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College of Business and Economics

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Master of Arts (MA) In Project Management

Assessment of the relationship between Project Management Maturity and Project Success: The Case of Africa Union Flag ship projects

By: Meron Getahun

A Research Project Work Submitted to the School of Graduate Studies of AAU in Partial Fulfillment of the Requirement for the Degree of Master of

Arts in Project Management

Advisor: Dr Mengistu Bogale

June 2021

Addis Ababa, Ethiopia

ADDIS ABABA UNIVERSITY COLLEGE OF BUSINESS AND ECONOMICS
SCHOOL OF COMMERCE DEPARTMENT OF

PROJECT MANAGMNET

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By: Meron Getahun

GSR/1426/12

Approved By: -

Research Advisor	**Signature**	**Date**
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External Examiner	**Signature**	**Date**
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June 2021

DECLARATION

I Meron Getahun declare that, the research based on *"Assessment of the Relationship Between Project Management Maturity and Project Success: The case of Africa Union Flagship Projects"* is the outcome of my personal work and study under the guidance of the research Advisor Dr Mengistu Bogale, that all the study's available sources of materials have been properly recognized. I conducted the research on my own,with the help and advice of the research advisor. This research has not been submitted to any university for a degree. It is being held in order to fulfill a requirement for a Master of Arts in Project Management.

Meron Getahun

Signature: _____

Date: : _____

Advisor: Dr Mengistu Bogale

Signature: _____

Date: : _____

June 2021

Addis Ababa,Ethiopia

ACKNOWLEDGMENT

እግዚአብሔር የተመሰገነ ይሁን!!!!!

First and foremost, I would like to express my sincere gratitude to my advisor, Dr. Mengistu Bogale, for his professional and technical assistance in completing this research.

I am grateful to Africa Union staffs who are working in the flagship projects and also who participated on the collection of data for their effortless collaboration.

Finally, my heartfelt thanks goes to my loving parents Getahun Mekonnen and Yeshi G/wolde, as well as my sisters Hiwot and Beti, who are the purpose and power behind everything I accomplished. And a special thank you to my wonderful friends who never give up on me and push me to the finish line with their everlasting and continued support.

Meron Getahun

June 2021

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ACRONYMS

AU	Africa Union
CMMI	Capability Maturity Model Integration
CMM	Capability Maturity Model
DPM3	Development Project Management Maturity Model
MINCE	Maturity Increments IN Controlled Environments
OAU	Organizational of African Unity
OPM3	Organizational Project Management Maturity
PMMMs	Project management maturity models
PMI	Project management institute
PMM	Project management maturity
PMBOK	Project Management Body of Knowledge
P3M3	Project, Program, Portfolio Management Maturity Model
SPSS	Software Statistical Package for Social Science
SEI	Software Engineering Institute

ABSTRACT

This research is aimed at assessing the relationship between project management maturity and project success in Africa union taking flagship project Agenda 2063 as a case study. The study assessed the level of project management maturity using the three knowledge areas(time, cost and quality),also assessed the level of project success and lastly assessed the relationship between the project management maturity and project success. In order to achieve the above mentioned objectives, literature review was undertaken that includes previous studies, including project management maturity models. Thus with this literature review a conceptual frame work was developed and a feasible methodology has evolved. Both primary and secondary data were used for data collection , primary data was collected mainly through questionnaires. Data's were analyze editing SPSS software to determine descriptive statistics as well as pearson correlation coefficient. The findings of the study revealed that the project management maturity level in terms of the three knowledge areas of the organization discovered that its stands at level 3. The results from the study show that there is a positive relationship between time, cost and quality management maturity levels and project success. Furthermore, quality management maturity was found to be the only one with significant relationship with project success.

Key concepts:Project, Project Management Maturity, Project Success

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Many firms utilize project management maturity models to improve project performance, according to According to (Catherine, 2008) these step-by-step outlines are planned to assist organizations in determining their project management maturity and improving their project management processes. Project reviews, on the other hand, are rarely emphasized in these models as methods for improving project performance because, too often, project reviews as methods for improving project performance.

According to (PMI, 2013) the project management institutes defines project as" a temporary endeavor undertaken to create a unique product, service, or results". In addition to that the institute defines project management as" the use of knowledge, tools skills and techniques to complete project activities so to meet there requirements of the project."

The project's objective is to design and select a task that will benefit the company in the long run. This advantage could be financial, marketing, or technical in character, but it will almost certainly be of a long-term character, focused toward the project's estimated total life period. Project management, on the other hand, is focused on planning and control. It is concerned with the estimated time, budget expenses and proper performances standards. Successful project management insures the completion of project in time, within budget, and to the project specifications (Rosli, 2017).

According to (Rosli, 2017) as cited by (Munns, 1996)the definition of a project, there is a focus on higher and longer-term objectives. Return on investment, profitability, competition, and market ability will all be critical elements in the goals. Project success has a wide range of consequences. They would include clear indicators such as meeting the project's budget, sticking to the timeline, and maintaining a high level of quality and meeting the project goal.

Human, technical, organizational, and environmentalelementsinvolved in project management make the poor performance of many projects difficult to comprehend. Organizations must either improve their project management maturity or understand their resources and skills to effectively manage projects in order to handle this challenge and discover some practical answers (Catherine, 2008).

According to the survey, scholars in the project management area has introduced project management maturity models (PMMMs) helps organizations develop the PMM during the last two decades. A maturity model, according to Murray and Ward (2007), is an organized collection of features that characterize the features of successful processes.In 1980's (Neverauskas B. and Railaite R., 2013) exposed the first project management maturity.Capability Maturity Model which was developed by the Software Engineering Institutes,ever since the world has seen over thirty new maturity models.

According to (Vergopia, 2008) the following models are listed, these are Capability Maturity Model(CMM), Berkeley Project Management Maturity (PM2) Kerzner Project Management Maturity Model (KPMMM), Organizational project Management Maturity (OPM3),SE-CMM, Capability Maturity Model Integration CMMI, Project Management Maturity Models PMMM (by PM Solutions Inc.) and Project, Program, and Portfolio Management Maturity (P3M3) by OGC. As (Neverauskas B. and Railaite R., 2013) stated these models has different characteristics, however majority of them includes 5 levels of maturity, which categorized by similar definitions of level name.

"Organizations employ the project maturity model, which aims to improve project management through time. Organizations realize applying a systematic and sequenced structure, known as project management maturity models, to improve project performance and maturity, as well as to show them where they should concentrate their efforts to improve their Project Management capabilities (Vergopia, 2008).

This model allows the organization to analyze their progress and helps to improve some of the practices and implementation procedures. The models highly encourage the organization and give them a successful advantage in the organization by helping them to frequently improve their

implementation practice. Organizations with a higher maturity level are more fruitful than those with a lower maturity level (Larison, 2011).

Agenda 2063 calls on all Africans within the continent and in the Diaspora for full engagement in the detailed planning and implementation process to ultimately lead to economic, social and political development through integration. This process would consequently help in eradicating backwardness from the continent. Having raised the crucial strategic points outlined in the Agenda, the next fundamental inquiry that needs to be made is an investigation of whether or not African nations are indeed infusing the leading principles of the Agenda into their operational plans. The Agenda 2063 calls for a commitment from citizens, leadership, governments and institutions at national, regional and continental levels to act, coordinate, and cooperate for the realization of the vision (AU, 2015). Therefore this study focused on to assess the relationship between Project management maturity and project management success taking the four Africa union flagship projects as the case study.

1.2. STATEMENT OF PROBLEM

Project management maturity is not guaranteed by repeatable project management approaches and successful implementation. External elements that may directly or indirectly affect the success rate and continuity of project management implementation as a means of continuous improvement are vital for long-term survival, according to (Yen, 2016) in the case study assessment. Beyond experience and success, both project management maturity and project management excellence are required. Organizations that have mastered project management create an atmosphere in which a steady stream of successfully managed projects can be found, with success defined as achieving performance that is in the best interest of the entire firm as well as completing a specific project.

According to (Yazici, 2009), there is a positive relationship between organizational performance and project management maturity, as measured by internal and external indictors. The study also suggested that organizations should conduct project management maturity level assessments on a regular basis for learning organizations, continuous improvement, better project performance and better project management.

In other research, Moreover, as (Mateen, 2015) indicated project management maturity enables the organization to provide a project with increaseproductivity. Since project management maturity provides an important guide to compare project delivery capability between a specific organization and industry rules organizations and in orderto continue this improvements and success organizations must use PMM. Project management maturity benchmarking is a critical tool for comparing a company's project delivery capabilities to industry standards.

According to (Falgari, Golini, & Landoni, 2013) there is a need to improve project management maturity in order to improve the chances of success in an organization. Despite the value of uncovering the link between project management maturity and project success could have in allowing organization such as AU to gain a better knowledge of the subject and how it may alter their professional landscape, because local literature fails to address this topic so.

Examining project management's most typical issues in different parts of the world, maturity in 2004 a global study on project management in 38 nations was conducted, including the united states, Philippines, Spain,Japan, Italy and Australia. The association between good project management practices in business was one of the significant findings of the survey. A higher maturity level was found to be associated with longer term project delivery. In 2004, the vast majority of organizations were working on projects that fell into one of three categories: Level 1, Level2 or Level 3.

In 2012, they continued their research, and the report revealed a higher number of firms with higher levels of PM maturity than in earlier studies. According to survey results, firms are attempting to standardize and improve procedures and tools in order to achieve higher degrees of PM maturity. However, according to the survey, more than half of the businesses are dissatisfied with their current maturity level. It reveals that most business want to be more mature, but they need to enhance their organizational structure, human resource management and quality assurance (Survery, 2012).

The African Union's strategic and operational goals will be substantially influenced by Agenda 2063, according to the Agenda 2063 Framework paper. However, the reality on the ground demonstrates that member states' strategic and operational strategies differ from one another when it comes to complying with Agenda 2063. Looking at the current state of affairs in Africa,

it appears that it can be concluded that the goals of AU are not being met and Africa continues to engage at the margin (Chrisa, 2014).Therefore, the domestication and execution of the Agenda in to member states' national policy framework for successful growth and development appears to be an essential focus area for the African Union.

According to (AUDA-NEPAD, 2020) the organization has faced some time and cost overrun. In addition to that it has also faced lack of funds for the detail engineering study faced inadequate human and financial resources for completion of the project in the next phase as well as to enable the executing agency to become operational. Also (AUDA-NEPAD, 2020) states that the project management maturity level and due to variety of factors, the organizations project success rate is rated average. As a result, the company must determine its maturity level in order to implement modifications that will increase the organizations performances in the future .

The flagship project in particular and the projects in general are very much dependent on international partners (donors) in termsof financing them which indirectly affects the quality of work, time and cost. Some flagship projects could even be temporarily stopped because of lack of financing and funding This could affect all African nations including our country Ethiopia not only socially and economically but also poltically as well.

These characteristics together with Africa Union's need to see if its project management investment is paying off, motivates the researcher to focus on this topic. To assess the relationship between the Africa Union's (AU) flagship projects management maturity level and project success.

1.3. RESEARCH QUESTIONS

A. The study's major research question is:-
    - ❖ What is the relationship between project management maturity and project success in Africa union flagship projects?
B. Research questions in particular
    - ❖ The specific questions that has addressed in this study are as follows:

I. What is the level of project management maturity on the basis of the three core knowledge areas (i.e. time, cost and quality) in the case of Africa union?

II. What is the level of project success in the case of Africa Union?

III. What is the relationship between project management maturity and project success in the case of Africa union?

1.4. RESEARCH OBJECTIVES

A. General objectives

The ultimate goal of this research is to evaluate the relationship between project management maturity and project success in the context of Africa union flagship projects.

B. Specific objectives

The following are the study's particular goals:-

- To assess the level of project management maturity on the basis of the three core knowledge areas in the case of Africa Union
- To determine the level of project success in the case of Africa Union
- Assessing the relationship between project management maturity and projectmanagement success

1.5. SIGNIFICANCE OF THE STUDY

This study has great importance for Africa union since the organization runs different projects including flagship project Agenda 2063, by ensuring that project management maturity model ideas are applicable for all the projects. It could also be used by academicians and researchers as an input for doing an in-depth assessment of various organizations project management maturity. The researcher has also employed the research project as an opportunity to see how the theoretical knowledge acquired during the duration of the course is being implemented in reality.It also adds to the existing project management literature by indicating where future

project management research should focus in order to go thorough understanding of this young but promising discipline.

1.6 SCOPE OF THE STUDY

The goal of this study is to see if there's relation between project management maturity and project success, as measured by the three fundamental areas of cost, time, and quality (Atkinson, 1999),in order to determine the organizations development in maturity level and project success, and to make recommendations for future improvements. This delimitation is necessary since such measures are clear, easy to apply, and fall within the scope of project management (Jugdev, 2005). Furthermore, Africa union employs many ideas and processes in order to create success and a competitive advantage, as well as utilizing projects to accomplish these goals.

Hence the study is limited to the four Africa union flagship project(African Encyclopedia, Pan African E-Network, Continental high speed train Network and Silencing of Guns and End wars in Africa by the year 2020).

1.7 LIMITATION OF THE STUDY

Any research project, like any other project endeavor, is bound to have flaws. As a result, the researcher encountered various restrictions during the research process. The first and most serious major obstacle was inadequate amount of time, as the study project was only allocated a limited amount of time. The generalizability of the results of this study is weakened by some limitations regarding the scope, and survey design. From the initiation of the study this paper's main focus is only the four ongoing Agenda 2063 projects, as a result project managers were not taken as a sample, which limited the data obtained. In addition to that, the research is only focused on the three Project Management knowledge areas.

1.8 DEFINITION OF TERMS

PROJECT: is a unique, temporary in that it has a defined beginning and ended in time and therefore defined scope and resources (PMI, 2013).

PROJECT MANAGMNET: is the application of knowledge, skills, tools and techniques to project activities to meet the project requirements (PMI, 2013). Also project management defined as meeting the project objectives on schedule, allocated budget and appropriate performance by using effectively and efficiently the appropriate resources (Kerzner, 2015).

PROJECT MANAGMNET MATURITY: how well understood and implemented the concepts of project management are in an organization, on the basis of the three core parameters, time, quality and cost.

PROJECT SUCCESS: an evaluation of organizations performance in the areas of compliance with budget, time and quality.

1.9 ORGANIZATION OF THE PAPER

There are five sections to this research. The study's context is discussed in the first chapter, which also discusses project management maturity and project management succsses. The problem description, research questions, general and specific study objectives, significance, scope and probably study limitations are all included. The second chapter presents many relevant literatures in order to provide a more in depth grasp of the subject at hand. The meaning and nature of terms are examined during a theoretical review.

This chapter also includes a review of the empirical investigation as well as the study's conceptual framework. The study methodologies are discussed in the third chapter. This chapter covers the research design, study variables, study area and target population, sampling techniques and sample size, data collecting, data analysis, reliability, validity and finally research ethics. The study findings are discussed in the fourth chapter as well as their interpretation and discussion. The summary, recommendation is all found in the fifth chapter. At the end of the study, there is also a list of references and appendices.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

Theoretical, empirical, and conceptual frame work are the three aspects of this chapter. Theoretical definitions of concepts are presented, as well as relevant literatures and previous related literatures related on project management maturity level and project management maturity model are reviewed in the empirical review section, The relationship between project management maturity and project success based on the three main aspects of time, cost and quality have been identified and addressed in the conceptual frame work.

2.2 THEORETICAL REVIEW

A Project :"individuals or organizations undertake a unique set of corresponding operations with a specified starting and concluding point to fulfill specific objectives within defined time, cost and performance limits (Heagney, 2012).It's also defined as a series of distinct, complicated and interconnected tasks with a single objective or purpose that must be performed on specific time, on budget (Wysocki, 2014). Because it's a temporary activity, it should have specified beginning and finishing points, a budget, a well-defined scope or amount of work to be completed, and specified performance requirements to be satisfied. A project, according to the PMI definition, is a short term attempt undertakes to create a one- of- a kind product, service or outcome (PMI, 2013). Also according to the PMBOK (Project Management Body of Knowledge) 3rd edition, a project is an activity to meet the creation of a unique product or service and thus activities that are undertaken to accomplish routine activities cannot be considered projects. According to these definitions a project is a collection of various activities with a single purpose that is completed only once and results in a unique conclusion. It differs from routine work in that it is a onetime effort to make a significant difference.

A project Management: Its definition can be found in a variety of places in the literature. Project management, according to a 1950's definition, is the use of tools and strategies to direct the utilization of various resources to complete a unique, complicated and one-time task within

time, cost and quality limitations (Mandson, 2015).Another definition of project management was included in this literature from the (UK assosoiation,1995), which states that project management is about planning, organizing, monitoring, and controlling all aspects of a project, and that everyone involved in the project is motivated to achieve the project goals carefully and within the specified budget, time, and performance constraints. According to modern literature, project management is defined as "the application of knowledge, skills and tools essential to meet the project's needs" (Kerzner, 2015).Project management is also defined as a method of directing a group of skilled people in planning and implementing a sequence of connected operations that must be completed on a particular date with a limited budget, according to (Organization, 2015).

According to these definitions, project management is a process of implementing tasks, using tools and procedures and leading a team to achieve a project goal successfully and productively. Management of all operations, by its very nature, demands a process- oriented approach. Project management is achieved through the five process groups, according to (PMI, 2013), these are initiating, planning, executing, monitoring and controlling and closing. Project management body of knowledge: The project management body of knowledge represents the entire knowledge in the practices of project management, including tools and techniques for managing project management processes and activities. According to the PMBOK guidance (PMI, 2017), there are ten different knowledge areas to consider these are project integration management, project scope management ,project time management, project cost management, project quality management, project resource management, project communication management ,project risk management, project procurement management, and project stakeholder management.
Among these ten knowledge areas according to (PMI, 2017), the three knowledge areas are defined as follows.

1. **Project Time Management:** it is an essential component necessary to ensure the timely achievement of project, including the planning defining and sequencing of activities, resource and duration estimation and the development and control of a schedule (PMI, 2017).

2. **Project Cost Management:** it refers to the procedures for the planning, estimating, financing, investing, managing and controlling expenditures so that the project may be completed within the allocated budget (PMI, 2017).

3. **Project Quality Management:** it refers "to the process and actions through which a performing company determines quality policies, objectives, and responsibilities in order for the project to meet the needs for which it was created. "It endeavors to guarantee that project specifications, including product specifications, are achieved and evaluated (PMI, 2017).

- This research is mainly focused on the three knowledge areas the so called iron triangles these are project cost, time and quality management.

2.2.1 PROJECT MANAGEMENT MATURITY

The accessibility of an organization to project management has been defined as organizational project management maturity. Project management maturity refers to the gradual development of a company-wide project management approach, methodology, strategy, and decision- making process. Depending on the goals, strategies,resourceavailability,scope, and demands of each company, the appropriate level of maturity will differ (Crawford, 2012). Organizations can benefit from capability evaluation and development frameworks provided by project management maturity models. Furthermore, according to Merriam-Webster, maturity is defined as "the quality or state of being mature. Project management maturity models provide frameworks for evaluating and developing capabilities for companies. Organizations can benefit from capability evaluation and development frameworks provided by project management maturity models. In addition to that Maturity is defined as "the characteristic or state of being mature" by Merriam-dictionary. The application of standard technique and related processes in such a way that there is a high likelihood of repeated success, (Kerzner, 2015).

PMM models have been developed by researcher in the area to assist business in improving their project management maturity during the last two decades (Vergopia, 2008).These models are intended to assist businesses in successfully, regularly, and predictably completing projects.

They are also sequential frameworks that measure project management maturity and in order to acquire a higher level of maturity, aspects of project management must be updated or improved.

As cited by (Mir, 2014), Fortune et al. (2011) report that, compared to 2002, the popularity of PM approaches and technologies has improved dramatically among PM practitioners in 2011. Furthermore, the literature suggests that having a mature PM system in place can provide several benefits; in addition project management is a more efficient management method than traditional functional management, as mentioned by (Mir, 2014).

(Kerzner, 2009)States that to determine the ultimate goal of any project management system, is to maximize the possibility that the organization will experience a constant stream of successful completion projects. Furthermore, Kerzner argues in his 2009 book that maturity is the foundations on which an organization can be succeed and identify improvements. (PMI, 2013). The author supported this argument by suggesting that organizations PMM can have an impact on project success. This research assessed the project management maturity of Africa Union flagship projects Agenda 2063 on the basis of the core project management areas: the so called iron triangle: time, cost and quality, establish its relationship with project success.

2.2.2 PROJECT MANAGEMNET MATURITY MODELS

According to (Talita Ferreira de Sua, 2015), every company aspires to be the best at what they do. Even if you have been using project management for a long time, it's not enough to go to the top. Maturity models in project management, which are made up of categories that reflects the different levels of maturity in managing projects, are best defined as that of the foundation for reaching competence in project management.

(PMMM)The Maturity Assessment Model is a typical process created by Project management alternatives to assess an organization's project management maturity. Project management maturity model(PMMM) presents a frame work, describing the necessary procedures to be followed towards project management maturity, once the starting level of maturity and areas for improvement have been recognized. In 2002 PMMM was initially established as book and in 2007 second version was released. It analyses the history of ten knowledge areas of PMI's PMBOK guide, and it delivers five stages of developmental maturity. The PMMM methodology

goal is to help any company enhance its project management capabilities in a methodical and effective manner (Mateen, 2015). A maturity model is an important structure with essential pieces that identifies the maturity of the area of focus and in certain situations; additionally it explains the procedures that the organization will need to establish in order to achieve a desired future. The model recognizes each step along the way, indicating the organizations progress.

Project management tools are used by enterprises to assess performance and the maturity level of their project management methods. Organizations perform best when they concentrate their efforts on improving procedures in a small number of regulated areas that demand a more advanced effort as the organization improves its development. A maturity level is described as a set of particular and generic practices relating to a predefined set of process areas that enhance an organizations performance.

Since a project is defined as a short term undertaking to produce a unique product, operation or result that has goals, a specified beginning and finish which is managed by a team of people and is completed once the objectives have been reached. (PMI, 2013).A non- repetitive venture having a clear and logical sequence of events, with beginning middle and end is also known as a project. That is intended to achieve a certain purpose and is completed within established constraints. Maturity in project management refers to where an organization stands in terms of its project management processes.

Maturity models aim to quantify a company's ability to handle projects successfully based on this. Depending on the available resources and the needs of the business, appropriate maturity level may differ. In addition to that the primary goal is to estimate out which maturity evaluation method to utilize. The models will illustrate the organization's maturity level so that it may determine the level it wants to reach.

According to (Kwak & Ibbs, Project Management Process Maturity (PM2) Model, 2002)measuring an organization's project management maturity entails determining whether or not it is capable of fulfilling or exceeding the expectations of project stakeholders (Ofori and Deffor, 2013). Furthermore, thirty PMMMs are estimated by, (Grobler, 2006). And are the only models shortlisted in this study on (Nenni, 2014) are:-

According to the research made by (Yoseph, 2017) as cited by (Grantt and Pennyapacker,2006) used the following criteria in selction a project managemnet maturity model for their survey :-

- Alignmnt of project maturity model with organizartions project managmnet methdodlogy
- Scope covered by project maturity model
- Number of publiaction about specfic project maturity model
- Independency from industry organization type
- Ease and comfort ability to use
- Years of existence

Mateen(2015) cited Man(2007) who reviewed the maturity model selction on th basis of

- Structure
- Applicability
- Usage

(Nenni, 2014) combines both frameworks and shortlisted the following models

- (OPM3) Organizational Project Management Maturity
- (CMMI) Capability Maturity Model Integration
- (PMMM) Kerzner's Project Management Maturity Model
- (P3M3)Project, Program, Portfolio Management Maturity Model
- (MMGP) Project Management Maturity Model- Darci Prado

I. Organizational Project Management Maturity Model (OPM3)

OPM is a strategy execution framework that combines project, program, and portfolio management with organizational enabling practices to deliver organizational strategy in a consistent and predictable manner, resulting in improved performance, better results, and a long-term competitive advantage (PMI, 2013).

While OPM3 is a way to understand and assess an organization's capacity to execute high-level strategic planning by managing its portfolio or portfolios and then delivering at the tactical level by successfully, consistently, and predictably managing programs and individual projects, organizational project management maturity is a framework for assessing and understanding the

organization ability to manage its portfolio after that delivering in a strategic level .it is also a program that may be used to assist firms in driving organizational improvement.

According to (Jaleel & Mansur, 2017) between 1998 and 2003, the PMI developed the OPM3(organizational project management maturity model).It establishes requirements for ensuring and developing project,program,and portfolio capabilities in order to aid organizations in implementing it's throughout the project period. In contrast to a complete and wide ranging set of project management best practices, OPM3was created with the goal of offering a mechanism for business to understand project management and to measure maturity. In OPM3, there are multiple dimensions to maturity progress.OPM3 combines best practices from many aspects of organizational project management, such as program, project, portfolio management (Fahrenkrog, Haeck, & Abrams, 2003).

According to the study Standardization, Measurement, Control and Continuous improvement are the characteristics that valuing best practices related with process development phases, which represents project improvement methods, project implementation analysis and practice assessment and improvement respectively.

According to (Fahrenkrog, Haeck, & Abrams, 2003)the progression of best practices connected with each of these domains: Projects, Programs, and Portfolios is another dimension. Each step indicates a continuation of the company's improvement goals. In the OPM3 model, a process is constructed using five process groups, three domains, and four stages of improvement. The procedures that describe this interaction are as follows: Every process is required in all domains; process execution is dependent on the appropriate inputs, tools, and techniques; process variability is controlled; and the maturity of each domain is determined by the progression of the Standardization, Measurement, Control, and Continuous Improvement stages. In order to gain more maturity, the OPM3 model recommends that the company analyzes the list of best practices and conducts feasibility and priority analysis, establishing a plan comprised of the optimal sequence of improvement actions appropriate for its situational conditions.

There are five maturity stages for undertaking project, program, or portfolio management maturity assessments, according to (Mateen, 2015). It is not necessary to perform maturity

assessment in all three areas to identify areas for improvement (PMI-OPM3, 2013). The following is an explanation of the OPM3 maturity levels:

LEVEL 1: NONE - there isn't such a thing as a practice.

LEVEL 2: STANDARDIZE - inside the organization, a standardized project process has been established and disseminated. Only a few projects use this technique.

LEVEL 3: MEASURE - All projects inside the company follow a standardized process, which is then measured to determine the organization's effectiveness.

LEVEL 4: CONTROL - the measured process is adjusted to correct for a lack of adherence to the established procedure. The process is studied and upper and lower limitations are determined.
LEVEL 5: IMPROVE - As a result of the Best Discipline standard, continuous process improvement becomes a practice.

II. Capability Maturity Model Integration (CMMI)

According to (Mahmod & Kundian, 2015) SEI created the (CMMI) capability maturity model integration in 1986 to combine the multiple CMM models. In 1993, CMMI was developed with the goal of improving software development processes. It focused on the areas of systems and software engineering. This model formed to evaluate an organization's current processes that industry, government and academia have all created proven best practices. Also in order to identify potential areas for development, it focused on providing a mechanism of tracking progress.

Rather than just software development, the CMMI model was developed to help software and services firms links process improvements with business objectives,overheads,schedules, productivity,quality and customer satisfaction. It is a program management model that may be customized to tackle performance issues at any levels of the organization or industry by offering guidance for improvement in multiple organizational disciplines.

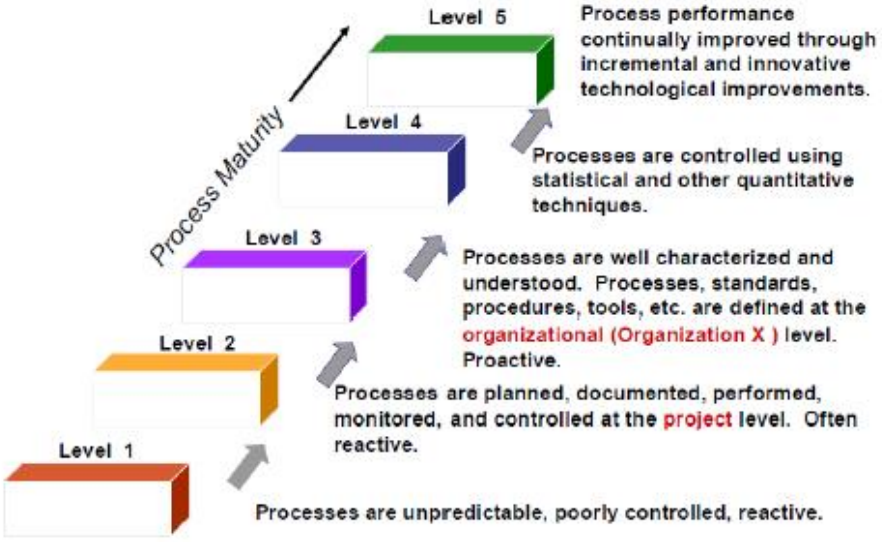

Figure 2.1 Maturity levels of CMMI staged (source: https://www.umsl.edu)

III. Kerzner Project Management Maturity Model(KPMMM)

(KPMMM) The Kerzner Project Management Maturity Model is a project management version of the CMMI. KPMMM is made up of five levels of maturity mixed with PMBOK's region structure, according to (De Carvalho& Junior, 2015).KPMMM combines the PMBOK area structure with five stages of maturity.

When it comes to maturity, there is a frequent misconception that all work must be completed in a specific order, However, because the extent of the overlap is governed by the degree of risk that the organization faces, the levels may exceed. Harold Kerzner's model stands out from the rest since it includes ways for assessing each degree of development. The goal is to determine the degree of adherence at every organizational level .kerzner stated that it's vital to note that employing a PM methodology is very essential, but not adequate condition for organizational success.

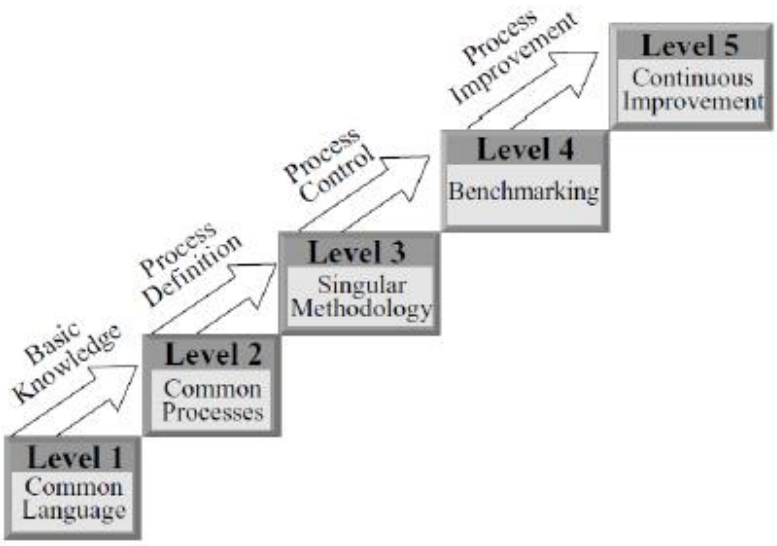

Figure 2.2 Kerzner PMMMM levels (Source: (Kerzner, 2009)

LEVEL 1 :COMMON LANGUAGE-" the company recognizes the significance of managing projects and the demand for a full understanding of the fundamental project management knowledge and the accompanying language/terminology (Mateen, 2015)as described by (Kerzner, 2002)".

LEVEL 2: COMMON PROCESSES- This level also entails acknowledging and supporting the project management concepts in the company's other techniques. The organization recognizes the need to identify and create common processes so that project accomplishments may be duplicated on succeeding projects.

LEVEL 3: SINGULAR METHODOLOGY- The organization sees the synergistic effect of combining all business operations into a single approach, with project management at its center, at this level. Controlling the process is equally important..

LEVEL 4: BENCHMARKING-This level recognizes the value of process improvement in sustaining a competitive edge. Benchmarking should be done frequently. The company must decide who and what will be benchmarked."

LEVEL 5: CONTINUOUS IMPROVEMENT- "At this stage, the organization evaluates the data acquired by comparisons to see if it will enhance the specific process.

IV. Project, Program and Portfolio Management Maturity Model (P3M3)

The Office of Government Commerce (OGC) initially presented the P3M3 model in 2006 as mentioned by (Mateen, 2015). P3M3 is a maturity model for project management that looks at the delivery of the organization on projects, programs, and portfolios, according to OGC (2008). P3M3 includes three maturity models, each of which can be utilized to focus on a different aspect of the area. Theseare Portfolio Management (pfM3), ProgramManagement (PgM3) and Project Management (PjM3). The seven process views classified into each sub-model are Organizational Performance, Management Control, Benefits Management, Risk Management, Stakeholder Management, Finance Management, and Resource Management (Swoden, 2008). The seven process views is rated on a scale of one to five, according to (OGC (2011), as quoted by (Mateen, 2015):

LEVEL 1: PROCESS AWARENESS- “Organizations acknowledge projects, but there is no organized methodology to managing projects, programs, or portfolios.”
LEVEL 2: REPETITIVE PROCESS- “A basic norm for project management exists, but it is not applied uniformly throughout the organization.”
LEVEL 3: DEFINED PROCESS- “Project standards are applied consistently throughout the organization.”
LEVEL 4: MANAGED PROCESS- "allows the company to track and measure project progress."
LEVEL 5: OPTIMIZED PROCESS- “At this level of maturity, all project, program, and portfolio management processes have been optimized, and the organization's continual improvement is visible.”

V. Project Management Maturity Model- Darci Prado (MMGP)

According to (Talita Ferreira de Sua, 2015) this model was established or developed to support the project management team of Institute de DesenvolvimentoGerencial (Management Development Institute,INDG), now FalconiConsultores de Resultado, in determining the maturity level of the enterprises who engage it.

Project management specialists agree, according to (Prado, 2011)that a maturity model should address the following areas: strategy, procedures, people, and technology.

Given that the same organization may have varied levels of maturity, the MMGP model should be used separately in each sector within the organization.MMGP is divided into six dimensions, each of which corresponds to one of thefive levels of Maturity (Prado, 2011).

LEVEL 1- INTIAL- The company does not have a correct perception of what projects and project management are. Usually there is no planning and control is always nonexistent. There are no standardized procedures. The success is the result of individual effort or luck.

LEVEL 2-KNOWN- This level represents the awakening to the subject of PM. Its main features are: Introductory knowledge of PM, Introductory use of tools (software) for activities sequencing, and isolated initiatives for planning and control of some projects, each professional works in its own way, as the consequence of the lack of a standardized platform for PM, consisting of processes, tools, organizational structure.

LEVEL 3-STANDARDIZED – This level represents the situation where a PM platform has been implemented. Its main features are: Existence of a standardized platform for PM, this platform is in use by the leading players for over one year, use of baseline and performance measurement.

LEVEL 4-MANAGED- This level represents the situation where the PM platform really works and gives results. Its main features are elimination of manageable anomalies that hinder project outcomes, professionals consistency demonstrate a high level of competence, and the results of the area (success rate, delay, etc) are consistent with that expected for the maturity Level 4.

LEVEL 5-OPTIMIZED-This level represents the situation in which the PM platform not only works and gives results as was also optimized by the practice of continuous improvement and technological and processes innovation. Its main features are: Optimization of processes and tools, Optimization of results (time, cost, scope, quality, performance, etc.), highest level of success, Efficiency in the environment and work climate, high productivity and low stress and High recognition of the competence of the area, which is seen as a benchmark.

2.2.2.1 CHARACTERSTICS OF MATURITY MODELS

This part aims to provide the findings of the exploratory research, defining the key aspects of the maturity models studied and drawing parallels between them. To demonstrate complementarily between the available models, a proportional analysis of the models is required. SEI's model was the first, and it served as a foundation for the other models, these are:-

Levels	Maturity Models				
	CMMI	OPM3	KPMMM	P3M3	MMGP
1	Initial	Standardization	Common Language	Intial process	Initial
2	Managed	Measurement	Common Processes	Structured process	Known
3	Defined Quantitatively	Control Continuous	Singular Methodology	Organizational standards	Standardized
4	Managed	Improvement	Benchmarking	Managed process	Managed
5	Optimized	_	Continuous Development	Optimized process	Optimized

Table 2.1 - Maturity Models (Source (Talita Ferreira de Sua, 2015)

The maturity models under investigation are characterized in levels maturity. The level of maturity consists of a specific report of practices connected to a predefined set of process areas that increase the organization's overall performance constitutes the level of maturity. The maturity model has 5 levels; each represents a layer of continuous process improvement. According to (Talita Ferreira de Sua, 2015)all the models have five levels except OPM3 which has only four. This attribute arises from the fact that OPM3 reflects firms to have previously accepted documentation and procedure standardization procedures at maturity level 1 which is standardization which is usually only involved in maturity level 2.

The use of improvement processes for the advancement of maturity levels can be recognized in the investigated models. The implementation of questionnaires to identify the organization's current state of maturity is the method used to measure maturity. Despite the fact that the models under investigation were designed by different authors, they all share the same goal and that is

improving the maturity level of the organizations, companies, firms that utilize them, as well as the processes they utilize.

2.2.3 PROJECT SUCCESS

According to (Badewi, 2015) as cited by (Dalcher, 2012), the major goal of employing a project management agenda is to increase organizational value. The organization can benefit from using project management framework by increasing the effectiveness of human effort in the organization while increasing the efficiency in terms of delivering the desired outcomes in the mid to long term. Project success is the output of three interacting sub success criteria: successful project management in delivering the project output, successful communication and understanding of stakeholder's needs and successful realization by the organization of the projects benefits. (Badewi, 2015) As cited by (McLeod et al.). Without the ability to organize through a proper project governance to absorb and to use the project outputs the benefits will not be realized effectively.

As defined by the Canadian Oxford Dictionary (1998), success is "the accomplishment of an aim; a favorable outcome." But what can be said of project success? Without venturing onto risky terrain, we can say that there is no consensus as to what constitutes "project success" or "project failure". (Pinto, 1988)suggested that few concepts in project management have been addressed in the literature on a regular basis without the investigators being able to reach a consensus on definitions.

Arriving at a definition of project success would appear to represent an enormous challenge to investigators. Several authors simply presume that everyone knows what is meant by "project success" and "project failure." The only thing that is certain in project management is that success is an ambiguous, inclusive, and multidimensional concept whose definition is bound to a specific context. Without going so far as to propose a complete definition, we can nevertheless frame project success in terms of other concepts such as efficiency and effectiveness.

Many authors and practitioners consider efficiency and effectiveness synonymous, and this confusion is often present in the project management literature As described by the famous American author Peter Drucker, efficiency is to "do things right," or to maximize output for a given quantity of inputs or resources, and effectiveness is to "do the right things," or to attain the project's goals and objectives.

As proposed here, the definition of the concept of success remains very broad. Implicitly or explicitly, the authors generally discuss project success with the conviction that they are talking about project success or more than successful project management (the project success).

Within the conceptual framework of this review, a distinction is necessary between "project management success" and "project success." Project success has long been considered the ability to fall within time, cost, and quality constraints. The "time, cost, and quality triangle" or "iron triangle," or the "golden triangle," that some professionals call the "Holy Trinity" or the "triangle of virtue" done as a definition of project success (Atkinson, 1999). However, projects have often enough been delivered within time, cost, and quality, only to be considered failures. At the same time, other projects that have exceeded time or cost constraints are generally considered successful (Pinto &Slevin, 1988a).

According to (Kumar, Banga, & Kaur, 2016) a successful project is one that is completed on time, on budget, within scope, and meets quality standards. It provides moderate value, which is lower than expected. A failed project is one that is never finished but is either late, over budget, or fails to meet all of the requirements. It provides extremely little or no value. The following are some of the variables that contribute to the project success, these are:- The PM manager, project team members, project, the organization, external environments, Prioritizing the development of quantitative and measurable key performance indicators (KPIs),Integrating KPIs with Organizational Goals, Set reasonable and attainable goals. Project success, according to (Pretous, Jordan, & Steyn, 2012) , is determined by the four dimensions listed below.

- The project and project manager's abilities and capabilities
- Administrative structure
- Systems of Measurement
- Management practices that reflect the culture of an organization

To summarize project success it is perceived, subjective, and difficult to quantify. It is impacted by a number of elements, including formal project management procedures, the project manager's and other team members' skills and abilities, corporate culture, good communication, and senior management support.

2.2.4 PROJECT MANAGEMENT MATURITY AND PROJECT SUCCESS

For organizations to succeed in the global business competition of today, they need to produce a high standard of performance. The purpose of maturity models is to provide a framework for improving an organization's business result by assessing the organization's strengths and weaknesses and by enabling comparisons with similar organizations (Combe, 1998), (Ibbs&Kwak, 2000). In the IS/IT discipline, maturity is regarded as "a measure to evaluate the capabilities of an organization" (Rosemann& De Bruin, 2005: 1). Levin &Skulmoski (2000) point out that the maturity models provide a framework to help enable organizations increase their capability to deliver projects on schedule, within budget and according to the desired technical specifications.

Measuring maturity in organizations is regarded as a subjective task, since most significant research is primarily focusing on what people are doing operationally (Andersen &Jessen, 2003). Skulmoski (2001) recommends a view that where competence and maturity should be linked together for project success and not focusing only on action and where competence should be regarded as a combination of knowledge, skills and attitudes that supports performance.

According to the Office of Government Commerce, a number of reasons exist that explain why organizations might choose to use a maturity model to assess their current performance, such as: (1) justifying investments in a portfolio, (2) program or project management improvements, (3) gaining recognition of high quality service, in order to support proposals, (4) gaining a better understanding of their strengths and weaknesses in order to ensure that improvements take place.

The assessment of maturity typically involves variations along the following five developmental stages (OGC, 2010):

Level 1: Initial - Processes are not usually documented.

Level 2: Repeatable – Basic management practices have been established.

Level 3: Defined - The management and technical processes necessary to achieve the organizational purpose will be documented, standardized and integrated with other business processes.

Level 4: Managed - There will be evidence of quantitative objectives for quality and process performance, and these will be used as criteria in managing processes.

Level 5: Optimized - The organization will focus on optimization of its quantitatively-managed processes, to take into account changing business needs and external factors.

These assessment procedures help an organization understand where it has come from, where it is now, and what processes need to be implemented, in order to continue the implementation of management methodologies. As organizations mature in business and project management processes, and their use of information technology, they implement centralized solutions to facilitate these processes. Working with different types of projects within an organization requires standard models as a means to repeatedly delivering successful future projects, to improve the quality of future projects and to gain knowledge and learn from past successes and mistakes. Change management is a key topic, as are the measurement of the long term achievement of customer satisfaction through the delegation of responsibilities and coordination between several projects. In order to achieve a high maturity rating within project management, frequent collection and analysis of performance metrics needs to be made to guarantee the improvement of future projects. The underlying assumption in the maturity models is that there is a relationship between higher levels of maturity and project success.

2.2.5 FLAGSHIP PROJECTS

“The flagship projects of Agenda 2063 refers to key programmer’s and initiatives which have been identified as key to accelerating Africa’s economic growth and development as well as promoting common identity by celebrating history and vibrant culture of Africa” (http://atlas4dev.org). “The Flagship projects encompass amongst others infrastructure,

education, science, technology, arts and culture as well as initiatives to secure peace on the continent".

According to (AU, 2015) , "Agenda 2063 seeks to deliver on the following Seven Aspirations each with its own set of goals which if achieved will move Africa closer to achieving its vision for the year 2063":

- A prosperous Africa based on inclusive growth and sustainable development;
- An integrated continent politically united and based on the ideals of Pan-Africanism and the vision of Africa's Renaissance;
- An Africa of good governance, democracy, respect for human rights, justice and the rule of law;
- A peaceful and secure Africa;
- An Africa with a strong cultural identity, common heritage, shared values and ethics;
- An Africa, whose development is people-driven, relying on the potential of African people, especially its women and youth, and caring for children; and
- Africa as a strong, united, resilient and influential global player and partner.

Toward making Agenda 2063 a reality, the First Ten Year Implementation Plan was launched in mid-2015 anchored in three strategies: (a) fast tracking of high priority and critical projects; (b) development of robust M&E framework with a set of clearly defined set of indicators; and (c) Domestication of Agenda 2063 at the member states' level. Currently Africa Union Undergoing projects in the following areas or programs (www.au.int).

- Africa continental free trade area(AFCTA)
- African Commodity Strategy
- Single Africa Air Transport Market (SAATM)
- Continental High-Speed Train Network
- Pan-African E-Network
- Cyber Security
- Pan African Virtual and E-University (PAVEU).
- African Outer Space Programmer
- Great Museum Of Africa (GMA)

- Silencing Of The Guns And End Wars In Africa By The Year 2020
- Free Movement Of All Persons And African Passport
- The Continental Financial Institutions
- African Economic Platform
- The Grand Inga Hydropower Project
- African Encyclopedia

The researcher mainly focused on the four ongoing projects among the 15 flagship project agenda 2063 these are:-

Silencing Of the Guns and End Wars in Africa bythe Year 2020

To achieve the goals of Agenda 2063, Africa needs to work towards ending all wars, civil conflicts, gender-based violence, violent conflicts and preventing genocide. In addition progress in the areas is to be monitored through the establishment and operationalization of an African human security index (AHSI) (PSC, 2019).

Continental High-Speed Train Network

"The project aims to connecting all African capitals and commercial centers through an African High Speed Train to facilitate movement of goods, factor services and people, reduce transport costs and relieve congestion of current and future systems" (Schuman, 2020).

Pan-African E-Network

"This aims to put in place policies and strategies that will lead to transformative e-applicationsand services in Africa; especially the intra- African broad band terrestrial infrastructure; and cyber security, making the information revolution the basis for service delivery in the bio and nanotechnology industries and ultimately transform Africa into an e-society" (Schuman, 2020).

African Encyclopedia

"The Encyclopedia Africana aims to provide an authoritative resource on the authentic history of Africa and African life. The encyclopedia provides Africans a body of truth to guide and unite

them in their deployment with foundations in all aspect of the African life including history, legal, economic, religion, architecture and education as well as the systems and practices of African societies" (CIDO, 2018).

2.3 EMPIRICAL LITERATURE

(Ghorbanali, 2011) cites the work of (Kwak and Ibbs, 2002) (1997, 2000, 2000a, and 2002) to claim that during the last decade, researchers have concentrated on recognizing the benefits of investing in project management expertise through metrics of Pm maturity. The statement was that high PM maturity correlates with higher expected project success, and that investing in Project management maturity should result in other benefits, such as cost savings. (Backlund et al, 2014) also use Cooke-Davies and Arzymanow, (2013) to claim that the 'general belief' is that companies with higher levels of maturity in terms of project effectiveness and efficiency, as well as having a competitive edge in the market environment, succeed.

An organization's effectiveness is increasingly being described by the concept of maturity; which refers to the state where by an organization is in ideal condition to attaining its objectives (Crawford, 2006). In other studies claim that improving project failures requires practitioners' project management maturity, which is defined as the gradual development of an enterprise-wide PM approach, methodology, strategy, and decision making (Deffor, 2013). (Khang& Moe, 2008) and (Thuillier, 2004) (as cited by Falgari et al., 2013) contend that there is minimal evidence to support the impact of PM tools and techniques. However, the findings of several studies contradict one another. According to (Meda&Evelina, 2015), the effort organizations expend to implement a standard project management methodology is outweighed by the benefits, which include; completing projects effectively and efficiently, getting better results through planning, quick resolution of problems, and resolving future problems before they arise

(Kwak, 1998) looked at 38 firms and discovered a link between project management competence and business performance, as well as the fact that firms with strong project management capabilities and competencies outperformed those without (cited by Ghorbanali et.al, 2011). (Kerzner, 2009), discusses in his book a case study with Williams company, which recover from 24 quarters of loosed from 199 to 2001, with most of the credit due to the effectiveness and

maturity of the project management system. Strong indicators suggest that the underperformance of a number of public projects in Botswana is signs of project management immaturity in the industry, according to (Tembo, 2007). PM Solutions (2014) performed a global study with about300 participants that included five continents and nine sectors. The study came to the following conclusion:

- First the study concluded that there is a strong and direct link between a company's project management maturity and its overall performance. Organizations or companies are mature in project management who perform high.

The findings of this study confirm the findings of their previous studies from 2001 and 2006: more mature organizations deliver higher value. A similar study of 75 firms found a link between project management maturity and organizational success (Yazici, 2009). Price water house Cooper also performed a study in 2004 of 200 firms, covering five continents, 30 nations, and five key industrial sectors, on senior, top, and project managers and project team members. A second survey of nearly 200 respondents from organizations from 26 countries was performed in 2006. A second survey of nearly 200 respondents from organizations from 26 countries was performed in 2006. Both studies showed similar results: project management maturity is linked to project performance in the following ways: 80 percent of high-performing projects have a certified project manager, and there are positive correlations between project performance and the use of project management software like MS-Project and SAP.

Wellington project management conducted a national study of the state of project management in 2006, which was published by the aforementioned organization in collaboration with the Association for Project Management (APM) Project Management Office (PMO) Specific Interest Group (SIG). Almost 700 experts from over 30 companies across the UK took part in the survey. The study found a similar result: approximately half of the organizations have a poor project management maturity (level two or less), and a third of the firms are at least 50% behind schedule and over budget.

Mateen (2015) assessed the project management maturity of two departments of a multinational firm in Pakistan using internal documents and survey questionnaires. Despite the fact that other factors such as project team competency, organizational culture, and organizations support play a

role, the findings support the assumption that project management maturity has a direct impact on project performance. This idea is also applicable to international development programs. International projects done by NGOs are the cornerstones for delivering aid to developing nations, according to (Golini, 2014), but their success is far from guaranteed. According to the Catholic Institute for International Relations (CIIR) (2005), 80 percent of development projects fail before or after they are completed.

This idea is also applicable to international development programs. International projects done by NGOs are the cornerstones for delivering aid to developing nations, according to (Golini, 2014), but their success is far from guaranteed. According to (Catholic Institute for International Relations (CIIR), 2005) 80 percent of development projects fail before or after they are completed. According to (Meltzer commission, 2000), 50% of the world bank initiatives in Africa fail, as cited by Ika, Diallo and Thuillier (2012).Independent evaluation group (2010) lowered the proportion to about 40% in a later research (cited by as cited by Ika, Diallo and Thuillier, 2012).

The aforementioned study conducted an international survey of nearly 500 project managers with the goal of examining the impact of PM practices on project performance. The study found that varying levels of PM maturity are related to project success in the short and long run.Falgari et al. (2013) similarly performed an international survey of over 500 project managers and came to the same conclusion.

The essence of maturity, according to (Viana, 2016), pushes organizational processes to improve continuously, necessitating an awareness of the current state of the organization. The basis for an organization’s endeavor to improve project management maturity, improve the chances of project success is to assess project management maturity, which is what this research tries to do: evaluate the project management maturity level of Africa Union Projects, and the relationship with project success, and find the areas of motivation that, if given proper attention, would increase the chances of project success (hence project success).

Mateen(2015) studied project management maturity based on A framework for better and efficient project delivery. The goal of the study was to assess the project management maturity of two departments in a selected organization using four project management knowledge areas: scope, time, and cost and risk project management. By setting specific goal for providing a foundation for understanding how the project management maturity model can be used to improve project management processes and making recommendations for better and more effective project delivery, enhancements based on measured OPM3 are being made.

Participants from the two departments revealed that the organization has a great awareness of standardized project management procedures, a clear awareness of project management procedures, and a drive to enhance processes. Standardization of project management techniques provides direction on how to deliver projects, but it is insufficient on its own. In terms of analyzing knowledge domains, department 1 was likewise judged to be more developed than department 2.According to the researcher, the company should have clearly defined procedures to handle scope changes during project execution, project time durations for each activity should be determined by the project management team based on resource availability, and the company should have clearly defined procedures to handle scope changes during project execution.

In his 2015 thesis, KassuGirma addressed the PMM of atlandsvirkjun–power projects department division. The purpose of this study is to use the PM solutions project management maturity model to assess project maturity in the power projects department across ten project management bodies of knowledge, with the goal of providing a clear picture of current state, defining gaps, and providing a roadmap for organizational change. In order to acquire data concerning the project management procedures at Landsvirkjun-Power Projects Department, this evaluation employed a case study as the research methodology and conducted face-to-face interviews with five project managers. The key characteristics of the five level maturity models were utilized as criteria to evaluate each component of the knowledge domains based on qualitative data from conducted interviews and quantitative data assessed using the scoring mean.

The total PMM of the Power Projects Department was assessed to be at maturity level 3 according to the assessment. This means that most project management knowledge domains were able to attain most organizational standards and processes, which were then applied to all projects. However, in certain circumstances, knowledge domains were not totally standardized,

resulting in unproductive and inefficient operations. Based on project management, the evaluation tool also indicates areas where formal training should be provided in the knowledge areas such as organizational standards and project management processes for the benefit of the project teams and others.

Pawar, Deshmukh, and Chavan (2016) set out to analyze the maturity of PM in developing countries' construction industries (India). To overcome the inadequacies, the study presented a PM maturity model that was tailored to the needs of emerging countries. The proposed maturity model was used to analyze the maturity of contractors in India, and the low level of PM maturity showed that the fundamental procedures were being practiced informally.

Furthermore, the study discovered that ISO certified contractors have a greater level of project management maturity than non-certified contractors. Similarly, the Capacity Building Program was found to have a favorable impact on project management maturity, with contractors who participated having a higher level of maturity than those who did not. Similarly, contractors such as road contractor's project managementmaturity are higher than that of building contractors. In addition, the study discovered higher levels of maturity in cost, material, procurement, finance, time, and human resource management. The least mature PM areas were determined to be risk and safety management.

2.4 CONCEPTUAL FRAME WORK

Project management, in accordance with "The Project Management Body of Knowledge" (PMBOK® Guide), it is becoming the voice of many enterprises today. As a result, project management disciplines have arisen to ensure project success, efficiency, and effectiveness. However, Maturity models aren't supposed to be a quick remedy for everything, as many of the case studies demonstrated. And they aren't intended to solve troublesome projects; rather, they're meant to serve as guides for strengthening project management capability.

The researcher will employ an appropriate point of reference to measure project managementmaturity dimensions, project management solutions offers a five level maturity model that incorporates project management body of knowledge areas defined by PMBOK. On the other side, the researcher will concentrate on time, cost and quality which are the three areas

of knowledge. The conceptual frame work imples that using project maturity models and maturity in project management is very essential for the success of project managmnnet. Also including project time, cost and quality project maturity guarantees the project success.

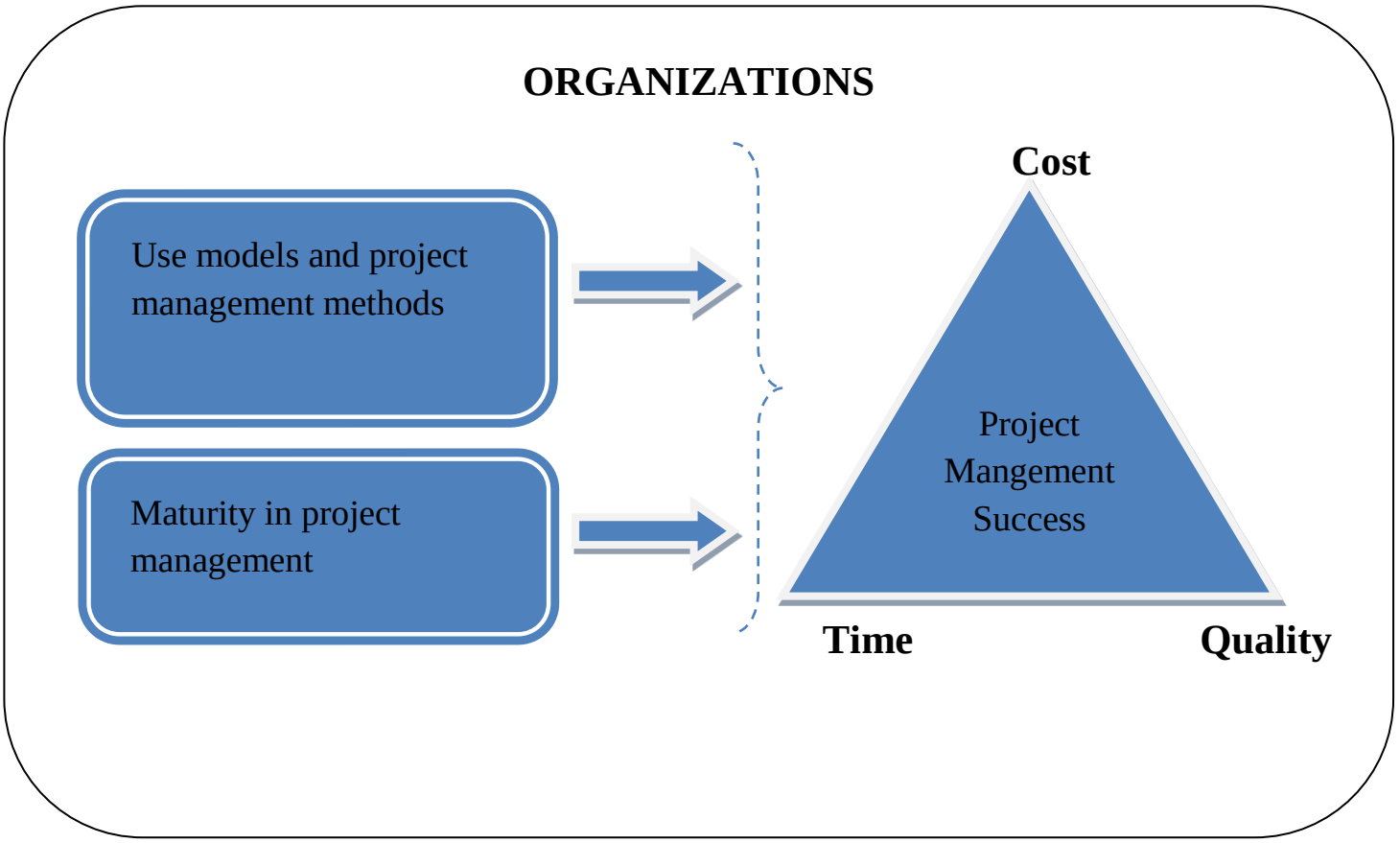

Figure 2.3 Conceptual Frame work: Source (Berssancti et al, 2012)

CHAPTER THREE

RESEARCH DESIGN AND METHODOLGY

3.1 INTRODUCTION

The study aims to reflect on the relationship between project management maturity and project success in Africa union by looking in depth in to the flagship projects. The research methodology includes the outlines that are employed in the assessment of the level of PMM for the success of Africa Union flagship projects. The research design, description of variables, data collection, target population, sampling methods of data analysis all are included in this section. In addition to that validity, reliability and ethical considerations are described in the methodology part.

3.2 RESEARCH DESIGN

The main direction for carrying out a research project to gain answers to research questions is provided by the research design, which is the outline for selecting the data and sources for the research questions that needs to be answered (Zikmund & Carr, 2009). The study used correlational study design. According to (Creswell J. W., 2008) the correlational research design are procedures in quantitative research in which investigators measure the degree of association (or relationship) between two or more variables or sets of scores. Thus, this research was consisting of two variables; dependent variable and independent variable. A procedure in which subjects' scores on two variables are simply measured, without manipulation of any variables, to determine whether there is a relationship.

To obtain a better understanding of the topic and to respond to the research questions the study used a correlational study design method and, due to time constraints, only used a quantitative technique. As a result, in the context of the Africa Union flagship project, this study attempted to investigate about the relationship between project management maturity and project success. Since the study records information regarding the organization's project management maturity level and project success without modifying the study setting, the research timeline is cross sectional. It enables the researchers to see the difference and compare variables at the same time.

The research approach used for the study is quantitative, because it is conducted through a questionnaire survey. According to (Kothari, 2004) “quantitativeresearch is systematic empirical enquiry of evident phenomenon using numerical, mathematical, or computational means”.

3.3 DESCRIPTION OF VARIABLES

The study includes two variables dependent and independent variables. The variable which isdependent for this study is project success, whereas the independent variables for this study are time, cost, and qualitymanagement maturity. Using these independent factors, the study attempts to assess the project management maturity level of Africa Union’s flagship project.

3.4 STUDY AREA AND TARGET POPULATIONS

The scope of this research is narrowed to four ongoing flagship activities of the African Union. The goal of this research is to do assessment based on the maturity of project management practices in the chosen firm using project management knowledge domains such as the so-called iron triangles (time, cost, and quality) and give recommendations for improvement. The study's target population includes project professional, program directors as well as planning experts who have recently worked on the company's four major projects. This demographic was chosen from the whole population because they had more experience with firm projects, a better understanding of project management, and a higher level of PM maturity. For the sampling techniques the researcher used Non-probability sampling.

3.5 SAMPLING METHODS AND SAMPLE SIZE

The studies overall population is employees of Africa Union who works in the flagship projects. Among the 15 flagship projects employees who are working on the four ongoing projects are selected. Which are the planning experts, Engineers, policy officers, project professional, and head of the program, who works on the organization major Agenda 2063.18 project professionals as well as other members of the project team from different department at the four flagship projects taken as a sample size for the study. Purposive sampling was used for sampleselection method.

The benefits of using non-probability purposive sampling is, it allows the researcher to choose a sample that is well versed in the project management techniques of the four AU flagship projects and also a sample who will answer the research question best . The Process of Selecting the number of observations or repetitions to. The sample size is decided by the respondent's knowledge capability of the organizations project management maturity, include in a statistical sample is known as sample size determination.

3.6 DATA COLLECTION

Primary data from the above-mentioned sample was collected through questionnaires. The survey was created in an electronic format (see APPENDIX). The Google documents questionnaire was used to administer the survey. Respondents were requested to engage in an electronic questionnaire that was uploaded to Google Docs and sent to them through email with a link to the questionnaire via the AUC intranet. The questionnaire was an adaptation of an online survey published by surveymonkey.com for the organizational project management maturity model (OPM3). This model is selected on the basis of models publisher, scope, maturity level, detail, project management process, identifying weakness, continuous assessment, training difficulty, definition of maturity and coverage assessment and found to the best and it known to be applicable to many industries (Khoshgoftar and Osman,2009, as cited by Mateen,2015).

Secondary data was gathered through in-depth literature reviews, which will include books based on project management, certain academic and recent project management publications, thesis works, and any related issues from the internet(different Africa union websites) , as well as reports on the performance of Africa Union projects in terms of time, cost, and quality.

3.7 DATA ANALYSIS METHOD

The data acquired from the questionnaire respondents was analyzed using the program Statistical Package for Social Science to determine the project management maturity and success level of AU (SPSS). The results of all 33 questions were entered into SPSS, and the scores for each element utilized in all three knowledge areas, assessments were averaged by calculating to

establish the project maturity level of the project staff, as well as the perceived level of project success. SPSS was also used to look at the demographics of the respondents.

The correlation coefficient was used to analyze the link between independent parameters (time, cost, and quality management maturity) and the variable that is dependent (PM success). The analysis findings were reported by using descriptive statistics such mean, percentage and frequency. And correlation between PM maturity and PM success also presented.

3.8 RELIABITY AND VALIDITY

In order to obtain meaningful interpretations, (Creswell, 2014)emphasizes the importance of ensuring data validity and reliability. A reliability analysis is performed to determine the research instrument's consistency and stability. Cronbach's alpha is employed in this instance, to evaluate the data’s validity and reliability. The average correlation average among the concept evaluation items are used to calculate Cronbach's alpha. The stronger the internal consistency of the variables, the closer the cronbach's alpha is to 1.

The data gathering instrument's validity is evaluated against existing literature. Various approaches are used to verify the accuracy of the data collected. According to Creswell (2009), using various data gathering technologies allows information to be cross-checked.

3.9 ETHICAL CONSIDERATION

Moral principles that regulate or influence human behavior are referred to as ethical issues. The main principles of research ethics were mirrored in this study, which included dedicated the researcher and respecting the participant's view. The participants will learn about the study's goals during the interview. The data was then obtained via questionnaires with the participant's full agreement. The sentence clearly shows that these participants are volunteers who are willing to assist with the research. And their thoughts will be plain and transparent.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND INTERPRETATION

4.1. INTRODUCTION

This chapter focuses on the data collected from respondents via surveys on the study was analyzed, preprinted and interpreted main topic, which is the evaluation of the relationship between project management and project success.

As indicated in the prior chapters the primary purpose of this research is to investigate or to assess the relationship between PM maturity and PM success. Primary data was gathered from respondents using a questionnaire from 50 respondents. However only 34 of the questionnaires were completely filled out, allowing the study to be used for analysis and reporting.

Hence, this chapter covers the analysis and discussion of research findings acquired from questionnaire. The discussion in this chapter begins with the response rate of the questionnaires, followed by descriptive statistics of the respondents' associated questions, such as occupation, department working on experience, and education.

4.2 DATA OBTAINED FROM QUESTIONNAIRES

4.2.1 DEMOGRAPHIC PROFILE

The demographic characteristics of respondents who took part in the study are presented in this section, which includes Gender and Age. The primary goal of demographic analysis in this study is to characterize the characteristics of the respondents so that the analysis is meaningful to the readers. The following subsequent tables will reveal the total demographic characterstics of the repondentd. The analysis was based on 34 respondents.

Table 4.1 Demographic profile of respondent

Variable		Frequency	Percent
Gender	Male	26	76.5
	Female	8	23.5
Age	Less than 25 years	1	2.9
	From 25-29 years	3	8.8
	From 30-35	22	64.7
	Above 35	8	23.5

Source: Own Survey result(March 2021)

As shown in the table 4.1 it describes the demographic profile of respondents. Out of 34 repondents 26 (76.5%) were male and 8 (23.5%) were female. This shows that the majority of the respondents are males and the number of female employees in Africa union was insignificant as compared to males. The male dominance over females was observed.

In terms of age, majority of the respondents as shown in table 4.1 above (64.7%) were from the age of 30-35, (23.5%) were above the age of 35 and (8.8%) are from the age of 25-29 years and lastly (2.9%) were less than 25 years. In this case higher the numbers of employees observed in the data are in between the age of 30-35. This shows that the randomly selected respondent's were matured enough which can ensure the value of the study. It is a general fact that maturity has a positive impact in bringing good governance in any institutions.

4.2.2 DEPARTMENT AND POSITION OF THE RESPONDENTS

With regard to department majority of the responders in Table 4.2 are from other departments inside the company works for the four flagship projects . From the total of 34respondents, (41.2%) are from other departments. This departments are CIDO(Civil society and Diaspora-African), HRST (Human Resources, science and Technology Department), Infrastructure and peace& Security Council.(23.5%) of the respondents were from engineering department and (17.6%) of the respondents were from finance and operation. This shows that majority of the respondents are from other departments who are directly related to the four flagship projects.

Regarding the positions of the respondents, among the 34 respondents (8.8%) has office project management position, (14.7%) of the respondents were Engineers,(52.6%) were project professionals and (23.5%) has other positions such as planning expert, and head of the program. From the above data it showed that project professionals are majority of the respondents who are responsible for planning, organizing, and directing the completion of specific projects for the flagship projects while ensuring these projects are on time, on budget and within scope.

Table 4.2 Department and current position of respondents

Characteristics	Responses	Frequency	Percentage
Department	Finance	6	17.6
	Engineering	8	23.5
	Operation	7	17.6
	Other	14	41.2
Position	Office Project Management	3	8.8
	Engineer	5	14.7
	Project Professionals	18	52.6
	Other	8	23.5

Source: Own Survey result(March 2021)

4.2.3 EDUCATIONAL BACKGROUND AND WORKING EXPERIENCE OF RESPONDENTS

With regard to the educational qualification, as can be observed from Table 4.3below 22 respondents 64.7% were Master of Art(MA) and Master of Science(MSC) holders, where as 12 respondents 35.3% have PHD. This indicates that most of the respondents are educated and further enhance the quality of expected responses that ultimately increase the quality of the study. This shows that having educated employees in the organization positively impacting retention, productivity and more, educated people are better prepared to do their job and play a great role in the project management maturity and project success of the organization.

Table 4.3 below indicates that 8.8 % of the respondents have a work experience of 6 to 10 years experience, 50.0% have been serving for 11 to 14 year,41.2% of the respondents served the organization for more than 15 years. The composition of work experience of the representative samples may have a positive effect on the quality of the findings of the study as it incorporates the views of each group. It can be argued that work experience may be considered as on the key elements to foster organizational development.

From the data obtained 73.5% of the respondents had taken project management training, whereas 26.5% haven't take project management training. This indicates that having a project management trained employee equips with strong planning abilities, including the capacity to set clear goals and realistic objectives, along with a schedule with specific stages helps the organization to achieve the project goals. It was observed that majority of the respondents were trained project management.

Table 4.3: Educational level and working experience of respondents

Characteristics	Responses	Frequency	Percentage
Educational Level	MA/MSC	22	64.7
	PhD	12	35.3
Years of Experience	6-10	3	8.8
	11-14	17	50.0
	Above 15	14	41.2
Project ManagementTraining	Yes	25	73.5
	No	9	26.5

Source: Own Survey result (March 2021)

4.3 RESULTS AND DATA ANALYSIS OF THE STUDY

The answers to the research questions that the study intended to answer have been addressed in this section utilizing the data gathered. And analyze detail result of the questionnaire is giving using SPSS Software according to the research questions of the study.

I. What is the level of project management maturity on the basis of the three core knowledge areas (i.e. time, cost and quality) in the case of Africa union?
II. What is the level of project success in the case of Africa Union?
III. What is the relationship between project management maturity and project success in the case of Africa union?

4.3.1 THE LEVEL OF PM MATURITY ON THE THREE CORE KNOWLEDGE AREAS

Knowing the level of project management maturity in the case of Africa Union flagship projects based on the three core project management knowledge areas of time management, cost management, and quality management maturity was one of the aims of this study.

4.3.1.1 TIME MANAGEMENT MATURITY

Time management approaches improve job performance by giving managers more time to complete higher-priority tasks and speeding up processes. Time management is a tool for managers to improve work efficiency and effectiveness. (Qtait, 2018). Nine fundamental questions were addressed to assess the time management maturity of Africa Union Flagship projects, the results of which are presented below together with the questionnaire results.

PM of Knowledge area	Response	Freq	(%)
The procedures, tools, and strategies required to make a project timeline	yes, in an exemplary manner	4	11.8
	yes, appropriately and competently	16	47.1
	Yes but not always and appropriately	14	41.2
How the project timeline will be examined and managed, and how	yes, appropriately and competently	13	38.2
	yes, but not always and	21	61.8

adjustments will be evaluated	appropriately		
The application of scheduling software.	yes, in an exemplary manner	1	2.9
	yes, appropriately and competently	10	29.4
	Yes but not always and appropriately	23	67.6
When specifying the scheduling activities, a work breakdown structure (WBS) is employed.	yes, appropriately and competently	13	38.2
	yes, but not always and appropriately	21	61.8
The status of project operations is constantly checked and managed.	yes, in an exemplary manner	5	14.7
	yes, appropriately and competently	9	26.5
	yes, but not always and appropriately	20	58.8
Is the project schedule updated on a regular basis?	yes, in an exemplary manner	2	5.9
	yes, appropriately and competently	14	41.2
	yes, but not always and appropriately	18	52.9
The project has a schedule deadline. (The start and end dates have been accepted and set)	yes, in an exemplary manner	9	26.5
	yes, appropriately and competently	23	67.6
	yes, but not always and appropriately	2	5.9
The project's timetable (plan) was created.	yes, in an exemplary manner	4	11.8
	yes, appropriately and competently	22	64.7
	Yes but not always and appropriately	8	23.5
The relationship between the identified activities and the activities ordered	yes, in an exemplary manner	21	61.8
	yes, appropriately and competently	13	38.2

Table 4.4: project Time management maturity level Africa union

As shown the above table 4.4 the respondents response with regard to the first statement 11.8% of the respondents strongly agreed that the organization follows the procedure, tools and strategies required to make a project timeline in exemplary manner, 41.2% agreed but not always

and appropriately, and 47.1 % of the respondents agreed the organization indeed follows the procedure, tools and strategies required to make the project time line. From this it is possible to understand that “the employees believed that the procedure, tools and strategies required to make a project timeline” is judged were at a very good level.

The second statement was asked how this project timelines examined and managed and how adjustment will be evaluated 38.2% replied in appropriately and competently manner, where as 61.8% of the respondents replied yes but not always and appropriately. This implies the evaluation; examination and managing the project time line were very low.

The other question was about the application of scheduling software 2.9% strongly agreed, 29.4% agreed where as 67.6% of the respondents replied that scheduling software was not always and appropriately used. The fourth statement is also related with scheduling software which is when specifying the scheduling activities a work break down structure(WBS) is employed,38.2% of the respondents agreed that the organization used the scheduling software, however 61.8% replied yes but not always and appropriately. This indicates that the use of scheduling software including WBS software in the organization were very low.

The fifth question was about if the status of project operation is constantly checked and managed,14.7% strongly agreed,26.5 % of the respondents agreed whereas as majority of the respondents 58.8% replied yes the organization checked and managed the status of the project operation but not always and appropriately. This implies that monitoring and controlling of time management were low.

The sixth statement was whether the project schedule updated on a regular basis, 5.9% strongly agreed,41.2 agreed the project schedule updated on a regular basis, 52.9% replied yes the organization update the project schedule but not always and appropriately. This indicates that updating project schedule in regular basis were low.

The other important question was asked if the project has a schedule deadline (the start and end dates have been accepted and set), 5.9% agreed but not always and appropriately,26.5% of the respondents strongly agreed the project has defined start and end which is accepted and set, also 67.8% agreed. This indicates that from the observed data scheduling the project start and end dates were at a very good level.

For the question asked whether the project's timetable (plan) was created, 11.8% strongly agreed, 64.7% also agreed that the project timetable is provided and 5.9% replied yes but not always and appropriately. This indicates that creating project time table were at very good level.

The last question was about the relationship between the identified activities and the activities ordered, 38.2% agreed and 61.8% strongly agreed that there is a relationship between the identified activities and the activities ordered. This indicates that the relationship between identified activities and activities ordered were at a very good level.

In general the total mean score of the nine items of time management maturity have gained scores of 2.58. The scores imply that the level time management maturity in the organization did not receive a favorable opinion from the respondents.

4.3.1.2COST MANAGEMENT MATURITY

The term "cost management maturity" refers to the practices used to ensure that a project is finished within the allocated budget (PMI, 2013). In order to evaluate the cost-cutting strategy, seven questions were asked regarding the maturity of Africa Union flagship projects, as shown in the table below.

PM of Knowledge area	Response	Freq	(%)
The procedures, tools, and strategies required to make a project timeline	yes, in an exemplary manner	3	8.8
	yes, appropriately and competently	16	47.1
	yes, but not always and appropriately	14	41.2
	Never but probably should	1	2.9
How project cost estimates will be examined and tracked, as well as how modifications to them will be evaluated.	yes, in an exemplary manner	6	17.6
	yes, appropriately and competently	15	44.1
	yes, but not always and appropriately	13	38.2
the procedures, tools, and strategies employed in the preparation and documentation of a project budget	yes, in an exemplary manner	4	11.8
	yes, appropriately and competently	20	58.8
	yes, but not always and appropriately	9	26.5
	Never but probably should	1	2.9

how well the project budget projection would be examined, managed, and how modifications to that will be evaluated	yes, in an exemplary manner	5	14.7
	yes, appropriately and competently	13	38.2
	yes, but not always and appropriately	16	47.1
the application of earned value principles to cost and/or time management	yes, in an exemplary manner	1	2.9
	yes, appropriately and competently	9	26.5
	yes, but not always and appropriately	9	26.5
	Never but probably should	14	41.2
	Never and no need	1	2.9
any internal finance operations that could have an impact on the project	yes, in an exemplary manner	6	17.6
	yes, appropriately and competently	15	44.1
	yes, but not always and appropriately	12	35.3
	Never but probably should	1	2.9
the application of expense and budgeting software	yes, in an exemplary manner	3	8.8
	yes, appropriately and competently	9	26.5
	yes, but not always and appropriately	21	61.8
	Never but probably should	1	2.9

Table 4.5: project Cost Management maturity level of Africa union

As shown the above table 4.5 therepondents response with regard to the first statement , 2.9% replied never used procedure,tools and strategies to make a project timeline, 8.8% strongly agreed,41.2% of the respondents replied that yes but not always and appropriately, 47.1% agreed, thus majority of experts ageed that procedures,tools and startegies used to make a project timeline.

The second statement was asked how project cost estimates was examined and tracked as well as modification to them was evaluated, 17.6% strongly agreed, 38.2% agreed but not always and appropriately managed, 44.1% also agreed, this implies that how project cost estimates examined and tracked are at a good level.

The other question was about the procedures,tools and strategies employed in the preparation and documentation of a project budget, 2.9% disagree that not properly prepared and

documented, 11.8% strongly agreed, 26.5% replied that yes but always and appropriately,58.8% agreed. Thus the results indicates that employees has positive responses about the procedures,tools and strategies employed in the preparation and documentation of project budget.

The fourth question was regarding how well the project budget projection would be examined, managed, , and how modifications to that was evaluated, 14.7% strongly agreed, 38.2% agreed, where as 47.1% replied that yes but not always and appropriately, this strongly implies that low level of evaluation and manging of project budget.

The other question was raised on the application of earned value principles to cost and/or time managmnet,2.9% of respondents strongly agreed and in the reverse 2.9% strongly disagree, 26.5% agreed and also 26.5% replied that yes but not always and appropriately,41.2% disagree the organization never uses the application of earned value principles.

The next question was if there are any internal finance operations that could have an impact on the project,2.9% disagreed,17.6% strongly agreed that the organization used the operation process properly,35.3% replied that yes the organization follows the procedure but not always and appropriately,44.1% agreed. This indicates that the employees positive response uses internal finance operations that could have an impact on the project.

The last important question was regarding with the application of expense and budgeting, 2.9% disagreed,8.8% strongly agreed, 26.5% agreed where as 61.8% of the employees replied yes but not appropriately and competently. This indicates that the organization has poor practices of using software which is regarding the application of expenses and budgeting.

In general the total mean score of the seven items of costmanagement maturity have gained scoresof **2.47.** The scores implies that the level time managementmaturity in the organization did not receive a favorable opinion from the respondents.

4.3.1.3 QUALITY MANAGEMENT MATURITY

Project quality management, according to PMI (2013), includes efforts to ensure that project criteria, including product requirements, are met and validated. To accomplish the study, seven questions were asked with the purpose of determining the maturity of quality management. As well as the responses to them, are given here.

PM of Knowledge area	Response	Freq	(%)
The procedures for bringing quality assurance into action in the project.	yes, in an exemplary manner	3	8.8
	yes, appropriately and competently	5	14.7
	yes, but not always and appropriately	16	47.1
	Never but probably should	10	29.4
how the project's quality assurance audits will be conducted	yes, in an exemplary manner	5	14.7
	yes, appropriately and competently	11	32.4
	yes, but not always and appropriately	15	44.1
	Never but probably should	2	5.9
	Never and no need	1	2.9
how the project's quality control will be developed, verified, and recorded	yes, in an exemplary manner	6	17.6
	yes, appropriately and competently	7	20.6
	yes, but not always and appropriately	15	44.1
	Never but probably should	6	17.6
How would the quality management procedures be verified, monitored, and implemented, and where will modifications to them be assessed	yes, in an exemplary manner	4	11.8
	yes, appropriately and competently	6	17.6
	yes, but not always and appropriately	16	47.1
	Never but probably should	7	20.6
	Never and no need	1	2.9
The application of quality management software	yes, in an exemplary manner	1	2.9
	yes, appropriately and competently	2	5.9
	yes, but not always and appropriately	8	23.5
	Never but probably should	23	67.6
Quality management departments	yes, in an exemplary manner	1	2.9

or personnel that specialize in quality management	yes, appropriately and competently	8	23.5
	yes, but not always and appropriately	17	50.0
	Never but probably should	8	23.5
assess if project actions are in accordance with legislation, including method	yes, in an exemplary manner	4	11.8
	yes, appropriately and competently	22	64.7
	yes, but not always and appropriately	7	20.6
	Never but probably should	1	2.9

Table 4.6: Quality management maturity level of Africa Union

Quality management maturity as indicated in table 4.6 is also one of the core elements from the three knowledge areas. Seven questions were addressed in order to determine the maturity level of quality management.

As it is indicated in Table 4.6 the first statement was about the procedures for bringing quality assurance into action in the project,8.8% strongly agreed ,14.7% agreed 29.4% strongly disagree and nearly half 47.1% of the respondents replied yes but not always and appropriately. According to the results employees were dissatisfied with the procedure for bringing quality assurance into action in the project.

The second question regarding how the projects quality assurance audits will be conducted,2.9% strongly disagreed, 5.9% disagree, 14.7% strongly agreed, 32.4%agreed and majority of the respondents 44.1 % replied yes but not always and appropriately. This implies that conducting of project quality assurance were very low.

The other question was regarding how the projects quality control was developed, verified and recorded, 17.6% strongly agreed and strongly disagreed respectively, 20.6% agreed and 44.1% replied yes but not always and appropriately. This implies that the employees has positive responses based on the projects quality control will be developed, verified and recorded.

Regarding the question how would the quality management procedures be verified, monitored and implemented and where will modifications to them be assessed, 2.9% strongly disagree, 11.8% strongly agreed, 17.6% agreed, 20.6% disagreed and nearly half 47.1% of the respondents replied yes but not always and appropriately.

The other questions were raised focusing on the application of quality management software, 2.9% strongly agreed,5.9% agreed,23.5% replied yes but not always and appropriately where as 67.6% strongly disagreed. This indicates that most employees responses were negative.

Regarding the question quality management departments or personnel that specialize in quality management 2.9% strongly agreed, 23.5% agreed and strongly disagreed respectively, half of the respondents 50.0% replied yes but not always and appropriately. This indicates that the quality management departments or personnel that specialize in quality management very low.

The last question were regarding assessing if project actions are in accordance with legislation, including method,11.8% strongly agreed, 20.6% replied that yes but not always and appropriately, 64.7% agreed. This implies that majority of the employees regarding assess if project actions are in accordance with legislation including method high level maturity level.

In general the total mean score of the seven items of cost management maturity have gained scores of **2.68**. The scores implies that the level quality management maturity of Africa union flagship project, which is also the area where they showed the highest level of maturity.

Table 4.7 Total Maturity level

Area of **Maturity**	Level of Maturity
Time Management	**2.58**
Cost Management	**2.47**
Quality Management	**2.68**

Source: Own Survey result (March 2021)

To summarize table 4.7 indicates the findings of the mean score value of the three knowledge areas which are, time, cost and quality. From the findings the maturity level of the three knowledge areas stated and it showed that quality management has higher mean value than time and cost. The maturity level of quality management in Africa union is very high.

4.3.2 LEVEL OF PROJECT SUCCESS IN THE CASE OF AFRICA UNION FLAGSHIP PROJECTS

According to (Davies, 2002), project success refers to the appraisal of the project. Time, cost, and quality measurements are used to evaluate a project's performance. Consequently In order to achieve one of the study's goals, the respondents were asked the same question in order to assess the organization's project success.

Table 4.8Descriptive statistics of project success

Descriptive Statistics

	N	Mean	Std. Deviation
Projectmanaegment success	34	2.58	0.655
Valid N (list wise)	34		

Source: Own Survey result (March 2021)

From the literature findings the organizational project successfully within time, cost, and quality constraints. The “time, cost, and quality triangle” or “iron triangle,” or the “golden triangle,”. At the same time, other projects that have exceeded time or cost constraints are generally considered successful (Pinto &Slevin, 1988a).in order to determine the project success of Africa union the three knowledge areas are used. The above table4.8 shows that the project success of the organization mean value stands at 2.58. This indicates that the project success is on average level according to OPM3.

4.3.3 RELATIONSHIP BETWEEN PROJECT MANAGEMENT MATURITY AND PROJECT SUCCESS IN THE CASE OF AFRICA UNION FLAGSHIP PROJECTS

The third objectives of the study were to answer the question to identify and find the correlation between the project management maturity and project success. Correlation of coefficient is utilized in this section according to (Gaur & Gaur, 2009). We can examine the relation between two variables while compensating for the effects of one or more variables by including extra variables without deleting any partial connection. Without erasing any of the previously collected data .The correlation coefficients show the degree and direction of the relationship

between project maturity factors and financial performance. For the three correlation matrices below, the probability is presented in parentheses with the correlation coefficient. The significance level at the 1% level is also given as **. The table below illustrates that project success is positively and significantly connected with time, cost, and quality management maturity at the 1% significance level. Cost management at 88.0 percent, Time management at 83 percent and Quality management maturity has a Pearson correlation coefficient of 91 percent, it may be deduced from this that project success is strongly linked to quality management maturity. Cost and time management maturity, on the other hand, has lesser link with project success than quality management maturity. In addition to that the table 4.9 below implies that the three knowledge areas has positive relationship with project success.

Table 4.9 Correlation Analysis

Correlations

		Project Success	Time Management Maturity	Cost Management Maturity	Quality Management Maturity
Project Success	Pearson Correlation	1	.835**	.880**	.912**
	Sig. (2-tailed)		.000	.000	.000
	N	34	34	34	34
Time Management Maturity	Pearson Correlation	.835**	1	.560**	.618**
	Sig. (2-tailed)	.000		.001	.000
	N	34	34	34	34
Cost Management Maturity	Pearson Correlation	.880**	.560**	1	.773**
	Sig. (2-tailed)	.000	.001		.000
	N	34	34	34	34
Quality Management Maturity	Pearson Correlation	.912**	.618**	.773**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	34	34	34	34

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

Source: Own Survey result (March 2021)

Cronbach's alpha (α) was calculated in order to determine the results' dependability. Cronbach's alpha (α) must be 0.7 or higher for the result to be trustworthy. It was discovered to be 0.811 in this study, implying that the finding is reliable.

Open ended questions response

The first question focuses on the contributors to project success in the African union context. And the respondents answered the following are the contributors for project success.

- Team work
- The project managers
- Project implementers
- Leadership, communication and structure
- Timeliness and participation of senior management in the planning, implementation
- The management team

This indicates that the above mentioned bodies are responsible for the project management success in order to attain the objectives of flagship project Agenda 2063.

The second question asks if more application of project management tools and methodologies is expected in Africa union Context. Majority of the respondents acknowledge the importance of project management tools and methodologies for the following reasons in the general

- Since there are more complex projects on the pipeline that requires project management tools and methodologies
- Agenda 2063 is an ongoing process for the next 50 years, so with time, more management tools and methodologies is needed
- Established project management workbook that is evaluate periodically with established project initiation plan and procedures
- To be more effective and rational

From the above responses it implies that the above mmentuonedrequiremnets are the importance of project management tools and methodologies.

The last question generalizes the entirequestionnaire by trying to find the evaluation of the application of project management tools and methodologies in the flagship projects,

- To use WBS when defining the schedule activities
- To use clear ME processes and know that is based on clear indicators and result based tools
- To have Annual evaluation
- Using regular review processes and now a plan to have a flagship categorization process is underway
- Gather evidence for the evaluation of African union peace fund.

It can be generalized that the above mentioned are essential for the evaluation of the application of project management tools and methodologies in the flagship projects.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

The aim of this research was to answer three specific research questions about the relationship between project management maturity and project success in the African Union. The study's finding is summarized in the final chapter, which is followed by recommendations and suggestions for future research.

5.1. CONCLUSION

Despite some contradictory findings, the evidence of different studies as well as those described in chapter two of the study, identified a relationship (correlation) between project management maturity and project success. The study was conceived with an objective to assess the project management maturity of the organization, the level of project success and the relationship between project management maturity and project success using Africa Union's flagship AGENDA 2063 projects as a case study.

In order to achieve the above mentioned objectives, a systematic literature review was undertaken that includes previous studies, including various project maturity models. Thus with this literature review, a conceptual framework was developed and a feasible methodology was evolved. In order to organize questionnaire data for analysis, SPSS Version 20 statistical software was utilized.

Based on the analysis findings the researcher has come at the following conclusion based on the descriptive statistics and correlation analysis data. By taking the three core knowledge areas criteria, the maturity of Africa Union flagship projects is in between 2.47 to 2.68, which falls into the average maturity level of 3 as measured per organizational project management maturity model(OPM3), which indicates that the organization has standard processes are used by all projects and that procedures are measured to evaluate effectiveness. The highest level of PM maturity is in quality management (2.68), indicating that the organization has a good management structure in place to ensure that project deliverables are delivered exactly as intended. All the three parameters indicate a positive relationship in the correlation analysis

between project successes and all three knowledge areas (time, cost and quality). On the other side, only quality management maturity was associated to project success. All three indicators showed a favorable relationship in the study the relationship between project management maturity and project success.

Team work, the project managers, Project implementers, Leadership, communication and structure, Timeliness and participation of senior management in the planning, implementation, The management teams are essential bodies for contributions for project success. In addition to that more application of project management tools and methodologies are expected in Africa union for the project management maturity and success. Evaluation of the application of project management tools and methodologies in the flagship projects by using clear monitoring and evaluation process and know that is based on clear knowledge area indicators.

5.2 RECOMMENDATION

According to the study's findings, Africa Union should examine the following in order to improve their chances of project success. It is well acknowledged that new technological tools may be employed to make work more efficient. As a result, the company should encourage people to use project management software. Moreover, rather of relying on a single PM tool, such as the logical framework, the company should try to include project management concepts and practices. Deep situational analysis and review should be done for each flagship projects

In addition to that the organization should use different project managmnet maturity models.Also increase company investment in quality management. Quality management has a substantial positive link with project success, as stated in the findings section of study and subsequently in the study’s conclusion part, the organization should take advantage of this situation by educating the project team on how quality assurance audits will be conducted, the methods required for implementing the projects quality assurance, as well as how quality control should be specified, examined and recorded. By specifying and regulating the use of quality management software, as well as how the quality management processes will be checked and monitored and how changes to them will be assessed.

In addition to that the researcher suggested that to train all staff members in project management tools and procedures, as well as trained on several scheduling software's to gain a better understanding of them and to improve the maturity of the project cost and time management . The evidence suggests that it will have a positive impact. In addition to that it is advisable for Africa union to use project management maturity models, for the projects to be successful .

Lastely the African Union's biggest projects should be executed successfully in terms of schedule, cost, and quality so that all the 15 flagship AGENDA 2063 projects could be successful and meets its goal, so that we could get the Africa we all want "An integrated, prosperous and peaceful Africa driven by its own citizens and representing a dynamic force in international arena."

5.3 FUTURE RESEARCHES

Despite its obvious advantages, project management in our nation has received little attention, and its application is even less so. As a result, future research will need to cover a lot of area in order to determine the discipline's application, the benefits companies may receive from it, and how they might connect with project management concepts, among other things. More research is needed, to investigate about the relationship between PMM and project success (not only project management success) which is directly related to the topic of this research. Future research should develop into the conditions of businesses in a number of different industries. Future studies should also look into the situations of companies in a variety of other industries.

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APPENDIX

ADDIS ABABA UNIVERSITY COLLEGE OF BUSINESS AND ECONOMICS SCHOOL OF COMMERCE

MASTERS OF ART IN PROJECT MANAGEMENT

Dear Participant:

My name is MeronGetahun. I am a student at Addis Ababa University in Project management department. As part of my MA in project management, I am conducting a research on the relation between project management maturity and project success in the Africa union flagship projects. I kindly request you to participate in this study by patiently completing the questionnaires. And, I hereby assure you that all the information will remain confidential and do not include your name in the questionnaires.

Your precious time and effort in participating in this research will also contribute to the development and improvement of Project Management in your organization. Thus, please take few minutes of your precious time to complete the following questionnaires.

If you have any hesitation or question,

Email: meryget2015@gmail.com

Tel: +251921-388499

Thank you for your interest in participating in the research and for your time and kind cooperation!

Meron Getahun

Addis Ababa, Ethiopia

Dear participant, this questionnaire booklet has three parts:

Part I –Respondents profile

Part-II- Project Maturity and Project Managmnet success

Part III- Open ended questions

Part one- General Information

1. Sex: Male ☐ Female ☐
2. Age: Less than 25 ☐ 25-29 years ☐

   30-35 years ☐ above 35 ☐
3. Position/role in the company

Office Project manager ☐ Site project manager ☐ Engineer ☐ Project professional ☐
Other……..

4. Department you are currently working in

Finance ☐ Engineering ☐ Operation ☐ Machinery & equipment. ☐

Other……

5. Educational Level

High School completed ☐ Diploma ☐ BA/BSc ☐ MA/MSc ☐ PhD ☐

6. Years of working experience in the company

Below 1 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ above 15 ☐

7. Have you ever attended a project management course or training?

Yes ☐ No ☐

If yes, please elaborate

……
……

PART II. Project Management Maturity and Project Success

The second portion of the questionnaire is composed of questions on the ten knowledge areas of project management where you, the respondent are expected to simply answer by ticking on either of following:

- Never and no need.
- Never but probably should
- Yes but not always and appropriately
- Yes, appropriately and competently
- Yes, in an exemplary manner.

1. Project Time Management

State that your organizations application of the following elements

		(5)Never and no need	(4)Never but probably should	(3)Yes but not always and appropriately.	(2)Yes, appropriately and competently	(1)Yes, in an exemplary manner.
TM1	Your organization describes the processes, tools and techniques used to develop a project schedule					
TM2	Your organization describes how the project schedule will be checked, monitored and how changes to it will be assessed.					

TM3	Your organization describes and requires the use of scheduling software.					
TM4	WBS used when defining the schedule activities					
TM5	Progress of project activities continuously monitored and controlled					
TM6	Project Scheduling updated regulatly?					
TM7	The project has schedule deadeline (Start and finish dates are approved and fixed)					
TM8	The schedule (plan) prepared for the project					
TM9	The relation among activities identified and the activities sequenced					

2. **Project Cost Management**

State the your organization's application of the following elements

		(5)Never and no need	(4)Never but probably should	(3)Yes but not always and appropriately.	(2)Yes, appropriately and competently	(1)Yes, in an exemplary manner.
CM1	Your organization describes the processes, tools and techniques used to estimate costs on the project.					
CM2	Your organization describes how project cost estimates will be checked, monitored and how changes to them will be assessed.					
CM3	Your organization describes the processes, tools and techniques used to prepare and document a project budget.					
CM4	Your organization describes how the project budget forecast will be checked, monitored and controlled as well as how changes to it will be assessed.					
CM5	Your organization requires the use of earned value management techniques for monitoring cost and/or time.					

CM6	Your organization describes any internal financial processes that may influence the project					
CM7	Your organization describes and requires the use of cost and budgeting software.					

3. Project Quality Management

State the your organization's application of the following elements

		(5)Never and no need	(4)Never but probably should	(3)Yes but not always and appropriately.	(2)Yes, appropriately and competently	(1)Yes, in an exemplary manner.
QM1	Your organization describes the processes for implementing quality assurance in the project.					
QM2	Your organization describes how quality assurance audits will occur in the project					
QM3	Your organization describes how quality control will be defined, inspected and documented on the project					
QM4	Your organization describes how the quality management processes will be checked monitored and Implementation of quality assurance					

	how changes to them will be assessed.					
QM5	Your organization describes and requires the use of quality management software.					
QM6	Quality department or employees specializing in quality management					
QM7	Your organization review todeterminewheteher project activities comply with policies, and process					

Part III. Open-ended questions

a. What do you think are the contributors to project success in your organizations context?

_____.

_____.

_____.

b. Do you expect more application of project management tools and methodologies in your organizations context? Why?

_____.

_____.

_____.

c. How do you evaluate the application of project management tools and methodologies in the flagship projects?

_____.

_____.