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#### INFLUENCE OF LEADERSHIP COMPETENCY ON COMPLETION OF ROAD CONSTRUCTION PROJECTS IN NASARAWA STATE, NIGERIA

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#### Abstract

**Purpose:** The study assessed the influence of leadership competency on completion of road construction projects in Nasarawa State, Nigeria. The study sought to finding out the influence of adequate knowledge and completion of road construction projects in Nasarawa State, Nigeria. The study was seeking to find out the influence of leadership skills on completion of road construction projects in Nasarawa State, Nigeria.

**Methodology:** The collection of primary data was from direct responses from Nasarawa State government top management through the use of structured questionnaire. The collected data was analyzed through Statistical Package for Social Sciences version 22. Descriptive and inferential statistics were used in analyzing data where multiple regression analysis was used to examine the influence of independent variables on the dependent variable.

**Results:** The study found out that indeed leadership competencies have a statistical significant influence on completion of road construction projects since the P value was 0.000 which is positive of significant rate of respondents.

Key Words: Adequate Knowledge, Leadership Skills, Personality Traits, Managers' Experience and Completion of Road Construction Projects

#### **1.0 INTRODUCTION**

Project leadership competencies have direct influence on the success criteria for sustainable building. Roufechaei, K.M., Tabassi, A.A., Ramli, M., Bakar, A.H.A., Ismail, R., A and Pakir, H.K (2016) asserted that leaders of projects have the most significant role to play. Task oriented competencies in managing project directors have a positive significant effect on project performance in public sector projects ( Ahmed & Anantatmula, 2017). Starting from the senior management perspective, project managers must possess leadership competencies toward ensuring project (Ahadzie , Proverbs, & Sarkodie-Poku, 2014). Project success measures have a direct correlation with leadership competencies. Particularly project leadership competencies in resource management and project manager's strategic perspective correlate with majority of success measures in projects. Personal attitudes correlates directly with project success (namely customer and end-user satisfaction (Müller & Turner, , 2010). Leadership style and organization culture significantly moderate information technology adoption and knowledge sharing intention (Tseng & Guo, 2017). Project managers' leadership style can affect project success factor. Transformational leadership components have a strong correlation with the satisfaction by



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subordinates about the leader (Shibru, 2011). The responsibility of goals achievement and the team performance is under project leaders. However project managers that have good, high skills, can alter and modify their approaches to overcome setbacks and guarantee blossoming (Suresh, Bashir, & Olomolaiye, , 2011). In order to achieve successful projects the characters of a person and how a leader manages attitudes are highly critical (Blaskovics , 2016). Majority of projects that are successful, the leaders possess mutual core traits like: being an extrovert, sensible, a judge and has behaviors that are structured (Montequina, Nieto, Ortegaa, & Villanueva, 2015). The effectiveness of project team is influenced by the manager's management roles since it's the most important influencing criteria (Fung, 2014).Effective knowledge sharing depends on knowledge leaders to develop a shared vision and promote a trustworthy and collaborative environment(Zhang & Cheng , 2015). A strong positive relationship exists between roles and knowledge management processes. Manager can exhibit knowledge administration practices. Project managers plays a critical role by knowledge facilitation, encouraging knowledge sharing within the organizations (Shokrzadesh, Sabbaghian , Pardakhtchi , & Abolghasemi , 2012).

#### **1.1 Statement of the Problem**

A lot of projects are getting delay because of improper planning and many other management related problems in Nigeria. Ejaz, Ali and Tahir (2013) and also lack of competencies hindered development of mega projects in Nigeria (Othman, 2013). Absence of appropriate HR, lack of foresight and management abilities has prompted time and cost invades of projects in Nigeria ( Ahmed & Anantatmula, 2017; Pasha, Bilal, Oyedele, & Qadir, 2016). The higher challenges related to construction projects in Nigeria demand application of latest project management philosophy, tools and techniques to manage performance (Nawaz, Shareef, & Ikram, 2013).Uses of institutionalized and globally perceived project management techniques can contribute in fruitful conveyance of project targets( Ali & Wen, 2011). Appointment of competent and qualified Project management / project director can improve project performance in public sector development projects in Nigeria (Pasha, Bilal, Oyedele, & Qadir, 2016). Different development projects started in public sector of Nigeria faced many problems of execution, governance and capacity of project management which restricted the successful accomplishment of projects (Pasha, Bilal, Oyedele, & Qadir, 2016). Other possible issues were found to be unclear goals, poor scope definition, and nonexistent mechanism of governance. Public sector projects in developing countries have to deal with issues that are unique to the environment including large number of stakeholders, weak procurement systems, complex processes, shortage of skills & resources, and bureaucratic red tape (Ahsan & Gunawan, 2010).

Other environmental complexity factor that can affect project performance includes market conditions (competition in market, stability in pricing of raw material and exchange rate), stakeholder dependencies, and political influence. For example in Pakistan, during implementation of projects, political interference sometimes affects project performance. Political interference causes delay in decision making, time and cost overrun and create problems in hiring of project implementation staff. Being a developing country, Nigeria too is facing issues like lack of efficiency, poor planning, lack of sufficient human resource, and lack of management skills in the development infrastructure of country (Ahmed and Anantatmula, 2017), this has caused cost and time overruns in the projects of infrastructure development. Pakistan being a developing country faces deficiency of technical skills, managerial capabilities,



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high design knowledge, managerial abilities and competitive human resource. This deficiency causes obstruction of development in mega engineering. The requirement of the use of modern techniques and tools of project management is increasing day by day in developing countries due to the deficiency of resources but unluckily, the implementation of techniques and tools of project management is still in its initial stages (Kamaruzzaman & Ali, 2014). The current study seeks to determine the effects of leadership competency in successful completion road construction projects in Nasarawa State, Nigeria.

#### **1.2 Objectives of the Study**

- i. To determine the influence of adequate knowledge on completion of road construction projects in Nasarawa State, Nigeria.
- ii. To establish the influence of leadership skills on completion of road construction projects in Nasarawa State, Nigeria
- iii. To examine the influence of managers' experience on completion of road construction projects in Nasarawa State, Nigeria.
- iv. To find out the influence of leadership trait on completion of road construction projects in Nasarawa State, Nigeria.

#### 2.0 LITERATURE REVIEW

#### 2.1 Theoretical Review

#### **2.1.1** Contingency theory

Today's business environment is complex, requiring leaders to tackle complicated issues often in a short period of time. Contingency or adaptive leadership theories focus on the variables that can impact a manager's decision making style, and these theories are suitable for today's competitive business environment (Battilana & Casciaro, 2012). In the contingency model, managers select the leadership style that suits them best for specific circumstances ( Otley, 2016). Contingency theory of management effectiveness concentrated on the combination of the managers' tasks and motivation and the aspect of the specific situation (Fiedler, 1971).Fiedler's contingency theory assumes there is a correlation between a leaders' style and a group's performance in various situations (Fiedler, 1971). Higher education institutions are multifaceted and the structure and culture can impact the decision making beyond what could be addressed in a contingency theory. Decisions are typically slow to come to fruition and adapting a leadership style to various situations within a higher education institution could be seen as weak and ineffective (Busato, Prins, Elshout, & Hamaker, 1998).

#### 2.1.2 Situational Leadership theory

The situational management model is an extension of the contingency model suggesting there can never be an approach that is one-size fits all to leadership that will work in all situations within an organization (McCleskey, 2014). In the situational model, leaders must identify their most important tasks or priorities, assess the willingness of their employees to deliver the tasks, and decide which type of leadership style to apply (McCleskey, 2014).

Hersey and Blanchard (1993) suggested that one of four functions of leadership, which are directing, coaching, supporting, delegating, should work for most situations. The situational

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leadership model faces the same challenges as the contingency theories when trying to implement in higher education institution. Higher education institutions, especially for-profit institutions, rely primarily on enrollment for revenue (Deming, Nock, & Charlene, 2014). The main organizational objective is enrolment management based on strategic planning and institutional research which does not lend itself to situation type leadership (Hossler & Bean, 1990). This theory is linked to leadership skills because it has strategic planning of the manager.

#### 2.1.3 Transformational Leadership theory

Charismatic and transformational leaders rely on their personality to appeal to their followers ( McCleskey, 2014). This type of manager can inspire their employees to achieve their goals through their articulate speaking ability, active listening skills, and positive attitude (McCleskey, 2014). Weber (1947) introduced the charismatic leadership conceptual inside theories of authority domination in The 1940s. Religious and political leaders such as Mahatma Gandhi and Barack Obama are often touted as charismatic leaders due to their exceptional speaking ability and skill at motivating those who are listening to them (Grant, 2012; Vernon, 2015), or this type of leadership style to work in a higher education institution, the leader would need to appeal to the values and beliefs of their followers, and connect with them on a personal level. In a hierarchal system such as a college or university, those in power positions such as president, provost, and chancellors often do not have much contact with those implementing the policies, who are faculty and staff, minimizing their ability to use this type of leadership style effectively ( Deming, Nock, & Charlene, 2014). Some of the online, for profit colleges and universities have utilized this type of leader to help counteract some of the negative press surrounding these colleges (Deming, Nock, & Charlene, 2014). The issue is how to translate motivational speeches to implementation at the rank and file level. The overzealous charismatic leader may lead to sexual harassment or other issues being perceived by the employees (Bailey & Cunningham, 2016). In addition, when the focus is on enrollment and revenue, the charismatic leader still has to find a way to sustain the motivation the employees may have after listening to a riveting speech into converting more student inquiries to actual college enrollment (Deming, Nock, & Charlene, 2014). Employees International Journal of Advanced Educational Research may feel inspired and motivated for a short time, but if the goals and reward systems remain the same, falling into old patterns can happen quickly.

#### **2.1.4 Personality Traits theory**

This theory remained famous until 1940s which said that successful leaders possessed similar traits and assumed that leaders are born not made. Personal characteristics of project managers and project management attitudes are highly important for achieving project success (Blaskovics, 2016). Most successful project managers possess common core traits, such as extroversion, rational judging and structured behaviours (Montequin, 2015). Emotional intelligence competencies of project managers had high important compared to other competencies, which should be considered by project based organization along with competent project managers (Khanaposhtayi & Abyane, 2015). A number of significant correlations exist between emotional intelligence (EI) measures and the dependent measures examined in the study. Overall (EI) scores were all found to be positively correlated with the manager competence associated with team work and managing conflicts (Charke, 2010). Project manager's emotional intelligence is significantly beneficial for the organization, project and team success, and project management field

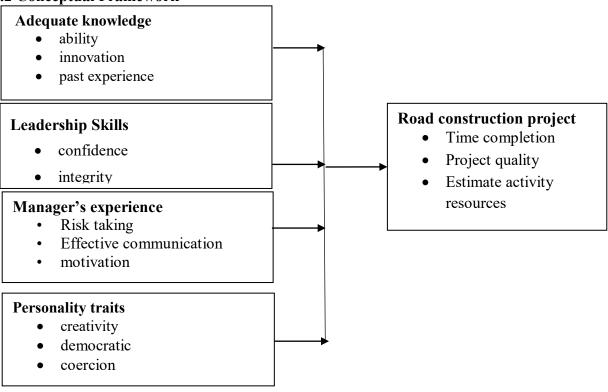
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(Obradovica, 2013). This theory is linked to the study as it talks about the attributes of the project leader.

# 2.2 Conceptual Framework



#### Independent variables



## **3.0 RESEARCH METHODOLOGY**

The study adopted a descriptive research design and targeted 254 staffs from Nasarawa State Ministry of Public Works and Transport which is responsible for overseeing execution of construction projects in the State. The unit of observation comprised of heads of procurement. The study adopted Fishers sampling formula to derive a sample of 153 respondents. The study used structured questionnaires to collect both qualitative and quantitative data captured through a 5-point likert scale. Inferential and descriptive statistics was used to analyze data. Results of the analysis were presented by use of tables and figures. Inferential statistics was used to establish the association between independent variables and dependent variable. The study used the following regression model:

# $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$

Where; Y = Road Construction Projects,  $X_1$  = Adequate knowledge,  $X_2$  = Leadership skills,  $X_3$  = Managers experience,  $X_4$  = Personality traits,  $\beta_0$ = Regression Constant or Intercept,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$  and  $\beta_4$ = coefficients of various independent variables and  $\varepsilon$  =error term assumed to be normally distributed with a zero variance.

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#### 4.0 RESULTS



The study administered 153 questionnaires where 131 questionnaires were filled and returned. This represented a response rate of 84.6%. which was justifiable for analysis as advocated by Mugenda and Mugenda (2013) who asserted that a response rate of 50% is justifiable for analysis and publishing with 60% considered good while 70% and above is considered to be very good.

#### 4.1 Descriptive findings and analysis

#### Adequate Knowledge

The study shows that indeed lack of knowledge directly determines the number of road projects completed on time with a mean of 3.62 and a standard deviation of 1.21, inadequate ability in leadership affects the overall success of the road projects because its mean was 4.01 and standard deviation was 0.862, having a mean of 3.74 and a standard deviation of 1.2 indicates that insufficient knowledge of competency by leader are major hindrances to completion of road construction projects in Nasarawa State, having mean of 3.46 and a standard deviation of 1.52 shows that inadequate innovation are major hindrance to completion of road construction projects, with a mean of 4.07 and a standard deviation of 0.84 indicates that inadequate past experience hinders completion of road construction projects and finally, having a mean of 4.1 and a standard deviation of 0.9 shows that enforcing leadership knowledge by relevant authorities enables successful completion of road construction projects, by having a mean of 3.96 and a standard deviation of 1.01 indicates that when a Project manager encourages both Head of Departments and subordinate staff to do things in a creative and innovative ways enables successful completion of road construction projects. On average however, respondents were in agreement with the statements on resource management competencies as shown by average mean of 3.85 and average standard deviation of 1.08.

Statement	Mean	Std. Dev
Lack of knowledge directly determines the number of road projects completed	3.62	1.21
Inadequate ability in leadership affects the overall success of the road projects	4.01	0.86
Insufficient knowledge of competency by leader are major hindrance to completion of road construction projects in Nasarawa State	3.74	1.2
Inadequate innovation is a major hindrance to completion of road construction projects	3.46	1.52
Inadequate past experience hinders completion of road construction projects	4.07	0.84
Enforcing leadership knowledge by relevant authorities enables successful completion of road construction projects	4.1	0.9
Project manager encourages both Head of Departments and subordinate staff to do things in a creative and innovative ways enables successful completion of road construction projects	3.96	1.01
Average	3.85	1.08

#### Table 1 Descriptive statistics for Adequate Knowledge

#### Leadership skills

Table 2 Descriptive Statistics for Leadership skills

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Statements	Mean	Std. Dev
A friendly and approachable project manager by all employees enables successful completion of road construction projects	3.91	0.99
Project managers consulting employees in making decisions on contractor claims in road project enables successful completion of road construction projects		1.02
Encouraging delegation of duties to employees enables successful completion of road construction projects	3.92	1.02
Project manager allowing and encouraging staff development enables successful completion of road construction projects	4.27	0.84
Involving employees in work performance appraisals to my department in the road construction enables successful completion of road construction projects		1.27
Project manager rewarding handsomely hardworking employees makes completion of road projects faster	3.64	1.13
Project manager commanding and expecting total compliance at all times without question enables successful completion of road construction projects		0.99
Involving project managers in policy formulation in the management of road project but does not dominate enables successful completion of road		
construction projects	3.89	1.02
Project manager allowing staff to make their own decision without any interference enables successful completion of road construction projects	3.91	0.99
Project manager who are proactive in finding solutions to project challenges enables successful completion of road construction projects		1.02
Project manager encourages and supports staff to attain a good working relationship with contractors enables successful completion of road construction projects		1.02
Project manager organizes training for all staff on key issues concerning road project management enables successful completion of road construction projects		0.84
Project manager fighting for the welfare of his staff enables successful completion of road construction projects	3.47	1.27
Project manager stimulating all the staff to finish projection time enables successful completion of road construction project	3.64	1.13
Average	3.86	1.04

The study shows that indeed a friendly and approachable project manager by all employees enables successful completion of road construction projects with mean of 3.91 and a standard deviation of 0.99 by having a mean of 3.89 and a standard deviation of 1.02 indicates that when a project managers consults employees in making decisions on contractor claims in road project enables successful completion of road construction projects, By having a mean of 3.92 and a standard deviation of 1.02 indicates that indeed delegation of duties to workers enables successful completion of road construction projects, by having mean of 4.27 and a standard deviation deviat

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deviation of 0.84 it shows that allowing and encouraging staff development enables successful completion of road construction projects. A mean of 3.47 and a standard deviation of 1.27 indicates that indeed involving employees in work performance appraisals to my department in the road construction enables successful completion of road construction projects, having a mean of 3.64 and a standard deviation of 1.13 indicates that indeed rewarding handsomely hardworking employees makes completion of road projects faster, having a mean of 3.91 and a standard deviation of 0.99 indicates that indeed commanding and expecting total compliance at all times without question enables successful completion of road construction projects. A mean of 3.89 and a standard deviation of 1.02 indicates that involving project managers in policy formulation in the management of road project but does not dominate enables successful completion of road construction projects, having a mean of 3.91 and a standard deviation of 0.99 shows that allowing staff to make their own decision without any interference enables successful completion of road construction projects, with a mean of 3.89 and a standard deviation of 1.02 indicates that a project manager who are proactive in finding solutions to project challenges enables successful completion of road construction projects, with a mean of 3.92 and a standard deviation of 1.02 indicates that when a project manager encourages and supports staff to attain a good working relationship with contractors enables successful completion of road construction projects ,having a mean of 4.27 and a standard deviation of 0.84 indicates that when a project manager organizes training for all staff on key issues concerning road project management enables successful completion of road construction projects, having a mean of 3.47 and a standard deviation of 1.27 indicates that a project manager who fights for the welfare of his staff enables successful completion of road construction projects, having a mean of 3.64 and a standard deviation of 1.13 shows that stimulating all the staff to finish projection time enables successful completion of road construction project. On average however, respondents were in agreement with statements on leadership skills as shown by average mean of 3.86 and average standard deviation of 1.04.

#### **Personality Traits**

#### **Table 3 Descriptive Statistics of Personality Traits**

Statements	Mean	Std. Dev
Personal traits in project technical design affects project construction	4.06	0.89
Project manager ensuring collaborative decision making enables successful completion of road construction projects	4.01	0.93
Project manager who promotes level of Commitment enables successful completion of road construction projects	4.16	0.84
Project manager promoting employee Involvement enables successful completion of road construction projects	4.11	0.87
Project manager ensuring an atmosphere of Trust enables successful completion of road construction projects	3.94	1.01
The necessary creativity in project are secured with no delays in material acquisition and payments enables successful completion of road construction projects	4.11	0.87
Average	4.07	0.9

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The study indicates that indeed personal traits in project technical design affects project construction since the mean is 4.06 and the standard deviation is 0.89, having a mean of 4.01 and a standard deviation of 0.93 indicates that indeed when a project manager ensures that there is collaborative decision making enables successful completion of road construction projects, with a mean of 4.16 and a standard deviation of 0.84 indicates that promoting level of Commitment enables successful completion of road construction projects, the study indicates that promoting employee Involvement enables successful completion of road construction projects since the with is mean 4.11 and 0.87 standard deviation ,with a mean of 3.94 and a standard deviation of road construction projects share that it is necessary creativity in project are secured with no delays in material acquisition and payments enables successful completion of road construction projects. On average, respondents were in agreement with statements on personality traits as shown by average mean of 4.07 and average standard deviation of 0.9.

#### Manager's experience

#### Table 4 Descriptive Statistics of Manager's experience

Statements	Mean	Std. Dev
Project manager with the right work experience enables successful	4.06	0.89
completion of road construction projects		
Project manager encouraging open and honest Communication enables	4.01	0.93
successful completion of road construction projects		
Project manager with a high level of problem-solving skills and	4.16	0.84
techniques enables successful completion of road construction projects		
Project manager who has expertise in road construction enables		0.87
successful completion of road construction projects	4.11	
Project manager that utilizes uses motivation mechanisms in construction	3.94	1.01
process enables successful completion of road construction projects		
Project manager who anticipates and manages risks associated with road	4.11	0.87
construction process enables successful completion of road construction		
projects		
Average	4.07	0.9

The study indicates that indeed Project manager with the right work experience enables successful completion of road construction projects since the mean is 4.01 and 0.93 standard deviation, with a mean of 4.16 and a standard deviation of 0.84 indicates that indeed encouraging open and honest Communication enables successful completion of road construction projects, with a mean of 4.11 and a standard deviation of 0.87 indicates that indeed project managers with a high level of problem solving skills and techniques enables successful completion of 0.89 indicates that indeed project manager who has expertise in road construction enables successful completion of 1.01 indicates that indeed project manager that utilizes uses motivation mechanisms in construction process enables successful completion of road construction projects, having a mean of 3.94 and a standard deviation of 1.01 indicates that indeed project manager that utilizes uses motivation mechanisms in construction process enables successful completion of road construction projects, having a mean of 3.94 and a standard deviation of 4.11 and a standard deviation projects, having a mean of 4.11 and a standard deviation of 0.87 indicates that indeed a project manager who anticipates and manages risks associated with road construction process enables successful completion of road

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construction projects. On average, respondents were in agreement with statements on manager's experience as shown by average mean of 4.07 and average standard deviation of 0. 9.

#### **Completion of road construction Projects**

The study indicates that indeed road construction projects are always on course for completion because the mean is at 4.23 and the standard deviation is at 0.71, with a mean of 4.01 and a standard deviation of 0.95 indicates that road construction project is completed within the allocated budget, with a mean of 3.65 and a standard deviation of 1.29 indicates that there is a high standard of quality of the completed road construction projects, with a mean of 3.78 and a standard deviation during road construction project ,with a mean of 3.94 and a standard deviation of 0.9 indicates that. The construction project quality meets safety and health requirement, with a mean of 3.77 and a standard deviation of 1.23 indicates that the construction project meets the stipulated environment requirements timely completion. On average, respondents agreed with the statements on the status of completion of road construction projects as shown by average mean of 3.90 and average standard deviation of 1.057.

Statements	Mean	Std. Dev
Road construction projects are always on course for completion	4.23	0.71
The road construction project is completed within the allocated budget	4.01	0.95
There is a high standard of quality of the completed road construction projects	3.65	1.29
There is a great sense of leadership competencies satisfaction during road construction project	3.78	1.26
The construction project quality meets safety and health requirement	3.94	0.9
The construction project meets the stipulated environment requirements timely completion	3.77	1.23
Average	3.90	1.057

<b>Table 5 Descriptive</b>	statistics o	of completion	of road	construction n	raiacte
Table 5 Descriptive	statistics o	of completion	I OI FOAU	construction p	rojects

## Leadership competencies and Completion of road construction projects

Majority of the respondents strongly disagreed that road construction projects are always on course for completion since 66.7% strongly disagreed, 27.8% disagreed and 5.6% strongly agreed. Majority of the respondents strongly disagreed that road construction project is completed within the allocated budget since94.4% strongly disagreed, 2.8% agreed and 2.8% strongly agreed. Majority of the respondents strongly disagrees that there is a high standard of quality of the completed road construction projects since 88.9% strongly disagreed, 5.6% disagreed, 2.8% agreed and 2.8% strongly agreed. Majority of the respondents strongly agreed. Majority of the respondents strongly agreed. Majority of the respondents strongly disagreed that there is a great sense of leadership competencies satisfaction during road construction project since 94.4% strongly disagreed, 2.8% agreed and 2.8% strongly agreed. Majority of the respondents strongly agreed. Majority of the respondents strongly disagreed and 2.8% strongly agreed and 2.8% strongly agreed and 2.8% strongly agreed. Majority of the respondents strongly disagreed that there is a great sense of leadership competencies satisfaction during road construction project since 94.4% strongly disagreed, 2.8% agreed and 2.8% strongly agreed. Majority of the respondents strongly disagreed that the construction project quality meets safety and health



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requirement since 91.7% strongly disagreed, 2.8% disagreed 2.8% agreed and 2.8% strongly agreed. Majority of the respondents strongly disagrees that the construction project meets the stipulated environment requirements timely completion since 94.4% strongly disagreed, 2.8% agreed and 2.8% strongly agreed.

#### Table 6 Leadership competencies and Completion of road construction projects

Statements	Strongly agree %	Agree %	Disagree%	Strongly Disagree%
Road construction projects are always on course for completion	5.6%	-	27.8%	66.7%
The road construction project is completed within the allocated budget	2.8%	2.8%	-	94.4%
There is a high standard of quality of the completed road construction projects	2.8%	2.8%	5.6%	88.9%
There is a great sense of leadership competencies satisfaction during road construction project	2.8%	2.8%	-	94.4%
The construction project quality meets safety and health requirement	2.8%	2.8%	2.8%	91.7%.
The construction project meets the stipulated environment requirements timely completion	2.8%	2.8%	-	94.4%

#### Adequate Knowledge and completion of road construction projects

Majority of the respondents strongly agreed that lack of knowledge directly determines the number of road projects completed on time since 60% strongly agreed, 5.6% Agreed, and 27.8% disagreed. Majority of the respondents agreed that inadequate ability in leadership affects the overall success of the road projects since 50% agreed, 22.2% strongly agreed, 2.5% disagreed, and 2.8% strongly disagreed. Majority of the respondents strongly agreed that insufficient knowledge of competency by leader are major hindrance to completion of road construction projects in Nasarawa State since 63.9% strongly agreed, 8.3% Agreed, 2.8% Disagreed, 2.5% Strongly Disagreed. Majority of the respondents strongly agreed that inadequate innovation are major hindrance to completion of road construction projects since 61.1% Strongly agreed, Agreed, 11.1% Disagreed and 21.8 % Strongly Disagreed. Majority of the respondents strongly agreed that inadequate past experience hinders completion of road construction projects since 63.9% strongly agreed, 8.3% Agreed, 27.8% Disagreed. Majority of the respondents strongly agreed that when a project manager encourages both Head of Departments and subordinate staff to do things in a creative and innovative ways enables successful completion of road construction projects since 61.1% strongly agreed, 11.1% Agreed, 22.2% Disagreed, and 5.6% Strongly Disagreed. On average most respondents strongly agreed that adequate knowledge influences completion of road construction projects by 57.14% while 15.07% agreed, 18.96% Disagreed, 11.13%strongly disagreed.



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#### Table 7 Adequate Knowledge and completion of road construction projects

Statement	Strongly Agree %	Agree%	Disagree %	Strongly disagree %
Lack of knowledge directly determines the number of road projects completed on time	66.7%	5.6%	27.8%	-
Inadequate ability in leadership affects the overall success of the road projects	22.2%	50%	2.5%	2.8%
Insufficient knowledge of competency by leader are major hindrance to completion of road construction projects in Nasarawa State	63.9%	8.3%	2.8%	25%
Inadequate innovation are major hindrance to completion of road construction projects	61.1%	11.1%	21.8%	-
Inadequate past experience hinders completion of road construction projects	63.9%	8.3%	27.8%	-
Enforcing leadership knowledge by relevant authorities enables successful completion of road construction projects	61.1%	11.1%	27.8%	-
Project manager encourages both Head of Departments and subordinate staff to do things in a creative and innovative ways enables successful completion of road construction projects	61.1%	11.1%	22.2%	5.6%
Average	57.14%	15.07%	18.96%	11.13%

#### Personality traits and completion of road projects

Majority of the respondents disagreed that personal traits in project technical design affects project construction since 36.1%strongly agreed, 5.6% agreed and 47.1% disagreed. Majority of the respondents strongly agreed that when a project manager ensures that there is collaborative decision making enables successful completion of road construction projects since 47.2% strongly agreed, 2.8% agreed, 8.3 disagreed and 41.7% strongly disagreed. Majority of the respondents strongly disagreed that promoting level of Commitment enables successful completion of road construction projects since 47.2% strongly agreed, 2.8% agreed and 8.3% disagreed, 41.7% strongly disagreed. Majority of the respondents agreed that promoting employee Involvement enables successful completion of road construction projects since 8.3% strongly agreed, 41.7% agreed 33.3% disagreed and 16.7% disagreed. Majority of the respondents strongly agreed that ensuring an atmosphere of Trust enables successful completion of road construction projects since 47.2% strongly agreed, 2.8% agreed, 33.3% disagreed and 16.7% strongly disagreed. Majority of the respondents strongly agreed that it is necessary creativity in project are secured with no delays in material acquisition and payments enables successful completion of road construction projects since 47.2% strongly agreed. On average most respondents strongly agreed that personality traits influence completion of road construction projects since 38.87% strongly agreed, 9.75% agreed, 27.75% Disagreed, 23.63% strongly disagreed.

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#### Table 8 Personality traits and completion of road projects

Statements	Strongly Agree %	Agree %	Disagree %	Strongly Disagree %
Personal traits in project technical design affects project construction	36.1%	5.6%	47.2%	11.1%
1 0	47.2%	2.8%	8.3%	41.7%
Project manager who promotes level of Commitment enables successful completion of road construction projects	47.2%	2.8%	8.3%	41.7%
Project manager promoting employee Involvement enables successful completion of road construction projects	8.3%	41.7%	33.3%	16.7%
Project manager ensuring an atmosphere of Trust enables successful completion of road construction projects	47.2%	2.8%	33.3%	16.7%
The necessary creativity in project are secured with no delays in material acquisition and payments enables successful completion of road construction projects	47.2%	2.8%	36.1%	13.9%
Average	38.87%	9.75%	27.75%	23.63%

#### Manager Experience and completion of road construction projects

Most of the respondents strongly agreed that project manager with the right work experience enables successful completion of road construction projects since 50% strongly agreed, 2.8% agreed, 33.3% disagreed and 13.9% strongly disagreed. Majority of the respondents disagreed that encouraging open and honest Communication enables successful completion of road construction projects since 27.8%strongly agreed, 25% agreed, 33.3% disagreed and 13.9% strongly disagreed. Majority of the respondents strongly agreed that project managers with a high level of problem solving skills and techniques enables successful completion of road construction projects since 50% strongly agreed, 2.8% agreed, 8.3% disagreed and 38.9% strongly disagreed. Majority of the respondents strongly agreed that a project manager who has expertise in road construction enables successful completion of road construction projects since 52.8% strongly agreed, 2.8% agreed, 27.8% disagreed and 16.7% strongly disagreed. Most of the respondents strongly agreed that project manager that utilizes uses motivation mechanisms in construction process enables successful completion of road construction projects since 50% strongly agreed, 2.8% agreed, 36.1% disagreed while 11.1% strongly disagreed. Most of the respondents strongly agreed that a project manager who anticipates and manages risks associated with road construction process enables successful completion of road construction projects since 50% strongly agreed, 2.8% agreed, 33.3% disagreed and 13.9% strongly disagreed. Most of the respondents strongly agreed that manager's experience influences completion of road



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construction projects since 47% strongly agreed, 7% agreed, 29% disagreed, 18% strongly disagreed.

#### Table 9 Manager Experience and completion of road construction projects

			-	
Statements	Strongly Agree%	Agree%	Disagree%	Strongly Disagree %
Project manager with the right work experience enables successful completion of road construction projects	50%	2.8%	33.3%	13.9%
Project manager encouraging open and honest Communication enables successful completion of road construction projects	27.8%	25%	33.3%	13.9%
Project manager with a high level of problem solving skills and techniques enables successful completion of road construction projects	50%	2.8%	8.3%	38.9%
Project manager who has expertise in road construction enables successful completion of road construction projects	52.8%	2.8%	27.8%	16.7%
Project manager that utilizes uses motivation mechanisms in construction process enables successful completion of road construction projects	50%	2.8%	36.1%	11.1%
Project manager who anticipates and manages risks associated with road construction process enables successful completion of road construction projects	50%	2.8%	33.3%	13.9%
Average	47%	7%	29%	18%

#### **4.2 Inferential Statistics**

#### **Correlation Results**

The results of the correlation analysis showed that a positive significant relationship exists between adequate knowledge and completion of road construction projects since the p-value is 0.000 and is less than 0.05. The findings are consistent with Webb (1998) findings who revealed that adequate knowledge management in the construction industry is increasingly acknowledged as a vital decisive aspect in determining how construction industries are performing. The correlation results further shows that there exist a positive and significant correlation between leadership skills and completion of road construction projects since the p value is 0.007 and is less than 0.05. The findings are consistent with Morin and Valarie (2013) regarded project management skills as important factors that lead to the success of project and adds that successful transformation is 70% to 90% leadership and only 10% to 30%. The correlation results also shows that there exist a positive and significant correlation between managers' experience and completion of road construction projects since the p value is 0.012 and is less than 0.05. The findings are consistent with Sayles (19989) allows vital tasks to be carried out

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simultaneously. The correlation results finally shows that there exist an positive and significant correlation between Personality Traits and completion of road construction projects since the p value is 0.000 and is less than 0.05.

The results are consistent with (Shead, 2010) who noted that a construction project manager may be an effective leader hence enables one to distinguish between an effective and efficient leader.

#### **Table 10 Correlation Analysis**

		Adequate Knowledge	Leadership Skills	Managers' Experience	Personality Traits	Completion of Roads
Adequate	Pearson			<b>^</b>		
Knowledge	Correlation	1				
	Sig. (2- tailed)					
Leadership	Pearson					
Skills	Correlation	0.129	1			
	Sig. (2-					
	tailed)	0.272				
Managers'	Pearson					
Experience	Correlation	0.009	0.199	1		
	Sig. (2-					
	tailed)	0.959	0.194			
Personality	Pearson					
Traits	Correlation	0.375	0.089	.354*	1	
	Sig. (2-					
	tailed)	0.042	0.481	0.010		
Completion of	Pearson					
Roads	Correlation	.533**	.389*	.321*	.401**	1
	Sig. (2-					
	tailed)	0	0.007	0.012	0.000	
	Ν	131	131	131	131	131
** Correlation	is significant a	t the 0.01 level (	2-tailed).			
* Correlation is	significant at	the 0.05 level (2	-tailed).			

#### **Regression Analysis**

The findings as shown in Table 11 present the model of fitness used in multiple regression analysis. The findings indicate that a unit increase in leadership competencies will result in 59% increase in successful completion of road construction projects in Nasarawa State, Nigeria.

R	R Square	Adjusted R Square	Std. Error of the Estimate
.669 <sup>a</sup>	0.589	0.521	0.101

#### **Table 11 Model Summary**

Table 12 shows the results on the analysis of the variance (ANOVA). The results indicate that the overall model was statistically significant as supported by the P value of 0.000 which implies

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that leadership competencies (adequate knowledge, leadership skills, personality traits and manager experience) are good predictors of completion of road construction projects in Nasarawa State, Nigeria. The level of significance is confirmed by comparing the value of F calculated which is 25.214 and the value of F critical at (4, 130) which is 2.5252. The value of F calculated (25.214) is greater than the value of F critical (2.5252) implying that the overall model is statistically significant.

#### Table 12 ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	4.234	4	1.059	25.214	0
Residual	5.345	126	0.042		
Total	9.579	130			

The findings as shown in Table 13 are the co-efficient of project leadership competencies which are adequate knowledge, leadership skills, personality traits and managers experience that affect completion of road construction projects in Nasarawa State, Nigeria.

	Unstandardized Coefficients		Standardized Coefficients		
Predictors	В	Std. Error	Beta	t	Sig.
(Constant)	0.369	0.113		3.265	0.000
Adequate Knowledge	0.396	0.136	0.351	2.911	0.000
Leadership skills	0.298	0.139	0.251	2.14	0.013
Personality Traits	0.196	0.198	0.745	0.999	0.019
Manager's experience	0.311	0.137	0.289	2.270	0.005

#### Table 13 Coefficients

# Completion of road construction projects= 0.369+ 0.396 (adequate Knowledge) +0.298 (project leadership skills) +0.196 (personality traits)+ 0.311 (Project Manager's experience)

From this regression equation indicates that adequate knowledge, leadership skills, manager's experience and personality traits are important factors for road constructions to be successfully completed in Nasarawa State because a unit increase in adequate knowledge lead to 0.369 units increase in completion of road projects while a unit increase in personality traits will result in 0.298 units increase in completion of road construction projects. A unit increase in project leadership skills will result in 0.196 units increase in completion of road construction projects. Furthermore, a unit increase in manager's experience results in 0.311 units increase in completion of road construction projects.

#### 5.0 CONCLUSIONS AND RECOMMENDATIONS.

#### **5.1** Conclusions

The study concluded that leadership competencies have a significant influence on completion of road construction projects in Nasarawa State, Nigeria since the P value from the overall of

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variance is 0.000. This is supported by Laguna, Wiechetek and Talik (2012) who asserted that leadership competencies were significant predictors of success in running a business. From the regression equation the study concluded that indeed adequate knowledge has a positive influence on completion of road construction projects since a unit increase in adequate knowledge results in 0.396 units increase in completion of road projects. The study concluded that positive significant relationship exists between adequate knowledge and completion of road construction projects since the P value was 0.000 from the correlation analysis. From the regression equation the study concluded that leadership skills has an influence on completion of road construction projects in Nasarawa State, Nigeria since a unit increase in project leadership skills will result in 0.298 units increase in successful completion of road construction projects. The study concluded positive significant relationship exists between leadership skills and completion of road construction projects since the P value was 0.007 from the correlation analysis. Based on the regression equation the study concluded that indeed personality traits has a positive influence on successful completion of road construction projects since unit increase in personality traits will result in 0.196 units increase in completion of road construction projects. The study concluded that indeed a positive significant relationship exists between personality traits and completion of road construction projects since the P value was 0.000 from the correlation analysis. Finally, manager's experience has a positive influence on completion of road construction projects in Nasarawa State, Nigeria since a unit increase in manager's experience results in 0.311 units increase in completion of road construction projects. The study concluded that indeed a positive significant relationship exists between personality traits and completion of road construction projects since the P value was 0.012 from the correlation analysis.

#### 5.2 Recommendations

The study recommends that the ministry of Works and Housing should ensure that there is adequate knowledge of project managers so as that roads can be completed successfully. This is because the practice of having managers who have adequate knowledge on managing projects leads to a positive and significant improvement in the completion levels of road construction projects. This can be achieved by capturing and transferring knowledge created within one project among all employees, sharing knowledge amongst employees through refresher trainings and knowledge. The study also recommends that the Works and Housing should ensure that project managers have the right personality traits so as that roads can be completed successfully. This can be achieved by encouraging high levels of collaborative leadership, neuroticism, agreeableness, openness, conscientiousness and extroversion in project managers' personal traits.

The study further recommends that the ministry of Works and Housing should emphasize and concentrate on project leadership skills ensure that there of project managers so as that roads can be completed successfully. This can be achieved by choosing project managers who have strong leadership skills since skills can be genetically produced and leaders acquiring pure cognitive skills, soft skills and non-cognitive skills like IQ, risks aversion, time management. The study finally recommends that the ministry of Works and Housing should concentrate much on the experience of project managers so as that roads can be completed successfully. This can be achieved by having project leaders who can monitor work flows, motivate subordinates, negotiate lateral relationships, work the hierarchy and introduce change in structure and technology. Since project managers are central position in enhancing desired organizational culture and performance in every organization project managers should have the right work

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experience in managing projects in roads construction. Project management comprises of top management who are the goal setters and strategic planners to middle managers who are team leaders who look after their employees and make sure they work towards the desired direction. This can be achieved by reducing the number of employees in administrative functions in middle management through downzing and restructuring the organizational structure.

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