conduct a cross cultural comparison of leadership in other industries apart from the construction industry. More research work on the topic of leadership is relevant to today's increasingly globalized world. Not only will it benefit the construction business, but such research will extend its benefits to other industries as well. The following recommendations are highlighted from this study:

1. Transformational leaders are helpful to promote work performance and employees' satisfaction level.
2. Older leaders are more recommended to lead the business in the construction sector of the UAE as they are anticipated to implement transformational leadership style.
3. Local leaders are expected to enhance the organization's effectiveness and increase the level of employees' satisfaction via implementing transformational leadership style.
4. High educated leaders are recommended to be recruited to work in the construction sector of the UAE as they will have positive outcome on the performance of the organization.

5. Senior leaders with more years of experience are foreseen to implement a transformational leadership style of which will benefit the business and enhance the effectiveness of the organization.
6. Females must have a bigger role and enrolment in the construction sector of the UAE as this study proved the lack of female gender participating in this sector.

6.5.1 Theoretical Contribution

Older and more matured leaders usually make choices between transformational and transactional styles of leadership. The younger leaders, being more “in the present” and may not have developed the necessary foresight are able to cope with their situation using a more transactional type of leadership as highlighted by Eagly et al., (2003). Also, the same finding is concurrent with what Fotwe & McCaffer (2000) highlighted that there is a strong correlation between the age of leaders and their adopted style of leadership. On the other hand, no correlation was found between the gender of the leaders and their leadership approaches. This finding contradicts the work of Omair (2010), who found that female leaders are more transformational in nature than the male leaders. The study also tested the correlation between nationality of the leaders in the UAE construction industry and their adopted leadership approaches. The findings revealed that local managers are more likely to use transformational leadership traits similar to the findings of Ofori & Toor (2009). The study showed that managers with higher levels of education are more likely to use transformational leadership traits. This is supported by Leithwood & Jantzi (2000), who foresee leaders with high educational attainments as more likely to become transformational leaders. The study demonstrated that managers, who have more years of experience are more likely to use transformational styles of leadership. According to the study of Randeree & Chaudhry (2012), experienced leaders provide proper guidance and make effective decisions for the success of the

organization. It was expected that senior managers are more likely to use transformational traits within the construction industry of the UAE, which this study supported. Junior managers are expected to follow the rules and implement procedures. Thus, transactional leadership style traits would be more likely to be implemented by junior managers. As the leaders begin developing their decision-making abilities, they evolve and gradually overcome their limitations of followership tendencies. This finding is supported by Balasubramanian (2012), who found that leaders in high organizational positions are more empowered to make decisions they deem would benefit the whole company considering the prevailing political, social and cultural climate. Furthermore, transformational leadership style is based on five factors. Those factors are Idealized Influence (Attributed aspect), Idealized Influence (Behavior aspect), Inspirational Motivation, Intellectual Stimulation and Individual Consideration. Bass and Avolio (1990), Bryman (1992) and Lowe et al. (1996) have confirmed that each of those factors are positively contributed toward transformational leadership style of which concurring with the outcomes of this study. The direct path coefficient between transformational leadership style and outcome were highly correlated and statistically significant ($\beta=0.81$, $t\text{-value}=28.63$) of which means transformational style of leadership has a positive influence on achieving successful outcome of the organization. Similarly, transactional leadership style that is based on Contingent Reward, Management by Exception (Passive), Laissez-faire Leadership and Management by Exception (Active) had a positive influence on achieving successful outcome of the organization as mentioned earlier by Berry & Cartwright (2000) and Bass (1985). The direct path coefficient between transformational leadership style and outcome were highly correlated and statistically significant ($\beta=0.81$, $t\text{-value}=28.63$) of which means transformational style of leadership has a positive influence on achieving successful outcome of the organization.

6.5.2 Difference of this study compared to other similar studies

There were a number of publications reviewed and assessed when this study took place. Some of those publications were similar to this study, but had a number of differences. Within the next couple of paragraphs, the outstanding similar studies will be highlighted and the main differences when compared to this study will be mentioned. One of the outstanding studies similar to this study is the paper by Randeree & Chaudhry (2012) that aimed to provide an examination of the extent to which different leadership styles impact employee job satisfaction and organizational commitment in the United Arab Emirates (UAE) through a case analysis in the construction sector unlike this study of which is a research paper. The research is based on a survey of three companies, one client organization, one consultancy firm and one contracting company. However, this study covered only contracting companies. The findings of Randeree & Chaudhry study showed that consultative and consensus leadership styles are prevalent in the construction sector in the UAE. However, no specific mention been there of what type of leadership styles have been examined as it was very generic and focused only on leadership. This study found that age of the leader plays a significant role in determining their leadership style as younger leaders tend to adopt more a transactional leadership style while old aged leaders tend to adopt more a transformational leadership style. This study also revealed a fact there was no correlation between the gender of the leader and their tendency to use transformational or transactional leadership styles, but local leaders who were natives of UAE adopted more transformational leadership styles and foreign leaders would adopt a more transactional leadership style. Similar results have been found when education level been tested as higher education is positively correlated with transformational leadership style while lower education level is positively correlated with transactional leadership style. In addition, this study covered the leader's work experience level is positively correlated

with their adaptation of a transformational leadership style. Also, the higher leaders are in their position with the company, the more they are likely to use transformational leadership styles. Furthermore, this study disclosed a fact that both transformational and transactional leadership style have positive outcomes on organization's performance and employees' satisfaction. Another study is one prepared by Dianne Bealer and Ramudu Bhanugopan (2014) of which aims to understand the distinctiveness of the leadership styles displayed in the Middle East, particularly in the United Arab Emirates (UAE) context. The paper draws on a sample of 213 managers from several countries representing divergent institutional contexts working in the UAE. It therefore examines and compares the leadership behaviour of expatriate and national managers in the UAE so as to identify their distinct styles and approaches. However, the main differences were in the size and type of participants included in Dianne & Ramudu study as this study have covered more than 350 participants and included different managerial levels. Another difference was this study implemented the Structural Equation Modeling (SEM) method to assess the outcomes on the organization's performance and employees' satisfaction while Dianne & Ramudu study used the factorial structure, mean, standard deviation and percentiles to compare the leadership styles. Furthermore, the study of Dianne & Ramudu covered all sectors in the UAE while this study focused on only the construction sector of the UAE. On the other hand, the findings of both studies may extend to other countries in the Middle Eastern region. On the other hand, Mohamad Saad Mohamad (2012) also published a similar study investigating the relationship between transformational leadership and both employees' generic job satisfaction and organizational commitment. The sample consisted of 160 male employees attending Master of Business Administration program in some private educational institutions in Egypt. Their ages ranged between 25 and 47 years. Mohamad's paper didn't cover the organizational performance side nor

were females included. In addition, Mohamad's study been carried out in Egypt, Africa whereas this study is focusing on the UAE's context. Moreover, volume of trade of sample companies which is over a billion dirham was an important distinguisher. However, Mohamad used three instruments to assess study variables: Multifactor Leadership Questionnaire (MLQ) was used to assess transformational leadership; the Generic Job Satisfaction Scale (GJSS) was used to assess employees' job satisfaction, Mayer & Allen's Organizational Commitment Questionnaire (OCQ) was used to assess employees' organizational commitment. Unlike this study that used Multifactor Leadership Questionnaire (MLQ) to assess transformational and transactional leadership styles along with Structural Equation Modeling (SEM) to identify type of relationship between variables and outcomes on organization performance along with employees' satisfaction. Also, Alice H. Eagly and Mary C. Johannesen Schmidt (2003) conducted a meta-analysis of 45 studies of transformational, transactional, and laissez-faire leadership styles. They found that female leaders were more transformational than male leaders and also engaged in more of the contingent reward behaviors that are a component of transactional leadership. Male leaders were generally more likely to manifest the other aspects of transactional leadership (active and passive management by exception) and laissez-faire leadership. Although these differences between male and female leaders were highlighted in this study, the other demographics like age, nationality, work experience, education level and managerial position were not covered. Whilst no correlation has been found between gender and type of leadership style, this study revealed that age is positively correlated with type of leadership style. In addition, nationality of a leader is positively correlated with type of leadership style implemented in the organization similarly to education level, work experience and managerial position that all are positively correlated to transformational leadership style. Alice & Mary study were implemented in Europe while this study covered the UAE's

context. Both studies have had some similar variables covered, but this study didn't cover the laissez-free part nor focused on one demographic aspect only i.e. gender. Finally, Ali Mohammad Mosadegh Rad & Mohammad Hossein Yarmohammadian (2004) have published a study of a similar nature of examining leadership styles implemented in certain sector, but the sector was hospitality and the study was conducted in Iran. The data were collected through the distribution of two questionnaires among the 814 employees, first line, middle and senior managers of these hospitals through a stratified random sampling. Unlike this study that covered all participants of different age, nationality, gender, work experience, education level and managerial position working in the construction sector of the UAE. No model has been tested in the study of Ali & Mohammad and the hypothesis were driven by literature review covering salaries, benefits, work conditions, promotion and communication as satisfier factors all of which not been covered in this study as the variable of job satisfaction was not covered. What makes this study unique is the fact it examine transformational and transactional leadership style within a contemporary regional context. A number of studies have been carried out in the UAE that suggest leadership in UAE's culture nurtures consultative and participative tendencies.

6.6 Practical Implications

Despite the fact that this study contribute to the field of leadership in the construction business, it is opening possibilities of factors that may affect the adopted leadership styles of leaders in the industry. It has proven that established beliefs on leadership may not necessarily be held by all leaders, such as the one on gender's impact on leadership. At least to the participants of this study, gender has no bearing on the choice of leadership style of leaders, which was a revelation in this study, considering the leadership of women does not seem to be seen as equal to the leadership of

men especially in the construction industry. However, such beliefs merit further research and investigation as more changes are introduced in the industry, in the work practices and even in cultural expectations. Old aged leaders working in the construction industry of the UAE are expected to implement a transformational leadership style while young leaders are expected to implement transactional leadership style. Both implications would have to be considered when construction companies and/or developers are implementing their practices in the industry. Leaders, who have lower educational levels are likely to use both transformational and transactional leadership styles. A similar correlation was observed between the work experience of the leaders and their selection of leadership styles. Thus, flexibility is key for construction companies as well as something to be considered when selection a leader for the business. Socialisation is important and it has been found that higher leaders in their position with the company are more likely to use transformational leadership styles. Local leaders working in the construction industry of the UAE are more likely to implement transformational leadership styles because they knew the culture better. Therefore, they are more able to relate to workers. Managers in construction organization should try to:

1. Use transformational leadership behaviors rather than transactional leadership behaviors and avoid laissez-faire approach.
2. Create a vision giving followers a sense of identity and meaning within the organization.
3. Become strong role models for their followers by developing set of moral values and expressing strong ideals.
4. Act as change agents, who initiate and implement new directions within organizations.

5. Provide a supportive climate in which they listen carefully to the individual needs of followers and act as coaches and advisers while trying to assist individuals in becoming fully actualized.
6. Transformational leaders can promote employees' job satisfaction and encourage them to fulfil organizational missions and accomplish the organizational goals.

6.7 Limitations of the Study

This research include influences that the researcher could not control. There were conditions that placed restrictions on the methodology and conclusions. One of the limitation was that the surveys were completed in the summer months of which is considered a break season for many managers in the field of construction. Thus, there could be managers and/or employees not captured when the surveys were distributed. In addition, the data of this study is self-reported as it did not involve asking the participants about their feelings, attitudes and beliefs. Furthermore, the study only used self-report questionnaires. Common method bias may thus have influenced some of the results. Also, the quantitative method used in the study might miss out on phenomena occurring because of the focus on theory or hypothesis testing rather than on theory or hypothesis generation. Finally, knowledge and results produced might be too abstract and general for direct application to specific local situations, contexts, and individuals.

6.8 Conclusion

This study revealed that a strong leadership style is imperative for the success of every organization. The study verified different theory about transformational and transactional leadership style in correlation to different demographic dimensions. It has been proven that the performance of the construction industry in the UAE is largely depending on the leaders and their leadership style. It was evident that effective leadership style can significantly increase the profitability of the construction industry in UAE as it contribute towards building engagement and participation, in effect, leading the whole sector to perform better. For the success of the construction industry in the UAE, transformational and transactional leaderships should be followed for the managers to deal with changing situations effectively.

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Appendices

1. Published Studies Included in Meta-Analysis

Authors (s)	Sources of Study	Types of Organization	Level of Leader N Size1	Rater(N size) ¹	Research purpose	Dependent variables
Avolio & Yammarino, (2013).	Leadership and Management	United States Managerial Institutions	Top Level Company executives (39)	Executive managers (75)	Inquiring on the effects of transformational leadership effects	Membership Individualized consideration
Barling, Weber & Kelloway, (1996).	Psychology Financial Research and Training Journal	various Financial Institutions	Managers (27)	Subordinates (232)	Justification of the Impacts of training on leaders attitude	Performance of training
Bass & Avolio, (2000a).	Leadership Development: the MLQ Approach	University level	Departmental Administrators (88)	MBA students (122)	Questionnaire Administering on MLQ	Contingent Reward
Bass & Avolio, (2000b).	Report on Scoring Key on MLQ	Employment Bureaus	Business Managers and Institutional leadership (111)	Commissioned and	Technical report presentation on leader form, rater analysis and scoring key for the MLQ	Leadership performance score card
				Uncommissioned managerial officers		
				-264		
Briggs, (2008).	A Study on public Transit Agency	Public transit Agency	Managerial Leadership in Public	Subordinate of managers (131)	Investigation on organizational effectiveness vis a	MLQ effectiveness

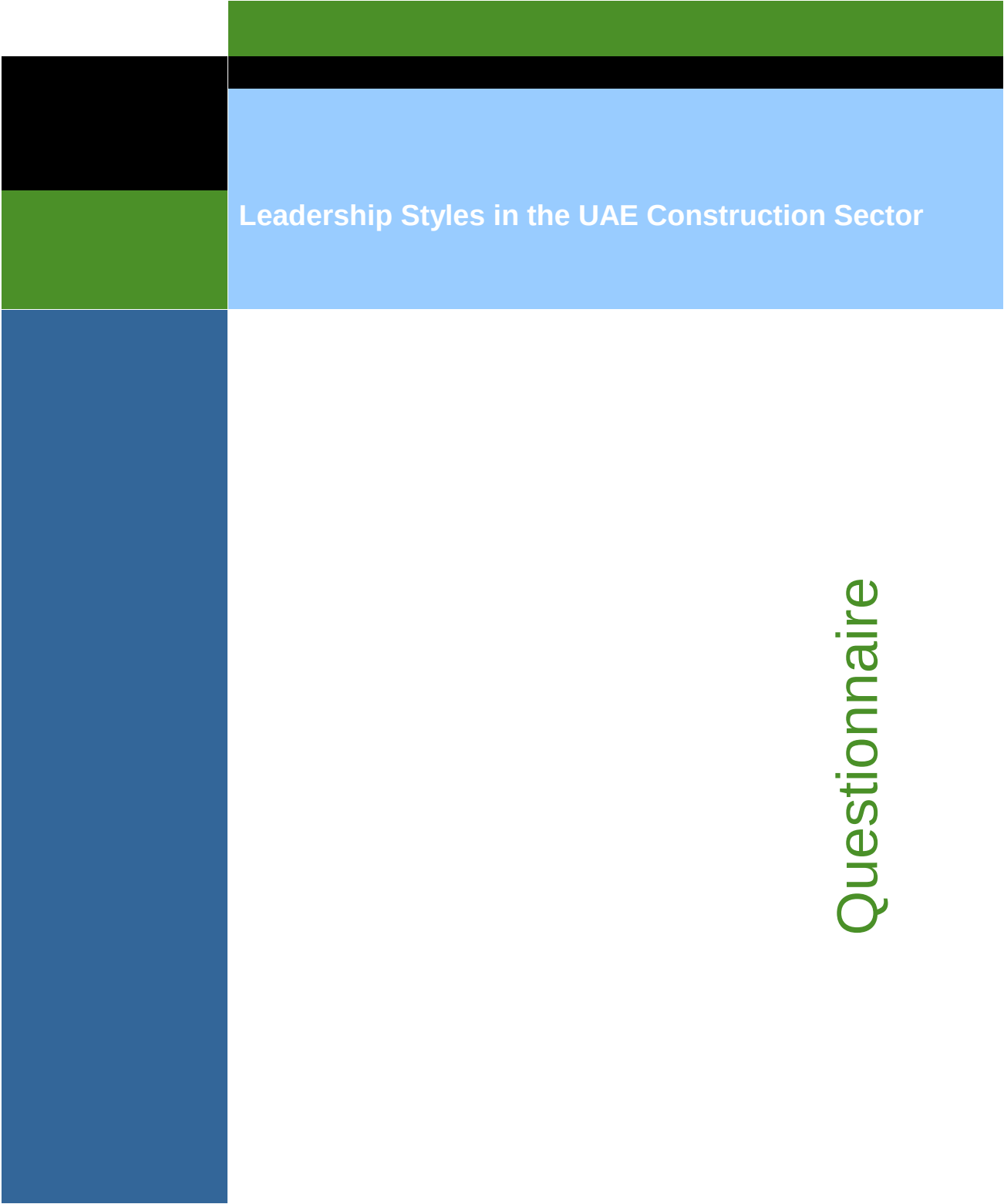
	towards leadership practices		Transit Agencies (32)		vis leadership practices	
Brown, (1999).	History of Literal analysis of MLQ	UAE Construction Firms	Students (54)	Professional Employees(79)	To assess the historical basing of the literal grounding over 19th C on MLQ	MLQ satisfaction
Fey & Denison, (2003).	organizational Culture Dissertation	State Management Comparison in Russia and America	Commissio n Officers (40)	State officers (130)	Ascertaining the level of congruence in Organizational Culture and Effectiveness in Russia and America	Effectiveness of Organization al Culture
Graen & Graen, (2008).	Master's thesis on Corporations that are Knowledge based	High level Corporate Sectors	Corporate Managers (69)	Departmental officers (122)	Unit effectiveness and Public relations	MLQ
						effectiveness
Horsford, (2010).	Managerial Academy and seminars on Educational Leadership	Private High Schools	Departmen tal heads and principals (143)	Schools Subordinate Staffs (312)	Students performance standards and termly evaluation of academic progress among the various categories of student abilities	Performance
						Variations and
						Academic
						Standards

Judge & Piccolo, (2004).	Journal of Meta-Analysis Test of Transformational and Transactional Leadership	Industrial and Research & Development Institutions	Project Coordinators (64)	Professional Employees(179)	Correlation Analysis of the effectiveness of transformational And Transactional Leadership.	Relativity connections and Approach relevance
Kirkpatrick, & Edwin, (1996)	Journal of Applied psychology	Corporations	Corporations Executives (21)	Chief auditor, Audit Commissions (67)	Questioning the effects of direct and indirect charismatic leadership attitudes and performance	Attitude and performance of Charismatic leadership
Lumley et al., (2011).	Business Review of South Africa	State and National Business entities of the South African state	Top level Company And Corporations Executives (101)	Corporations And Company managers	An exploration of the Organizations' Commitment and the analysis of Job Satisfaction of the Employees	Employees contention levels and productivity measures
Mohamad, (2012).	Journal of American Science	U.S. Corporations	Supervisors of senior officers (65)	Senior officers (173)	A structural equation analysis of the employees commitment and job satisfaction on the view of transformational leadership.	MLQ assertiveness

Momeni, Marjani & Saadat, (2012).	Journal of the International business and Social Services	Multinationals and foreign Corporations	Board audit committees (81)	Committee members (201)	A comprehensive study on the relationship between Organizational Culture and Commitment in Department of General Prosecutors of Tehran.	Relationship gauging among the Departmental Staffs
Northouse, (2010)	Academic Dissertation of the leadership theories and practises and publications	School Districts	Teaching staffs (39)	Schools Subordinate Staffs (112)	Validation of the Leadership Theories and Practices in the academia arena	Academic standards and students psychological advancement
Parry & Meindl, (2002).	Books on Research matters of the leadership theories on their methods and perspectives	Construction Sectorial Institutions	Project directors (17)	Assistant project Directors (76)	Variation assessment on the issues, methods and perspectives of Leadership approaches	MLQ effectiveness
Piliavin & Hong-Wen, (1990).	Yearly Review of Sociology	Medical Industries	Sales Executives (74)	Sales representatives (109)	A review project on the Altruism on the aspects of theories and research.	Sales turnover

Shamir et al., (1998)	Journal of Academy Management	Military Units	Servicemen managers (32)	Servicemen (214)	Correlations assessment of the charismatic leader behavior among the military units	Subordinates attitudes, and units characteristics
Wright, (2007).	Publications and Reviews on Public Administration	Public Service	Government Personnel (236)	Public Service Support staffs (397)	Investigation on the public Service Motivation and Service Delivery	Public Sector performance
Zaman, (2011)	Academy of Management Conference	United Arab Emirates Secondary Schools	Principals (63)	Support staffs and teachers (185)	Measures of attracting foreign investments and the Emirates scope of Globalization	Globalization advancement scale

2. The Questionnaire





PARTICIPANT INFORMATION AND CONSENT FORM FOR RESEARCH PROJECT: LEADERSHIP STYLES IN THE UAE CONSTRUCTION SECTOR

United Arab Emirates' construction sector, like most of the facilities and organizations, require effective leadership to drive it to its success. This research paper is structured in such a manner to investigate and make valid deductions on the outcome possibilities of how the construction sector in the United Arab Emirates can be improved through the most efficient and effective leadership styles to ensure that the set objectives of the organization is attained to its optimal level at all times in their operational system.

The survey is expected to take approximately 12 minutes to complete. The results from this study will be used for PhD thesis, journal articles or conferences presentations. A summary of results using this questionnaire data will be available at Abu Dhabi University. Only the student and the research supervisor will have access to the survey you are asked to complete.

All managers/leaders working in the construction sector of the United Arab Emirates will be invited to participate in this study. There are no questions in the survey that ask participants to reveal any identifying information, therefore no participant will be identified in the research and all the data will be securely kept for five years at the university premises.

Your participation in this survey is completely voluntary and you may withdraw at any time. If you choose not to participate or withdraw early, there are no penalties or adverse consequences. As the survey does not ask for any identifying information, consent to participate in the study will be implied from the submission of this survey electronically.

If you have any further questions regarding this project or its methods, please contact the student investigator or the supervisor on their contact details provided below:

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August, 2014

PART I

The following questions are developed to describe your leadership style as you perceive it. Please answer all items on this answer sheet. **If an item is irrelevant, or if you are unsure or do not know the answer, please leave the answer blank.**

Use the following rating scale:

Not at all 0	Once in a while 1	Sometimes 2	Fairly often 3	Frequently, if not always 4				
1	I provide others with assistance in exchange for their efforts.			0	1	2	3	4
2	I re-examine critical assumptions to question whether they are appropriate.			0	1	2	3	4
3	I fail to interfere until problems become serious.			0	1	2	3	4
4	I focus attention on irregularities, mistakes, exceptions, and deviations from standards.			0	1	2	3	4
5	I avoid getting involved when important issues arise.			0	1	2	3	4
6	I talk about my most important values and beliefs.			0	1	2	3	4
7	I am absent when needed.			0	1	2	3	4
8	I seek differing perspectives when solving problems.			0	1	2	3	4
9	I talk optimistically about the future.			0	1	2	3	4
10	I instill pride in others for being associated with me.			0	1	2	3	4
11	I discuss in specific terms who is responsible for achieving performance targets.			0	1	2	3	4
12	I wait for things to go wrong before taking action.			0	1	2	3	4
13	I talk enthusiastically about what needs to be accomplished.			0	1	2	3	4
14	I specify the importance of having a strong sense of purpose.			0	1	2	3	4
15	I spend time teaching and coaching.			0	1	2	3	4
16	I make clear what one can expect to receive when performance goals are achieved.			0	1	2	3	4
17	I show that I am a firm believer in "If it is not broke, don't fix it."			0	1	2	3	4
18	I go beyond self-interest for the good of the group.			0	1	2	3	4
19	I treat others as individuals rather than just as a member of a group.			0	1	2	3	4
20	I demonstrate that problems must become chronic before I take action.			0	1	2	3	4
21	I act in ways that build others' respect for me.			0	1	2	3	4
22	I concentrate my full attention on dealing with mistakes, complaints, and failures.			0	1	2	3	4
23	I consider the moral and ethical consequences of decisions.			0	1	2	3	4
24	I keep track of all mistakes.			0	1	2	3	4
25	I display a sense of power and confidence.			0	1	2	3	4
26	I articulate a compelling vision of the future.			0	1	2	3	4
27	I direct my attention toward failures to meet standards.			0	1	2	3	4
28	I avoid making decisions.			0	1	2	3	4
29	I consider an individual as having different needs, abilities, and aspirations from others.			0	1	2	3	4
30	I get others to look at problems from many different angles.			0	1	2	3	4
31	I help others to develop their strengths.			0	1	2	3	4
32	I suggest new ways of looking at how to complete assignments.			0	1	2	3	4
33	I delay responding to urgent questions.			0	1	2	3	4
34	I emphasize the importance of having a collective sense of mission.			0	1	2	3	4
35	I express satisfaction when others meet expectations.			0	1	2	3	4
36	I express confidence that goals will be achieved.			0	1	2	3	4
37	I am effective in meeting others' job-related needs.			0	1	2	3	4
38	I use methods of leadership that are satisfying.			0	1	2	3	4
39	I get others to do more than they expected to do.			0	1	2	3	4
40	I am effective in representing others to higher authority.			0	1	2	3	4
41	I work with others in a satisfactory way.			0	1	2	3	4
42	I heighten others' desire to succeed.			0	1	2	3	4
43	I am effective in meeting organizational requirements.			0	1	2	3	4
44	I increase others' willingness to try harder.			0	1	2	3	4
45	I lead a group that is effective.			0	1	2	3	4

PART II

Please **select** the box that best describes you.

46. Age

18 – 29

☐

45 – 54

☐

30 – 44

☐

55+

☐

47. Gender

Male

☐

Female

☐

48. Nationality

Local

☐

Non Local

☐

49. What education level/qualification have you attained so far?

High school

☐

Diploma

☐

Bachelor

☐

Postgraduate

☐

50. How do you describe your current Organizational Level?

Executive

☐

Middle Management

☐

First Line Management/
Coordinator

☐

Professional

☐

Technical/Clerical

☐

Other

☐

51. How long have you been working in your current Organization?

Less than a year

☐

1- 3 years

☐

> 3-7 years

☐

More than seven years

☐

Thank you for your participation in this study. If you have any questions or comments about the survey or the research project, please feel free to contact the researchers on the details provided.

3. Findings of the analysis (tables only)

Descriptive Statistics for Construct

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
ID_InfluenceA	351	2.7771	.69152	-.577	.130	.122	.260
ID_InfluenceB	350	2.8529	.59888	-.406	.130	.299	.260
Ins_Motiv	363	2.9952	.57348	-.522	.128	-.149	.255
Int_Stimula	366	2.8907	.58404	-.533	.128	.081	.254
Ind_Consider	367	2.7875	.64401	-.394	.127	-.068	.254
Con_Reward	364	2.9485	.64330	-.368	.128	-.238	.255
MOE_Passive	359	1.3858	.87176	.272	.129	-.426	.257
Laiss_faire	374	1.0067	.86890	.563	.126	-.787	.252
MOE_Active	357	2.5196	.80899	-.317	.129	-.247	.257
Ex_Effort	373	2.8517	.67471	-.503	.126	.890	.252
Satisfact	382	3.1427	.65603	-.749	.125	.424	.249
Effective	371	3.0667	.63812	-.541	.127	.060	.253
Valid N (listwise)	293						

Treatment for outliers at Construct Level

Construct	Outlier (response No)	Treatment
ID_InfluenceA	Not found	No action required
ID_InfluenceB	Not found	No action required
Ins_Motiv	Not found	No action required
Int_Stimula	Not found	No action required
Ind_Consider	Not found	No action required
Con_Reward	6, 10	Replaced with Mean value of 2.94
MOE_Passive	Not found	No action required
Laiss_Faire	Not found	No action required
MOE_Active	Not found	No action required
EX_Effort	219	Replaced with Mean value of 2.85
Satisfact	6, 108, 219	Replaced with Mean value of 3.14
Effective	Not found	No action required

Component Matrix between Transformational and Transactional factor Analysis

(FactorAnalysis)

Component Matrix^a

	Component	
	1	2
ID_InfluenceA	.731	.206
ID_InfluenceB	.776	.092
Ins_Motiv	.840	-.019
Int_Stimula	.785	-.014
Ind_Consider	.679	.091
Con_Reward	.797	-.061
MOE_Passive	-.132	.834
Laiss_faire	-.424	.767
MOE_Active	.435	.520

Extraction Method: Principal Component Analysis.

- a. 2 components extracted.
- b. Total variance explained 61.754

Component Matrix^a

	Component	
	1	2
ID_InfluenceA	.731	.206
ID_InfluenceB	.776	.092
Ins_Motiv	.840	-.019
Int_Stimula	.785	-.014
Ind_Consider	.679	.091
Con_Reward	.797	-.061
MOE_Passive	-.132	.834
Laiss_faire	-.424	.767
MOE_Active	.435	.520

Extraction Method: Principal Component Analysis.

Rotated Component Matrix^a

	Component	
	1	2
ID_InfluenceA	.754	.090
ID_InfluenceB	.781	-.029
Ins_Motiv	.827	-.148
Int_Stimula	.773	-.135
Ind_Consider	.685	-.015
Con_Reward	.778	-.183

Component Matrix^a

	Component	
	1	2
ID_InfluenceA	.731	.206
ID_InfluenceB	.776	.092
Ins_Motiv	.840	-.019
Int_Stimula	.785	-.014
Ind_Consider	.679	.091
Con_Reward	.797	-.061
MOE_Passive	-.132	.834
Laiss_faire	-.424	.767
MOE_Active	.435	.520

Extraction Method: Principal Component Analysis.

MOE_Passive	-.001	.845
Laiss_faire	-.300	.823
MOE_Active	.510	.447

Extraction Method: Principal Component Analysis.

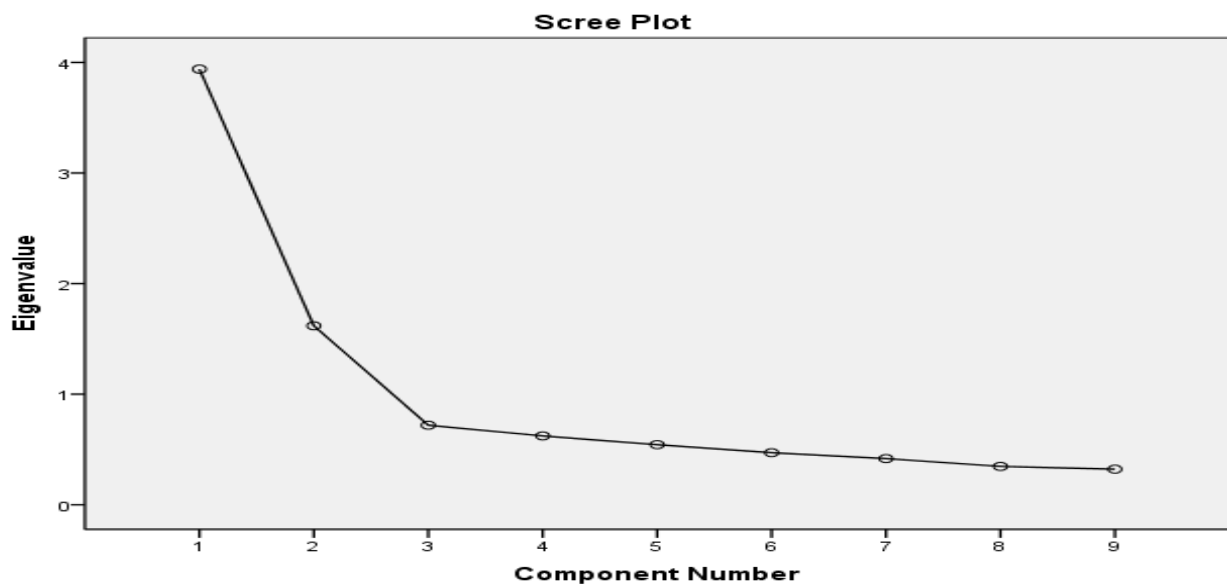
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

KMO and Bartlett's Test between Transformation and Transaction

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.856
Bartlett's Test of Sphericity	Approx. Chi-Square	1312.142
	Df	36
	Sig.	.000

Scree Plot



Correlations – Nonparametric			Outcome	Transform	Transact
Spearman's rho	Outcome	Correlation	1.000	.632**	.182**
		Coefficient			
		Sig. (2-tailed)	.	.000	.000
		N	393	393	393
	Transform	Correlation	.632**	1.000	.206**
		Coefficient			
		Sig. (2-tailed)	.000	.	.000
		N	393	393	393
	Transact	Correlation	.182**	.206**	1.000
		Coefficient			
		Sig. (2-tailed)	.000	.000	.
		N	393	393	393
	Age	Correlation	.058	.179**	-.291**
		Coefficient			
		Sig. (2-tailed)	.251	.000	.000
		N	392	392	392
	Gender	Correlation	.052	.051	.052
		Coefficient			
		Sig. (2-tailed)	.302	.313	.307
		N	391	391	391
	Nationality	Correlation	.140**	.169**	-.289**
		Coefficient			

		Sig. (2-tailed)	.006	.001	.000
		N	390	390	390
	Education Level	Correlation	.241**	.277**	.023
		Coefficient			
		Sig. (2-tailed)	.000	.000	.647
		N	392	392	392
	Work Exp	Correlation	.212**	.203**	-.040
		Coefficient			
		Sig. (2-tailed)	.000	.000	.426
		N	393	393	393
	Org_LevelR	Correlation	.127*	.185**	-.224**
		Coefficient			
		Sig. (2-tailed)	.012	.000	.000
		N	389	389	389

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

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

Number of respondent in each independent Variables

		Age	Gender	Nationality	Education Level	Work Exp	Org_LevelR
N	Valid	392	391	390	392	393	389
	Missing	381	382	383	381	380	384

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-29	87	11.3	22.2	22.2
	30-44	207	26.8	52.8	75.0
	45-54	77	10.0	19.6	94.6
	55 and Above	21	2.7	5.4	100.0
	Total	392	50.7	100.0	
Missing	System	381	49.3		
Total		773	100.0		

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	358	46.3	91.6	91.6
	Female	32	4.1	8.2	99.7
	4	1	.1	.3	100.0
	Total	391	50.6	100.0	
Missing	System	382	49.4		
Total		773	100.0		

Nationality					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Local	50	6.5	12.8	12.8
	Expatriate	340	44.0	87.2	100.0
	Total	390	50.5	100.0	
Missing	System	383	49.5		
Total		773	100.0		

Education Level					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High school	9	1.2	2.3	2.3
	Diploma	44	5.7	11.2	13.5
	Bachelor	227	29.4	57.9	71.4
	Post Grad	112	14.5	28.6	100.0
	Total	392	50.7	100.0	
Missing	System	381	49.3		
Total		773	100.0		

Work Experience					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than a year	56	7.2	14.2	14.2
	1-3 years	101	13.1	25.7	39.9
	3.1 to 7 years	119	15.4	30.3	70.2
	More than 7 years	117	15.1	29.8	100.0
	Total	393	50.8	100.0	
Missing	System	380	49.2		
Total		773	100.0		

Organization Level					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Other	23	3.0	5.9	5.9
	Clerical	50	6.5	12.9	18.8
	Professional	142	18.4	36.5	55.3
	First line	48	6.2	12.3	67.6
	Middle M	96	12.4	24.7	92.3
	Executive	30	3.9	7.7	100.0
	Total	389	50.3	100.0	
Missing	System	384	49.7		
Total		773	100.0		

Age and leadership style

	Age	N	Mean	SD	r	Df	F	Sig
Transformational	18-29	87	2.6813	.47354				
	30-44	207	2.9270	.42110				
	45-54	77	2.8125	.49809				
	55 and Above	21	3.1264	.39403				
	Total	392	2.8607	.46113	.161**	3	8.930	.000
Transactional	18-29	87	2.1762	.45493				
	30-44	207	1.9452	.44429				

	45-54	77	1.8607	.43687				
	55 and	21	1.6945	.19030				
	Above							
	Total	392	1.9664	.45240	-.270**	3	11.116	.000
** . Correlation is significant at the 0.01 level (2-tailed). * . Correlation is significant at the 0.05 level (2-tailed).								

Gender and leadership style

	Gender	N	Mean	SD	R	Df	F	Sig
Transformational	Male	358	2.8567	.46107				
	Female	32	2.8735	.46042				
	Total	391	2.8601	.46160	.059	2	1.491	.226
Transactional	Male	358	1.9620	.44477				
	Female	32	1.9807	.51784				
	Total	391	1.9662	.45296	.077	2	2.658	.071
** . Correlation is significant at the 0.01 level (2-tailed). * . Correlation is significant at the 0.05 level (2-tailed).								

Nationality and leadership style

	Nationality	N	Mean	SD	R	Df	F	Sig
Transformational	Local	50	2.6949	.32308				
	Expatriate	340	2.8846	.47349				
	Total	390	2.8603	.46104	.138**	1	7.505	.006

Transactional	Local	50	2.2993	.41594				
	Expatriate	340	1.9154	.43738				
	Total	390	1.9647	.45278	-.284**	1	33.979	.000
**. Correlation is significant at the 0.01 level (2-tailed).								
*. Correlation is significant at the 0.05 level (2-tailed).								

Educational Level and leadership style

	Edu Level	N	Mean	SD	r	D f	F	Sig
Transformational	High school	9	2.7543	.59045				
	Diploma	44	2.6951	.47731				
	Bachelor	227	2.7914	.46674				
	Post Grad	112	3.0746	.35263				
	Total	392	2.8607	.46113	.267	3	12.86	.00
					**		6	0
Transactional	High school	9	2.0613	.49770				
	Diploma	44	1.9606	.35967				
	Bachelor	227	1.9524	.48918				
	Post Grad	112	1.9965	.40693				
	Total	392	1.9684	.45299	.015	3	.367	.77
								7

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

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

Work Experience and leadership style

	Work Exp	N	Mean	SD	r	Df	F	Sig
Transformational	Less than a year	56	2.7917	.40948				
	1-3 years	101	2.7110	.51159				
	3.1 to 7 years	119	2.9003	.46582				
	More than 7 years	117	2.9825	.39053				
	Total	393	2.8607	.46055	.199**	3	7.338	.000
Transactional	Less than a year	56	1.8949	.38499				
	1-3 years	101	2.0735	.48701				
	3.1 to 7 years	119	1.9476	.42132				
	More than 7 years	117	1.9318	.47211				
	Total	393	1.9678	.45259	-.037	3	2.681	.047
** . Correlation is significant at the 0.01 level (2-tailed).								
* . Correlation is significant at the 0.05 level (2-tailed).								

Organizational Level and leadership style

	Org Level	N	Mean	SD	r	Df	F	Sig
Transformational	Other	23	2.8000	.23587				
	Clerical	50	2.4931	.58249				
	Professional	142	2.8952	.43864				

	First line	48	3.0235	.33023				
	Middle M	96	2.9451	.42607				
	Executive	30	2.8187	.47759				
	Total	389	2.8601	.46246	.172**	5	9.340	.000
Transactional	Other	23	2.3570	.35662				
	Clerical	50	1.9957	.53277				
	Professional	142	1.9820	.41075				
	First line	48	2.0189	.46782				
	Middle M	96	1.8277	.39619				
	Executive	30	1.8869	.52631				
	Total	389	1.9651	.45260	-.213**	5	5.979	.000
** . Correlation is significant at the 0.01 level (2-tailed). * . Correlation is significant at the 0.05 level (2-tailed).								

Leadership style and Outcome

	N	Mean	SD	Transform (r)	Transact(r)	Outcome (r)	T value	Df
Transform	393	2.8607	.46055	1	.230**	.660**	137.12**	392
Transact	393	1.9678	.45259	.230**	1	.178**	86.12**	392
Outcome	393	3.0282	.53767	.660**	.178**	1	111.653**	392
** . Correlation is significant at the 0.01 level (2-tailed). * . Correlation is significant at the 0.05 level (2-tailed).								