

**THE IMPACT OF LEADERSHIP STYLES OF PROJECT MANAGERS ON  
INFORMATION TECHNOLOGY (IT) PROJECT SUCCESS. A CASE OF NATIONAL  
INFORMATION TECHNOLOGY AGENCY**

**By**

**Solomon Godson**

**(BSc Information Technology)**

**A thesis submitted to the Department of Construction Technology and Management,  
Kwame Nkrumah University of Science and Technology, Kumasi in partial fulfilment of  
the requirements for the award degree of**

**Master of Science in Project Management**

**November, 2019**

## DECLARATION

I hereby declare the submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma at Kwame Nkrumah University of Science and Technology, Kumasi or any other educational institute, except where due acknowledgement is made in the thesis.

Solomon Godson (PG5049318)

.....

.....

Name of Student Name of ID

Signature

Date

Certified by:

Prof Bernard Kofi Baiden

.....

.....

Supervisor

Signature

Date

Certified by:

Prof Bernard Kofi Baiden

.....

.....

Head of Department

Signature

Date

## **ABSTRACT**

Information Technology projects continue to face challenges and this affects organizational goals negatively. Factors such as leadership, performance and user - friendliness may determine whether an IT project is successful or not. The purpose of this quantitative study was to determine the leadership styles of Project Managers and the impact it has on Information Technology project success. Information Technology project team members of National Information Technology Agency located in Accra were asked to rate their Project Manager's leadership style and the successfulness of the project. Using simple random sampling with confidence level of ninety - five percent (95%) and eighty - five percent (85%) response rate, the study used the Multifactor Leadership Questionnaire to rate the three leadership styles that is transactional, transformational and passive avoidant on an Information Technology project. The items on the questionnaire were rated on the scale of zero (0) to four (4) with zero (0) being not at all, one (1) is once in a while, two (2) is sometimes, three (3) is fairly often and four (4) is frequently, if not always. The outcome of the research identified the Information Technology project team members to perceive their Project Manager to exhibit fairly often both transformational and transactional leadership styles and once in a while exhibits passive avoidant leadership style towards a fairly often successful Information Technology project. Therefore it is recommended that Project Managers should adapt both transformational and transactional leadership styles towards a successful Information Technology Project.

**Keywords:** Leadership, Leadership Styles, Project Managers, Information Technology Projects, Success

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## LIST OF ABBREVIATIONS

ERP	Enterprise Resource Planning
ICT	Information Communication Technology
IT	Information Technology
ITES	Information Technology Enabled Services
MDA	Ministries Departments Agencies
MLQ	Multifactor Leadership Questionnaire
MOC	Ministry of Communications
NITA	National Information Technology Agency
PMI	Project Management Institute



## **ACKNOWLEDGEMENT**

I wish to express my unflinching appreciation to all individuals who contributed directly and indirectly to this research work. Special thanks to my supervisor Professor Bernard Baiden whose guidance and assistance made this study possible. Finally to all the staff of Construction Technology and Management Department, Kwame Nkrumah University of Science and Technology (KNUST) for the awesome opportunity.

I say God bless you all.



## **DEDICATION**

Special thanks to God for His blessings, grace and glory for the successful completion of this research work first and foremost. I dedicate this research work to my scintillating family for the enormous support throughout the study.

Many thanks to Mr. Godfred Kumi Kwakye for his advice and consistent encouragement.





## **CHAPTER ONE**

### **GENERAL INTRODUCTION**

#### **1.1 Introduction**

This chapter has been designed to enlighten readers briefly about the entire research topic. The chapter will as well allow readers to have a holistic understanding and view of the research topic under study. It also talks about the background of the study, problem statement, scope of the study, overview of methodology, research aim and objectives and research question.

#### **1.2 Background of the Study**

Leadership literature recognizes a variety of leadership styles and their impact on project success. However, in the case of Information Technology (IT) project, the understanding of leadership styles and their impacts is unclear. Therefore, the study calls for investigating the underlying factors through which the styles of leadership affects Information Technology (IT) project success (Turner and Müller, 2005). The full-range leadership theory (FRLT) (Bass and Avolio, 1997), discussed the three leadership styles, namely transformational, transactional, and passive avoidant (Sohmen, 2013). Leadership is about the achievement of aim and objectives by followers via the leader's way of communication, supervision and influence (Koontz, 2010). Certain preconditions of IT project success, such as effective and efficient team building (Aga et al., 2016), and team communication, cohesiveness, and participation, are the outputs of excellent leadership (Yang et al., 2011, Prabhakar, 2005). Leadership is needed in all stages of the project, as the project manager being the leader of the IT project team must walk the IT project team members through from start of the project to the end of the project, and also meet stakeholders' expectation (Kerzner, 2013). Generally, only few studies have been conducted on the direct and indirect relationships of leadership styles and IT project success (Ware, 2018). Some studies suggest a direct relationship between the transformational leadership style and IT project success (Ware, 2018, Gundersen et

al., 2012). Other researchers also concluded on a direct relationship between the transactional leadership style and IT project success (Yang et al., 2011). However, such links are less tested (Hinkin and Schriesheim, 2008).

### **1.3 Problem Statement**

Information Technology projects in a business ambience needs a leader who understands technology, realizes the proper technical and useful resources and might demonstrate the business worth of IT investment (Hoving, 2007). The general problem is that Information Technology (IT) project fails during its implementation and this implementation failure may lead to reduction in revenue, reduction in profit, and sometimes bankruptcy (Neufeld et al., 2007). A research in 2009 showed that 24% of IT projects failed, meaning they were terminated before completion or completed but never put to use, 32% of IT projects were successful and this is because they were delivered at the stipulated time frame, budgets allocated were used appropriately and the projects met the necessary features, 44% of IT projects were challenged, meaning they were not delivered on time, budgets were in excess and the necessary functionality and features were not met (Standish Group, 2009). A 2015 research into IT software projects has it that 29% were successful, 52% challenged, 19% challenged, that is, they were delivered on – time, on – budget and on – target and aligns with the goals of project management but not the stakeholder or end user of the project or product (Standish Group, 2015). Again, a 2017 report shows that 14% of IT projects fail and this represents only those that failed totally. Thirty one percent (31%) of IT projects did not meet their objectives and goals, 43% surpassed their initial budget, 49% were not delivered on time and these percentages represent those that did not fail totally (PMI, 2017).

Leadership style is a major factor which drive projects towards its success. Ineffective leadership style increases the failure rate of a project (Shore, 2005). Project Managers possess technical skills

with little or no enlightenment in leadership theory and practice until they are placed in leadership positions for decision making (Shore, 2005). Leadership in certain Information Technology (IT) projects involves interacting with internal and external project team members and this requires different styles of leadership. Certain leadership styles affect Information Technology (IT) projects negatively whilst others affect projects positively. The ability to organize and direct employees and groups from diverse background is a vital skills– set for Project Managers to have but rarely do they have those skill (Sumner et al., 2006). The right leadership styles may increase the success rate of an Information Technology (IT) project. The on – going failure of IT projects and the need for quality leadership style of Project Managers when put together gives an opportunity for a research.

#### **1.4 Research Aim**

The aim of this research is to establish the impact of leadership styles of Project Managers on IT Project success.

#### **1.5 Research Objectives**

. The research seeks:

1. To determine the leadership styles and their effects on IT Project.
2. To establish an appropriate leadership style for IT project success.
3. To determine the level of success of the IT project.

#### **1.6 Research Questions**

The study seeks to ask some pertinent questions by providing appropriate answers to:

1. What is the significance of leadership styles on IT Projects?
2. Is there an appropriate leadership style for a successful IT Project?
3. How successful is the IT Project?

## **1.7 Research Scope**

The research work was narrowed by using National Information Technology Agency (NITA) as the case study. National Information Technology Agency (NITA) is a government agency established in 2008 under Ministry of Communication for the implementation of policies and projects related to Information, Communication and Technology (ICT). National Information Technology Agency's (NITA) roles include nurturing and implementing Innovative Technology, standardizing Information, Communication and Technology (ICT) practices in Ministries, Departments and Agencies. Currently, National Information Technology Agency (NITA) is running a series of Information Technology (IT) Projects mainly eGovernment Network Infrastructure, Eastern Corridor Fibre Optic Backbone (Ho to Bawku), Data Centre and Managed Service, Electronic payment, electronic services and Electronic Commerce.

## **1.8 Overview of Research Methodology**

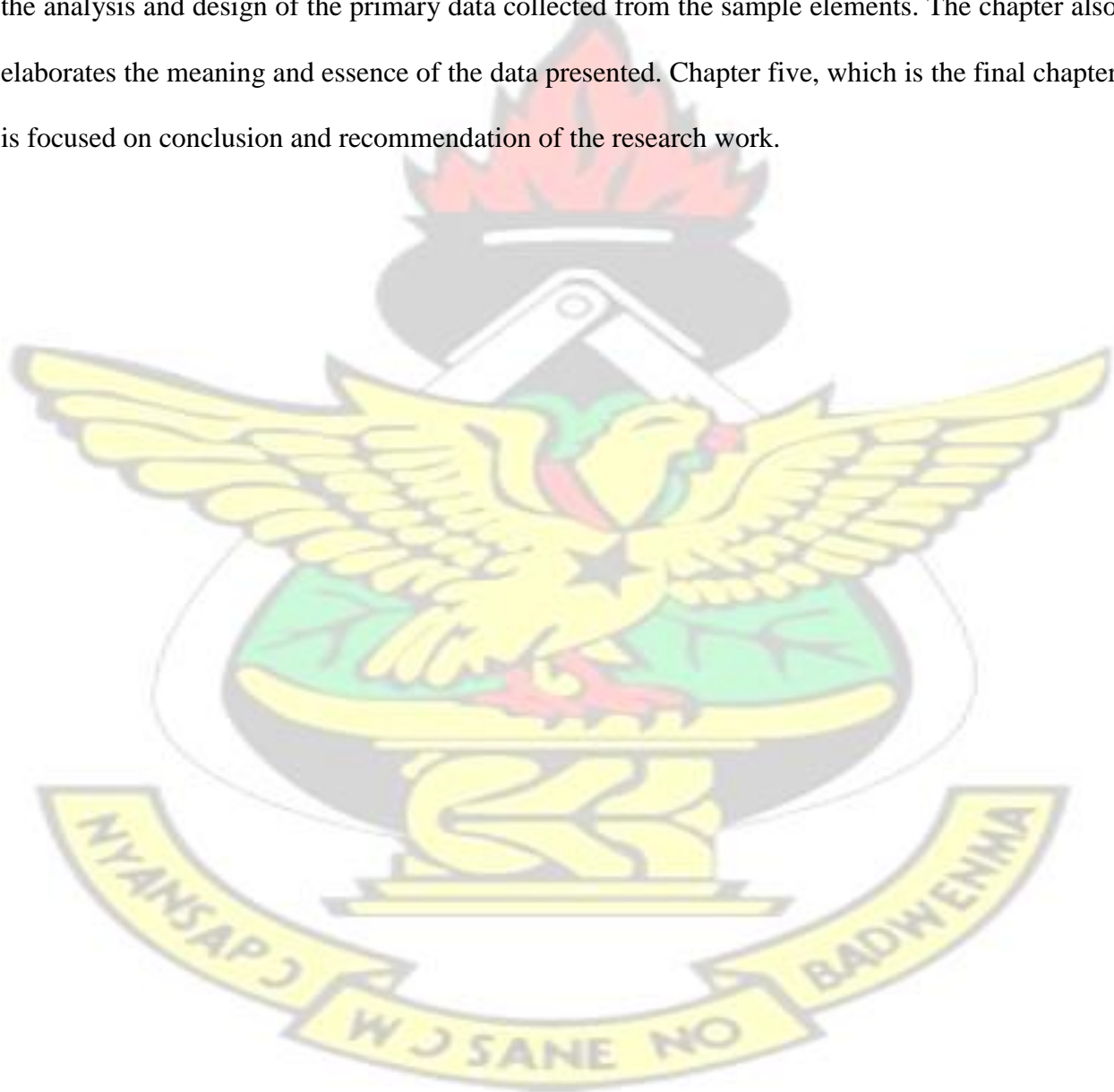
The focus of this quantitative research was to allow only Information Technology (IT) project team members of National Information Technology Agency (NITA) to rate their Project Manager on the basis of leadership style and success rate. Simple random sampling technique was adopted because only Information Technology (IT) project team members were targeted. Primary data were collected from the Information Technology (IT) project team members of National Information Technology Agency (NITA) using a structured Multifactor Leadership Questionnaire and secondary data collected using journals. The software which was used to analyse the primary data which was collected is SPSS.

## **1.9 Structure of the Research**

A properly written report was submitted at the end of the research work consisting of five chapters. Chapter one consists of the general introduction which contains the background of the study, problem statement, research aim and objectives, research questions, research scope. Chapter two



consist of the literature review which also include theoretical frameworks with leadership approaches, and definitions to enlighten our understanding with regards to the keywords. Chapter three consist of the various methods adopted to get the whole research work finalized. It briefly elaborated on the profile of the study area. Chapter four focused on the output of the research work. It displayed the results of the primary data collected from the sample elements and also previewed the analysis and design of the primary data collected from the sample elements. The chapter also elaborates the meaning and essence of the data presented. Chapter five, which is the final chapter is focused on conclusion and recommendation of the research work.





## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The aim of the chapter is to compare and contrast other approaches and findings with regards to the on - going research on “The Impact of Leadership Styles of Project Managers on IT Project Success”.

#### **2.2 Leadership**

The definition of leadership has been outlined in completely different ways by several authors. There is no common agreement on the definition of the term as most definitions explain it from numerous angles: in terms of behaviours, characters, role, associations, influence, or communication patterns. Generally, leadership is about the positive impact of an individual over a group of people to achieve the necessary objectives and goal. “Leadership is about articulating visions, embodying values, and creating the environment within which things can be accomplished” (Richards and Engle, 1986).

##### **2.2.1 Styles of Leadership**

Leadership styles is regarded as the behaviours leaders use with and through people from a democratic–subordinate-centred style to authoritarian–leader-centred style (Tuuli *et al.*, 2012). Bass and Avolio (1997) developed a Multifactor Leadership Questionnaire (MLQ) that can be used to rate the three main leadership styles namely: passive avoidant, transactional leadership and transformational leadership.

### **2.2.1.1 Transactional Leadership Style**

This leadership style was constructed on the conception of contingent reward to motivate fellow subordinates for excellent work done. This increases productivity of the organization and individual level. Transactional style of leadership has created a positive relationship with project success according to empirical research (Aga, 2016). Contingent rewards which is in the form of gifts or compliment imbues the spirit of project team members to perform wholeheartedly. Secondly, transactional style of leadership uses the management by exception approach but puts in place policies and procedures for project team members to imbibe. Project team members are always alert and aware of their activities being monitored. Project team works to the task to avoid punishments such as job loss or non- promotion.

### **2.2.1.2 Transformational Leadership Style**

This style of leadership produces job satisfaction, confidence and trust amongst project team members. Transformational leaders inspire project team members emotionally. Transformational leaders empower their project team members by boosting their confidence and independence development. They are often passionate and filled with positivity during project working hours. They always want their project team members to succeed no matter the situation. Transformational leadership possess these seven features mainly: elevate project team members' awareness, assist project team members to over-look self-interest, assist project team members with self-fulfillment, assist project team members realize the necessity for change, pursue project team members with some level of urgency. Project team members perceive idealized influence as the project team leader's ideals, source of authority, trust and charisma (Omar, 2013). Motivation and inspiration is the Project Managers' way of communicating to project team members about their needs to enhance their performance and drive them towards project team goals (Omar, 2013). Lastly,

stimulating intellectually is the project leader's way of challenging the project team members through creativity and proactivity (Omar, 2013).

### **2.2.1.3 Passive Avoidant Leadership Style**

This leadership style allows the project team members to take their own decisions and act upon it, leadership offers no real authority, although they provide answers to certain questions, give information and reinforcement to project team members.

Passive avoidant leadership is referred to as non - leadership. Leaders under this style are not active or proactive, thus moving away from roles and responsibilities and never resolve issues (Franco and Matos, 2015). Passive avoidant leaders possess certain characteristics such as avoidance of project duties, interaction with project team members, resolution of conflicts amongst project team members and decisions (Doucet et al., 2009). Skogstad et al. (2007) referred to passive avoidant leadership style as destructive to project team members and the firm and can cause stress at the project environment.

## **2.3 Project Manager**

The Project Manager is an individual designated by a firm to lead a team to achieve project goals and objectives (PMI, 2017). The Project Manager's sphere of influence in a firm includes the project team, the resource managers, the sponsors, governing bodies, stakeholders and end users (Rothfelder, et al., 2012). The Project Manager uses his or her skills and expertise to manage project by articulating vision and strategy to achieve such objectives through effective and efficient leadership, technical project management, strategic and business management. Project Managers leadership skills includes the ability to instruct, inspire and lead. Project Management is not only about figures, charts, graphs and information systems but team members, that is, people (Ware, 2018). Majority of the Project Manager's role is about dealing with people, that is, the project team

members, end users, stakeholders and sponsors. Therefore, Project Managers must apply excellent leadership skills on projects with the project team, internal and external stakeholders. The styles of leadership that a Project Manager may adopt over a specific project may determine the outcome of the project.

## **2.4 Information Technology (IT)**

Information technology (IT) is an important part of business operations in most firms (Carter, et al., 2011). To leverage the benefits of Information Technology, firms should be ready to implement Information Technology (IT) projects successfully. Projects are an organized method of producing distinctive and thoroughly planned merchandise (PMBOK, 2013). Information Technology (IT) projects go through an iterative cycle that is Initiation, planning, executing and closing. At the initiation phase, ideas are put together with reference to cost and benefit to the firm. The Planning phase is when the project scope is properly defined and the work breakdown structure is broken down further into work packages. Then the activities are then given a timeline and assigned costs. At the executing phase, all the paper works are implemented and brought to life. And finally, the projects are closed upon its completion. Leadership styles is a crucial component in implementing technology. Once implementing Information Technology (IT) Projects, leadership must perceive technology, manage resources within and outside, manage stakeholders, and proactively execute the technical work (Hoving, 2007). Project Managers should be ready to manage technology and resources in a dynamical and technological ambience (Hoving, 2007). Information Technology (IT) in a business ambience need a frontrunner who understands technology, realizes the proper technical and useful resources, and demonstrates the business worth of IT investments (Hoving, 2007).



## 2.5 Projects

Project is outlined as a short lived endeavour undertaken to form an innovative product or service, short lived implies that the project definitely ends, and innovative implies that the merchandise or service varies in some characteristic approach from all similar products or services (PMI, 2017). Project is a human activity or endeavour and will lawfully be appraised by its participants as a project once it includes an innovative scope of labour that is constrained by schedule and value, the aim of that is to make or modify a product or service so as to attain important change measured by its purpose in a qualitative and quantitative manner (Cooke-Davies, 2004). Project is outlined as a worth creation undertaking established on specifics, which is accomplished in a given or stipulated schedule and with limitations, that entails resources and superficial situations. A project is defined as a merchandise that outlines the satisfaction and dissatisfaction of the business, illustrating an innovative set of outcomes, with a limited timeline, by using recognized resources with recognized responsibilities (Bradley and Corwyn, 2002). The common subjects in these explanation is that projects are innovative and unique in their outcome, have a start and a finish timeline, are temporary and are carried out with respect to organizational aim and objectives. In order to enhance project performance, certain constraints must be looked at, three important features that explains the performance of a project are schedule, cost and scope which together makes it quality. These constraints are linked together and are interactive. A change in one of the dimensions will have a negative effect on the others. For example, if the scope is broadened the project will need more time to finish and the cost will also escalate. Likewise any change in schedule or cost will affect the project. The best project have a balance of all the constraints thus forming a triangle.



### 2.5.1 Project Life Cycle

Every project, from the beginning to the end goes through various phases. There is no generally accepted life cycle of a project. It's rather based on industry specific. A grasp of the project life cycle is essential to the successful completion of the project because it helps to imbibe the logical progression of events from start to finish. A typical project consist of four life cycles mainly initiation phase, planning phase, execution phase finally and closing phase.

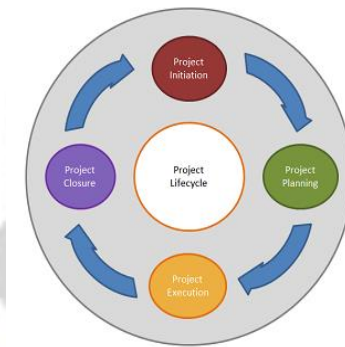


Plate 1. Project life Cycle (Shore, 2005)

#### 2.5.1.1 Initiation Phase

The initiation phase begins with brainstorming and coming up with an idea, the projects aim and objectives are discussed and identified. It involving coming up with the product or service, pre – feasibility and feasibility assessment, evaluation and acceptance. The idea is now made a reality and documented. As the idea is initiated, a proposal is developed with important rationale, timeline, cost estimation, scope, and other essential details which will benefit the internal and external stakeholders. The project manager is then appointed to lead the project team to achieve the outlined goals and objectives.

#### **2.5.1.2 Planning Phase**

The planning phase is where the project is developed in details. Step by step breakdown of the objective are discussed and developed, projects activities and resources are developed. Major activities such as staff recruitment are done. Project manager and the human resource recruit the staff needed in the projects team to help achieve the projects objective. A project plan is then created to outline all the activities. The project manager oversees the preparation of the project cost using a project management plan. The project manager again develops the scope management plan to cater for the project boundaries, work breakdown structure and work packages as well as the schedule management plan to help the project team to work with a timeline to achieve project goals. The three basic components of the planning process will be completed once the project team has developed the project boundaries, project timeframe and budget. Finally a quality management plan as well as other knowledge areas will be documented and ready for execution.

#### **2.5.1.3 Execution Phase**

During this particular phase, all project plans are put into reality and action. Control and communication are required to monitor the project. The progress of the project is monitored constantly and suitable adjustments are made when necessary. During the implementation of the project, project team members are involved constantly to achieve project goals through regular reports and meeting and the project manager uses this information to monitor the ways in which the project is heading.

#### **2.5.1.4 Closing Phase**

Closing phase which is the final phase of the project life cycle emphasis on the ending of the project. Handing over the project to the customer or stakeholder as well as the project documents. Ending the contract of supplier and some project team members. Lesson learnt are conducted and documented appropriately.

## **2.6 Information Technology (IT) Projects**

In the world of Information Technology (IT), goods and services the Information Technology (IT) firms deliver are achieved through projects. Projects are structured ways of making distinct and prudent products (PMBOK, 2013), meaning projects are a good fit for Information Technology (IT) based firms. Within the last twenty years, leadership and project management have been evaluated and analysed intensively yet the rate of Information Technology (IT) Project failure is appalling (Ware, 2018).

### **2.6.1 Life Cycle of IT Projects**

There are lots of methods to control and organize IT projects which affects the life cycle of projects. Firms can choose one of these methods to assist in risk reduction in IT projects. Risk from fast changing technology or extensive planning at the beginning of the project. Typical IT project life cycle progresses from initiation to planning to execution to controlling and finally closing and conveyed into operation. Nonetheless, literature defined three IT project life cycle namely predictive, iterative and adaptive life cycles.

#### **2.6.1.1 Predictive Life Cycle**

Predictive life cycle is the commonest and conventional life cycle for most IT projects. With this approach the project manager together with the project team firstly outlines the scope of the project, schedule of the project and stipulated cost prior to the execution of the project. Thorough planning of the project is done and each project phase delivers specific project output. Each project phase must begin and end appropriately as planned so as to allow projects to move from the initial phase to the closing phase. This approach is often referred to as waterfall because the project “waterfalls” below the project phase.

### **2.6.1.2 Iterative Life Cycle**

A project life cycle makes room for a defined scope but cost and schedule are frequently reformed as the project is ongoing. IT projects are enhanced using a sequence of replicated cycles whilst there's an increase to the functionality of the project (PMBOK, 2013). Iterative approach to IT projects demand that the management of the project be well illustrated at the commencement of the project. Estimation of the cost and estimation of the activities are planned at the top level prior to the start of the project. As execution of the project is ongoing, duration of the cost and timelines are established on the forthcoming work using the iterations of planning. This type of cycle enhances the creation of several opportunities to make corrections and learn as well. Response are taken often and this helps both the project manager and the project team members to know more about what the stakeholder expects. Finally the project team proceeds to the completion of the IT project after refinement and stakeholder involvement.

### **2.6.1.3 Adaptive Life Cycle**

This type of life cycle is incremental and iterative (PMI, 2017). Incremental involves an adaptive project life cycle that the outcome of the IT project goes through sequence of iterations and includes functionality within a required timeline. It utilizes that of the iteration approach but responses from stakeholders are accepted and refined based on those responses. Adaptive life cycle is driven by change and utilizes the agile way of delivering projects. Adaptive life cycle is used for IT projects where quick changes are required and scope is not well defined, therefore change in the cycle is handled quickly.



These life cycles use the idea of levels to drive forward the IT project. A phase elaborates the skill set and work load which will involve in that aspect of the IT project. The project manager can champion the type of IT project life cycle to be adapted in the IT project.

## **2.7 Information Technology (IT) Project Success**

### **2.7.1 Turner and Muller (2005) Approach**

Turner and Muller (2005) pursued a study on IT project success on a firm and recognised a range of factors on IT project success. Turner and Muller (2005) suggested that certain complex IT projects require higher level of customer satisfaction and this is vital to the success of the project. Turner and Muller (2005) emphasized two aspects of IT project success:

1. Completing IT projects within stipulated time, cost and scope
2. Customer satisfaction

### **2.7.2 Nicholas and Hidding (2010) Approach**

Nicholas and Hidding (2010) provided two ways of examining the success of IT projects, these are:

- i. Completion on schedule and on budget.
- ii. The project meeting expected business value through increased productivity.

Formerly, the success of IT Projects implies meeting project timeline, on budget, and providing innovative technical architecture (Nicholas and Hidding, 2010). Nicolas and Hidding (2010) asserted that business value returns in the form of productivity gains is more important than project schedule and cost when referring to the success of a project in project management. Nicholas and Hidding (2010) gathered data from project teams that pursued IT projects on a firm. The outcome was that five out of seven IT Projects that were evaluated did not meet expected timeline and were very costly but the management considered it successful. Also another IT Project which met the required timeline and on budget was considered unsuccessful by management (Nicholas and



Hidding, 2010). Therefore the success of IT Projects in firms cannot be established by conventional Project Management recommendations such as schedule and cost, but instead Project Managers may establish the success of IT Projects by the value added to the firm (Nicholas and Hidding, 2010).

## **2.8 Transformational Leadership Style and Project Success**

Transformational leadership style is positively connected with project success (Jansen et al., 2009, Vaccaro et al., 2012), project team members compliance and proactivity (Wang et al., 2017) work assignation (Ding et al., 2017), project commitment (Delegach et al., 2017) project team members retention (Caillier, 2017), project team members creativity (Dong et al., 2017), project team members innovative behaviour (Xenikou, 2017), project team members entrepreneurial behaviour (Afsar et al., 2017), as well as with bringing self-reliance in the project team members to speak against the immoral doings of the project manager in the organization (Caillier and Sa, 2017). Transformational leadership style is positively associated to project success (Keller, 1992), and performance (Aga et al., 2016, Anantatmula, 2010, Yang et al., 2011). Project success is connected to the transformational leadership style (Avolio et al., 1991) and vital to enabling the project team members accomplish their full potential in the project environment. Concerning the individualized deliberation aspect, numerous issues both practical or relational or conflicts within the project team during the project execution stage may arise, which may slow down the project pace or even bring some or all the events of the project to a standstill (PMI, 2017). A transformational leader would recognise the needs of the project team members at the individual stage, and address their distresses. This would not just eliminate hurdles, a project team member is facing in their work, but, also inspire the project team member in their project environment and create assurance that the project manager is there to assist. With respect to the intellectual stimulation; an important role

of the transformational leader is to offer the project team members an open atmosphere where the project team members can work together, share knowledge and come up with results to the problems they are facing during the project execution (Sohmen, 2013, McDonough, 2000). A collaborative environment leads to the development of knowledge augmenting capabilities (Van den Hooff and de Ridder, 2004), as well as capacities in the project team members to absorb new knowledge from each other (Liao et al., 2007). With such, certain technical issues may be resolved by the project team members on their own, without seeking help or distracting the flow of the project. With the idealized influence and the inspirational motivation aspects; the project team members naturally attach to a transformational leader due to the project leader's active participation in the project, assigning of freedom and autonomy to the team members, and giving importance to the team members at the individual level. The project team members see themselves as key drivers of project success and are inspired by the degree of freedom, openness and sharing of ideas, the commitment level, and the appealing vision set by the project manager. With that the project team members work to their full strength, and eventually bring the project towards accomplishment and success.

## **2.9 Transactional Leadership Style and Project Success**

Certain facets of the transactional leadership style, mainly contingent reward, are well known to develop project team members and organizational level efficiency and effectiveness. Study endorses the positive connection between contingent reward and project success (Aga, 2016). Contingent reward that can be tangible or intangible encourages the project team members to perform extraordinarily and to their full strength. The notion can be entrenched in the path-goal theory (House, 1971), and the distributive justice theory (Greenberg, 1987), which are about reward for performance. The project team members show higher participation, commitment, and

hard work knowing that their efforts will be recognised and they may be rewarded, mostly where they, perform extraordinarily. The project manager would generally remind of the contingent reward particularly to project team members with less technical expertise for their enthusiasm and performance to full potential (Prabhakar, 2005). The project manager's connection with project team members is mainly of a reward for a quality work done (Wang et al., 2005). Study suggests that rewards for quality work are important as the leadership behaviours such as expecting extraordinary performance from the project team members may not work where there are no contingent rewards in place (Schriesheim et al., 2006). The other aspect of the transactional leadership style such as active management by exception also has a logical relationship, at least with the project management. Project team members are mindful that their activity is keenly supervised and if they depart from the required standards, their reputation will get dented, ultimately leading to promotion delays, downgrades, and even being sacked. So, it is reasonable to accept that the stick aspect of the transactional leadership style would stimulate the project team members to perform as they would, in case where they are exposed to a reward. With the presence of a reward aspect, it can be assumed that the monitoring and improvement aspect would be superseded by the reward aspect, and the project team members would work to their full potential leading the project towards success.

## **2.10 Leadership Styles on IT Project Success Approaches**

### **2.10.1 Yeh and Hong (2012) Approach**

A study was performed by Yeh and Hong (2012) to outline the link between the styles of leadership and projects success. The research scope was a Taiwanese manufacturing firm located in China, the research used a questionnaire to gather data for the study. To enhance the survey's reliability, Yeh and Hong used Cronbach alpha reliability analysis. The questionnaire was rated with 0.7 of



Cronbach alpha analysis, meaning the consistency of the questionnaire was high (Yeh and Hong, 2012). Yeh and Hong (2012) established that leadership do have a positive effect on the success of a project. The study also established that Project leaders must calibrate their styles of leadership with regards to the type of project team member/s and firm. The study did not conclude on the suitable leadership styles suitable for projects but rather generalized the styles of leadership to project success. Yeh and Hong's findings could have been of great importance if it had concluded on the style of leadership required for project success.

#### **2.10.2 Rothfelder et al. (2012) Approach**

Rothfelder, et al. (2012) had a study on the link between transactional and transformational leadership styles on project success in a hospitality firm in Germany. The research used a quantitative survey, that is, the Multifactor Leadership Questionnaire (MLQ) to collect the data. The findings showed a relationship between project success and transformational leadership styles. Also, it showed no relationship between transactional leadership styles on project success.

#### **2.10.3 Chaudhry et al. (2012) Approach**

Chaudhry, et al. (2012) pursued a research to outline the link between transformational and transactional leadership styles on project success in a banking firm in Pakistan. Chaudhry, et al. (2012) deployed the Multifactor Leadership Questionnaire (MLQ) to collect data from 475 project team members via simple random sampling technique. Chaudhry, et al. (2012) concluded that both transactional and transformational leadership styles had a positive effect on project success.

#### **2.10.4 Sakiru et al. (2013) Approach**

Sakiru et al. (2013) pursued a research on Styles of leadership and its influence on project team members and project success. The focus of the study was restricted to small and medium firms in Nigeria. Random sampling technique was used in two privately owned firms in Lagos, Nigeria. Sakiru et al. (2013) used questionnaires to collect data from the project team members of the firms.

No information on the questionnaire with regards to pilot testing were provided to buttress the accuracy of the collected data. The findings indicate a positive relationship between transactional styles of leadership and project success and also found transformational leadership style to be the deployed approach in the firms.

#### **2.10.5 Ware (2018) Approach**

A research was conducted by Ware (2018) to obtain the connection between IT Leaders' Styles of Leadership and IT Project Success. The focus of the quantitative study was an IT firm in Colorado, USA and the researcher used Multifactor Leadership Questionnaire to collect the primary data. The researcher performed Cronbach Alpha reliability analysis on the questionnaire and the output was above .70 which makes it reliable. The research concluded that the Project Leader was perceived to exhibit transformational leadership style towards a successful IT project.

#### **2.11 The Multifactor Leadership Questionnaire (MLQ)**

The Multifactor Leadership Questionnaire was first developed and introduced by Bass and Avolio (1997), later on Mind Garden published it and made it commercial. The Multifactor Leadership Questionnaire tool was developed for the measurement of a wide range of styles of leadership ranging from transformational, transactional and passive avoidant leaders. The objective of the Multifactor Leadership Questionnaire is not to rate a leader as Passive avoidant, Transformational or Transactional, but instead to recognize leaders as “more transformational than the norm” or “less transactional than the norm”. The Multifactor Leadership Questionnaire tool has been in existence for the past twenty-five years and broadly used in governmental and non - governmental firms such as financial firms, educational firms, Information Communication and Technological firms and major projects. The Multifactor Leadership Questionnaire has an edge over other leadership surveys with the reason being that it is comprehensive and can be used to monitor the



efficiency and effectiveness of project, program and portfolio leaders. It is multicultural and focuses on intellectual and individual growth and gives direction to project leaders to be well organized. Lastly, the Multifactor Leadership Questionnaire links the styles of leadership to expected outcome. Results from the Multifactor Leadership Questionnaire tool can be useful in identifying project team members for workshops which can lead to career enhancement. Also, project team members can rate their team leaders on a particular project based on a required objective. The goal of the Multifactor Leadership Questionnaire tool is to produce a system for the development of leadership based on the output generated from the Multifactor Leadership Questionnaire tool. The Multifactor Leadership Questionnaire tool gives precise and relevant response that describes the leaders' ability to lead project team members. The response informs the project team members of the type of leader presently and the way forward in achieving project success. The Multifactor Leadership Questionnaire is made of two forms: "The Self Rating Form or the Leader Form", this is for project leaders to score themselves and "The rater form" for project team members to score their project leaders. "The rater form" is more suitable to use with reason being that accuracy is higher and relationship between the rating form and subject is satisfactory. The items on the "The rater form" were on the scale of zero (0) to four (4) with zero (0) being not at all, one (1) is once in a while, two (2) is sometimes, three (3) is fairly often and four (4) is frequently, if not always.

## **2.12 Chapter Summary**

Chapter Two which is the literature review began with the defining of Information Technology (IT), deeper understanding of Information Technology (IT) Projects using the project life cycles. Definition of leadership was looked at in detail including the various styles of leadership that is transformational, transactional and passive avoidant leadership styles. Various leadership style approaches were looked at ranging from Ware (2018), Sakiru et al. (2013), Rothfelder, et al.

(2012), Chaudhry, et al. (2012) and Yeh and Hong (2012). Finally, the Multifactor Leadership Questionnaire (MLQ) tool and how it can be applied in the assessment of project leaders pertaining their leadership style was also analysed.



## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

Data gathering is very important in conducting research because it gives quality understanding to the researcher. The aim of this quantitative research was to establish the styles of leadership of Project Managers and the impact it has on IT Project success at National Information Technology Agency (NITA). The chapter outlines how the data for this research were collected and examined. To make certain that accurate data were collected, certain sampling method and strategies were adapted. Also, it outlines the population target, the profile of case study, the instrument used for the research, the data collection method and the strategy used in the data analysis.

#### **3.2 Profile of Case Study (National Information Technology Agency)**

National Information Technology Agency (NITA) is a government institution established in 2008 to implement Information Communication Technology (ICT) programs and projects under the arm of the Ministry of Communication for the Republic of Ghana. Information Technology (IT) Projects that are run include E – Government Application and Government Communications; which seeks to develop IT architecture and interoperability standards for public networks and applications, training of technical staff and information officers of vital Ministries Departments and Agencies (MDAs), another project is the Support to Local Information Communication Technology (ICT) Businesses and Information Technology Enabled Services (ITES) in Ghana; which is to establish a connected program between ICT Businesses and Educational Institutions and to provide matching grants to qualifies institutions for the aim of transferring business and educational expertise into ICT / ITES learning curricula. Another project is Enabling Environment which is an operational support and capacity enhancing for the Ministry of Communications

(MoC) for the procurement, monitoring and evaluation, reporting, financial management of ICT project activities.

### **3.3 Population Size**

Population is the gathering of the elements that has some or the other characteristic in common (Groves, 2010). Total elements in the population is the population size (Groves, 2010). The population size for the study were all the IT project team members of National Information Technology Agency (NITA) which is one - fifty (150). The figure was derived from the active email list of the IT project team of National Information Technology Agency (NITA).

### **3.4 Sampling Method**

Sampling method is the term or other identification of the exact procedure by which the objects of the sample have been designated (Taherdoost and Hamed, 2016). The researcher adapted the Simple Random Sampling Method for the study. This was because Simple Random Sampling provides unbiased and enhanced estimate of the parameters if the population is homogeneous. Each unit involved in the sample has equal chance of inclusion in the sample (Alvi, 2016). The sampled population under study was Information Technology team members of National Information Technology Agency (NITA).

### **3.5 Sample Size**

Sample is the subset of the total population (Tatiana, 2003). Sample means selecting a portion of the population to represent the entire population. A sample size of the research population was calculated using G-Power sample size software (Buchner, 2007). A sample size of seventy (70) IT project team members of National Information Technology Agency (NITA) was generated using the G-Power software based on 4.82% margin of error and 95% level of confidence.



### **3.6 Source of Data Collected**

Source of data collected for the purpose of the research were primary and secondary data. Questionnaires were designed and given to only Information Technology (IT) project team members of National Information Technology Agency (NITA) to complete voluntarily.

### **3.7 Method of Data Collection**

Data was gathered using questionnaire. The questionnaires were given to the respondents that is the Information Technology (IT) project team members of National Information Technology Agency (NITA) in person and via email. Participation in the study was voluntary and the respondents were assured of data confidentiality. Follow up calls were made to respondents for clarification when necessary.

#### **3.7.1 Research Instrument**

The questionnaire was designed using a modified Multifactor Leadership Questionnaire. The Multifactor Leadership Questionnaire was deployed to measure transactional leadership, transformational leadership and passive avoidant leadership styles (Den Hartog, et al., 1997). The tool allowed the project team members to rate their project manager's leadership styles. The items on the questionnaire were rated on the scale of zero (0) to four (4) with zero (0) being not at all, one (1) is once in a while, two (2) is sometimes, three (3) is fairly often and four (4) is frequently, if not always.

### **3.8 Project Success Measurement**

The success of a project is relied on the quality and efficiencies of the systems, user friendly and customer satisfaction (Basten, et al., 2011). To measure the success of the project, each participant was asked to voluntarily complete four questions which is included in the Multifactor Leadership Questionnaire (MLQ). The questions were purposefully designed to capture the Information Technology (IT) project team members' perception to determine whether it was a success or not.



A Likert –type scale of 0 to 4 was adopted. The items on the questionnaire were rated on the scale of zero (0) to four (4) with zero (0) being not at all, one (1) is once in a while, two (2) is sometimes, three (3) is fairly often and four (4) is frequently, if not always.

### **3.9 Data Analysis**

Data analysis is an evaluative and cautious examination of data to the parts and relationships between the given variables and to uncover its tendencies. Data that was gathered from the questionnaire was used quantitatively. The data from the questionnaire was entered into Statistical Package for Social Science (SPSS) software. The output was presented in a tabular manner.

### **3.10 Chapter Summary**

Chapter Three which is the methodology began with brief introduction which discussed the use of quantitative research and how it applied to the research, profile of case study which is National Information Technology Agency (NITA), population size and sampling method were also looked at. The sample size of seventy (70) elements were targeted using simple random sampling. Sources of data collected were both primary and secondary and methods of data collected was also discussed, and questionnaires were distributed to the Information Technology (IT) Project team members of National Information Technology Agency (NITA) via email and in person. The research instrument for the leadership and project success adapted is a modified Multifactor Leadership Questionnaire (MLQ) tool which allowed the Information Technology (IT) project team members to rate their project leader's leadership styles and success of the project. The items on the questionnaire were rated on the scale of zero (0) to four (4) with zero (0) being not at all, one (1) is once in a while, two (2) is sometimes, three (3) is fairly often and four (4) is frequently, if not always. Finally, Statistical Package for Social Science (SPSS) was deployed for the data analysis.

## **CHAPTER FOUR**

### **ANALYSIS, DISCUSSIONS AND FINDINGS**

#### **4.1 Introduction**

Chapter four which is the analysis of the data and discussions is focused on the output of the research work. It displayed the results of the primary data collected from the sample elements and detailed discussions. The feedback from the respondents, that is, the Information Technology (IT) project team members of National Information Technology Agency (NITA) were gathered and analysed using Statistical Package for Social Science (SPSS) software.

#### **4.2 Aim and Objectives of the Research**

##### **4.2.1 Research Aim**

The aim of this research is to establish the impact of leadership styles of Project Managers on IT Project success.

##### **4.2.2 Research Objectives**

. The research seeks:

1. To determine the leadership styles and their effects on IT Project.
2. To establish an appropriate leadership style for IT project success.
3. To determine the level of success of the IT project.

#### **4.3 Data Collection Process**

There were twenty-four (24) questions for the leadership styles mainly transformational, passive avoidant and transactional leadership styles with eight (8) questions for each style. Also, the questionnaire has four (4) questions for the success rate making a total of twenty-eight (28) questions.

The sample size for National Information Technology Agency (NITA) project team is seventy (70) questionnaires were sent to all the seventy (70) Information Technology (IT) project team members of National Information Technology Agency (NITA). Thirty (30) questionnaires were sent via email and forty (40) questionnaires were sent in person. Feedbacks were received from sixty (60) respondents which was eighty - five percent (85%) response rate of the Information Technology (IT) project team members.

Table 1. Data Collection Process

Mode of Distribution	Questionnaires Sent	Feedbacks from respondents
Online (Email)	30	23
Manual (In person)	40	37

#### 4.4 Reliability Analysis

The purpose of the study was to determine the leadership styles and the impact it has on IT Project success. Therefore, the items in the questionnaire were tested for internal consistency using reliability analysis. Items in the questionnaire which are geared towards the same objective must be consistent and logically harmonize. Cronbach's alpha was deployed to measure internal consistency of items. If the results are lower than .70 then it means one or more of the items in the questionnaire is unreliable and must be re-examined and if the results of the analysis is equal to or higher than .70 then the items are reliable and consistent.

##### 4.4.1 Reliability Analysis for Transformational Leadership

Table 2. Reliability Statistics (Transformational leadership)

Cronbach's Alpha	N of Items
.780	8

Table 3. Item-Total Statistics (Transformational leadership)

ITEMS	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Expresses confidence that goals will be achieved.	19.83	21.023	.550	.750
Emphasizes the importance of having a collective sense of mission	20.03	20.779	.446	.762
Re-examines critical assumptions to question whether they are appropriate.	20.27	23.080	.236	.790
Seeks different perspective when solving problems.	20.27	20.334	.601	.741
Gets me to look at project problems from many different angles.	20.12	20.851	.587	.746
Suggests new ways of looking at how to complete project assignments.	20.03	21.762	.395	.770
Spends time teaching and coaching.	21.17	16.718	.624	.731
Helps me to develop my strengths.	21.15	17.316	.543	.752

#### 4.4.2 Reliability Analysis for Passive Avoidant Leadership

Table 4. Reliability Statistics (Passive Avoidant)

Cronbach's Alpha	N of Items
.847	8



Table 5. Item-Total Statistics (Passive Avoidant)

ITEMS	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Fails to interfere until problem becomes serious.	10.00	30.203	.364	.860
Avoids getting involved when important issues arise.	10.70	30.078	.502	.838
Shows that he/ she is a firm believer in “if it isn’t broke, don’t fix it”.	10.05	29.133	.497	.840
Demonstrates that problems must become chronic before taking action.	10.38	27.664	.727	.811
Delays response to urgent questions.	10.28	28.071	.702	.815
Waits for things to go wrong before taking action.	10.48	28.729	.748	.813
Is absent when needed	10.63	27.490	.658	.819
Avoid making decisions.	10.53	28.931	.563	.831

#### 4.4.3 Reliability Analysis for Transactional Leadership

Table 6. Reliability Statistics (Transactional Leadership)

Cronbach's Alpha	N of Items
.793	8



Table 7. Item-Total Statistics (Transactional Leadership)

ITEMS	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Provides me with assistance in exchange for my efforts.	20.12	14.139	.474	.789
Expresses satisfaction when I meet expectations.	19.42	23.129	-.278	.700
Discusses in specific who is responsible for achieving performance target.	18.97	20.745	.040	.711
Makes clear what one can expect to receive when performance goals are achieved.	19.77	17.267	.290	.761
Keeps track of all mistakes.	19.92	14.959	.519	.780
Directs my attention toward failures to meet standards.	19.67	16.599	.421	.722
Focuses attention on irregularities, mistakes, exceptions and deviation from standards.	19.90	17.075	.346	.744
Concentrates his /her actions full attention on dealing with mistakes, complaints and failures.	20.10	15.041	.533	.777

#### 4.4.4 Reliability Analysis for Success Rate

Table 8. Reliability Statistics (Success Rate)

Cronbach's Alpha	N of Items
.839	4

Table 9. Item-Total Statistics (Success Rate)

ITEMS	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
The project achieved expected customer satisfaction.	9.43	5.877	.626	.815
The project achieved expected usability levels.	9.25	6.225	.670	.801
The project achieved expected efficiencies.	9.53	5.406	.769	.752
The project achieved expected operational qualities (security, effectiveness, performance).	9.58	5.095	.653	.813

#### 4.5 Leadership Styles Analysis

This aspect of the research looked at the outcome of the three leadership styles that is transformational, transactional and passive avoidant. Mean score was performed for each leadership style.

##### 4.5.1 Transformational Leadership Style Analysis

The transformational leadership style behaviour is made up of eight (8) items. To find the score for each item, a mean is calculated based on the rating between zero (0) and four (4). To find the total transformational score, the mean is calculated for all the eight (8) questions based on the zero (0) to four (4) rating. A total of sixty (60) questionnaires from the respondents were used to calculate the mean. A transformational leadership style mean score of “2.9” was derived from the analysis which puts it close to “3” on the Multifactor leadership Questionnaire (MLQ) which implies that the Project Manager “fairly often” displayed transformational leadership style on a successful Information Technology (IT) project.

Table 10. Transformational Leadership Style Analysis

Transformational	N	Min	Max	Mean
Expresses confidence that goals will be achieved.	60	1	4	3.43
Emphasizes the importance of having a collective sense of mission	60	0	4	3.23
Re-examines critical assumptions to question whether they are appropriate.	60	1	4	3.00
Seeks different perspective when solving problems.	60	1	4	3.00
Gets me to look at project problems from many different angles.	60	1	4	3.15
Suggests new ways of looking at how to complete project assignments.	60	1	4	3.23
Spends time teaching and coaching.	60	0	4	2.10
Helps me to develop my strengths.	60	0	4	2.12
<b>Transformational ALL</b>	<b>60</b>	<b>1.13</b>	<b>4.00</b>	<b>2.9083</b>

#### 4.5.2 Transactional Leadership Style Analysis

The Transactional leadership style behaviour is made up of eight (8) items. To find the score for each item, a mean is calculated based on the rating between zero (0) and four (4). To find the total Transactional score, the mean is calculated for all the eight (8) questions based on the zero (0) to four (4) rating. A total of sixty (60) questionnaires from the respondents were used to calculate the mean. A Transactional leadership style mean score of “2.8” was derived from the analysis which puts it close to “3” on the Multifactor leadership Questionnaire (MLQ) which implies that the Project Manager “fairly often” displayed transactional leadership style on a successful Information Technology (IT) project.

Table 11. Transactional Leadership Style Analysis

Transactional	N	Min	Max	Mean
Provides me with assistance in exchange for my efforts.	60	0	4	2.43
Expresses satisfaction when I meet expectations.	60	0	4	3.13
Discusses in specific who is responsible for achieving performance target.	60	1	4	3.58
Makes clear what one can expect to receive when performance goals are achieved.	60	0	4	2.78
Keeps track of all mistakes.	60	0	4	2.63
Directs my attention toward failures to meet standards.	60	0	4	2.88
Focuses attention on irregularities, mistakes, exceptions and deviation from standards.	60	0	4	2.65
Concentrates his /her actions full attention on dealing with mistakes, complaints and failures.	60	0	4	2.45
<b>Transactional ALL</b>	<b>60</b>	<b>1.50</b>	<b>4.00</b>	<b>2.8188</b>

#### 4.5.3 Passive Avoidant Leadership Style Analysis

The Passive Avoidant leadership style behaviour is made up of eight (8) items. To find the score for each item, a mean is calculated based on the rating between zero (0) and four (4). To find the total Passive Avoidant score, the mean is calculated for all the eight (8) questions based on the zero (0) to four (4) rating. A total of sixty (60) questionnaires from the respondents were used to calculate the mean. A Passive Avoidant leadership style mean score of “1.4” was derived from the analysis which puts it close to “1” on the Multifactor leadership Questionnaire (MLQ) which implies that the Project Manager “Once in a while” displayed Passive Avoidant Leadership Style on a Successful Information Technology (IT) Project.



Table 12. Passive Avoidant Leadership Style Analysis

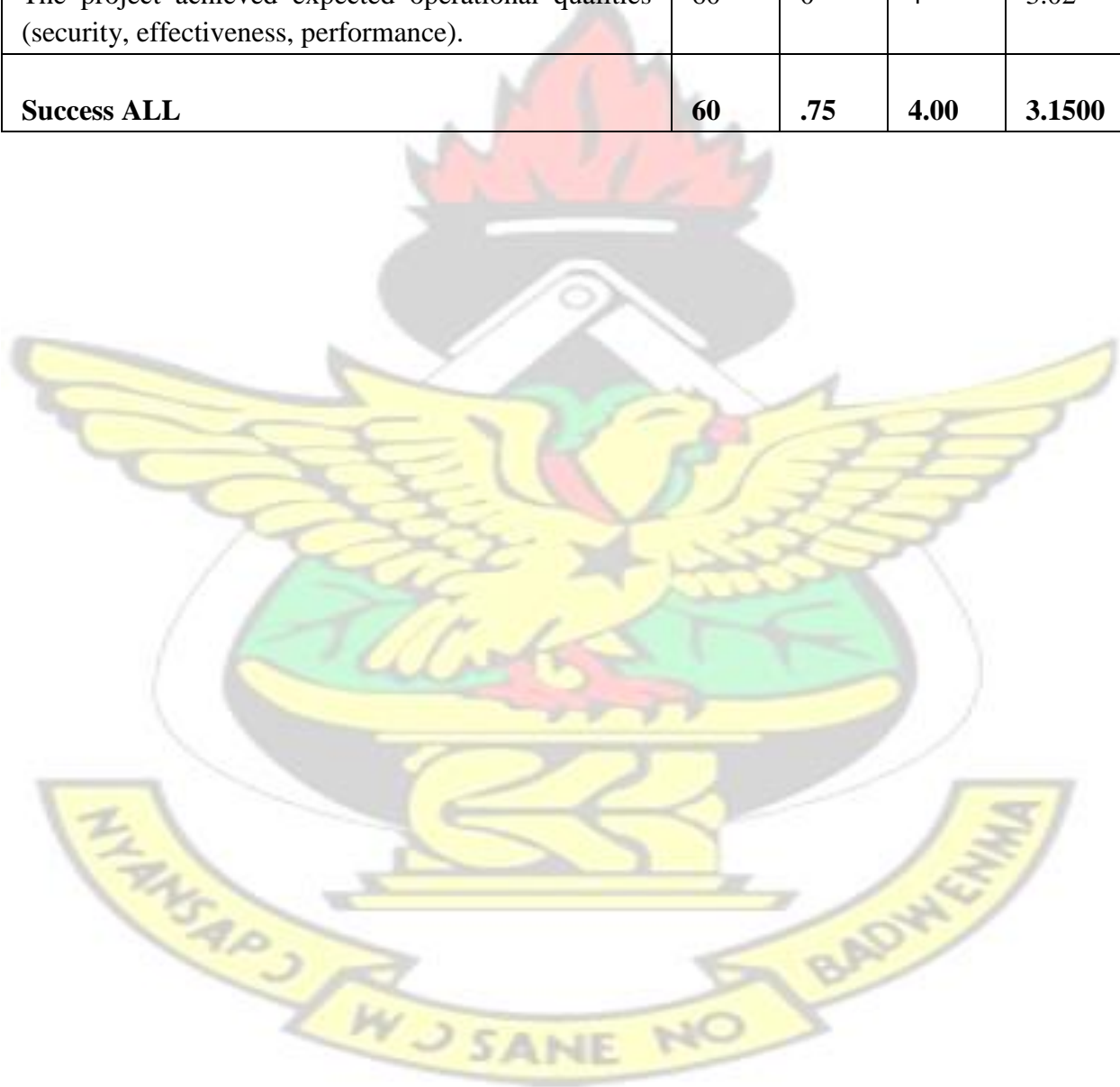
Passive Avoidant	N	Min	Max	Mean
Fails to interfere until problem becomes serious.	60	0	4	1.87
Avoids getting involved when important issues arise.	60	0	4	1.17
Shows that he/ she is a firm believer in “if it isn’t broke, don’t fix it”.	60	0	4	1.82
Demonstrates that problems must become chronic before taking action.	60	0	4	1.48
Delays response to urgent questions.	60	0	4	1.58
Waits for things to go wrong before taking action.	60	0	4	1.38
Is absent when needed.	60	0	4	1.23
Avoid making decisions.	60	0	4	1.33
<b>Passive ALL</b>	<b>60</b>	<b>.00</b>	<b>3.00</b>	<b>1.4833</b>

#### 4.5.4 Project Success Analysis

The project success rating is also made up of four (4) item. To measure the project success for each item, a mean is calculated based on the rating between zero (0) and four (4). To find the total Project Success score, the mean is calculated for all the four (4) questions based on the zero (0) to four (4) rating. A total of sixty (60) questionnaires from the respondents were used to calculate the mean. A Project Success mean score of “3.1” was derived from the analysis which puts it close “3” on the Multifactor Leadership and Success Questionnaire which implies that the IT Project “fairly often” Successful.

Table 13. Project Success Analysis

Project Success	N	Min	Max	Mean
The project achieved expected customer satisfaction.	60	0	4	3.17
The project achieved expected usability levels.	60	1	4	3.35
The project achieved expected efficiencies.	60	1	4	3.07
The project achieved expected operational qualities (security, effectiveness, performance).	60	0	4	3.02
<b>Success ALL</b>	<b>60</b>	<b>.75</b>	<b>4.00</b>	<b>3.1500</b>



## **4.6 Findings**

The study was focused on three main objectives as stated in chapter one of this research. The following were found for each objective;

### **4.6.1 To Determine the Leadership Styles and their Effects on IT Project**

This research used mean to calculate the score for the three leadership styles on a rating of zero (0) to four (4) where zero (0) represents “not at all”, one (1) represents “once in a while”, two (2) represents “sometimes”, three (3) represents “fairly often” and four (4) represents “frequently, if not always”.

IT Project team members of National Information Technology Agency (NITA) rated;

- Transformational leadership style mean score of “2.9” which puts it close to “3” on the Multifactor leadership Questionnaire (MLQ) which implies that the Project Manager “fairly often” displayed Transformational Leadership Style on IT Project.
- Transactional leadership style mean score of “2.8” which puts it close to “3” on the Multifactor leadership Questionnaire (MLQ) which implies that the Project Manager “fairly often” displayed Transactional Leadership Style on IT Project.
- Passive Avoidant leadership style mean score of “1.4” which puts it close to “1” on the Multifactor leadership Questionnaire (MLQ) which implies that the Project Manager “once in a while” displayed Passive Avoidant Leadership Style on IT Project.

In reference to the literature review, Ware (2018) and Sakiru et al. (2013) perceived transformational and transactional leadership styles respectively to have higher impact on IT project than passive avoidant which aligns with the research objective.

### **4.6.2 To Establish an Appropriate Leadership Style for IT Project Success**

Based on the mean score ratings of the three leadership styles, that is;

Transformational leadership: 2.9

Transactional leadership: 2.8

Passive Avoidant leadership: 1.4

The outcome of this objective was that both Transactional and Transformational leadership styles were perceived as the appropriate leadership styles on a successful IT project. Ware (2018) concluded that transformational leadership style was perceived to be the appropriate leadership style for a successful IT project whilst Chaudhry, et al. (2012) also concluded that both transactional and transformational leadership styles were perceived as the appropriate leadership styles for a successful project.

#### **4.6.3 To Determine the Level of Success of the IT Project**

Under this objective, the researcher used a rating of zero (0) to four (4) to calculate for the level of success using mean score where zero (0) represents “not at all”, one (1) represents “once in a while”, two (2) represents “sometimes”, three (3) represents “fairly often” and four (4) represents “frequently, if not always”.

IT Project team members of National Information Technology Agency (NITA) rated;

The success rate of the project mean score of “3.1” which puts it close to “3” on the MLQ (Multifactor leadership Questionnaire (MLQ) which implies that the IT Project is “fairly often” successful. The research findings perceived IT Projects to be extremely successful. Ware (2018) perceived the projects to be highly successful as well which resonates with the findings of the study.



## CHAPTER FIVE

### CONCLUSION AND RECOMMENDATION

#### 5.1 Conclusion

The purpose of this research was to determine the leadership styles of Project Managers and its impact on IT Project Success as perceived by IT Project team members of National Information Technology Agency (NITA). The leadership styles included in the research were transactional, transformational and passive avoidant. A sample size of seventy (70) respondents were targeted via simple random sampling and both primary and secondary data were collected using questionnaire and journals respectively. Feedback was received from sixty (60) respondents and the data were analysed using SPSS V.20.

Using mean to analyse the various objectives, the research concluded that;

- Both transactional and transformational leadership styles had a positive effect on IT project success whilst passive avoidant had no effect on IT project success.
- Also, both transactional and transformational styles of leadership were perceived to be the appropriate leadership style for a successful IT project.
- Lastly IT Projects were established as highly successful.

The research was a success as the researcher had all answers to the research questions. The respondents willingly participated.

## 5.2 Recommendation

The success of an IT project is based on quality leadership style. Project managers must perceive both ;Transformational leadership style that is spending time to teach and coach project team members, helping the project team members to develop their strength and ; Transactional leadership style that is emphasizing the importance of having a collective sense of mission, expressing satisfaction when project team members meet expectations for successful IT projects in future.

This research focused on the Project Manager and IT Project at National Information Technology Agency (NITA) and therefore the outcome cannot be generalized to other IT Projects and Project Managers in different firms. The research recommends that further study should be extended beyond National Information Technology Agency (NITA).



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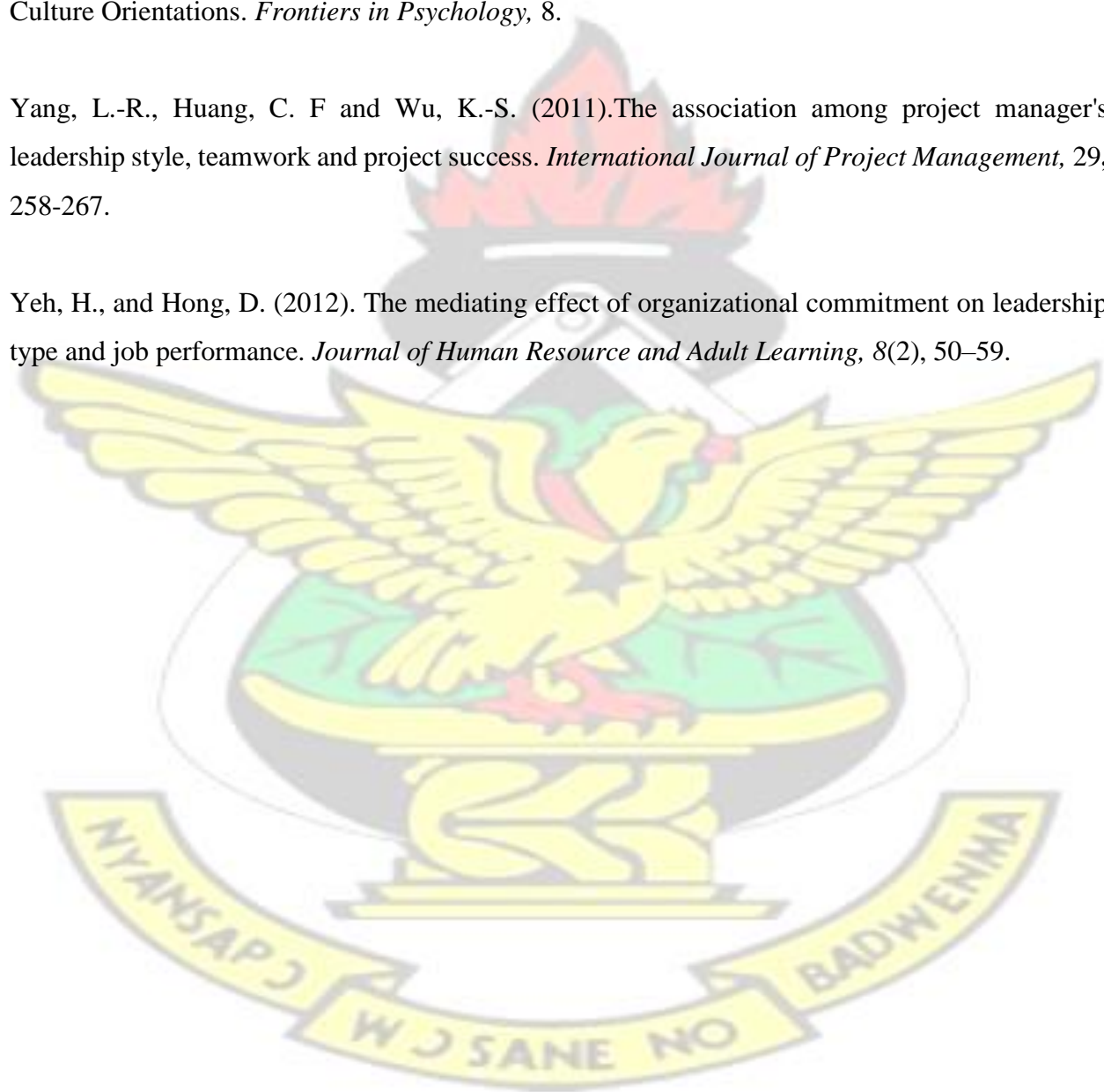


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## APPENDICES

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY  
SCHOOL OF GRADUATE STUDIES  
DEPARTMENT CONSTRUCTION TECHNOLOGY AND MANAGEMENT  
Research Project

The Purpose Of This Questionnaire Is To Rate The Leadership Style Of Your Project Manager As You Perceive It. Participation In The Study Is Entirely Voluntary. Kindly Give Accurate Feedback and Leave Any Unsure Item Blank.

Not at All	Once in a while	Sometimes	Fairly often	Frequently, if not Always
0	1	2	3	4

***The PROJECT MANAGER I am Rating .....***

1. Expresses confidence that goals will be achieved.....0 1 2 3 4
2. Provides me with assistance in exchange for my effort.....0 1 2 3 4
3. Fails to interfere until problem becomes serious.....0 1 2 3 4
4. Emphasizes the importance of having a collective sense of mission.....0 1 2 3 4
5. Avoids getting involved when important issues arise.....0 1 2 3 4
6. Expresses satisfaction when I meet expectations.....0 1 2 3 4
7. Shows that he/ she is a firm believer in “if it isn’t broke, don’t fix it”.....0 1 2 3 4
8. Demonstrates that problems must become chronic before taking action....0 1 2 3 4
9. Re-examines critical assumptions to question whether they are appropriate..0 1 2 3 4

Not at All	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

10. Discusses in specific who is responsible for achieving performance target..0 1 2 3 4
11. Makes clear what one can expect to receive when performance goals are achieved.....0 1 2 3 4
12. Delays response to urgent questions.....0 1 2 3 4
13. Seeks different perspective when solving problems.....0 1 2 3 4
14. Waits for things to go wrong before taking action.....0 1 2 3 4
15. Gets me to look at project problems from many different angles.....0 1 2 3 4
16. Is absent when needed.....0 1 2 3 4
17. Avoid making decisions.....0 1 2 3 4
18. Keeps track of all mistakes.....0 1 2 3 4
19. Directs my attention toward failures to meet standards.....0 1 2 3 4
20. Suggests new ways of looking at how to complete project assignments....0 1 2 3 4
21. Spends time teaching and coaching.....0 1 2 3 4
22. Helps me to develop my strengths.....0 1 2 3 4
23. Focuses attention on irregularities, mistakes, exceptions and deviation from standard.....0 1 2 3 4
24. Concentrates his /her actions full attention on dealing with mistakes, complaints and failures.....0 1 2 3 4
25. The project achieved expected customer satisfaction..... 0 1 2 3 4
26. The project achieved expected usability levels .....0 1 2 3 4
27. The project achieved expected efficiencies..... ..0 1 2 3 4

Not at All	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

28. The project achieved expected operational qualities (security, effectiveness, performance).....0 1 2 3 4

