A Study on the impact of leadership traits on projects success and cost overrun: the case of project based construction organisations in the UAE

دراسة حول تأثير السمات القيادية على نجاح المشاريع وتجاوز التكاليف : حالة المشروع على أساس مؤسسات الانشاءات في الامارات العربية المتحدة

by

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Abstract

The aim of the study was to assess the effectiveness of leadership traits in mitigating project risks such as project failure and cost overrun. Additionally, the study also aimed at showing the most common leadership traits in the construction industry and the challenges faced by leaders in the construction firms. In order to meet the deliverables of the study, the following were the objectives of the study;

- To outline and compare the level of effectiveness of leadership traits on project success.
- To show the most common leadership traits among the managers of UAE construction organisations
- To assess the challenges experienced by managers in UAE construction organisations.

Findings

The first research objective depicted that the proximal and distal attributes were positively correlated with project success but had no association with cost overrun. Additionally, proximal attributes were more effective in enhancing project success than distal attributes.

The second research objective showed that proximal leadership traits were common to the Dubai leaders who had an experience of 1 to 5 years while those with 6 to 10 years' experience mostly used distal attributes.

The third research objective showed that there were challenges linked to delays in design approvals, lack of dedication among the stakeholders and abrupt change of specifications after tender award as organisational factors while technical challenges included; lack of the required human resource capacity.

The tested hypothesis manifested that distal and proximal leadership traits had impact on project success but not to cost overrun.

Recommendations

Construction organisations should target to employ leaders with proximal attributes
Construction organisations should employ cost engineering principles to mitigate the occurrence of cost overruns.

Limitation

The sample size was very small for such a large geographical area

ملخص البحث

كان الهدف من الدراسة هو تقييم فعالية سمات القيادة في التخفيف من مخاطر المشروع مثل فشل المشروع وتجاوز التكلفة. بالإضافة إلى ذلك ، هدفت الدراسة أيضًا إلى إظهار أكثر سمات القيادة شيوعًا في صناعة الانشاءات والتحديات التي يواجهها القادة في شركات الإنشاءات. ومن أجل تلبية نتائج الدراسة ، كانت أهداف الدراسة فيما يلي:

- لتوضيح ومقارنة مستوى فعالية سمات القيادة على نجاح المشروع .

- إظهار أكثر الصفات القيادية شيوعاً بين مديري مؤسسات الإنشاءات في دولة الإمارات العربية المتحدة .

- تقييم التحديات التي يواجهها المدراء في مؤسسات الإنشاءات في دولة الإمارات العربية المتحدة .

نتائج البحث .

أوضح الهدف البحثي الأول أن السمات القريبة والبعيدة ترتبط ارتباطًا إيجابيًا بنجاح المشروع ولكن ليس لها علاقة بتجاوز التكلفة. بالإضافة إلى ذلك ، كانت السمات القريبة أكثر فعالية في تعزيز نجاح المشروع من السمات البعيدة .

أظهر الهدف الثاني من البحث أن السمات القيادية القريبة كانت شائعة لدى قادة دبي الذين لديهم خبرة تتراوح بين 1 إلى 5 سنوات ، في حين أن الأشخاص الذين لديهم خبرة تتراوح بين 6 إلى 10 سنوات يستخدمون في الغالب الصفات البعيدة .

أظهر الهدف البحثي الثالث وجود تحديات مرتبطة بالتأخيرات في الموافقات على التصميم ، وعدم التفاني بين أصحاب المصلحة والتغيير المفاجئ في المواصفات بعد ترسية المناقصة كعوامل تنظيمية بينما تتضمن التحديات التقنية ؛ نقص في الموارد البشرية المطلوبة .

أظهرت الفرضية التي تم إختبارها أن السمات القيادية البعيدة والقريبة كان لها تأثير على نجاح المشروع ولكن ليس لتجاوز التكلفة .

توصيات .

يجب أن تستهدف منظمات الإنشاء توظيف قادة ذوي سمات قريبة يجب على منظمات الإنشاءات استخدام مبادئ هندسة التكلفة للتخفيف من حدوث تجاوزات في التكاليف .

القيود .

كان حجم العينة صغيرًا جدًا بالنسبة لمثل هذه المساحة الجغرافية الكبيرة .

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Chapter One

Introduction

1.0 Background of the Study

Extant literature shows that the environment in which organisations work in has changed dynamically (Murugesan, 2012; Ahmmed, 2014). Such changes in the business operation environment have presented uncertainties and business operations sustainability issues (Hallikas, Karvonen, Pulkkinen, Virolainen and Tuominen, 2004). In respect to the involved dynamics and uncertainties, organisation's business operations, profitability among other business sustainability issues have become so much unpredictable such that they have adopted the characteristics' of chaos theory (Olaniran, Love, Edwards, Olatunji and Matthews, 2015). This implies that making an organisation's business operations to run smoothly and in accordance to the organisational goals and objectives has proven hard to attain.

In the midst of these constraints, organisations have additionally, tried to incorporate innovative and proactive approaches to enhance the sustainability of an organisation's business operations (Kotey and Meredith, 1997). As such, the contemporary organisations embarked on enhancing different factors and predictors of success in all business operations ranging from supply chain management to employee recruitment among other aspects that were traditionally considered as trivial to an organisational success (Kotey and Meredith, 1997). This explains why Wook Kim (2006) noted that the current competition strategies adopted by organisations have ceased to be market based and shifted to be a competition of organisational systems effectiveness.

This explains why organisations are spending huge amount of finances to acquire systems that will enhance better performance within an organisation. As such, a sizeable number of corporations have embarked on technological improvements like the integrating organisational operations with Enterprise Resource Management (ERP) system to align all the business processes. Even though, despite the reformations and adoption of recommendable changes, full effectiveness is at bay. As such, the available literature also shows that elsewhere, around 64% of project based organisation faces the risk of failure and cost overruns (Olaniran, Love, Edwards, Olatunji and Matthews, 2015). This is mainly caused by inconsistent project

characteristics, adopted technology, stakeholders' alignment and interest as well as other internal and external factors. This is different in Kenya whereby water project based organisations had a relatively lower risk of failure rate (49%) (Kariuki, 2015). Considering Anantatmula (2010) noted that organisations are affected by a range of factors in their operations, then the difference in risk failure rate is admissible.

Evidently, project based organisations have not been left behind in the adoption of relevant changes to enhance organisational performance. Though there are unlimited number of facets that can be enhanced in project based organisations, the current study concentrated on the leadership traits impact on projects success and cost optimisation. Arguably, considering that project based organisations comprise of different stakeholders, managing the project team to cultivate their capabilities is a minimum requirement. As such, Dai and Wells (2004) show that project based organisations depend on the working together of the various stakeholders to achieve a common goal. Therefore, adoption of diversified leadership traits can be a solution to poor performance and risks of failure.

According to Gannand Salter (2000), project based organisations are characterised by unique human resource management practices that tend to be different from other organisations in different industries. The project teams are temporal groupings that are consequently dismantled after completion of a project. Upon initiation of another project, the required workforce matching the project characteristics are reorganised again (Ericksen and Dyer, 2004). Such practices in the project based organisations introduce a dynamic environment of operation for the workforce in the project based organisations. Evidently, the constant changes experienced by the workforce after project completion may be detrimental to the stakeholder performance thus necessitating adoption of change management strategy through the use of diversified leadership competence to handle the employees emotional and other needs (in terms of effective leadership traits). In such cases, every aspect of the employee working conditions, project uncertainties, and other changes are efficiently handled to foster optimum organisational operations (Anantatmula, 2010).

Project management that can lead to project success in UAE is a core consideration in the contemporary period. This is due to the fact that housing programmes such as Sheikh Zayed Housing Programme must optimally meet the minimum requirement as

agreed among the stakeholders (Deloitte, 2015). Additionally, the construction rate in the region has exponentially increased due to the upcoming expo 2020 (prnewswire, 2016). Therefore, project based organisations have resulted in mitigating the risk of failure through the adoption of different efficiencies among them, proper leadership styles and acquiring of leaders with relevant traits to the organisations line of work.

Though, the theory of constraints shows that; despite the effectiveness of the adopted project management, project success is not automatic (Steyn, 2002). This is due to the fact that there will always be unanticipated conditions that tend to hamper the outlaid plans. This explains why a significant amount of project based organisations still fail (Olaniran, Love, Edwards, Olatunji, and Matthews, 2015; Kariuki, 2015). This implies that not always will the adopted risk mitigation plan works effectively. Considering that Tabassi, Argyropoulou, Roufechaei and Argyropoulou (2016) noted that the leadership traits as well as leaders managerial competency were core elements that could impact on a project's success, then leadership traits and skills further become imperative in managing the associated risks and at least enhance the effectiveness of the plan. Further, Anantatmula (2010) show that effective leadership skills not only align the workforce to attain project success but also pay attention to the workforce to avoid their satisfaction while pursuing organisational success.

1.1 Statement of the Problem

The UAE construction projects are pivotal for the attainment of the region's housing vision as well as build the capacity for the Expo 2020. Therefore optimal performance of construction organisations' is a basic requirement to support the region's strategies while at the same time profiting from the operations. It is paramount to attain the regional developments while maintaining a reasonable profit margin in order to sustain organisation and its investment. As such, the region resulted into diversification from initial gross domestic contributor – oil, to other economic activities. Therefore, exit from business by project based organisation due low profitability is also detrimental on the region's diversification programme.

According to gulfnews (2015), the ongoing construction projects have been reported to experience a number of setbacks that derail the project success and at some time cancellation. Most of these cases have largely been reported by the involved clients blaming the project based construction firms of breaching contractual agreement or

else not meeting the client's minimum requirements. Therefore, this shows that the UAE project based organisations have significantly failed to satisfy the stakeholders or else they have poorly leveraged critical success factors to impact on project success. Additionally, prnewswire (2016) show that upon winning the bid to host Expo 2020, the UAE region experienced an influx of investors. The investors included Foreign Direct Investors (FDIs) as well as local investors' in the construction industry. Arguably, the project based organisations expect to capitalise on the opportunity. Even though, the investors' influx can be said to have introduced heightened competition in the industry.

The construction industry is therefore denoted by several constraints and other operational dynamics that can not only lead to project failure but also cause costs overrun and lack of satisfaction among the stakeholders.

1.2 Research Questions, Objectives and Hypothesis

The main aim of the study is to show the significance of leadership traits on project success in UAE-based construction organisations. For the researcher to conceptually reach the study deliverables, the following research questions were used;

1. What is the impact of the leadership traits on the project success?
2. Which are the common leadership traits in UAE construction organisations?
3. What are the challenges facing the leaders managing UAE based construction firms?

1.2.1 Research Objectives

The study adopted the research objectives below which were structured in order to outline the succinct deliverables that the study listed.

- To outline and compare the level of effectiveness of leadership traits on project success
- To show the most common leadership traits among the managers of UAE construction organisations
- To assess the challenges experienced by managers in UAE construction organisations

1.2.2 Research Hypothesis

Several theories emerged from the covered literature. Therefore, the following hypotheses were structured and tested

H0: Distal leadership traits had no impact on project success or cost overrun

H1: Distal leadership traits had impact on project success or cost overrun

H00: Proximal leadership traits had no impact on project success or cost overrun

H02: Proximal leadership traits had impact on project success and cost overrun

1.3 Significance of the Study

Considering that UAE region outlaid capital intensive projects and strategies to help the Nation attain its quest in diversification, Expo 2020, and visions 2021, a framework supporting the initial interest is pivotal. Therefore, the findings of the study will vehemently contribute to the sustenance of the vision. As such, the results of the study will advise the project based organisations on how to stay profitable in the dynamic environment of operation by adopting human resource acquiring leaders with the leadership traits relevant to the construction industry. Additionally, gulf news (2015) show that litigation had increased due to lack of client satisfaction. Therefore, the study findings will be pivotal in showing the project organisations how to sort out the leaders with the relevant leadership traits while employing them to manage and control the project as per the clients' expectations while cultivating the workforce competencies effectively. By doing so, the best managers and other leaders in construction organisations will be acquired leading to significant levels of project success and reduced cost overruns.

1.4 Theoretical and Practical Framework

Theoretically, the literature shows that leadership competency leads to a number of efficiencies in an organisation. As such, employees are properly managed, aligned and cultivated to optimally support the organisational objectives (Anantatmula, 2010). The leadership traits have also been associated with the capability to apply agility, and domain knowledge, judgment, interpersonal tact and innovation (Cattell, 1943; Dulewicz and Higgs, 2003). This connotes that the introduced effective working condition will lead to project success.

On a practical note, the employing leaders with effective leadership traits in construction firms will lead to effective organisation processes leading to project progress. Therefore, this creates a mutually benefiting phenomenon whereby the regional visions will be attained and the project based investments will pay off.

1.5 Chapters Outline

Chapter One: The chapter introduces the topic of study and the research questions. The importance of the study was also outlined in the chapter accompanied by short literature review to place the study in its context. The chapter was fundamentally meant to orient the reader to the scope of the study.

Chapter Two: the chapter reviews past and contemporary literature. By doing so, theories and models adopted by the research are listed. The chapter also helps in mapping the progress made in the literature framework pertaining to project management and the gaps that need closing.

Chapter Three: The chapter outlines the research philosophy that guided the researcher in choosing the research method, data collection and data analysis. The chapter is pivotal as it helps in justifying why one method was used in expense of the other.

Chapter Four: The chapter presented the results of the study. The statistically analysed data was presented in the section. The data were mainly presented in the form of tables.

Chapter Five: the chapter concluded the research findings while providing recommendations as well as outlining the factors that limited the study. Further, the findings of the study were synthesised with the available literature in order to outline the convergences as well as divergences of the research findings.

1.6 Summary

Project success has been outlined as a fundamental aspect in a project based organisation. The section further presents that project success can be ensured through the adoption of relevant and competent leadership theories. The chapter also showed that UAE region requires a workable solution to mitigate the risk of project failures considering that Expo 2020, as well as other visions, have to be attained without delay.

The findings of the study were also shown as relevant in the UAE context as they are in a position to provide a workable solution that will immensely contribute to mutual benefit of the project based organisations and the region development.

Chapter Two

Literature Review

2.0 Introduction to Literature review

This section outlines the reviewed leadership traits literature in project-based organizations and to an extent covers the leadership traits in other general organizations. The main aim of the section is to manifest the extent to which the literature has covered leadership traits effectiveness in organizational performance and the eminent gaps in the literature. The section also aims at helping the audience to understand the study variables as well as orienting them to the study constructs.

2.1 Defining the Study Variables

2.1.1 Leadership Traits

According to Zaccaro, Kemp and Bader (2004), leadership traits represent the personality characteristics that differentiate various entities while fostering effective leadership across different organizations. Galton (1869) presented leadership traits as innate heritable attributes that could differentiate leaders and non-leaders. Since the study assessed the leadership traits used in project management the researcher did not consider the transference of the traits or else the immutable status of leadership. However, the researcher considered Zaccaro, Kemp and Bader (2004) study understanding that leadership traits can be influenced by the industry of operation. This is also a reason why the study concentrated on leadership trait effectiveness in construction firms.

2.1.2 Cost Overrun

Shrestha, Burns and Shields (2013) defined cost overrun as the difference that is realised after the project finalization cost is subtracted from the planned cost (bidding cost). On the other hand, Vaardini, Karthiyayini and Ezhilmathi (2016) defined cost overrun in projects as the inability to meet the objectives of the project with the pre-planned budget. As such, the researcher considered Vaardini, Karthiyayini and Ezhilmathi (2016) definition of cost overrun. This was due to the fact that Shrestha, Burns and Shields (2013) defined the term abstractly with no concise representation of the actual status of the difference in terms of positive or negative. As such, Shrestha,

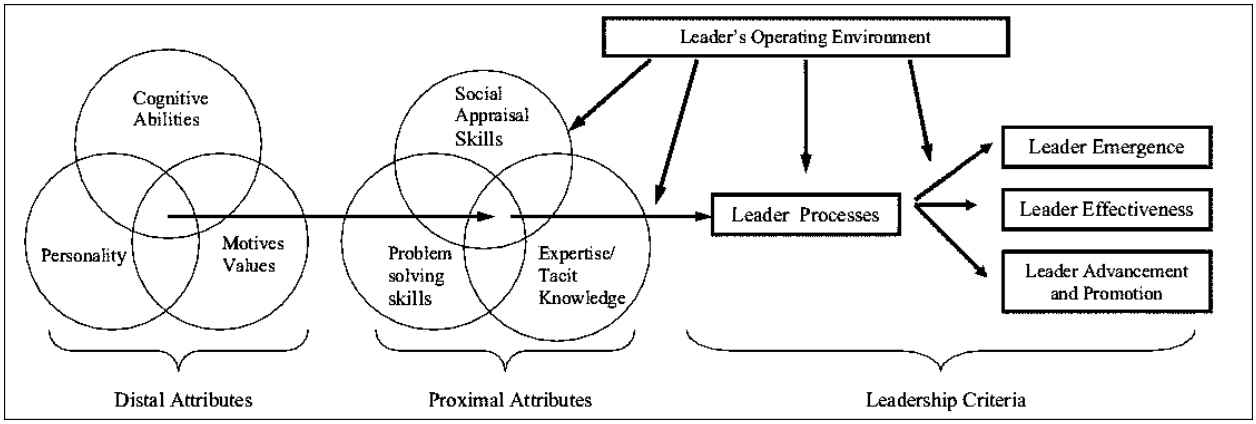
Burns and Shields (2013) should have concisely stated that cost overrun connotes a deficit presented as percentage difference. Vaardini, Karthiyayini and Ezhilmathi (2016) definition of cost overrun was adopted since the researcher presented that the budget put aside for the project completion was not enough to cover for each and every aspect agreed prior the project initiation. Evidently, this connoted that additional costs would be pumped into the project in order to cover all the project objectives.

2.2 Theoretical Framework

Several leadership theories have been coined to explain the concept of leadership foundation (Day et al., 2014). There is an unlimited number of leadership theories which include trait theory, behavioral theory, Hernandez, Eberly, Avolio and Johnson (2011), power and influence theories, as well as contingency theory among others (Oc and Bashshur, 2013). The different leadership foundation theories have been outlined to have a significant impact on leadership (Mumford, Zaccaro, Harding, et al., 2000; Germain, 2012)

Zaccaro, Kemp and Bader (2004) developed a model that explained how different attributes, as well as factors, influenced the creation of a leader as well as the leader's performance. The model assumes that leadership is attained after a combination of several traits rather than the effectiveness of a single trait. Further, Zaccaro, Kemp and Bader (2004) outline that the distal and proximal attributes are very much related and collectively determine the leadership. The model (as sown in Figure 1) also shows that external operating environment has an impact on the leadership. In summary, the model has associated the need for personality traits in modeling a leader.

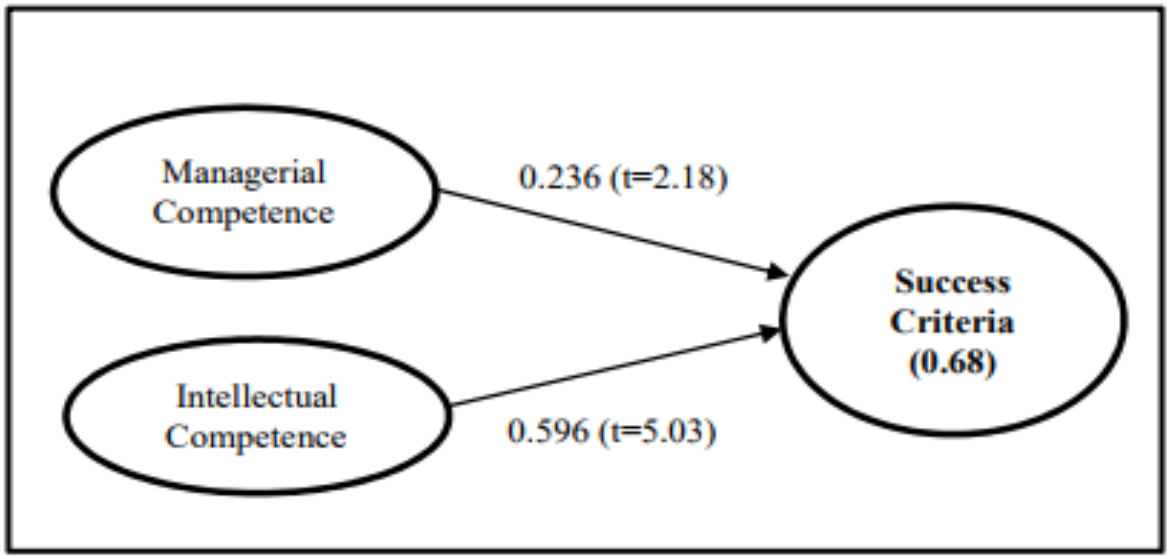
Figure 1: Leadership Trait Model



(Source: Zaccaro, Kemp and Bader, 2004).

Further, Tabassi, Argyropoulou, Roufechaei and Argyropoulou (2016) showed that the combination of a leader's intellectual competence as well as leader's managerial competence could lead to success criteria in built environment sustainability. Therefore, the study shows that the attributes of a leader complemented by the managerial capacity were equally effective in realizing a project success by attaining the project deliverables. Tabassi, Argyropoulou, Roufechaei and Argyropoulou (2016) model conceptualized in the study findings have also been presented below (figure 2) thereby showing that the leadership traits as well as leaders managerial competency were core elements that could impact on a project's success. Further other studies have also presented that the leadership style adopted in management of projects could also dictate the project's success (Liphadzi, Aigbavboa and Thwala, 2015; Dulewicz and Higgs, 2003; Crawford. 2005; Jiang, 2014)

Figure 2: Model showing the relationship between Leadership intellectual and managerial competency with Project Success

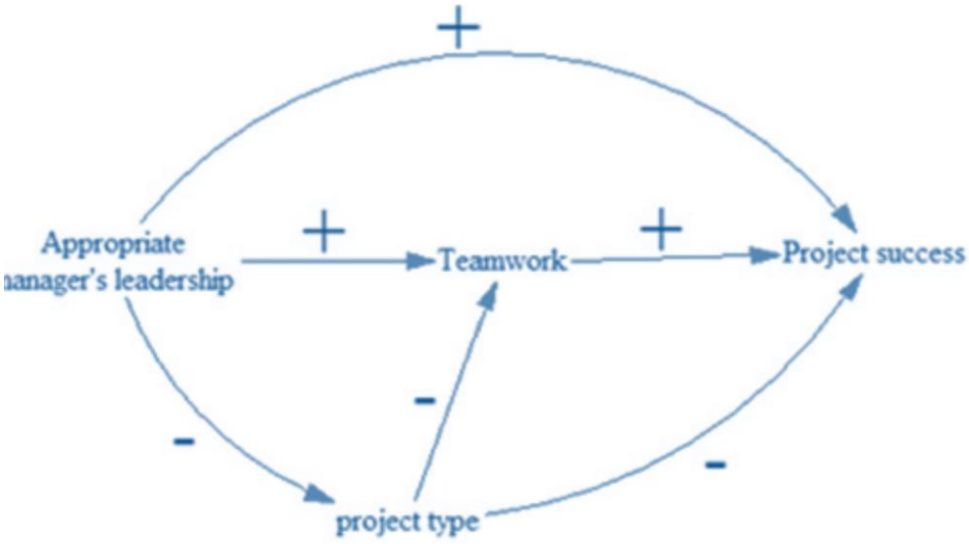


(Source: Tabassi, Argyropoulou, Roufechaei and Argyropoulou, 2016)

The model above in figure 1 can be related closely to Jiang (2014) model that shows that leadership model is a factor that can determine the success of a project. Jiang (2014) also shows that adoption of appropriate leadership can impact a project with distinguished efficiencies. The findings of the study can be understood optimally after considering that Zaccaro, Kemp and Bader (2004) explained that combination of

dixmal and proximal attributes contributes to the adopted leadership. Therefore, the findings further link leadership traits (which are part and parcel of the adopted leadership approach) with the performance of a project at the closing stage of a project. However, Jiang (2014) model is different from Tabassi, Argyropoulou, Roufechaei and Argyropoulou (2016) model since Jiang (2014) model recognizes the team as a mediator variable whilst the type of project is recognized as a moderating variable as shown in the figure below (Figure 3).

Figure 3: Project management presented in simple systems dynamic model



(Source: Jiang, 2014)

The above model in figure 3 infers that even the appropriateness of leadership style in a project is a core factor, it cannot be fully functional in the absence of teamwork. Practically, the model presents a logic perception as managers have to manage the workforce. The absence of workforce renders the project based organization ineffective due to insufficient to lack of enough human resource capacity which was further proved as essential in project management.

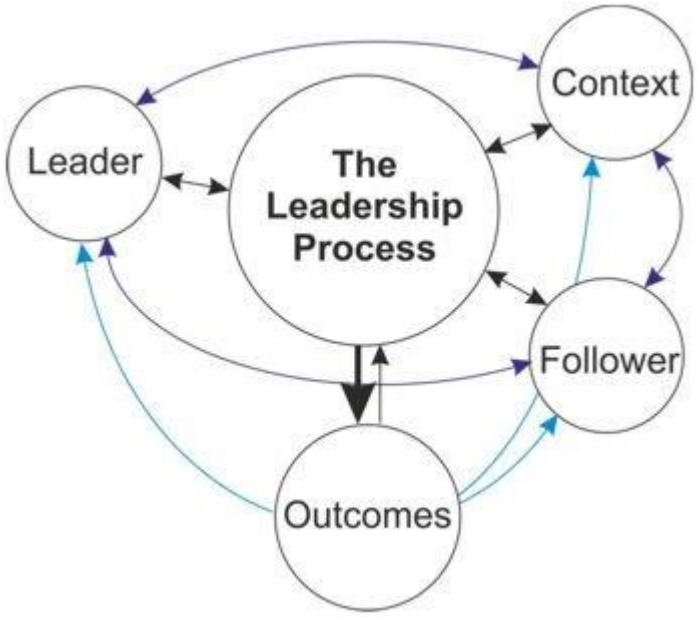
Other literature shows that different leadership styles as contained in trait model, as well as contingency model, have different contributions to the project success of project-based organizations'. For instance, Wang, Oh, Courtright and Colbert (2011), assessed the effectiveness of transactional and transformational leadership in projects delivery and noted that transformational leadership was more suitable for managing projects. Muller and Turner in the year 2007 interviews, as well as Geoghegan and

Dulewicz (2008) study, also proved that different leadership attributes such as the ability of a leader to engage the teamwork towards achieving tangible results lead to efficiencies in the project deliverable as well as optimum performance.

2.2.1 Leadership Process Model

Dunham and Pierce (1989) developed a model that showed that different aspects lead to leadership failure or success. The model shows that these factors include the leader aspects, the context, the team as well as the outcomes of the project. The interconnection between all these aspects has been shown in the figure below (figure 4).

Figure 4: Leadership Process Model



(Source: Dunham and Pierce, 1989)

This model helps contribute to the understanding that the outcomes of a project is dependent on the leadership process that is also dependent on the follower (stakeholders), context and the leader aspects. Therefore, if any of the factors shift, then the other interrelated elements of leadership process also shift. Additionally, the author notes that the leadership process is highly dynamic and the leaders should be wary of the uncertainties and further be agile in dealing with the constant changes.

Owing to that different environments as shown by figure 4 affect the outcomes of a project as well as those of leadership (Belachew, Mengesha and Mohammed, 2017;

Zaccaro, Kemp and Bader, 2004), other setbacks are also deemed to happen. As such, extant literature showed that cost overrun is caused by the failure of project team to deliver the project satisfactorily (Vaardini, Karthiyayini and Ezhilmathi, 2016; Shrestha, Burns and Shields, 2013) Arguably, this is an indicator that poor outcome of a project leads to other associated constraints. Additionally, Belachew, Mengesha and Mohammed (2017) connect cost overrun with project failure as well as other aspects such as the project leader. On the other hand, Doloi (2012) presented that cost overruns were associated with project delay which was caused by ineffective monitoring and planning of the projects. Thus notwithstanding, cost overrun can be mapped as phenomenon which is influenced by different environmental aspects surrounding a project such as a project failure or the factors affecting leadership process. Therefore, the study considered the cost overruns in a multifaceted approach whereby leadership traits and project failure were equivocally capable of causing cost overruns.

2.2.2 Explaining Leadership Effectiveness, Project Success and Project Cost through Stakeholders Theory

According to Ackermann and Eden (2011), stakeholders' theory involves business ethics and the differentiated interests of the stakeholders. Owing to that project management comprises of different stakeholders (internal and external stakeholders), then values, morals and interests of various stakeholder differ (Beringer, Jonas and Kock, 2013). Leaders in a project are tasked to influence the stakeholders' ethos, pathos and logos. Though, due to the different orientations and cultures, stakeholder relations tend to be strained. Considering Wagner Mainardes, Alves and Raposo (2011) view, the strained relationships between project stakeholders could be understood after considering that different systems could not run seamlessly thereby introducing constraints.

As such, leadership effectiveness could be affected by the differentiated interests and engagement of the stakeholders leading to project failure or else cost overrun. However leaders using stakeholders' theory approach can manage the stakeholders' interests and ethics Wagner Mainardes, Alves and Raposo (2011) note that the technical, organizational and other congruent stakeholder factors limit the effectiveness of management.

2.2.3 Leadership Concepts and Rationale

Galton (1869) shows that aspects of leadership have been studies for long thereby generating a different understanding of the leadership and traits. This explains why the studies before that of Galton numerously inferred that leadership was inbuilt and not transferable. The understanding created by the Galton study and the contemporary literature by then disassociated the capability of building leaders through learning as it was believed that the leadership characters and attributes are inbuilt and could not be transferred. However, after the shift from distal to proximal characteristics of a leader by the studies concentrating on leadership trait, Hoffman et al., (2011) study contribute to the understanding that proximal differences are not constant. Therefore, the study showed that proximal characteristics of a leader were dynamic and changed with time due to different environments. Therefore this provided a situation whereby it could be inferred that the proximal leadership trait of a leader could be developed. Summarizing Hoffman et al. (2011) study, past literature inference that leadership was immutable and innate was refuted and replaced with the contemporary understanding that leadership traits were transferrable or else could be developed. On a similar note, Caligiuri and Tarique (2012) also noted that different leaders might produce different results if presented to different organization. The findings of this study could also be related to Zaccaro, Kemp and Bader (2004) which had previously outlined that the leadership traits were organizational specific. As such the view provides an outline that the different environments that an organization presents to a leader have the potential to influence their characters. This further support Galton (1869) view that the principles can be factors that moderate the values or the leadership traits of a leader.

Dulewicz and Higgs (2003) presented various traits of leaders which included intuitiveness, sensitivity, motivation, conscientiousness, influence, emotional stability as well as self-awareness. As such, the authors presented that most effective leaders had the propensity to adopt several emotional or intellectual leadership traits. Additionally, Dulewicz and Higgs (2003) study also outlined intellectual traits competence of a leader as the capacity to be visionary and imaginative, strategic as well as be capable of analyzing and judging critically.

Goleman et al., (2002) showed that in the contemporary period, emotional intelligence is the widely perceived leadership trait, whereby the application of emotional skills by leaders is evaluated rather than their application of intellectual capacity. As such,

leaders have been noted to rely more and more on their emotional skills to meet emotional needs of other stakeholders thereby giving rise to leadership styles with transformational aspects. A summary of the emotional skills have been summarized into two categories by Goleman et al., (2002). The first category is personal competencies classified into self-awareness and also self-management while the next category is social competencies classified into social awareness as well as relationship management.

Cattell (1943) assessment of effective leadership traits incorporates a number of personal attributes which are used to test the effectiveness of a leader. The leadership potential equation developed by Cattell (1943) include traits such as; tough-mindedness, self-assuring, emotional stability of the leader, the dominance, enthusiasm, leader's conscientiousness, social boldness, and finally compulsiveness.

Though, Dinh et al. (2014) recognize Cattell (1943) the above list of leadership traits as basic which must be complemented by additional contemporary traits that are suited for the dynamic environment. Thereby, Dulewicz and Higgs (2003) propose that the contemporary leaders with visions as well as the capability to motivate team must have additional high energy, charisma, empathy, Team orientation, intuitiveness as well as maturity. However, Dinh et al. (2014) also recognize that every aspect is continually changing thereby making the traits develop. As such, futuristic leaders must have the agility to develop or else improve their traits to meet the dynamic field of operation.

2.2.4 Factors influencing Leadership Traits and Style

Even though, Galton (1869) study added understanding to the contemporary literature that despite the leadership traits being not transferable, they could be influenced by external factors. As such, the study showed that leaders traits comprised of values and principles, of which, values were the inbuilt characters of a leader that were moderated by the principles which were external factors that made a leader differentiate between right or wrong.

Interestingly, Hoffman et al. (2011) argued that the leadership was not innate as previously represented but were aspects which were modeled with time. As such, the environment in which an entity was brought up in influenced a leader's values and morals. As such, the study showed that the immediate community, its cultures, principal, and beliefs were the factors that influenced attributes of a leader. However,

comparing Hoffman et al. (2011) point of view to that of Galton (1869), they established a common ground on the understanding that the different environment a leader interacts with leads to development or change of the leadership attributes as well as the leadership style.

Though gender as a factor that can determine the leadership style has been under diversified contentions, it can be considered as a factor that can dictate the leadership style. Past literature had no conclusive evidence that gender had the capability to influence the leadership style but contemporary literature have numerously supported the perception that gender had the propensity to adopt certain leadership style (Vinkenburg, Van Engen, Eagly and Johannesen-Schmidt, 2011; Kotur and Anbazhagan, 2014); Kark, Waismel-Manor and Shamir, 2012). According to the available literature, females tended have transformational leadership style thereby ensuring coaching, employee development as well as better communication. Therefore this made females more task focused than males who adopted transactional leadership style (Vinkenburg, Van Engen, Eagly and Johannesen-Schmidt, 2011). As such, male leadership have also been associated with their overreliance on workplace competition where females have been shown to be more interested in cooperation in the workplace to attain their objectives (Elsesser and Lever, 2011). This study was beneficial and more conclusive considering that it used mixed methods research whereby the shortcomings of one approach was complemented by the other. Further, the researchers adopted a large-scale data source connoting the possibility to deliver reliable conclusions. Age has a significant contribution to the leadership style adopted by a leader. Kotur and Anbazhagan (2014) outlined that the age of a leaders influenced their authority level. As such, younger leaders used more authority than the older leaders.

2.2.5 Factors affecting Leadership effectiveness

Studies show that gender differences is a factor influencing different organizational operations. On a similar note, Kark, Waismel-Manor and Shamir (2012) portray that effectiveness of leadership as dependent on gender. Therefore androgynous female and male leaders were perceived as efficient in their undertakings under transformational leadership style. Additionally, males who were androgynous were preferable to the employees than the females. Though, the finding from the study was

open to contending owing to the fact that there were still a number of the study participants who did not associate the gender of their leaders with effectiveness denoting that both were equally capable. Further, the study approach fails to base the research on Vinkenburg, Van Engen, Eagly and Johannesen-Schmidt (2011) and Kotur and Anbazhagan (2014) constructs which noted that each gender was associated with its respective leadership style. As such, Kark, Waismel-Manor and Shamir (2012) assessed the gender-based leadership from a single leadership style (transformational) rather than considering the effectiveness of both transactional and transformational leadership styles.

The personal attributes of a leader are linked to leadership effectiveness. Several studies have supported the view thus confirming the personality traits of an entity can determine if a leader's approach is capable of bearing results (Walter, Cole and Humphrey, 2011; Bratton, Dodd and Brown, 2011). As such, Rockstuhl et al. (2011) confirmed that leaders' effectiveness in cross-border were correlated to the leaders' general intelligence, cultural intelligence as well as the emotional intelligence. Further, the study noted that cultural intelligence was a fundamental aspect in the current dynamic world. At a larger coverage, Caligiuri and Tarique (2012) argued that personality competences were an element that fostered the emergence of competent leaders in the global arena whilst being complemented by other cultural diversities. Bratton, Dodd and Brown (2011) showed that emotional intelligence was a factor that could improve a leader's performance. However, the study outlines an interesting link pertaining to strong belief in oneself and emotional intelligence effectiveness on leadership. As such, leaders who overly believed in their leadership capability hindered better influence of emotional intelligence on leadership effectiveness.

Despite the extant literature on the benefit of personal intellectual and emotional competencies and their contribution to leadership effectiveness, Lindebaum and Fielden (2011) study is contradictory and open to criticism. The study explains that expressing anger in project management was an emotional tenet that could impact coordination as well as action leading to successful projects. However, Mawritz, Folger and Latham (2014) recognizes anger as an abusive supervision. Therefore, falsifying anger as an approach to enhance action may have the potentiality to be misconceived by the project team as abusive supervision. Even though the approach may be valid, studies concentrating on adoption of such strategies by the leaders is

still scarce. Although, Lindebaum and Fielden (2011) sample size was large enough to deliver detailed and conclusive findings.

The skills or the experience determines a leader effectiveness. As such, the skills have been classified in a range of understanding such as cultural diversity as well as the experience and conformity to the environment of operation (Caligiuri and Tarique, 2012). The study targeting global leaders showed that a combination of experience in cross-cultural aspects and distinguished personal characteristic significantly impacted of leadership effectiveness. On the other hand, Fisher (2011) have also ratified that skills set characterizing a leader had the potential to transform the effectiveness of leadership in the project management context.

2.3 Project Success

The definition or understanding of project success is dichotomous and vaguely presented with no standard measurement (Mir and Pinnington, 2014). Therefore, success of a project is gauged on the capability of the project stakeholders to meet the minimum requirements set as per the measuring metric. Irrespective of the uncertainties in defining project success, Morris and Pinto (2007) definition can be classified among other relevant definitions of project success. As such, Morris and Pinto (2007) presented a successfully completed project as the one that attains the specified technical attributes and performance while impacting significant levels of satisfaction among the stakeholders.

Serrador and Turner (2015) show that combination of project delivery time, project's specification and budget goals can be good measures to denote project success if all the variables are collectively combined to form project efficiency. In the study, the project success, through a significant number of sampled project based institutions, was shown to be a correlate of project efficiency. This validates that the sub-constructs of project efficiency are well aligned or suited to depict a successful project.

Mir and Pinnington (2014) explain that the metrics that ratify a particular project as successful may not be considered as a fundamental factor that is considered in a similar project elsewhere. However, on frequent basis, certain indicators are used to indicate or else represent successful projects. Despite the recognition of the project success measuring metrics, there is still criticism pertaining to the applicability of these metrics (Serrador and Turner, 2015). Turner and Zolin (2012) put forward that the

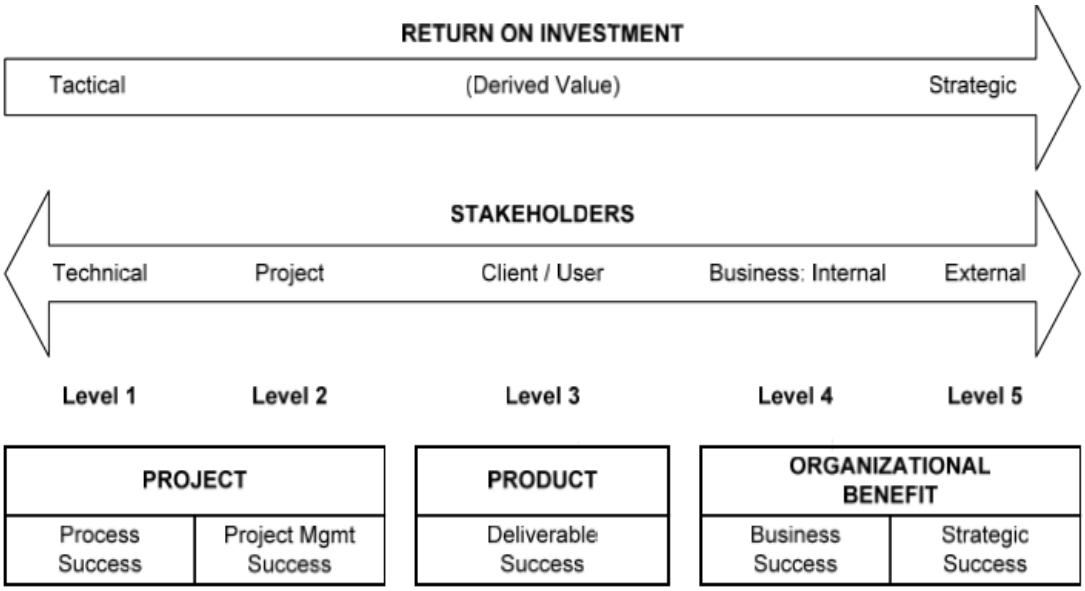
contemporary project success understanding is based on the capability to deliver project tangibles more so the ones that conform to the key stakeholder - and in this case the client or the sponsor. Even though recognition the key stakeholder's role is fundamental, Serrador and Turner (2015) lately expressed that there was the need to include additional project success indicators and engage overall rejects stakeholders as well as assess the ability of the project team to reach the project objectives tentatively.

Contemporary literature has taken another dimension pertaining to defining a successful project through the lens of environmental sustainability. As such, environmental sustainability approach has been gaining popularity in the construction industry with more and more stakeholders ensuring sustainable building practices in the built environment (Bobrow, 2014). Considering Bobrow (2014) study proposes that environmental sustainability should be included as one of the project success indicators as there is a link between sustainability and project success. The study shed light that despite the heightened engagement by the project stakeholders to ensure sustainability in their building practices, there are few or no considerations of adopting the culture of recognizing sustainability achievement as a project success indicator. Therefore this leads to Martens and Carvalho (2016) study which added that in all construction activities, the environmental accounting practice which uses triple bottom line approach should be considered. Through the approach it was noted that the shortcomings associated with construction would be effectively captured and its adversaries evaluated. More recently, Oke and Aigbavboa (2017) explain that the diversified stakeholders' interest in project delivery encompasses sustainability. Therefore, the study summarizes that sustainability is an overarching factor covering the project success constructs.

2.3.1 Classification of Project success indicators

Barneman (2008) recognizes that indicators of project success have been neglected and has thus failed to be defined correctly all along. The study proposes that it is important to classify the indicators denoting project success into various groups. The study has shown that project success is divided into levels each denoting the interest of the stakeholder as well as the project scope as shown in figure 5 below.

Figure 5: The Five Levels of Project Success



(Source: Bannerman, 2008)

The figure above shows that project success can be evaluated from project scope, achievement in product delivery and organizational benefit. Each facet has the minimum requirements that are expected to be conceptually reached after the project delivery. Though, to meet each and every success facet of project success, several undertakings must be performed under each level. Since 2008 when Bannerman summarized the classified the indicators of project success, a number of studies have covered individual levels and their contribution to project success.

Process success

Serrador and Pinto (2015) show that agility in project processes is a determinant of project success. Through a significant number of project-based organizations, the study outlines that adoption of agile processes in software development recorded overwhelming success that leads to the adoption of the agile methods industry-wide even in non-IT based projects. As such, the study outlines that agile methods were not limited to project governance, development method, change management, process alignment and integration but also included the tendency to enhance productive interactions in the project period. Other processes management activities included collaboration with the customers and responding to rigid planning. On the other hand, Joslin and Müller (2016) drive forwards that even though project methodology is an indicator of project success its full applicability in the project context is suppressed by

the governance. This connotes that project processes in project delivery are not immune to external environment necessitating the application of better governance.

Project Management Success

Serrador and Turner (2015) associate project efficiency as a facet that denotes successful project at the global level. The study outlines that time and budget cost contributed to project success. As such, these are the similar efficiencies noted by Barnerman (2008) as the indicators of project success classified under the project management success.

Project Deliverable Success

According to Bannerman (2008), the tendency to evaluate a project as successful before the client is fully satisfied by the project should be replaced with an approach that ratifies success after key stakeholder approval. This was explained that the dynamic environment leads to project changes in the development period. As such, such changes may lead to ineffective achievement of the product deliverables. According to Mir and Pinnington (2014) deliverables that are constantly sought for in products include quality, satisfaction, as well as delivering the product as per the requirements as well as the specifications. Basically, the literature has to some extent expressed that deliverables in product success as the most fundamental undertaking that an organization must strive to ensure.

Business Success and Strategic Success

Literature has continually shown that a business objective is to mitigate all the risks in their operation and get substantial returns on their investment (Mir and Pinnington, 2014). However this is attainable, project success, business success and strategic success have not been at par. Bannerman (2008), outlined that projects could be defined as successful, but the business success in some facets may fail greatly. Additionally, after an evaluation of a complete project, the indicators denoting strategic success may rank lowly, but another external stakeholder may find optimum value in the built environment than the client. This leads to the conclusion that the indicators of project success do not necessarily indicate project success for all the stakeholders. Therefore, at some point, the level of indicators may be within the satisfactory range but the project objectives may fail to be reached.

2.4 Cost Overrun in Project-Based Organizations and its Causes

Belachew, Mengesha and Mohammed (2017) present cost overrun as a condition that emanates from different internal as well as external factors in the project scope. In regards to the outlined factors impacting on project cost overrun, it was deducible that these factors could be controlled whereas others could not be easily mitigated. More so, some of these factors could be linked to leadership failure. Thus notwithstanding, effective leadership style complemented by leaders traits was the optimum approach through which project-based organizations' could mitigate the risk of getting into cost overrun.

According to Mukuka, Aigbavboa and Thwala (2015) cost overruns is catastrophic to both the project team who risk gaining a poor reputation as well as to the client who experiences delays and delayed return on investment. Considering the rate of occurrence of cost overruns, Kim and Reinschmidt (2011) expressed the need to adopt cost estimation in the project control. Specifically, the study supposes probabilistic cost forecasting to incorporate Bayesian inference and Bayesian model as methods to forecast the project cost while leveraging the data from earned value management system. The suppositions have also been supported by Rosenfeld (2013) proposes that adopting root cause analysis for cost overrun tailored for the regional environment is fundamental. Similarly, Acebes, Pajares, Galán and López-Paredes (2013) also addresses the benefits associated with adoption of earned value management to monitor project cost whilst integrating other proactive approaches such as initiating risk management methods.

The indicators of cost overruns have been presented by various studies as the excess unplanned expense (Vaardini, Karthiyayini and Ezhilmathi, 2016). Arguably, literature also shows that the excess expenditure on a project was mostly caused by delays due to poor management, lack communication between the stakeholders pertaining to change of the project scope among others (Rosenfeld, 2013). More findings show that cost overruns is realized when paying the workforce for the extra work schedule as well as covering the overhead costs (Doloi, 2012).

Table 1: Indicators of Cost Overrun

Administration errors	- delays due to poor management - lack communication between the stakeholders pertaining to change of the project scope - project managers fail to keep up with project's progress
Extra compensations	- Extra compensations to the workforce due to delay - Additional office operational costs due to delay (Overhead costs)
Inaccurate estimations	- Faulty schedules - Faulty budgets - Workforce absenteeism

2.5 Challenges Facing Construction Firms

Considering that the construction projects composes of participation from different stakeholders, challenges are eminent for the project leaders. For instance, the literature shows that the challenges experienced in project based organisations include; technical factors and organisational factors. The organisational factors are challenges that are introduced by all the stakeholders. For instance, the owner, contractors' government and other relative parties involved in the construction activities. On the other hand technical factors are also associated to the stakeholders in competencies in various technical aspects of the project. This makes it fundamental to for effective leadership in construction projects to limit the extent that the challenges from different stakeholders affect project success.

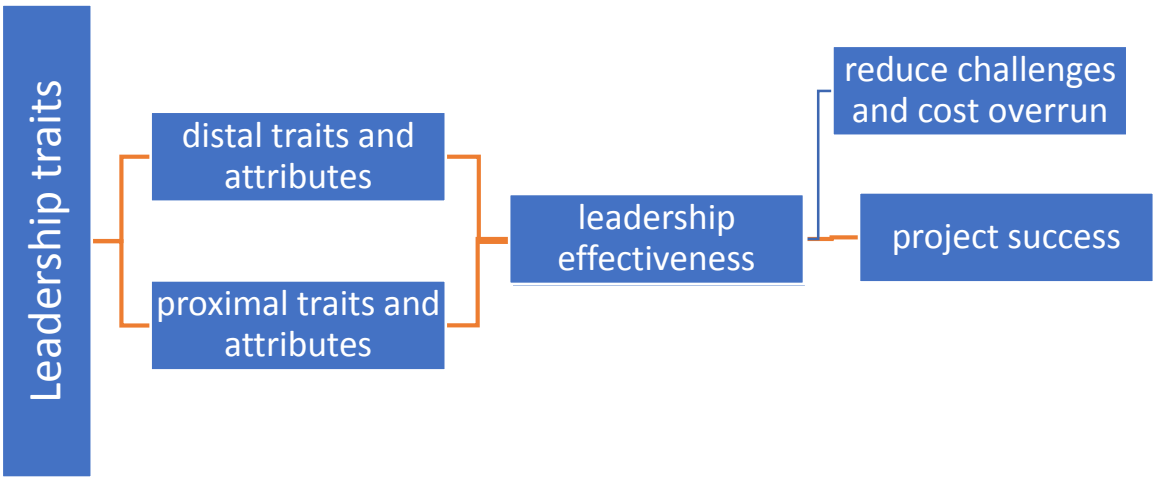
Organisational factors include; delays in design approvals, lack of incentives to the workforce, change of project scope after tender award and absence of effective internal control systems, Aziz and Abdel-Hakam (2016) and Kikwasi (2013), late decision making and political stability (Chandrasekaran, Linderman and Schroeder, 2015).

Technical Factor include; Lack of project management tools management expertise, ICT development and other technological changes, lack of information and Communication Technology to support project scope, Serra and Kunc (2015), lack of proper needed material specification, Zhang and Fan (2013),, Absence of competent human resource expertise for project execution, Aziz and Abdel-Hakam (2016), poor or else inaccurate project plans (Kikwasi, 2012).

2.6 Conceptual Model used in the Study

Based on the theoretical concepts in the reviewed literature, the following conceptual model was formed to guide the current study.

Figure 6: Conceptual Model for the Study



2.7 Summary

The literature review has presented that leadership trait that defines the leadership style a leader adopts is linked to project success as well as cost overruns. The literature has also explained that leadership can contribute directly to cost overrun due to mishandling of finances and the relative spending. Additionally, lack of proper project management and leading translates to project failure or delay which in turn affect expenditure of the finances set aside for project delivery. Theories incorporated in the literature had substantial contributions in explaining that the project management was made up of stakeholders who made up a system. As such stakeholders theory drive forward that associating systems fail to integrate seamlessly thereby introducing challenges which also prove challenging to the project leaders. This helped explain that in the UAE based project-based organizations', there is a chance of having failed or successful construction projects which presented numerous challenges to the project leaders. The literature review also mapped the project success indicators, leadership trait indicators as well as the recent and most common leadership styles. The contended understanding of project success and its measuring metrics were also presented in the chapter. The next chapter will outline the research methods thereby

expounding on the strategies adopted in the study to collect data as well as the approaches to data analysis.

Chapter Three

Research Methods

3.0 Introduction

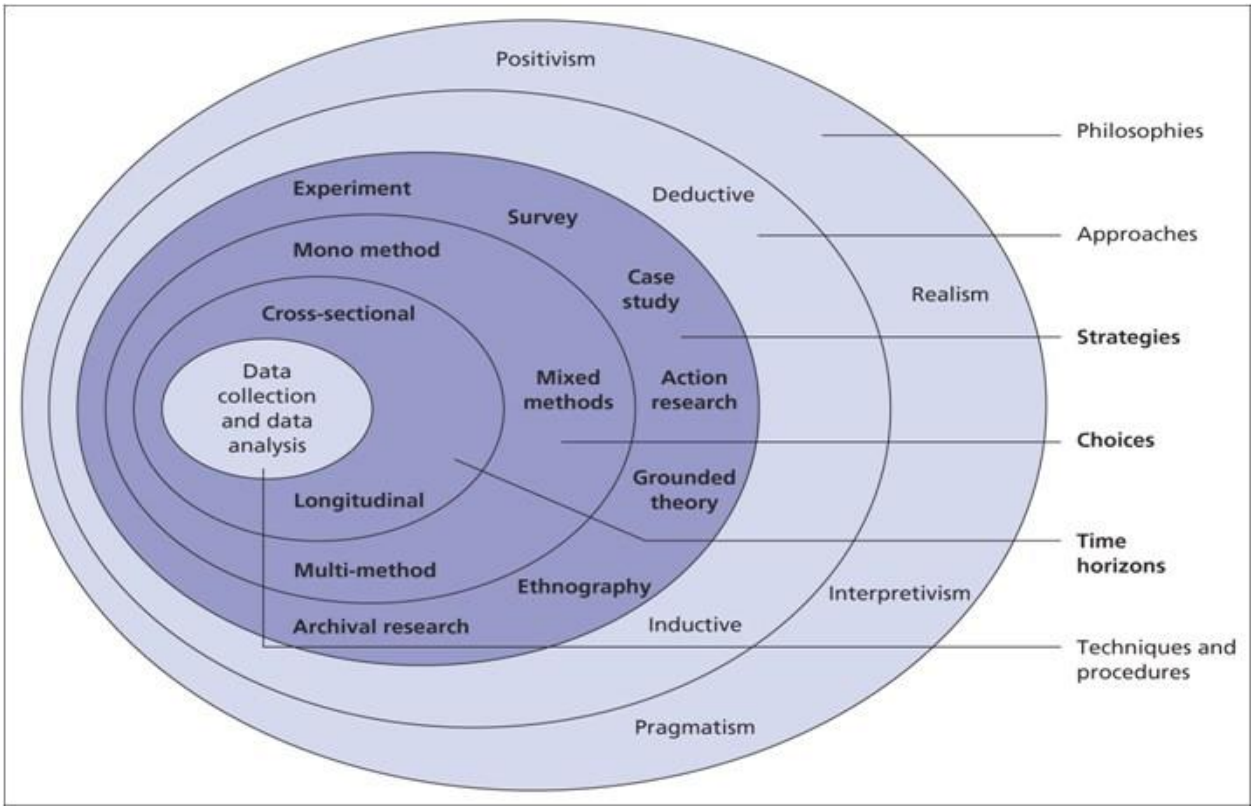
The section outlines the methods that the researcher used in order to answer the study question as well as the objectives. The selection of the adopted research method was grounded using research methods literature in order to show the appropriateness of the approach. As there are unlimited approaches that can be used to meet the research aim, the chapter was invaluable by showing the research method selected over the others. Therefore, the main aim of the chapter is to map the approach the study used in order to present the reality pertaining to construction projects leadership traits and challenges.

3.1 Research Philosophy

Healy and Perry (2000) explain that reality is presented from a number of epistemological understandings. This connotes that the type of reality that a study objective presents is associated with particular epistemologies. However, considering positivism and constructivism (interpretivism) are the two major philosophies of deducing the reality, the study concentrated on these two philosophies.

In order to attain a framework that narrows down to the actual data collection activity, 'research onion' model that was coined by Saunders and others in 2009 was used. The framework – as appended below (Figure 7), shows that various layers containing different methods. On a practical note, the model by Saunders and others looks like layers of a bulb onion. The outermost layers present the research philosophies which guides the researcher in the selection of the other research approaches and strategies in the inner onion layers. The central part of the model (innermost layers) presents the actual data collection activity from which the reality was deduced through relevant analysis method.

Figure 7: Research Onion Model



(Source; Saunders et al., 2009)

3.1.1 Positivism

In this epistemology, the positivists believe that the reality is independent of its research environment (Baxter Magolda, 2004). Therefore, the reality or the truth exists singly (Tuli, 2011). Therefore, the researcher, researched subjects and the research environment are perceived to be independently set from each other. Connoting that the reality in the area researched is not readily available to the studied subjects and can only be empirically deduced. This explains why Tuli (2011) expressed that studies adopting positivism are based on objectivity and are moreover structured to limit the biasness emanating from the researcher personal aspects as the researcher does not directly interact with the truth.

Positivism philosophy also recognises that reality can only be reached through quantification thereby making the positivists refute various types of realities that are reached through theism, metaphysics and theology (Knox, 2004). As such, positivists argue that reality reached through the prior named epistemologies are introspective and more so intuitive reasoning.

Nonetheless, other positivists recognise that studies adopting positivism are based on past understanding and postulations thereby confirming these theories or refuting their applicability. As such, studies under this epistemology can adopt hypotheses to be confirmed or else refuted (Amaratunga, Baldry, Sarshar and Newton, 2002) unlike the studies adopting interpretivism which are set to explore reality. Considering that the covered literature showed that leadership traits have been sufficiently covered and established then the research topic fits the positivist reality. This is due to the fact that the leadership traits are well known and a positivist approach can be used to build more on the traits. Similarly, the challenges affecting leaders have also been covered by the literature in in-depth therefore a positivist approach is suitable to build more on the same. As such, the study adopted positivism epistemology to present the reality from the studied environment – construction projects. Even though a positivist approach was used to deduce the truth, it was imperative to cover the interpretivism philosophy in order to outline the main aspects that rendered the epistemology less suitable to reach the aims of the study.

3.1.2 Constructivism/Interpretivism

In interpretivism philosophy, the reality is perceived to be accessible by the studied subjects from the studied environment (Neuman, 2011). Therefore, the studied subjects and the research environment coexist together and cannot be alienated. This leads to the understanding that the only way that a researcher can assess the reality is only through the study subjects who are in contact with the truth. This perception held by the interpretivists explains why studies adopting interpretivism have no measures of limiting the researcher's bias. Unlike positivist approach, which is set to differentiate facts and personal feelings, interpretivist approach perceives facts and feelings as elements that lead to meaningful postulations.

Neuman (2011) also recognise that reality can only be exhaustively presented from personal accounts. This makes the study exploratory in nature and capable of

presenting in-depth information pertaining to the reality. However, the main shortcoming of studies using interpretivism is that each studied context is unique therefore making it hard to generalize the reality to broader contexts (Lin, 1998) and more so to establish the reliability of the findings. Further, the lack of a distinguished framework to separate fact and personal feeling makes such studies less reliable as they may have some aspects of bias (Ponterotto, 2005). However, considering that studies adopting interpretivist approach are subjective in nature, the issues of generalisation and bias tend to be of no concern.

Considering that the study findings were invaluable in the UAE construction industry, generalisation was also fundamental. However, using an interpretivist approach to map the truth was far much constraining since the researcher would have failed to have a generalisable study findings. Additionally, considering that the construction industry falls in a sensitive infrastructural sector necessary to support the region's economic growth, having biased study findings would have been detrimental to the growth of the industry. Therefore, this makes the mapping of the reality (leadership traits and the eminent challenges of leadership) through positivist epistemology imperative as compared to the interpretivism philosophy.

Finally, positivism is supports quantitative studies while interpretivism is associated with qualitative studies. Therefore, the following coverage of quantitative and qualitative studies further outline the appropriateness and the relevancy of the espoused epistemology- positivism.

Quantitative Research Paradigm

Studies structured using a quantitative research approach present the reality through quantification of the study variables (Tuli, 2011; Amaratunga, Baldry, Sarshar and Newton, 2002). As such, studies of such classification use mathematical manipulation of data to present the reality. According to St-Pierre (2001) the empirical tests used in quantitative studies make it possible to deduce the trends in the reality, as well as other relationships of the variable (s) such as causality.

According to the understanding presented by St-Pierre (2001), quantitative research paradigm fits the context of the current study. As such, quantitative research approach is aligned and capable of meeting the research objectives. The impacts that leadership traits have on the UAE construction projects success as well as the common leadership

traits and the challenges facing the leaders can be empirically mapped. This is due to the fact that St-Pierre (2001) expressed that quantitative research paradigm use of empirical approach has the capability to manifest the trends in the data (variables) such as relationship and trends.

Further, the use of quantitative research approach has also been associated with benefits that facilitate the mapping of the reality or truth. In regards to the benefit, the advantages of the quantitative research paradigm were outlined below;

- Parasuraman (2000) expresses that the use of quantitative approach reduces the time used in data collection as well as analysis. Further, quantitative research instrument can be automatized to collect data without necessarily involving the researcher in the process. Considering that the researcher time was limited, a quantitative approach was appropriate to map the UAE construction industry leadership traits and their effect within the timeframe.
- Quantitative research paradigm has been outlined by St-Pierre (2001) to support the generalizability of the studied context. Considering that it was imperative to generalise the study findings to a larger context including the UAE construction industry, the research paradigm was in line with the aim – by enhancing the capability of the study generalisation.
- The approach was also associated with reliable and valid findings (Carr, 1994). In comparison to the qualitative approach where the reliability of the findings proves hard to attain, quantitative approach has measures of ensuring the reliability as well as the validity of the study findings.
- Quantitative research approach is also associated with the capability to collect data from larger sample size (Carr, 1994) as compared to qualitative research paradigm. Further, considering Carr (1994) view, larger sample size ensures that the studied population or context is properly represented. Therefore, this connotes that the leaders in UAE construction sector were properly represented by the adopted research paradigm – quantitative. Additionally, considering that large sample size coverage in qualitative research paradigm takes time to complete as well as to analyse, quantitative approach tends to reduce the amount of time taken in covering such large sample size.

Despite the immense benefits associated with the quantitative approach, there also underlies shortcoming linked to the approach. As such, the following were the limitations associated with quantitative research paradigm;

- Quantitative studies perceive that each and every aspect of the study is quantifiable (Carr, 1994); whereas certain aspects; like feelings, cannot be quantified. Nonetheless, the researcher made sure that each and every variable used was quantifiable. The variables and aspects that were ambiguous and abstract if quantified were tentatively presented in a quantifiable form as well as the use of appropriate scales to collect the value of such variables.
- The data collection instrument used in quantitative studies limits the emergence of new realities (Carr, 1994) as the participants are limited to the knowledge created by the covered literature. Considering that such limitation can limit the validity of the research by mapping the incorrect context of the studied phenomena, the researcher ensured that a significant number of the aspects in construction industry more so in UAE context were included in the data collection instrument. As such, vast coverage of the literature was imperative in order to ensure that the larger percentage of measuring metrics were included in the instrument.
- According to St-Pierre (2001), quantitative research paradigm is capable of establishing the trends and relationships as well as the causality but the underlying causes and triggers of the reality are not outlined. As such, the factors and connections leading to the trend are vaguely presented. As a move of mitigating the limitation of quantitative research paradigm, the researcher outlined the underlying causes and the contexts in which the leadership traits and challenges could be understood. This was done in the literature review section with a purpose of creating more insight pertaining to the empirically deduced trends and relationships.

Qualitative Research Paradigm

Qualitative studies present reality through textual links (Tuli, 2011). According to Tuli (2011) qualitative studies relay logically flowing postulations that describe and present the reality. As such, the research paradigm shows an ultimate understanding of reality inclusive of the underlying factors pertaining to the phenomenon. Neuman (2011)

presents that qualitative studies are suited to explored shallowly explored areas as well as relatively new contexts which have little or no literature available. Considering that the leadership traits as well as the challenges facing leaders in construction projects have significant literature coverage, adopting an exploratory approach was therefore not necessary.

The following were perceived as the challenges that further limited the use of qualitative research paradigm as an n appropriate research approach;

- The research approach uses a relatively fewer number of study subject (Carr, 1994), thereby making it hard to represent the study population sufficiently.as such, the reality can therefore be deduced to be biased due to the poor representation of the studied phenomenon.
- The involvement of the researcher in the data compiling and analysis can also be outlined as a potential source of bias as well as the introduction of personal feelings. Considering the importance of the study, bias as well as other aspects that could reduce the reliability and validity of the study were not permissible.
- Qualitative research paradigm was also associated with low generalizability capability. Since the study was set to be generalised to the larger construction sector, qualitative approach was not suited to serve the purpose.

Even though qualitative studies were associated with a number of limitations, there were still some benefits associable with the research method such as;

- The research instrument used in qualitative context supports the emergence of new reality through the use of open ended questions. However, much has been covered pertaining to the study topic, the study as set to present the reality in a deductive approach denoting that the study was not structured to generate new knowledge to the literature. Therefore such contribution of the research approach was not considered in the selection of research methods.
- The subjectivity of the research paradigm makes it possible for the researcher to exhaustively cover the reality of the studied phenomenon. As such, subjectivity lowers the generalizability capability. Therefore, the contribution of the research method was also forsaken for reliability.
- Finally, the qualitative approach uses textual aspects to collect the reality. This makes it possible to understand and collect data for the variables which cannot

be quantified. As previously covered, the researcher devised an approach to ensure that all the variables used were quantifiable. However, a qualitative approach was appropriate in this context, quantitative approach was devised in a way that all the variables could be rationally presented.

3.2 Research Approach

Inductive Versus Deductive Approach

The findings of each and every study are set to be either deductive or inductive. The nature and contributions of study findings render a study to be either inductive or deductive. According to Eisenhardt and Graebner (2007), inductive studies may discover new theories or else contribute to the literature framework by discovering new findings or realities. On the other hand, deductive studies are oriented to confirm or refute theories available in the literature. Considering that the current study was set to confirm or else refute theories, then the study can be classified as a deductive study. This connotes that the study did not add new theories in the literature but it tested the past postulations.

3.3 Research Strategy

As shown by research onion model, there are various research strategies which can be distinguished from each other through the approach they espouse. Whereas experiments are set to test hypothesis in a scientific setup, case studies are normally exhaustive studies covering individuals and companies or a group of either of them. In most cases, case studies take relatively long durations and the findings from such studies are detailed. On the other hand, surveys are set to collect the reality from large sample size complemented by the capability to present generalisable findings unlike the case study approach.

The study adopted a survey method whereby data pertaining to leadership traits and challenges was collected from a large sample size.

According to Saunders et al (2009) data can be collected and analysed in mono method, mixed method as well as through multi-method. The use of mixed method and multi-method – whereby data is collected concurrently and progressively, is an approach to complement both data collection methods. As such, the limitations of qualitative or quantitative research approach are mitigated by the research methods

adequacies and efficiencies (St-Pierre, 2001). However, the researcher adopted a mono method in the research considering that the limitations of qualitative approach had been mitigated successfully through relevant approaches.

The difference between longitudinal studies and cross-sectional studies is that; longitudinal studies progress over relatively long periods (Chassin et al, 1986) while cross-sectional studies data collection is one time activity (Chassin et al, 1986). Since the data was collected only at one time from the construction project leaders in UAE, the study was therefore classifiable as a cross-sectional study.

3.4 Data Collection and Analysis

3.4.1 Data Collection Field and Organisations

Data were collected from 68 nos. construction organisations in the UAE. The inclusion criteria for the studied organisations was that the organisations had to be projects based; specifically construction projects. However, the researcher did not establish the maximum number of organisations to be studied. Therefore, as many as possible construction organisations within the Emirates of UAE were eligible for the study.

3.4.2 Sample, Sampling Technique and Sample Size

Charter (1999) also showed that inadequate sample size was also a factor that leads to low generalizability strength of a study. Considering such notes, it was imperative to ensure that proper sampling techniques as well as adequate sample size were ensured.

Sample Selection

Therefore, the sample included the human resource managers, engineers, top officials, and project managers. As such, the prior named participants included senior leaders who were directly involved in leadership activities in the construction organisation. This connoted that they were in a position to respond to their leadership attributes as well as the challenges they faced. On the other hand, junior employees were shadowed since they were not in a position to map the study aspects pertaining to leadership.

Sampling Technique

To enhance proper representation of the population, probability sampling is preferable. Therefore, the study espoused probability sampling to recruit the senior leaders to fill the survey. As such, each and every senior leader in the UAE construction organisations were equally rightful to participate in the study.

Sample Size

Considering that the number of senior leaders in the construction organisations could not be established with ease, a specific sample size could not be deduced. Therefore, the researcher targeted an unlimited number of responses though greater than 30 in order to generate valid findings and more so with a significant generalizability strength.

Data Collection and Analysis

The actual activity of data collection entailed extensive notification of the potential participants from the construction organisation. The notification medium included the mails and visits to some of these organisations. Further notification poster was pinned on the organisations noticeboard inviting the eligible group of participants to respond to the online survey. The data collection period was clearly stated as well as the link to the survey platform. Towards the elapsing of the data collection period, a reminder was sent to department heads and relevant seniors notifying them to remind the study participants to take action.

Data analysis was done using SPSS statistical calculations. As such, means, standard deviation, frequencies, percentages, and quartiles were used. Further correlations were also done to map the association and simple regression to accept or reject the study hypothesis.

3.5 Validity and Reliability

In the previous sections, the researcher showed how the study reliability and validity was ensured. Additionally, the reliability of the research instrument was enhanced through a pilot study. As such, Rugerri (2000) states that for an instrument to collect reliable data, internal reliability and consistency should be ensured. Therefore, 3 participants were piloted in order to establish the reliability. As such, the needful revisions were applied to the research instrument. External reliability and validity of

the data collected were ensured through comparison of the findings with the vast literature framework while outlining the divergences as well as the convergences.

3.6 Research Ethics

Bernard (2012) expresses that in case human among other subjects are studied, ethics of research are imperative. Therefore, the researcher's first step was to ensure that the instrument had no traces of discriminatory statements more so those which could place the studied subjects at a social and emotional disadvantage. Further, the online platform containing the survey was preceded by ethics statement which notified the study participants that the survey was one time activity. Further the statement assured the participants that their responses would not be revealed to third parties apart from my assessors. The context or the purpose of the responses they gave was also outlined and assured that their data would not be used for any other purpose. Apart from being made aware that it was non contractual engagement, the study participants were also notified that after analysis of their responses, they would be locked for safe keeping.

3.7 Summary

The chapter showed that the objectives and nature of the study led to the adoption of a positivist approach to collect and analyse data in a quantitative approach. The study was also shown that it would be deductive in nature. The area of study which was the Emirates of UAE was also outlined and further narrowed to the targeted organisations – construction organisations. The chapter also showed that the most relevant group of the population to collect data from included the top leaders in these organisations. Finally, to ensure reliable and valid findings, the researcher conducted a pilot study as well as consulted a vast range of scholarly articles to facilitate the placement of the findings in their context.

Chapter Four

Results Analysis and Discussion

The chapter focused on answering the research objectives that were developed in chapter one of the study. The chapter was organised into two sections. The first section contained orientation and explanation of the analysis approach used to extrapolate the data collected as well as well as definition of the participants demographics. The consequent section contained the actual research objectives followed by exhaustive analysis of the relevant data collected as well as discussion of the results. Past and contemporary literature pertaining to leadership traits theory was consulted to countercheck the validity as well as the reliability of the study by outlining the divergences as well as the convergences from the literature.

4.0 The response Rate, Data Preparation and Data Analysis

Even though the researcher aimed at collecting as many responses as possible, only 75 responses were considered as fit for further analysis. The collected responses were 81 but some of them were scrapped out due to too many missing responses or failure to indicate crucial aspects such as their role in the construction organisation. Using SPSS; means, standard deviation, frequencies, percentages, and quartiles were used. Additionally, correlations were also done to map the association and simple linear regression to accept or reject the study hypothesis.

4.1 Analysing the Likert Scale

Considering that interpreting the 5 point Likert scale was contradictory, a specific range was given to denote each and every Likert point as follows. Therefore, 1 to 1.8 represented "strongly disagree", the range between 1.81 to 2.6 represented "Disagree', the range between 2.61 and 3.4 denoted "Neutral" and the range between 3.41 to 4.2 represented "Agree" and lastly, "Strongly Agree" ranged from 4.21 to 5. Therefore, the computed means within the indicated ranges were grouped under the respective label. Additionally, the closer the mean to the smallest number of the indicated ranges, the more weaker the respective label was and the closer the mean to the larger number in the indicated ranges the stronger the respective label was.

4.2 Understanding the Study Participants Demographics

Analysing the study participants' characteristics was imperative in order to understand the respondents' to the study. Such analysis helped in getting a clear picture of the participants' as well as aided in gauging if the studied population was fit to suffice the research objectives.

Table 2: The Personal Characteristics of the Study Participants

		Frequency	Percent
Gender	Male	68	90.7
	Female	7	9.3
	Total	75	100.0
Job Position	Engineer	11	14.7
	finance manager	1	1.3
	human resource manager	1	1.3
	operation manager	10	13.3
	Other	10	13
	project manager	42	56.0
	Total	75	100.0
Years of experience in the construction industry	0-5 years	4	5.3
	11-15 years	15	20.0
	6-10 years	5	6.7
	above 16	51	68.0
	Total	75	100.0
Education Level	Diploma	4	5.3
	post graduate degree	52	69.3
	undergraduate degree	19	25.3
	Total	75	100.0
Age Bracket	20-29 years	5	6.7
	30-39 years	23	30.7
	40-49 years	26	34.7
	50-59 years	16	21.3
	60 years and above	5	6.7
	Total	75	100.0

Table one above shows that the males surpassed the women leaders with more than 10 times (90.7% males and 9.3% females). However, such a significant difference was permissible less women were surveyed as there was also a relatively low number of women in the UAE construction industry. The women literacy in UAE is greater than that of the men which leads to the inference that the women high education level can help them scoop leadership positions. Such deviations can only be understood after considering the demanding nature of construction industry which may tend to be unfavourable to women, thereby reducing their interest to work in the construction industry.

The studied population comprised of more than half (56%) of project managers. The finance and human resource managers made the least composition of the study participant with 1.3%. The construction project engineers as well as the operations managers had relatively similar responses count; 14.7% and 13.3% respectively. Considering the listed job positions by the study participants were directly involved in construction projects progress, then in can be concluded that the assessed population was relevant and capable of providing beneficial data that can meet the research objectives.

Those with 0 to 5 years of experience made the least percentage (5.3%) of the population that participated in the study, closely followed by those with 6 to 10 years of experience. those with over 16 years of experience in construction industry made the highest percentage (68%) while a third of the study participants 20%, comprised of those with 11 to 15 years of experience. Again, the analysed data shows that the assessed population had a significant experience in construction project operations which impacted them with the needed experience to clearly map the phenomenon. Therefore, the leaders experience was also handy in giving experience backed insights pertaining to their leadership journey as well as the scope of the projects they were previously involved in.

The less educated leaders working in the construction industry made 5.3% of the population followed by a quarter of the leaders who had at least attained first degree with 25.3%. Post graduate leaders in the UAE construction industry made almost three quarters of the population (69.3%). Therefore, it can be inferred that the leaders were both experienced and educated which was also another factor that made the studied population best suited to describe the assessed phenomena.

The study participants who were between 20 to 29 years as well as those above 60 years made the least percentage of construction based organisations population with 6.7%. On the other hand, the population between 30 and 39 years made almost a third of the construction leaders population whilst those between 40 to 49 years made a third of the study participants. Such age brackets were consistent with both the respondents experience as well as their educational level. This is due to the fact that the age between 40 and 49 years; which made the largest population of the studied leaders,

the participants would have a higher experience in the construction industry as well as have the needed time to have covered their post graduate studies.

4.3 Results

Research Objective One: To outline and compare the level of effectiveness of leadership traits on project success and cost overrun

To meet the research objective, the leadership traits espoused in the UAE constructing industry were correlated to the project success and cost overrun. Therefore, the following table (table 2) contains Pearson's correlation coefficients. As such, high correlation coefficient showed effective leadership trait while low correlation coefficient showed low effectiveness or no effect of leadership traits on project success and cost overrun.

Table 3: Pearson's Correlation Coefficients of Distal Leadership Traits and Project Success

		Distal: cognitive abilities	Distal: personality	Distal: motives and values
Distal: cognitive abilities	Pearson Correlation	1	.720**	.649**
	Sig. (2-tailed)		.000	.000
	N	75	75	75
Distal: personality	Pearson Correlation	.720**	1	.776**
	Sig. (2-tailed)	.000		.000
	N	75	75	75
Distal: motives and values	Pearson Correlation	.649**	.776**	1
	Sig. (2-tailed)	.000	.000	
	N	75	75	75
Project Success: process success	Pearson Correlation	.623**	.601**	.558**
	Sig. (2-tailed)	.000	.000	.000
	N	75	75	75
Project Success: Project	Pearson Correlation	.528**	.489**	.511**
	Sig. (2-tailed)	.000	.000	.000

management success	N	75	75	75
Project Success: Deliverable success	Pearson Correlation	.584**	.552**	.567**
	Sig. (2-tailed)	.000	.000	.000
	N	75	75	75
Project Success: Business success and Strategic success	Pearson Correlation	.553**	.511**	.567**
	Sig. (2-tailed)	.000	.000	.000
	N	75	75	75

In order to understand the level of leadership traits effectiveness, it was paramount to understand the correlation coefficients. Correlation coefficient value can either be negative or positive value ranging from -1 to +1. The closer the coefficient to -1 or to +1 the stronger the relationship. In this case, the level of relationship denotes the level of effectiveness pertaining to project success and cost overrun. Therefore, correlation coefficient close to -1shows that the leadership traits are not effective at all as they tend to be detrimental to the overall goal. Correlation coefficients close to +1 shows that leadership traits are highly effective. Correlations close to 0 connotes insignificant or else no perceived effect on project success or cost overrun by the employed leadership traits.

Individual distal leadership traits exhibited an internal positive correlation that was above r=.649. Considering that the correlation coefficient was within a significant range, it could therefore be concluded that the constructs of distal leadership traits had the capability to predict each other.

Distal leadership traits which included cognitive abilities, personality, motives and values had significant positive correlations with project success indicators which included process success, project management success, deliverable success, business success and strategic success. The correlation coefficients ranged from r=.489 to r=.623, with process success being the project success construct eliciting from effective leadership. Therefore distal leadership traits were effective in ensuring a project success within the required metrics.

Table 4: Pearson's Correlation Coefficients of Proximal Leadership Traits and Project Success

		Proximal: Social appraisal skills	Proximal: problem solving skills	Proximal: Expertise tacit knowledge
Proximal: Social appraisal skills	Pearson Correlation	1	.710**	.624**
	Sig. (2-tailed)		.000	.000
	N	75	75	75
Proximal: problem solving skills	Pearson Correlation	.710**	1	.863**
	Sig. (2-tailed)	.000		.000
	N	75	75	75
Proximal: Expertise tacit knowledge	Pearson Correlation	.624**	.863**	1
	Sig. (2-tailed)	.000	.000	
	N	75	75	75
Project Success: process success	Pearson Correlation	.529**	.681**	.674**
	Sig. (2-tailed)	.000	.000	.000
	N	75	75	75
Project Success: Project management success	Pearson Correlation	.448**	.642**	.629**
	Sig. (2-tailed)	.000	.000	.000
	N	75	75	75
Project Success: Deliverable success	Pearson Correlation	.514**	.595**	.568**
	Sig. (2-tailed)	.000	.000	.000
	N	75	75	75
Project Success: Business success and Strategic success	Pearson Correlation	.521**	.642**	.636**
	Sig. (2-tailed)	.000	.000	.000
	N	75	75	75

The proximal leadership traits had high internal correlations (r=>.624) just like distal attributes. Therefore, distal attributes had the capability to predict each other. Again, distal leadership traits were more effective on project process success than the other project success indicators. As such, distal attributes had correlations greater than .529 with process success. No distal leadership trait had correlations that were below the accepted significance level as they were all above .521and also with a p value of < 0.0001. Considering that the p value was within the accepted range then the effectiveness of the proximal attributes as well as the distal attributes could be ascertained as causual and significantly effective in eliciting to project success.

In order to compare the effectiveness of distal and proximal attributes, all the respective distal attributes were collated as well as the proximal attributes and correlated with project success as shown below.

Table 5: Pearson's Correlation Coefficients showing overall Effectiveness of Distal and Proximal attributes of a Leader on Project Success

		Distal Attributes	Proximal attributes	process success	Project management success	Deliverable success	Business success and Strategic success
Distal Attributes	Pearson Correlation	1	.848**	.660**	.565**	.630**	.602**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	75	75	75	75	75	75
Proximal attributes	Pearson Correlation	.848**	1	.694**	.634**	.617**	.663**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	75	75	75	75	75	75
process success	Pearson Correlation	.660**	.694**	1	.747**	.703**	.622**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	75	75	75	75	75	75
Project management success	Pearson Correlation	.565**	.634**	.747**	1	.748**	.729**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	75	75	75	75	75	75
Deliverable success	Pearson Correlation	.630**	.617**	.703**	.748**	1	.709**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	75	75	75	75	75	75
Business success and Strategic success	Pearson Correlation	.602**	.663**	.622**	.729**	.709**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	75	75	75	75	75	75

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

Proximal attributes were more effective in enhancing project success than distal attributes. Therefore, proximal attributes had higher relationship with the project success indicators than distal attributes except in deliverable success indicator which scored relatively low in proximal traits (r=.617) than in distal traits (r=.630).

Table 6: Pearson's Correlation Coefficients of Overall Leadership Traits and Cost Overrun

		Distal Attributes	Proximal Attributes	Administration Errors	extra compensation	inaccurate estimation
Distal Attributes	Pearson Correlation	1	.848**	.052	.040	.075
	Sig. (2-tailed)		.000	.658	.736	.524
	N	75	75	75	75	75
Proximal Attributes	Pearson Correlation	.848**	1	-.169	-.097	-.119
	Sig. (2-tailed)	.000		.147	.409	.310
	N	75	75	75	75	75
Administration Errors	Pearson Correlation	.052	-.169	1	.708**	.847**
	Sig. (2-tailed)	.658	.147		.000	.000
	N	75	75	75	75	75
Extra compensation	Pearson Correlation	.040	-.097	.708**	1	.788**
	Sig. (2-tailed)	.736	.409	.000		.000
	N	75	75	75	75	75
Inaccurate estimations	Pearson Correlation	.075	-.119	.847**	.788**	1
	Sig. (2-tailed)	.524	.310	.000	.000	
	N	75	75	75	75	75

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

Interestingly, distal as well as proximal leadership attributes were not in away way related to cost overrun. As such, the leadership traits exhibited correlations that were insignificant which was also shown by the computed p values that were above the confidence level (95%). In that case, the p values were over .05 making the effectiveness of leadership traits insignificant.

However, the internal correlations between the cost overrun indicators were both high and significant (r=>.708and p value =<.0001). This denotes that the indicators of cost overrun had capability to influence one another. For instance, administration errors had the capability to influence extra compensation or else inaccurate compensations.

Discussion

The study found that the leadership traits were indeed effective as they enhanced project success. Both distal and proximal attributes were significantly correlated to project success. Such finding was expected considering that the literature showed that leadership traits had an impact on the closing stage of a project (Roufechaei and Argyropoulou, 2016; Bader, 2004). Similarly, Muller and Turner (2007) as well as Geoghegan and Dulewicz (2008) conluded that leaders who engaged in teamwork as well as those who had the motive to achieve tangible results lead to efficiencies in the project deliverable.

The study also outlined that the proximal leadership traits used in UAE had an overall high score of effectiveness in enhancing project success - as compared to distal attributes. Such finding also aid in explaining Hoffman et al., (2011) study which found out that the contemporary literature has started concentrating more on proximal attributes thereby shifting away from distal attributes. This connotes that contemporary scholars have also established that proximal attributes are more effective in enhancing delivering success therefore making it imperative to specialise in the leadership trait.

The lack of relationship between distal attributes as well as proximal attributes with project success was not expected. This is due to the understanding that the covered literature outlines that cost overrun is caused by the failure of project team to deliver the project satisfactorily (Vaardini, Karthiyayini and Ezhilmathi, 2016; Shrestha, Burns and Shields, 2013). This denotes that leadership traits should also be effective to counteract cost overrun. However, the divergence from the literature can be understood through Wagner Mainardes, Alves and Raposo (2011) study that noted that the technical, organizational and other congruent stakeholder factors limit the effectiveness of management. Therefore, in case of technical, stakeholders or organisational factors, then the effectiveness of UAE leaders would be neutralised or else it could be made less effective. Further, Belachew, Mengesha and Mohammed (2017) present cost overrun as a condition that emanates from different internal as well as external factors in the project scope. The study also makes it clear that some of these factors could be controlled whereas others could not be easily mitigated. Therefore, if in UAE construction industry such factors could not be controlled, then the leadership traits would be less effective.

Therefore, it can inferred that the leadership traits in the UAE construction industry were not effective in managing projects cost overruns but they were aligned in enhancing project success. This can be as a result of the leaders' tendency to concentrate on how to deliver project with less flaws but failure to consider the detrimental impact of cost overruns.

Research Objective Two: To show the most common leadership traits among the managers of UAE construction organisations

Table 7: The most common leadership traits among the managers of UAE construction organisations

	N	Minimum	Maximum	Mean	Std. Deviation
Distal Attributes					
cognitive abilities	75	1.00	5.00	4.0400	.73921
Personality	75	1.00	5.00	3.9900	.79211
motives n values	75	1.00	5.00	4.1333	.73725
Average Mean				**4.0544**	**.68096**
Proximal Attributes					
Social appraisal skills	75	1.00	5.00	3.8889	.74804
problem solving skills	75	1.00	5.00	4.0933	.76043
Expertise tacit knowledge	75	1.00	5.00	4.0800	.80556
Average Mean				**4.0207**	**.69950**
Valid N (listwise)	75				

The leaders from UAE construction industry mostly exhibited distal leadership traits (M=4.05, SD=.681) as well as proximal leadership traits (M=4.02, SD=.70). A closer look at the computed values, there was a little difference between the means as well as the standard deviations. However, distal attributes mean shows that the leadership trait was popular among the UAE construction leaders. As such, the most popular leadership trait was motives and values (M=4.13, SD=.737), followed by problem solving skills (M=4.09, SD=.766) then expertise and tacit knowledge (M=4.08, SD=.805), then cognitive abilities (M=4.04, SD=.74), then personality (M=4.0, SD=.79) and finally social appraisal skills (M=3.89, SD=.75).

Evaluating all the means, it is clear that the study participants agreed that they adopted the listed leadership skills. The standard deviations which are relatively low also show

that there was relative homogeneity in the participants' feedback. Therefore, most of the responses were saturated around the measuring point "agree".

It was also imperative to check if the leadership traits were linked to specific experience bracket. The analysis has been showed below (table 8).

Table 8: Leadership traits as per the Respondents Experience

Years of experience in the construction industry		Distal Attribute	Proximal Attribute
0-5 years	Mean	4.0903	4.3056
	N	4	4
	Std. Deviation	.30376	.34397
11-15 years	Mean	4.0333	3.9481
	N	15	15
	Std. Deviation	.42234	.47302
6-10 years	Mean	4.2333	4.1444
	N	5	5
	Std. Deviation	.48137	.41870
above 16	Mean	4.0403	4.0076
	N	51	51
	Std. Deviation	.78014	.79412
Total	Mean	4.0544	4.0207
	N	75	75
	Std. Deviation	.68096	.69950

Proximal leadership traits were common to the UAE leaders who had an experience of up to 5 years (M=4.31, SD=.34). The mean showed that the leaders who had worked in the construction industry for only five years and below strongly agreed that they used proximal attributes. While the next experience bracket (6 to 10 years) exhibited the tendency to use distal attributes (M=4.23, SD=.48). The mean also shows that those with 6 to 10 years of experience in construction industry strongly agreed to the use of proximal attributes. All the other experience brackets had closely linked traits.

Discussion

There was no major difference between the leaders who adopted proximal traits or else distal traits in UAE construction industry. However, most of the leaders exhibited distal attributes. Despite proximal attributes showing a higher level of effectiveness in delivering success, distal attributes were also prevalent in the construction industry.

However, further analysis proved that new entrants in the construction industry (experience of 5 years and below) had likelihood to adopt proximal attributes. As their experience further progressed in the construction industry (6 to 10 years of experience), they tended to adopt distal attributes. Though, those with experience of more than 10 years adopted any of the leadership traits. Since the area of study is new the researcher expected any outcome in this objective. The findings were in line with the literature. As such, Hoffman et al., (2011) explains that leadership traits, more so proximal traits are not constant and tend to change with time. On a similar note, the study also found out that as the leaders gained ore experience their leadership traits changed. Such changes of the leadership traits detected can also be the reason why Dunham and Pierce noted that the leadership process is highly dynamic and the leaders should be wary of the uncertainties and further be agile in dealing with the constant changes.

Research Objective Three: To assess the challenges experienced by managers in UAE construction organisations

Table 9: The challenges experienced by managers in UAE construction organisations

Challenges	N	Minimum	Maximum	Mean	Std. Deviation
Organisational Factors	75	1.83	5.00	3.5289	.67638
Technical Factors	75	1.17	5.00	3.0867	.93856
Valid N (listwise)	75				

Table 9 shows that the study participants had a low rate of agreement that the construction industry was faced by challenges more so related to organisational factors (M=3.53, SD=.68). The mean is low meaning that there was a low rate of agreement among the respondents' that technical factors affected the construction industry. On the other hand, the study participants had a neutral perception (M=3.09, SD= .938) pertaining to technical factors as challenges affecting the construction industry. Therefore, the mean shows that the leaders were not sure if they have ever experienced technical challenges in their construction project delivery.

In order to understand the challenges in in-depth, the organisational as well as technical factors constructs were evaluated as shown in table 10 below.

Table 10: The organisational and technical challenges experienced by managers in UAE construction organisations

Organisational Factors	N	Mean	Std. Deviation
There has been delays in design approvals	75	3.71	.882
There has been lack of dedication (incentivisation) among the stakeholders	75	3.57	.932
There has been change of specifications after tender award	75	3.69	1.013
There has been lack of proper internal control systems	75	3.08	1.062
There has been late decision making	75	3.51	1.045
There has been political stability during the project progress	75	3.61	1.138
Technical Factors			
There has been lack of Information and Communication Technology and project management tools	75	3.04	1.168
There has been lack of management expertise	75	2.93	1.223
There has been lack of clear material needs specification	75	2.89	1.073
There has been Information and Communication Technology development and changes during project course	75	3.28	.980
There has been lack of the required human resource	75	3.41	1.220
There has been poor or else inaccurate project plans	75	2.96	1.179
Valid N (listwise)	75		

The rate of agreement pertaining to organisational factors constructs as challenges was relatively low. However respective challenges were listed (those that had a mean greater than 3.4), there was proper internal control systems (M=3.08, SD=1.062). The mean showed that the respondents perceived that internal control system did not act as a challenge to their operations.

Under technical factors, only human resource acted as a challenge (M=3.41, SD=1.220). The mean showed that the study participants agreed that there was no enough human resource while the standard deviation indicated that there was a relative heterogeneity in classifying lack of human resource as a challenge. The rest of technical factors were perceived as not extensive (neutral) to be classified as challenges in the construction industry.

Discussion

There were eminent organisational factors that affected the UAE construction industry. Therefore this leads to the understanding that UAE construction industry was relatively affected by delay in design approvals, lack of dedication, change of project scope, late decision making, and political factors among others. The finding converges to Aziz and Abdel-Hakam (2016) and Kikwasi (2013) as well as

Chandrasekaran, Linderman and Schroeder (2015) which outlined that organisational factors listed above mostly affect project based organisations. However, technical factors as challenges were deemed to present no challenge to the construction firms' leaders. This finding diverges from the literature despite Serra and Kunc (2015), Zhang and Fan (2013), Aziz and Abdel-Hakam (2016) and Kikwasi (2012) unanimously stating that technical factors affect project based organisations in the construction industry. However, such finding can only be understood through the inference that UAE construction firms have managed to scrap out any technical hindrances such as poor Information and Communication Technology, lack of management expertise, and lack of clear material needs specification apart from enough human resource.

4.4 Testing Hypotheses

The hypotheses were tested using simple linear regressions well as multiple linear regression. The set confidence level was 95% (p=<0.05).upon violation of the set significance level, the null hypothesis was accepted.

Hypothesis One

The null hypothesis was; distal leadership traits had no impact on project success or cost overrun while the alternate hypothesis was; distal leadership traits had impact on project success or cost overrun.

Table 11: Significance of Distal Attributes on Project Success

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.158	.325		3.557	.001
	Distal Attributes	.650	.079	.693	8.211	.000

a. Dependent Variable: Project Success

Table 12: Significance of Distal Attributes on Cost Overrun

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.017	.653		4.619	.000

	Distal Attributes	.082	.159	.060	.516	.607

a. Dependent Variable: Cost Overrun

Table 11 p vale was <0.0001. Since the value was below the significance level, the null hypothesis was accepted that distal leadership traits had impact on project success. However, the case depicted by table 12 was different. The p value was beyond the accepted significance level s it was .607 which was greater than .005. Therefore, the null hypothesis was accepted that distal leadership traits had no impact on cost overrun

Hypothesis Two

The null hypothesis was; proximal leadership traits had no impact on project success or cost overrun, while alternate hypothesis was; proximal leadership traits had impact on project success and cost overrun

Table 13: Significance of Proximal Leadership Traits on Project Success

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.095	.296		3.701	.000
	Proximal Attributes	.671	.072	.735	9.260	.000

a. Dependent Variable: Project Success

Table 14: Significance of Proximal Leadership Traits on Cost Overrun

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.086	.626		6.524	.000
	Proximal	-.183	.153	-.138	-1.192	.237

a. Dependent Variable: Cost Overrun

Considering the analysis in table 13 that the p value was within the acceptable range (p<0.0001), the null hypothesis was rejected in favour of alternate hypothesis. Therefore it was concluded that; proximal leadership traits had impact on project success. According to table 14 the null hypothesis which stated that proximal leadership traits had no impact on cost overrun. Such conclusion was reached after

considering the computed p value, (p=.237) which was greater than the set significance level.

Discussion

The finding that distal leadership traits had impact on project success was expected considering that the literature shows that personality traits can determine if a leader's approach is capable of bearing results (Walter, Cole and Humphrey, 2011; Bratton, Dodd and Brown, 2011). Even though the literature shows that effective leadership minimises risks of cost overrun (Vaardini, Karthiyayini and Ezhilmathi, 2016; Shrestha, Burns and Shields, 2013). Belachew, Mengesha and Mohammed (2017) explained that a range of factor both internal and external which cannot be easily controlled lead to cost overruns. Such factors can also makethe eadership ineffective in controlling project costs.

4.5 Summary

The chapter covered the research objectives outlined in chapter one and further discussed them whilst comparing them to the available literature. The divergences as well as the convergences were explained in detail in order to understand the reason behind the findings. The hypothesis tested were also convergent as well as divergent from the literature. Considering that the literature had made generalised hypothesis, the context specific hypothesis had higher chances of being divergent from the literature generalisations.

Chapter Five

Conclusions and Recommendations

The chapter provides a brief overview of the study. The chapter also outlines the conclusions to the study as well as the recommendations. The main aim of the chapter was to summarize the study and also to provide a recap of the study constructs.

5.0 General overview

Extant literature outlines that leadership in project management can elicit into positive outcomes. Such findings from the literature warrant that good leadership in UAE construction industry can lead to project success and consequently reduce the risk of cost overruns in construction project. Minimizing the risk of cost overrun while enhancing project success is crucial for the UAE construction industry as it was shown to be suffering from such setbacks of cost overrun and project failure. Additionally, successful construction projects also foster the region's vision to host expo2020. In order to outline the potentials of leadership in construction projects, the following objectives were of primary concern;

- To outline and compare the level of effectiveness of leadership traits on project success
- To show the most common leadership traits among the managers of Dubai construction organisations
- To assess the challenges experienced by managers in Dubai construction organisations

Further, the following hypothesis were also tested;

H0: Distal leadership traits had no impact on project success or cost overrun

H1: Distal leadership traits had impact on project success or cost overrun

H00: Proximal leadership traits had no impact on project success or cost overrun

H02: Proximal leadership traits had impact on project success and cost overrun

The literature showed that leadership traits comprised of distal and proximal leadership traits and any of the traits or a combination of both had the potential to complement project management activities. The literature also showed that the leadership approach used can lead to cost overrun due to mishandling of finances.

Additionally, lack of proper project management and poor leadership can translate into project failure or delay which in turn affect the use of the finances set aside for project delivery.

Considering that the study constructs were easily quantifiable the study adopted a positivist approach whereby primary data was quantitatively collected and analysed. Additionally, there was vast literature pertaining to leadership theories making it possible to base the study on a quantitative ground.

5.1 Summary of the Findings

Research Objective One: To outline and compare the level of effectiveness of leadership traits on project success and cost overrun

Proximal attributes as well as the distal attributes were effectively leading to project success but had no relationship with cost overrun.

Proximal leadership traits were more effective on project process success than any other project success indicators

Proximal attributes were more effective in enhancing project success than distal attributes.

Research Objective Two: To show the most common leadership traits among the managers of Dubai construction organisations

Dubai construction managers mostly had a combination of distal leadership traits and proximal leadership traits.

Proximal leadership traits were common to the Dubai leaders who had an experience of up 1 to 5 years while those with 6 to 10 years' experience mostly used distal attributes.

Research Objective Three: To assess the challenges experienced by managers in Dubai construction organisations

Organisational factors challenges included; delays in design approvals, lack of dedication (incentivisation) among the stakeholders and abrupt change of specifications after tender award.

Technical factors as challenges included; lack of the required human resource capacity

5.2 Hypothesis

Hypothesis One: Distal leadership traits had no impact on project success or cost overrun

Alternate hypothesis was accepted: distal leadership traits had impact on project success.

Null hypothesis was accepted: distal leadership traits had no impact on cost overrun

Hypothesis Two: Proximal leadership traits had no impact on project success or cost overrun

Alternate hypothesis was accepted: proximal leadership traits had impact on project success.

Null hypothesis was accepted: proximal leadership traits had no impact on cost overrun

5.3 Conclusions and Recommendations

Research Objective One: To outline and compare the level of effectiveness of leadership traits on project success and cost overrun

It can be concluded that the leadership traits (proximal and distal attributes) in the UAE construction industry were well aligned to the organisational objectives – project success. However, despite these traits being effective in enhancing project success, they had no capacity to limit the occurrence of cost overrun. The finding of the study implies that the construction industries across UAE had project team with relevant interpersonal attributes for the construction industry.

Comparing the effectiveness of the two leadership traits, proximal attributes were more effective in enhancing project success than distal attributes. These denotes that the proximal attributes had higher and significant relationship with the project success indicators than distal. Such findings confirm Hoffman et al., (2011) study findings which shows that contemporary leaders have a liking to proximal attributes. The shift

by the scholars to study more on proximal attributes than on distal attributes confirm that indeed, the leadership trait was more effective in delivering results.

Overall, it was conclusive that Dubai construction industry leadership was not effective in managing projects cost overruns but was aligned in enhancing project success.

Recommendation One

Considering that the proximal attribute was more effective in enhancing project success in the construction industry, it was therefore recommendable that the UAE construction firms should acquire project team based on their leadership attributes. In this case, the organisations should develop leadership assessment tool which would help in determining the leaders with proximal attributes.

However choosing the project team with the proximal attributes is possible it does not necessarily connote that the construction industries will realize project success. This is due to the fact that Caligiuri and Tarique (2012) outlines that leaders under different environment of operation will perform differently. This means that acquiring project team which only exhibit proximal leadership traits can also be affected by the environment in the construction firm.

Recommendation Two

The leadership traits; either distal or proximal attributes, were not effective in minimizing cost overrun risks. Therefore, it is recommended that the UAE construction firms should commission studies to map the cause of cost overruns. Such study in the project based organisations can help in outlining the loosely connected leadership attributes which can also be improved to impact on the cost overrun.

Research Objective Two: To show the most common leadership traits among the managers of Dubai construction organisations

The UAE project team adopted both the proximal attributes and distal attributes. Therefore, it can be concluded that the construction industry project team in the Emirates had fairly balanced leadership traits. However, the project team with the lowest experience had proximal attributes unlike the experienced members (6 to10 years of experience) who had the tendency to exhibit distal attributes. The project team with more than ten years of experience had mixed leadership attributes. This mean that those with over 10 years of experience could adopt any leadership trait. Therefore it could be concluded that leadership traits changes with the level of experience and still such traits can be developed.

Recommendation

Considering that there was no clearly defined approach as to how the leadership were gained or how they changed with the entities leadership, it was recommended that the UAE construction firms should commission studies to map how proximal attributes can be fostered. This is important considering that proximal attributes were shown to lead to project success.

Research Objective Three: To assess the challenges experienced by managers in Dubai construction organisations

There were a range of organisational as well as technical factors which proved challenging to the construction firms. However, among all the listed organisational factors, not all were challenging. This leads to the conclusion that the Emirates construction firms have managed to establish strategies to mitigate organisational factor challenges.

On the other hand the challenges emanating from technical factors were almost not present. As such, only lack of enough human resource capacity proved challenging to the construction industry. The finding leads to the conclusion that despite the construction industry leadership being aligned to impact on project success, they had no manpower to operationalize everything.

Recommendation One

Since lack of enough workforce was portrayed as prevalent in the UAE construction firms, it can be recommended that the organisations should embark in looking for project team with the right skills to cover the deficit. The recommendation can be said to be practical considering that the findings accept that lack of human resource is challenging – therefore, adding more qualified project team can limit the challenges associated with limited number of personnel.

Recommendation Two

The fact that all the studied organisations depicted lack of enough human resource as a challenge sows that there is an underlying cause that makes the construction firm acquire few workforce. The most probable cause is the poor working/living conditions that migrant workers are subjected to (Fanak, 2017) and the government restrictions on expats labour. It is understood that the region is affected by the shortage of labour and it is highly dependent on migrant labour. Therefore, it is recommended that the UAE government should revise the employment terms as well as make favourable living conditions for migrants and expats of both the skilled and unskilled labour to limit the challenges the construction firms are undergoing. The recommendation is practical considering that the region needs successful construction projects in order to support expo2020 as well as the real estate industry. However, despite the recommendation being feasible it also jeopardizes the potentiality of attaining

Emiratisation goal. This is due to the fact that more foreign labour will be imported into the country thereby upsetting the Emiratisation goal of having more local labour than foreign labour.

5.4 Conclusion to the Hypotheses

The fact that distal attributes as well as proximal attributes lead to project success proves that theories in the literature that associate leadership with project success are valid. Conclusively, leadership attributes in the UAE construction industry have also managed to elicit into project success.

On the contrary, the study diverges from the understanding in the literature that leadership attributes can limit the occurrence of cost overrun. This lead to the conclusion that despite the effectiveness of leadership attributes, cost overruns cannot be easily managed in construction projects.

Recommendation One

Since the study proved how hard it was to manage project costs, it was recommended that construction organisations in the UAE should establish a special project team to solely deal with project cost management. Such team would work hand in and with the other departments to ensure that the forecasted expenses match the project progress. However, optimal functioning of the recommendation can be disputed considering that the project cost management team will also have their respective leadership traits – the leadership traits from the existing leaders had been depicted as not capable of limiting cost overrun. So, in the same case, project cost management team attributes may also not have the potential to limit cost overruns.

Recommendation Two

It is also recommended that to manage the cost overruns the construction firms should consider adopting cost engineering approach. Through such approach, the

construction firms can manage project cost, forecast on the project cost as well as analyse unforeseen risks that may lead to project cost increase (Patrascu, 1988).

5.5 Limitations of the Study

Considering that the UAE comprises of seven Emirates, the area of study was expansive. Therefore, 75 responses from the vast area can be said to be a small ample size. Small sample sizes are associated with generalizability issues. Therefore, the study generalisation strength may be greatly reduced by the small sample size. It is therefore recommended that future studies should employ large sample sizes to substantiate the validity and the reliability of the current findings.

The study used literature ideas to develop the study instrument. Therefore, the literature conceptions provided limitations to the constructs used. For instance, if the construction industry had other organisational or technical challenges affecting their progress, then they would have been left out. Therefore, if there exit any other challenges, then the reliability of the results can be greatly affected.

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Appendices

Appendix I: Questionnaire

The impact of leadership traits on projects success and cost overrun: the case of project based construction organisations in the UAE

Instructions: Please tick or write where applicable

Section A: Personal Details

1. Gender

Male	
Female	

2. Kindly indicate your job position

Human resource manager	
Engineer	
Top official	
Project manager	
Junior employee	Not eligible for the study

3. Experience years in the construction industry

Experience years	**Tick only once**
0-5	
6-10	
11-15	
Above 16	

2. Education Level

Education Level	**Tick only once**
Diploma	
Undergraduate degree	
Post graduate degree	
Other (please specify)	

4. Please indicate your age bracket

age bracket	Tick here

20-29 years	
30-39 years	
40-49 years	
50-59 years	
60 years old and above	

Section B: LEADERSHIP TRAITS

Instructions: please tick in the box coinciding to your level of agreement to the following statements

1. Please answer the following to the best of your knowledge

Distal attributes

Cognitive abilities

	Strongly Disagree	Agree	Neutral	Disagree	Strongly Disagree
I am aware of many things out of my specialization (general intelligence)					
I have ability to process several problems at ago (Cognitive complexity)					
I improvise to come up with solutions (Creativity)					

Personality

	Strongly Disagree	Agree	Neutral	Disagree	Strongly Disagree
I adapt to various working contexts (Adaptability)					
I am talkative and get along with my team members (Extroversion)					
I am confident and constantly take risks (Risk propensity)					
I am always open to my team members (Openness)					

Motives and values

	Strongly Disagree	Agree	Neutral	Disagree	Strongly Disagree
I make social interactions to foster productivity					
I am always goal oriented (Need for achievement)					
I always lead my team members					

Proximal attribute

Social appraisal skills

	Strongly Disagree	Agree	Neutral	Disagree	Strongly Disagree
I am aware and consider the Social and emotional requirements of am team members					
I use persuasion to attain success					
I am capable to negotiate with my team members effectively					

Problem solving skills

	Strongly Disagree	Agree	Neutral	Disagree	Strongly Disagree
I am always aware of my actions and performance (Metacognition)					
I have good skills and capable of solution generation					
I am capable to control and manage my skills					

Expertise/tacit knowledge

	Strongly Disagree	Agree	Neutral	Disagree	Strongly Disagree
I adopt strategies to learn and solve problems (Metacognitive skills)					
I have good skills in solving several problems at a go					

Section C: PROJECT SUCCESS

Process success

	Strongly Disagree	Agree	Neutral	Disagree	Strongly Disagree
There has been agility in the projects I have handled					
There has been productive interactions					

There has been collaboration with the customers' needs and rigid planning					

Project management success

	Strongly Disagree	Agree	Neutral	Disagree	Strongly Disagree
There has been project efficiency in the projects I have undertaken					
the projects I have undertaken have been completed within the right time frame					
budget cost have been within the optimal margins in my projects					

Deliverable success

	Strongly Disagree	Agree	Neutral	Disagree	Strongly Disagree
Quality metrics are always reached in the projects I undertook					
I have been able to satisfy stakeholders by delivering					
I have been capable of delivering the project as per the requirements as well as the specifications					

Business success and Strategic success

	Strongly Disagree	Agree	Neutral	Disagree	Strongly Disagree
I have been able to mitigate all the risks in my projects operation					
I have been able to lead to substantial returns from the project					
The external stakeholder have always found value in the built environment					

Section D: CHALLENGES

Organisational factors

	Strongly Disagree	Agree	Neutral	Disagree	Strongly Disagree
There has been delays in design approvals					
There has been lack of dedication (incentivisation) among the stakeholders					
There has been change of specifications after tender award					
There has been lack of proper internal control systems					
There has been late decision making					
There has been political stability during the project progress					

Technical Factor

	Strongly Disagree	Agree	Neutral	Disagree	Strongly Disagree
There has been lack of ICT (information and communication technology) and project management tools					
There has been lack of management expertise					
There has been lack of clear material needs specification					
There has been ICT (information and communication technology) development and changes during project course					
There has been lack of the required human resource skills to execute a project					
There has been poor or else inaccurate project plans					

Section E: Cost Overrun

Kindly rate the level to which you have ever experienced the following while managing construction projects

Administration errors

	Strongly Disagree	Agree	Neutral	Disagree	Strongly Disagree

delays due to poor management					
lack communication between the stakeholders pertaining to change of the project scope					
Failure to keep up with project progress by project managers					

Extra compensations

	Strongly Disagree	Agree	Neutral	Disagree	Strongly Disagree
Extra compensations to the workforce due to delay					
Additional office operational costs due to delay (Overhead costs)					

Inaccurate estimations

	Strongly Disagree	Agree	Neutral	Disagree	Strongly Disagree
Faulty schedules					
Faulty budgets					
Workforce absenteeism					

Thank You for Responding to the Survey!