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LEADERSHIP TRAITS OF CONSTRUCTION PROJECT MANAGERS' AND THEIR IMPACT ON PROJECT OUTCOME

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ABSTRACT

Project management, in recognising that leadership can contribute to successful project outcome has stopped short of specifically identifying leadership traits as a significant contributor to project success. This study assessed the leadership traits of construction project managers and its impact on project delivery. The objectives were to determine project team members' perception of the relative importance of selected leadership traitsto construction project management; andto evaluate the level of effort of identified leadership traits in enhancingplanning works, controlling tasks and allocating resources as correlates of project outcome*. It involved questionnaire survey administered to 105 project team members selected from five locations in Akwa Ibom State, Nigeria. Surveyed data was analysed using the mean item score and percentageswhile hypothesis testinginvolvedchi square. The result of the study reveals the need to improve project leadership and that the improvement will ensure successful project outcome.The study also identified effective communication, accessibility, intelligence and competence among others as the relevant leadership traits. The challenge however is how to blend different traits in delivering a project. Construction project managers are enjoin to always attempt to changeintuitively between the various leadership traits, as the work and people changes.*

KEY WORDS: leadership, leadership traits, impacts, construction project managers and project outcome.

1. INTRODUCTION

Construction industry leadership is one of the most important research area receiving relatively little attention [5] and mainly in developing countries. The lack of focus on leadership is not only the case in practice; academic research also seems to have done little in this area [27]. The dearth of the research gap is well articulated in [29] review of research works on the construct-leadership. Out of the thirty-nine (39) empirical research works reviewed in the study, only two [28] and [27] were conducted in Nigeria. This can be attributed to the lack of knowledge of the industry on the part of social scientists and the lack of understanding of social sciences by those in the construction industry [21].Yet, leadership research has been predominantly conducted in management or business schools and less in construction. Researches in construction in this area tend to stress the importance of leadership in managing construction projects and prescribe a set of characteristics and skills necessary for the project manager's effectiveness in leadership (example [27]&[50]). There are also very few studies conducted specifically to investigate the managerial styles of construction project managers and their impacts on project performance (e.g. [27] and [48].

Despite the recent emphasis on leadership and advances in project management methodologies, the numbers of project that fail to achieve successful outcome are still alarmingly high [24] and [38] and are in the range of 66% and 90% [40]. [51] found that positive leadership contributed almost 76% to the success of projects while negative or poor leadership contributed 67% to the failure of projects [17]. Many projects continue to fail despite the use of established project methods and techniques as the leadership competency required for successful project outcomes have been found lacking [14]. Yet existing researches have stopped short of identifying leadership traits as factor that can affect or influence project outcomes. This study therefore seeks to examine leadership traits of a construction project managers and their impact on project delivery. To achieve this aim, the study set out to determine the relative importance of existing leadership traits in construction project delivery; and to evaluate the influence of the leadership traits on project outcome.

To evaluate systemfor improving project leadership and the overall project management, this study assessed the impact of leadership traits on project outcome. The objective is to measure the level of effort of identified leadership traits in planning works, controlling tasks and allocating resources as correlates of project outcome. The need to evaluate these linkages and their subsequent attainment will benefit project management in a number of ways. First, it will improve project manager's leadership traits as systemic input to ensuring project leadership performance. Second, it will enhance stakeholders' assessment of project leadership ability to deliver on project objectives and the overall improvement of project outcome. Third, it will improve project management practice and provide criteria for measuring project management effectiveness.

1.1 Leadership

[13] Emphasised leadership is back in custom. It was never truly disappeared from the front line of management [43].[1]Noted that leadership research now-a-days is seen as a more confident, self-assured and fertile field than in the days when [24] made pronouncements about abandoning the concept of leadership, at least temporarily. [43] attributes this improved state of affairs, to the following factors: greater

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diversity in the types of leadership and organisational context; improved measurement and analytic techniques; and greater use of meta-analysis so that more systematic reviews of evidence could be complied.

The concept of leadership has been variously defined. [43] defined a leader as individual who have a clear idea of what he want to do personally and professionally and the strength to persist in the face of setbacks and failures. Leadership istherefore the process whereby an individual support other group members in learning processes needed to attain group or organisational goals [41].[18]view leadership as the ability to influence the behaviour of others to accord with the desires of the leader as distinct from headship which involve the imposition of such behavioural modification. Contextually, given the multiple view held on the subject; it is simply the ability of a competent individual to assemble, impact and nurture a team towards a common purpose, while empowering and inspiring people in order to achieve the project objectives.

According to [8], a bad leader provides poor leadership which may be worse than lack of leadership. A construction leader's job is to identify the drivers of performance and follow through the flow of activities at the process level. A leader learns from what has happened and predict what will happen at the task level therefore, leaders are the raw material of business excellence as well as organisational failure [8]. [32] Stressed that leadership is key to the success of any plan that attempts to change the way an organisation does business. Without the support, participation and leadership at all the level, any programme is destined to become just another fury. Hence, a leader mobilizes; define, coordinate, direct, maintain cohesiveness, maintain group norms, provide symbol for identification and commitment and represent the project team to others [22]Despite the relevance of leadership to successful project outcome, it is not the property of an individual but a complex relationship depending on four variables: the characteristics of the leaders; the needs and characteristics of the follower; the nature of the organisation; and the nature of the environment. The present study therefore considers an aspect of these variable 'characteristics of the leader' that is leadership traits.

1.2 Leadership Traits

The trait school of leadership theory was wildly popular in 1940s. The trait school asserts that effective leaders share common traits. They suggest good leaders display certain traits which they are born with, not made. Attempts to identify the traits of effective leaders have focused on three main areas: Abilities - hard management skills, Personality - such as self-confidence and emotional variables, and Physical Appearance - including size and appearance. Effective leadership is not simply based upon a set of behaviours (styles) but a wide range of factors that constitute the leader's competence. Central amongst these variables is the personal characteristics (traits). Traits are external behaviours that emerge from things going on within the leader's mind and it is these internal belief and processes that are important for effective leadership [26] Trait is an important component of the competence thought in leadership that does a better job at predicting that a construction project manager may be an effective leader than actually distinguishing between an effective or ineffective leader [36]

From the pioneer study carried out by [41] to most recent research work by [2],[36] and [50] numerous traits are considered relevant in the global project purview. This diverse orientations point to the basic fact that, construction project manager should exhibits traits that will promote the overall project success. Widely held views in the literature are corroborated in Table 1.

1.3 Successful Project Outcome

Project outcome describe the assessment of project success. Different parties to a construction project have individual perception about project success [21]. It therefore placed imperative on the need for stakeholders to jointly develop and agree benchmarks for measuring project success at the early stages [15]. Project success means a thought out appraisal of the extent in which project objectives and desires are realised [21].[4] identified subjective and objective views to measuring project success. While objectives views are measured in quantitative terms using mathematical models [20], subjective view is centred on the perception and judgments of participants in the project and it remains the industry most widely adopted parameter [23]. Project success can be measured on the "golden triangle" of cost, time and quality [25]. Others include end users satisfaction, fitness of purpose, and level of innovation.

Table 1: Matrix of Relevant Leadership Traits to Construction Project Management

Leadership Traits	A	B	C	D	E	F	G	H	I
Drive and ambition		✓	✓	✓					
Intelligence		✓							
Honesty and integrity	✓	✓					✓	✓	
Self –confidence	✓	✓	✓						
Independence					✓				
Originality and creativity	✓		✓	✓	✓				
Adaptability	✓						✓		
Adjustment	✓								
Dominance	✓				✓				
Emotional balance and control	✓				✓				
Assertiveness	✓								
Problem solving ability			✓			✓			
Result oriented			✓						

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Communicative	✓		✓	✓		
Negotiating ability	✓					
Passion						
Trust		✓				
Enthusiastic		✓		✓		
Persuasive		✓				
Expertise		✓				
Organised		✓				
Flexible		✓	✓	✓		
Inspire shared vision			✓			
Ability to Delegate task				✓		
Competence					✓	
Team- building skills						
Empathy			✓			
Ability to cool under pressure			✓			
Resourcefulness				✓		
Trust				✓		✓
Effective time management				✓		
A collaborative management style				✓		
Receptive to change				✓		
Powerful motivator				✓		
Forward looking					✓	
Intelligent					✓	✓
Inspiring					✓	
Good public speaker						✓
Dependable and consistent						✓
Broad vision						✓
Sociable						✓
Self confidence						✓
Persistence and determination						

(A) Stodgill (1974) (B) Kirk-Patrick & Locke (1991) (C) Turner (1999) (D) Tiwana & Campbell (2000) (E) Odusami *et al.,* (2003) (F) Barry (2011) (G) Mosaic White Paper (2011) (H) Shead (2011) (I) Zepp (2011).

[45] Identified three distinct aspects of the project outcome; the implementation process itself (internal criteria such budget, schedule), the perceived value of the project, and client satisfaction with the delivered project. Traditional success criteria for construction project centre on the achievement of cost, programme (time) and quality target. [7] Consider these simple measures too crude for measuring construction project manager's performance in the context of today's construction project environment, as many variables outside the managers are now broader than in the past. They placed imperative on the need for the industry to define more appropriate performance criteria for measuring project manager's performance and encouraging their professional development. There is also the need to redefine traditional success parameters to consider the knowledge, skills and behavioural inputs which contribute to superior performance.

In project management studies, successful project is measured by the project manager's ability to deliver a performing project in time and quality while efficiently utilizing allocated resources for the project [3]. [35] Suggests criteria which also lean towards time, budget and specification and [31] advocated the need for a project to meet stakeholder expectations. The traditional success indicators in projects: cost; schedule and quality are measurable elements predicated on the characteristics of the management, procurement and the delivery approach. However, failure in realising this measurable project 'hardware' often originates from inappropriate management of communication, staffing, quality and risks [10]. These parameters excluding risk are behavioural elements that necessitate dynamic leadership traits in order to achieve desired project outcomes [45]. Studies on successful project outcome therefore identify the capability to engage people and communicate effectively as success factors [42].

It is therefore incumbent on the project manager to exhibit leadership traits requisite to successful implementation of projects amidst guiding the project team through the different phases in its lifecycle [11]. Such capabilities is said to be critical to the success of the project [14]. But the general observation both in practice and the academic is that traditional practice predominate practices across developing countries [33] and [27]. The result is exhibition of technical mentality with very limited consideration of leadership ambient. With this practice in view and with the lack of proper leadership traits, [34] acknowledged project environment is characterised by poor interpersonal relations, unnecessary control, destructive conflict and excessive bureaucracy with resultant outcome in non-successful projects. The ability to ascertain definite relationship between leadership traits and project outcome portend increase capability in leadership that can enhance increase success.

Various factors affect the success of construction projects. [4] Identified human, project, project procedure, project management related and external environment. Leadership plays central role in

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coordinating all frontiers identified in Chan's study. The project manager saddled with leadership role in projects must exhibits arrays of traits to deliver successfully [49]. Evidence abound in project management literatures which suggests project fails most time not on technical merit only but on issues relating to personnel management [37]; [42]. Despite this result, professionals continually emphasises technical issues in detail ignoring leadership context [39]. [9] Insists the project manager role requires less of technical expertise and advocated both the broad understanding of functional roles and cross-functional experience. Such expertise brings to the forefront what traits a project manager requires and imposes their ability to coordinate project teams critical to successful project outcomes [39]. While this far reaching discovery is essential, no singular dimension is sufficient to deliver a successful project. Both technical and expertise behaviours that enhances cross-functional teamwork are necessary in contemporary project environment.

From the foregoing review, there is dearth of literature gap in the research environment on the relationship between leadership traits and construction project outcomes. The present study therefore seeks to fill this gap by examining which leadership trait is important to construction project delivery; and the extent in which these traits influences project outcome. In evaluating the existence or the lack of relationship, a hypothesis involving twelve leadership traits generated from emotional, managerial competencies individually and collectively from the literature and practice were tested against three aspects of project management competencies relating to cost and time indicators of project success. The project management skills are: planning work; controlling tasks; and allocating resources. The rational is based on the need to evaluate leadership traits of the project managers' as a behavioural inputs in delivering on cost and time. Before now, literature on project outcome or performance has largely ignored the impact of the project manager [48], and his or her leadership competence on project success. [17] Attributes thisoutcome to most studies asking project managers their opinion and the respondents have not been given due consideration to their own impact on project success. This study argues the suggested research approach and its data will be subject to self-reporting bias. A common parlance says 'an individual cannot be an arbiter of himself'. Rather, seeking the perceptions of people affected by the project manager's decision will provide a more appropriate measure of accuracy. The present study therefore seeks team members' perception of the project manager leadership traits and their impact on project outcome. The importance of determining perceptions is predicated on its ability to influence decision, market behaviour and product outcome [6].

2. RESEARCH METHODOLOGY

The study is both descriptive and inferential researchinvolving questionnaire survey. The core construction industry practitioners (architects, builders, engineers and quantity surveyors and others) who practice as project managers and other stakeholders in various project organisations were targeted in the study. Owing to the large size of the population, it is impracticable to investigate all its members. Two sampling techniques stratified random and the purposive samplings were used. The stratified random sampling was used to sample professionals with practice inscription 'A & B partnership, builders & project managers. Lists of registered professional practice were obtained from the respective professional bodies. 105 professionals are listed with the respective professional bodiesin the study area but 28 do not practice with the inscription and they were not considered for the study. Again, due to the absence of a list of contractors currently executing projects in the areas at the time of study, the size of the population in the contracting sector could not be obtained due to varying degree of client, sponsors and financiers. Thus, purposive sampling technique was employed in the selection of 28 firms. A total of 105 sample respondents were randomly sampled.

The study was conducted in Akwa Ibom State, Nigeria. The State is situated in the Niger Delta region of Nigeria and has a population of about four million people [26] and a land mass of about 304.769 square kilometres. The study was conducted in five locations namely: Uyo the state capital; Eket; Oron; Abak; and Ikot Ekpene. These are the areas where projects with the required features are located. The state was selected for the study due to massive on-going infrastructure development requiring cutting edge management practice.

The questionnaire consists of two parts A and B. Part A elicited information on the study participants', project characteristics and comprised of multiple choice close ended questions relating to academic and professional qualifications, years of experience and their professions. Part B collected data on the specific objectives of the study that is, relevant leadership traits to construction project management, and the evaluation of influence of leadership traits on project outcome. Fourteen leadership traits generated individually and collectively from the literature and practice were presented for the survey. Piloting involving 24 participants was presented with 42 leadership traits (Table 1) to ascertain their relative importance to construction project management. A 5-points Likert scale (where 5=strongly agree to 1=slightly disagree) was used to rank the preponderance of leadership traits and fourteen were validated relevantby the pilot study. Three project management core skills were used in evaluating the performance of projects studied. The measurement criteria are ability to enhance level of effort planning work; controlling tasks; and allocating resources. Because no previous study had aggregated these traits and performance measurement criteria for a study, it became pertinent to carry out reliability and validity test.Reliability measures the stability in instrument while validity measure the extent in which instrument capture the hemisphere of the subject matter. Respondents' perceptions were collected using a 5-point Likert scale and Alpha Cronbach was calculated. Alpha-Cronbach is valid at 0.7 and above and where the number of items in the scale is less than 10, it tends to yield low value. Correction using inter-item correlation

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was applied. The applied correction yielded a high Cronbach's value of .85. Data for the study were processed and analysed with the aid of Statistical Packages for Social Science (SPSS). The mean item score and percentages were used in analysing collected data and the test of hypothesis involvedChi square.

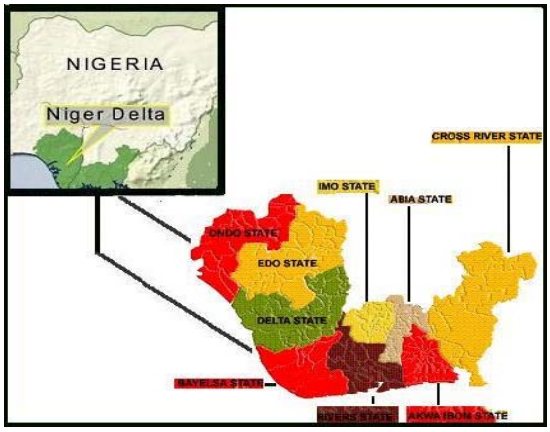


Figure 1: Location of Akwa Ibom in the Niger Delta, Nigeria (AKSGonline, 2012)

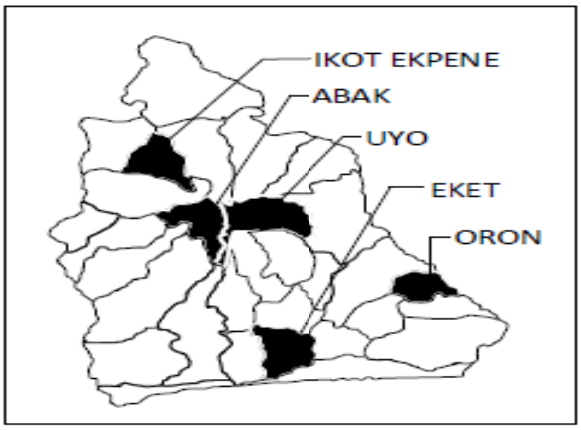


Figure 2: Akwa Ibom Showing Study Location (Ulaeto *et al.,* 2012)

2.1 Hypothesis of the Study

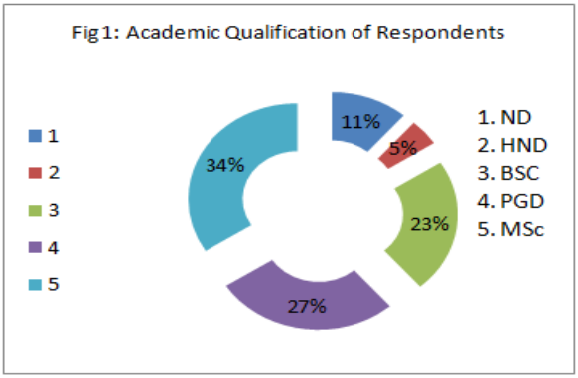
The study evaluates the leadership traits of the project managers as behavioural inputs to delivering on cost and time objectives and minimising overruns. In order to evaluate the level of impact between leadership traits and project outcome, a hypothesis was formulated. The hypothesis states that there is no significant relationship between construction project managers' leadership traits and project outcome.The hypothesis seeks to measure the degree of interdependence between leadership traits and project outcome. Project outcome was measured by the level of effort in planning works, controlling tasks and allocating resources. Ability to plan, control and effectively allocates available resources are some of the success factors and measurement criteria for evaluating project managers performance. The traditional definition of project management itself incorporates these success criteria. The outcome of the hypothesis testing is to determine the effectiveness of leadership traits in promoting successful project outcome. Acceptance is at value $p>0.05$ while rejection is valid at $p<0.05$. The result when accepted shall indicate insignificant interdependence between leadership trait and project outcome, and where it is rejected; it shall imply a significant interdependence between leadership traitsand project outcomes. By rejecting the formulated hypothesis, an alternate hypothesis shall be accepted.

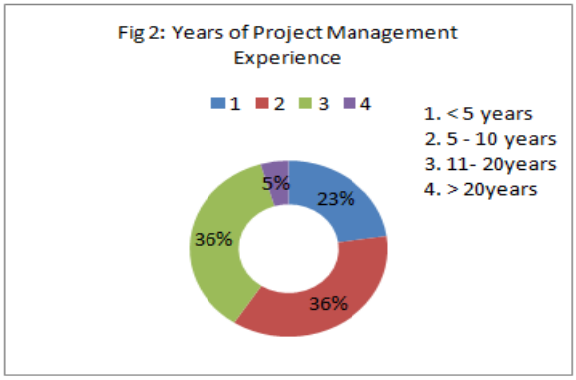
3. RESULTS

Out of 105 questionnaires administered; 22 were administered to the Clients, 28 to the Contractors and 45 to the Consultants. 63.8% of the questionnaires were returned and 41.9% were fit for analysis. The study therefore record a response rate of 41.9% and this of course is considered adequate in construction management research (Ojo, 2004).

3.1 Descriptive Statistics of Respondents

The study sought to stratify the different professions of the respondents in order to determine their suitability for construction management practice in view of the broad scope of project management that encompasses non-core construction professionals. The result of the finding (Fig 4) revealed 57% of the population are Architects, Quantity surveyors 13%, Engineers 23% and Builders 7% respectively. The dominance of the Architecture profession in the population is not unexpected as it account for the prevalence of the traditional project management practice mainly promoted by Architects. Figure 1 shows data relating to the respondents academic qualifications. 61.4% of the sample bagged post graduate degree in project management with 34% being Master of Science degree and 27% Post Graduate Diploma. 23% had first degree, 5% had Higher National diploma and Ordinary National Diploma 11%.





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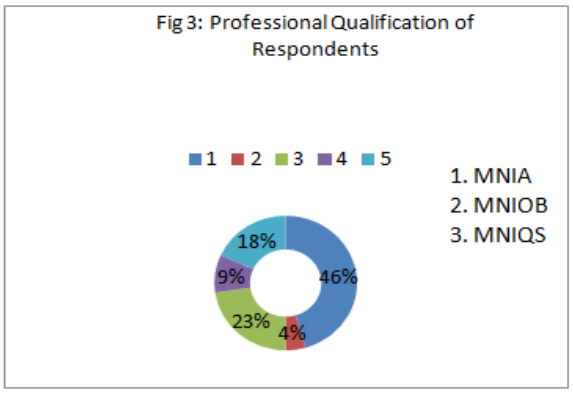
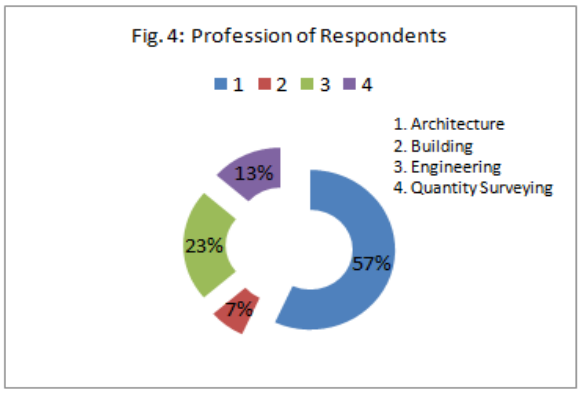
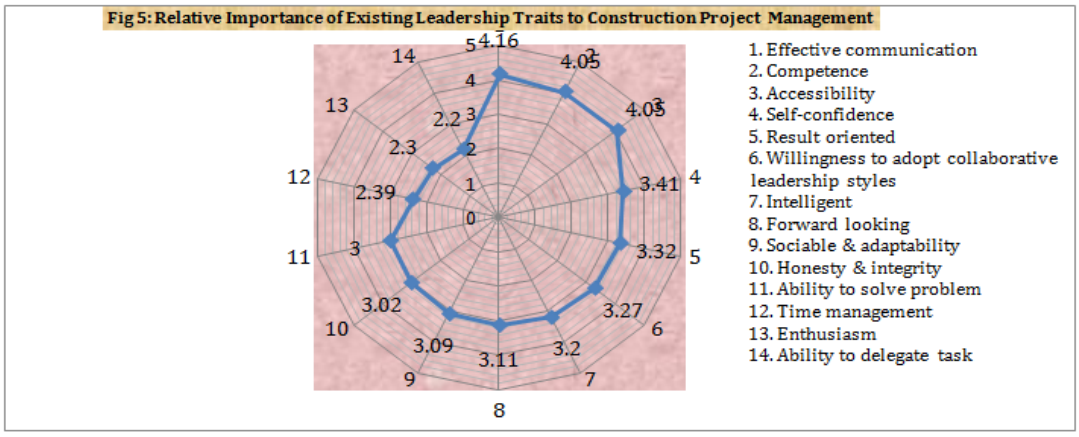




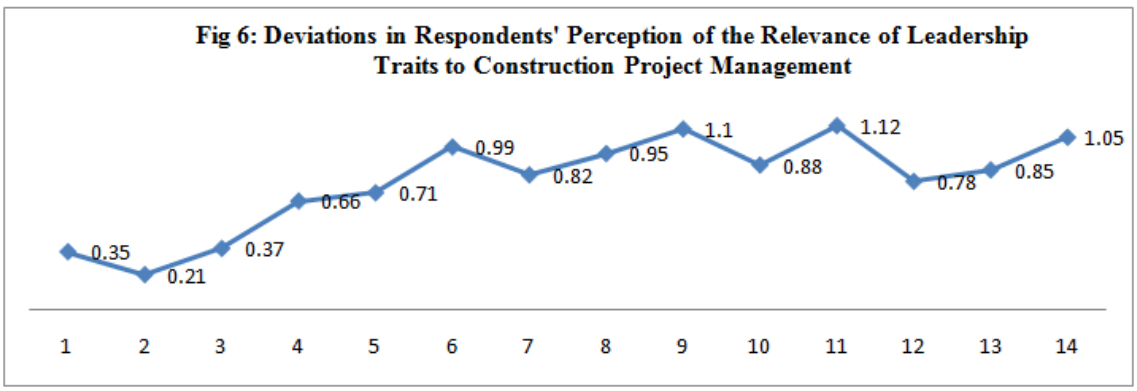
The proportions with Diploma are support staff of the project organisations studied. Figure 3 indicates 81.8% of the populations are registered members of the respective professional bodies (Architecture, Building, Engineering, and Quantity Surveying) institutions while 18.2% are either probationers or graduate members. On the years of project management experience with the respective project organisation, 23% have below 5 years while 77% are above 5 years. This is quite significant to validate the consistency of study data.

3.2 The Relative Importance of Existing Leadership Traits to Construction Project Management

Figure 5 dilates around 4.00 and contract towards 3.00 and weaned towards 2.00. There are therefore three bands of leadership traits studied. The analysis of the survey's ranking opinion produced mean scores between 2.2 to 4.02. The very important traits have mean score ranging from 3.51 to 4.5; and traits in this band are: effective communication; competence; and accessibility. The important traits' mean is between 2.51 to 3.50 and there are eight traits in this band. They include self-confidence, result oriented, willingness to adopt collaborative leadership styles, intelligent, forward looking, sociable and adaptability, honesty and integrity; and ability to solve problems.



The last band of traits is'not very important' traits with mean below 2.5. This includes time management, enthusiasm and ability to delegate. Reason advanced for insignificant ranking of the time management and the ability to delegate are that although not apparent from the survey, but can be attributed to construction projects being characteristically time bound programmed within agreed duration subject to unforeseen. It is a duty in contract to manage allocated time efficiently as an indicator of successful outcome. Similarly, it is also argued that, since construction projects require group effort and team work, roles are well defined in the team even in the fragmented traditional approach; rather than seek to evaluate the projects manager's ability to delegate, attention should focus on the ability to coordinate. However, the opinions of the respondents are heterogeneous and do not vary significantly one from another (Fig 6).



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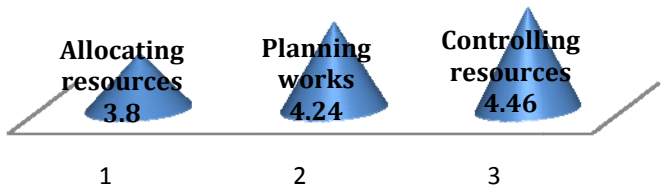
3.3 The Impact of Leadership Traits on Project Outcome

Respondents' assessment of the selected leadership traits' impact on project outcome (level of effort in planning works, controlling tasks and allocating resources) is presented in Fig 7. The three parameters used in assessing leadership impact on project outcome received significantly high rating. The mean item scores range between 3.8 and 4.46. Leadership traits therefore highly influence level of effort in planning works, controlling tasks and allocating resources in projects studied.

Fig 7: Respondent Assessment of Leadership Traits on Project Outcome



The study evaluates the leadership traits of the project managers' as behavioural inputs in delivering on cost and time objectives and by minimising overruns. The impact was hypothesised between 14 leadership traits and project outcome measurement criteria (level of effort in planning works, controlling tasks and allocating resources). The result was to reveal the efficacy of leadership traits in promoting team spirit and stimulating team performance as determinant of success.

3.4 Hypothesis Testing

The test of hypothesis involved an analysis of interdependence using chi-square. The test was conducted to evaluate respondents' ranked opinion on the impact leadership traits on project outcome (level of effort in planning works, controlling tasks and allocating resources). The outcome was to reveal the effectiveness of leadership traits in promoting level of effort in planning works, controlling tasks and allocating resources as determinant of success. The result indicates an insignificant interdependence between leadership traits and project outcome. The p-values (Table 2) are greater than critical p-value ($p>0.005$). The hypothesis is consequently rejected and alternate hypothesis, that is, there is significant relationship between leadership traits and project outcome (level of effort in planning works, controlling tasks and allocating resources) is accepted.

As evidence in Table 2, all leadership traits strongly influence project delivery in enhancing 'planning works', controlling tasks and allocating resources except enthusiasm and time management. Respondents agrees just being enthusiastic cannot translate into tangible project results but only help to communicate the overall project team spirit and leadership style.

Table 2: Influence of Project Managers' Leadership Traits on Project Outcome

Leadership Traits	N	α^2	df	P-value	Decision
Effective communication * PW*CT*AR	44	111.4	12	0.06	Accept
Competence * PW*CT*AR	44	58.83	12	0.12	Accept
Accessibility * PW*CT*AR	44	1.79	4	0.08	Accept
Self-confidence * PW*CT*AR	44	40.24	12	0.71	Accept
Result oriented * PW*CT*AR	44	10.83	8	0.43	Accept
Willingness to adopt collaborative leadership styles * PW*CT*AR	44	14.74	12	4.40	Accept
Intelligent * PW*CT*AR					
Forward looking * PW*CT*AR	44	9.85	12	0.21	Accept
Sociable and adaptability * PW*CT*AR	44	28.31	12	5.37	Accept
Honesty and integrity * PW*CT*AR	44	54.57	12	2.09	Accept
Ability to solve problems * PW*CT*AR	44	57.17	9	0.42	Accept
Effective time management* PW*CT*AR	44	108.5	9	1.73	Accept
Enthusiasm* PW*CT*AR	44	1.35	6	0.04	Reject
Ability to delegate task* PW*CT*AR	44	36.37	9	0.01	Reject

N=Number of respondents; df = degree of freedom; α^2 = chi square value, PW = planning work; CT = controlling task; and AR = allocating resources

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4. DISCUSSION OF RESULTS

Most leadership traits in the general project management field are relevant to successful construction project delivery. This is the result of the study's finding on the preponderance of the various leadership traits in the management of construction projects. Eleven (78.6%) of these traits were either agreed to or strongly agreed to as being significantly relevant to the management of construction projects. Communication is the most important trait a construction project leader must possessed for a successful project outcome. Communication is central among all leadership traits. This result of the finding is consistent with many researches in project management leadership. The first and most conventional study on project leadership traits [47] identified communication as one of the eight cardinal traits of the project manager; [25] emphasized communication among the ten qualities of a project manager.

The opinion of the respondents deviates significantly on which leadership traits is suitable for successful construction project outcome (Fig 6). The study revealed a mean standard deviation of about 0.88 in the respondents' opinion. Project managers interviewed attribute the trend to varying opinion on the part of the participants regarding which leadership trait is suitable for a particular project circumstance. This is consistent with the finding of [21]. They found that all relevant leadership traits for successful project outcome cannot be found in a single project manager. They therefore suggest the need to switch gears from one leadership trait to another to suit the stage a project is actually in.

The construction project manager's leadership traits strongly influence project outcomes by promoting project management capabilities that is PW, CT and AR (Table 2). The result of the chi square test on fourteen leadership traits and these variables strongly indicates that project managers who practice and exhibits these leadership traits would certainly minimised overrun in project delivery. The finding strongly corroborates the earlier findings in [17] and [7]. [17] Studied relevant attributes to effectiveness project management with respect to leadership behaviour while [7] redefine traditional success criteria as a correlate of superior project performance and outcome. Communication, honesty and integrity, team building, self-efficacy and competence are the leadership input a project manager must exhibit for a superior outcome [7].[17] opined effective project management requires open communication; collaborative working, delegating authority, ability to solve problem and conflict resolution among others. Similarly, [16] based on evidence from the Indian construction projects recognised leadership attributes as a critical success factor that influence cost performance.

5. CONCLUSION

It is accepted among academicians and practitioners of project management that there is a need for effective leadership in the management of projects. Despite some study in the area of project management leadership, the extent to which leadership traits influence project outcome is not clear, nor is the relevant leadership traits apparent. To bridge this gap, the study used a descriptive-inferential research method to determine whether a relationship exist between successful project outcome and construction project manager's leadership traits. 42 leadership traits drawn from emotional, managerial competencies in literature and practice were tested for preponderance. Fourteen are relevant to construction management, and supported hypothesis test. The hypothesis determined the relationship between leadership traits and project outcome. Three element of project management effectiveness were tested against leadership traits. The relevant leadership traits based on the study include effective communication; competence, accessibility, self-confidence; result oriented, willingness to adopt collaborative leadership styles, intelligent, forward looking, sociable and adaptability, honesty & integrity and problem solving ability. It is therefore inferred that, leaders who practice or exhibit these traits would be more effective in achieving positive results in each of the factors that measures successful project outcomes. However, no single leadership trait is suitable in all project circumstance, thus the need for flexibility. Construction project managers should always attempt to shiftintuitively between the various leadership traits, according to the people they lead and the work that needs to be done.

The present study reveals relevant leadership traits to construction management project which can be used as a yardstick for evaluating whether a project manager will deliver on project objectives or not. The study was carried out in Nigeria; to enhance generalization of the study's finding further studies may be necessary in other states of the federation.

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