



Assessment of Project Management Maturity on Implementing
E-Banking Technology: case study Commercial Bank of Ethiopia

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Assessment of Project Management Maturity On Implementing E-Banking
Technology: Case Study Commercial Bank Of Ethiopia

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DECLARATION

I, Demisha Sheko, declare that this research paper, entitled “Assessment of Project Management Maturity on implementing E-banking Technology: case study Commercial bank of Ethiopia” is my original work submitted for the award of the fulfilment of requirement for Degree of Masters of Arts in Project Management Addis Ababa University. It has not been presented for the award of any degree or other similar titles in any other institution of higher learning to the best of my knowledge, and all resources used have been duly acknowledged.

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This is to certify that this project work, " Assessment of Project Management Maturity on implementing E-banking Technology: case study Commercial Bank of Ethiopia Commercial Bank of Ethiopia" undertaken by Demisha Sheko in Partial fulfillment of the award of Master's degree in Project Management at Addis Ababa University graduate school, is an Original work and not submitted earlier for any degree either at this or any other University.

Adane Atare (PhD)
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ABSTRACT

In today's dynamic and complex business environment, organizations find themselves in a need to manage project. The practice of project management has to be improved to realize its benefits. The main objective of this research project was to assess the project management maturity level of PMO for the successful implementation and contribution on e-banking technologies in CBE. According to the given theories and literature of the maturity assessment that was based on a five level project management maturity model devised by PM Solutions, for assessing the project management practice of the projects nine knowledge areas were selected from the project management body of knowledge guide. The research employed mixed research method and descriptive analyses to realize the purpose of the study. Hence, a questionnaire was devised based on reviewed literature to assess the practice of the knowledge areas. According to the result of the research, it was concluded that most of the knowledge areas were being practiced informally. The maximum level obtained was maturity level three assessed on two knowledge areas (project cost management and project human resource management). Five knowledge areas (project time management, project quality management, project communication management, project risk management and project stakeholder management) had a maturity level of two and the remaining two areas (project scope management and project procurement management) had the lowest maturity level (level one). Lack of proper integration of practices with project management practice has lowered the maturity level of the project management practice at the bank and also leads to its lowest contribution to the successful implementation of e-banking projects even though they have positive relationship. So developing and practicing project management knowledge areas; devising procedure; carefully collecting, compiling and disseminating lessons learned from past project implementation; creating project management standards; and creating awareness among all stakeholders towards projects; strengthening the PMO's human and other resources; and providing trainings in this field have been recommended as a means of improving project management maturity in e-banking technologies so as to practicing and attaining higher project management maturity.

Key words: project management, project management maturity, project implementation, e-banking technology

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List of Abbreviations

ATM:	Automatic teller machine
CBE:	Commercial Bank of Ethiopia
CMM:	Capability maturity model
OPM3:	Organizational project management maturity model
PM:	Project Management
PMBOK:	Project Management Body of Knowledge
PMI:	Project Management Institute
PMM:	Project Management Maturity
PMO:	Program/Project Management Office
POS:	Point on sale
SEI:	Software Engineering Institute

CHAPTER ONE: INTRODUCTION

1.1. BACKGROUND OF THE STUDY

In today's dynamic business environment, organizations find themselves in a need to manage different projects for the success of their strategies or their mere survival (Kerzner, 2009; Callahn and Brooks, 2004; Larson and Gray, 2000). Soderlund (2004) states that most of the emergent industries since world-war II are project intensive. This widespread use of projects in organizations demanded an approach that can efficiently manage these temporary endeavours which are critical to the organizations strategic objectives.

The establishment of project management office (PMO) will have a significant importance for the success of the projects. This is due to the fact that PMO is assigned various responsibilities related to the centralized and coordinated management of those projects under its domain (Munyoki and Njeru, 2014; PMBOK, 2013). The development and implementation of increasingly more complete and comprehensive project management processes and practices is brought by increased project management maturity (Hill, 2008). The more mature the organizations, the more benefits the organizations realize due to their project portfolio management practices (PM Solutions (2014).

Hence various means of assessing the project management maturity level of an organization were formulated and are being implemented. Mateen (2015) stated that various models are in use to assess maturity levels in project management and the models are also being improved through time.

Modern banking in Ethiopia started in 1905 with the establishment of Bank of Abyssinia, which was based on a fifty-year franchise given to the British-owned National Bank of Egypt. It has landmark significance in introducing financial services, which were hitherto unknown in the country (Alemayehu G. 2006). A significance feature of commercial banking in Ethiopia then was its innovative nature rather than its contribution to growth and its competitive nature.

In order to provide efficient and effective services, Banks currently uses deposit, machine, technology, manpower/human resources and other materials as basic inputs to achieve its predetermined goals and objectives. Among those resources, technology is one of a competitive advantage for the banking industry to ease delivery of the intended service, to

make timely decision, exploit resources user friendly, achieve the objectives of the organization as planned and contribute for the enhancement of the overall development.

Commercial Bank of Ethiopia is the leading Bank in Ethiopia, established in 1942 G.C and Pioneer to introduce modern banking to the country. Commercial Bank of Ethiopia has 1280 branches stretched across the country. It is the bank with assets of Birr 565.5 billion as on June 30th 2018 and Plays a catalytic role in the economic progress & development of the country. It is the first bank in Ethiopia to introduce Automated Teller Machine (ATM) service for local users and pioneer to introduce Western Union Money Transfer Services in Ethiopia. Currently CBE has more than 18 million account holders. (www.combanketh.et)

The bank has gone through a major expansion both in its size and operation in recent years. This is in line with its vision of becoming “a world class bank by 2025.” Towards this end, the bank has devised various strategies and is undertaking various initiatives. Although there are a multitude of initiatives undertaken by CBE, most of the initiatives are related with adoption of various information technology tools to improve its service delivery and automate internal operations. The initiatives are each being undertaken as individual projects with their own project teams and overseeing the implementation of these projects is the bank’s PMO.

In light of availability of various models to assess project management maturity level of organizations, this research project tried to measure the project management maturity level of CBE’s PMO. It also attempted to look into possible contributions of project management maturity on implementation of e-banking technologies and forward recommendations as a means of improvement.

1.2. STATEMENT OF THE PROBLEM

Commercial Bank of Ethiopia has established a Program Management Office to oversee the successful undertaking of its projects in order to oversee the implementation of the projects and provide assistance to the program managers. (Abreham 2017) However, the study by Ethiopia (2017) identified that internal and external factors are affecting the implementation of the PMO of the CBE. The top five challenges identified were: difficulty of staffing the PMO with necessary personnel, Lack of systematic knowledge management, absence of standardized project management tools and templates, absence of documenting lessons

learned and best practice and lastly frequent network failure. Almost all of the top five challenges are related with maturity of the PMO.

Feezer's (2017) findings strongly stated that there is a need to enforce and develop the PM practices and knowledge in CBE PMO. Particularly project managers and project performers are not performing project tasks as per the best practice and standard.

The low level of project management maturity exhibited CBE's program management office shows how poor the project management is practiced.

After the recent establishment of project management office and the introduction of the e-banking technologies, the bank has many advantages and great deal of works on implementation of e-banking technology under different projects.

The bank is currently working aggressively on E banking expansion and E banking technology is among the strategic issues.(CBE corporate strategy 2015/16- 2019/20) the bank is using different strategies of expanding the technology for instance campaign, discount for payments made via the E banking technology, branches individual target for E banking user recruitment to be achieved by the end of the business year and considered as one criteria for performance measurement of the branch So branches are recruiting E banking customers unreservedly.(Amakelew, 2018)

The study of Rahel (2018) reveals that the benefits of technological innovations like E-banking are well known by the banks and represent a formidable force to drive implementation of E-banking system.

Even though E-banking has a lot of benefit in delivering service to customers, in Ethiopia customers were missed to enjoy with the technological advancement in banking sector which has been entertained elsewhere in Africa and the rest of the world. The modern E-banking methods are new to the Ethiopian banking sectors. (Ayana, 2012).

Meaza, (2017) indicated that recently the E-banking practice is growing in a significant level and NBE is also trying to support such activity by introducing different payment infrastructure. Although there are identified basic benefits of E-banking for the customers, banks and for the economy which helps to enhance other banks to engage in such activity there were no high project maturity management level registered as such.

Therefore, after examining research papers done on the area as mentioned before, the researcher has find out that there is research report gap on linking: the level of project management maturity of PMO: the implementation of e-banking technology: and the direct contribution of mature PMO on e-banking projects success. Thus, this paper tried to bridge these three concepts and measure the level maturity and its contribution for the project success. By doing so it is expected to fill the research gap on the related concept area and act as an informer and a warner for the respective stakeholders of the project for the better efficiency and achievement of future project by driving conclusions on the current situation and providing recommendation for future use.

1.3. RESEARCH QUESTION

The research questions the study has tried to answer are:

- I. What is the level of project management maturity of CBE?
- II. What are the contributions of the project management maturity to the successful implementation of e-banking technologies?
- III. What are the contributors to project success other than project maturity?

1.4. OBJECTIVE OF THE STUDY

General objective

The general objective of this study was to assess the project management maturity level of Program Management Office of Commercial Bank of Ethiopia.

Specific objectives

Specific objectives of the study were:

- To measure the level of maturity of CBE'S PMO
- To identify the contribution of mature PMO for the successful implementation of e-banking technologies
- To identify other contributors for project success

1.5. SIGNIFICANCE OF THE STUDY

Results of this study could be valuable for Commercial Bank of Ethiopia and other organizations, with similar project overseeing offices, in fine tuning their practices to enhance the value they get from the PMO. It could also be used by academicians and researchers as an input to carry out in-depth measurement of project management maturity of various

organizations. And also it will be helpful on identifying the contribution of, the maturity level the bank or other organization are, on successful implementation of projects such as, in this study case, e-banking technologies. The researcher has also used the research project as an opportunity to see how the theoretical knowledge acquired during the duration of the course is being implemented in reality.

1.6. SCOPE OF THE STUDY

For the sake of quality of the research and time as well as resource constraints, this study focused on measuring project management maturity of Project Management Office of Commercial Bank of Ethiopia towards the e-banking technology projects of the bank.

1.7. LIMITATION OF THE STUDY

The researcher faced some limitations in the course of the research project. The first challenge was time constraint since the time given for the research project was quite short. The second challenge was the scattered location of the project offices. There was no clear information on where a specified project manager and his/her team is located. The other challenge was most of the e-banking technologies has been phased out and the team of the respective project were on different assignment and were difficult to track.

1.8. ORGANIZATION OF THE STUDY

The study is organized into five sections. The first chapter introduces back ground of the study. In the second chapter, different related literatures are presented to create an in depth understanding towards the subject under study. Under this chapter, theoretical frameworks on which the study is founded are also discussed. The third chapter is concerned with the methodological part of the study. The analysis, discussions of major findings and summary of results is indicated in the fourth chapter. The fifth and last chapter contains the conclusions, recommendations and implications of the study. List of references used and appendices are also attached at the end of the research report.

CHAPTER TWO: LITERATURE REVIEW

2.1 THEORETICAL REVIEW

2.1.1 DEFINITIONS OF TERMS

Project: It is a temporary endeavour undertaken to create a unique product or service, temporary means that the project has a definite ending point, and unique means that the product or service differs in some distinguishing way from all similar products or services (PMI, 1996).

Project management: Project management is defined as an application of knowledge, skills, tools and techniques to project activities to meet project requirements. This is accomplished through the application and integration of the project management processes of initiation, planning, executing, monitoring and controlling and closing (PMI, 2004).

Project management maturity: refers to the progressive development of an enterprise-wide project management approach, methodology, strategy, and decision-making process. The appropriate level of maturity will vary for each organization based on its specific goals, strategies, resource capabilities, scope, and needs. (PMBOK, 2013)

Project management maturity level; -A maturity level is a well-defined evolutionary plateau toward achieving a mature project management process. Each maturity level provides a layer in the foundation for continuous process improvement.

Project management maturity models; - A maturity model is a framework that is used as a benchmark for comparison when looking at an organizations processes. It is specifically used when evaluating the capability to implement data management strategies and the level at which that company could be at risk from said strategies. It is a collection of reliable, proven processes focused on a specific discipline. Five-step framework ranges from basic to sophisticated practices.

E-banking technologies: Electronic banking is defined as the delivery of banks' information and services by banks to customers via different delivery platforms that can be used with different terminal devices such as personal computers and mobile phone with browser or desktop software, telephone or digital television. (Daniel, 1999)

2.1.2 CONCEPT OF PROJECT

The definition given by PMI for a project is a temporary endeavor undertaken to create a unique product, service, or result (PMI, 2013). A more elaborate definition states a project is a sequence of unique, complex, and connected activities that have one goal or purpose and that must be completed by a specific time, within budget, and according to specification (Wysocki, 2014). Likewise, Kerzner (2009) stated that a project can be considered to be any series of activities and tasks that have a specific objective to be completed within certain specifications, have defined start and end dates, have funding limits (if applicable), consume human and non-human resources, are multifunctional (i.e., cut across several functional lines). Project has also been defined as a unique set of co-ordinated activities, with definite starting and finishing points, undertaken by an individual or organization to meet specific performance objectives within defined schedule, cost and performance parameters' (Maylor, 2010).

The task of the project is to deliver a particular product, service or result. (Maylor, 2010) Projects must have a single goal. However, very large or complex projects may be divided into several subprojects, each of which is a project in its own right. (Wysocki, 2014) Nicholas and Steyn (2012) also stated that, a project involves a single, definable purpose and well-defined end- items or deliverables.

2.1.3 CONCEPT OF PROJECT MANAGEMENT

According to the Project Management Institute, project management is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements (PMI, 2013). Likewise, the Association for Project Management also defined project management as the application of processes, methods, knowledge, skills and experience to achieve the project objectives. (APM, 2012) These two definitions are oriented towards application of various means to achieve project objectives.

On the other hand, project management has been defined from management functions perspective by Kerzner (2009). Kerzner (2009) stated that, project management is the planning, organizing, directing, and controlling of company resources for a relatively short-term objective that has been established to complete specific goals and objectives.

Kleim and Ludin (1998) defined project management in a way that combines the above two, stating that Project management is the tools, techniques, and processes for defining, planning, organizing, controlling, and leading a project as it completes its tasks and delivers the results.

Project management is accomplished through the appropriate application and integration of project management processes, which are categorized into five Process Groups. (PMI, 2013) These five Process Groups are: Initiating, Planning, Executing, Monitoring and Controlling, and Closing.

Soderlund (2004) states that most of the emergent industries since world-war II are project intensive. This widespread use of projects in organizations demanded an approach that can efficiently manage these temporary endeavours which are critical to the organizations strategic objectives.

Project Management Process Groups

According to PMI (2013), in order for a project to be successful, the project team should select appropriate processes required to meet the project objectives. These processes ensure the effective flow of the project throughout its life cycle. The processes encompass the tools and techniques involved in applying the skills and capabilities described in the project management knowledge areas. There are five process groups in the life cycle of any project.

The initiating process group: This process group consists of those processes performed to define a new project or a new phase of an existing project by obtaining authorization to start the project or phase. Within the Initiating processes, the initial scope is defined and initial financial resources are committed (PMI, 2013). In this phase no actual project activity is not performed (Wysocki, 2014).

The planning process group: This process group consists of those processes performed to establish the total scope of the effort, define and refine the objectives, and develop the course of action required to attain those objectives (PMI, 2013). Definition of the work requirements, definition of the quality and quantity of work, definition of the resources needed, scheduling the activities, evaluation of the various risks are activities included in this group according to Kerzner (2009).

The executing process group: According to PMI, this consists of those processes performed to complete the work defined in the project management plan to satisfy the project specifications. This process group involves coordinating people and resources, managing stakeholder expectations, as well as integrating and performing the activities of the project in accordance with the project management plan (PMBOK, 2013).

The monitoring and controlling process group: This process group consists of processes required to track, review, and orchestrate the progress and performance of the project; identify any areas in which changes to the plan are required; and initiate the corresponding changes (PMI, 2013). Under this group, activities that relate to tracking progress, comparing actual outcome to predicted outcome, analysing variances and impacts, and making adjustments are performed by the project team (Kerzner, 2009).

The closing process group: Processes performed to conclude all activities across all project management process groups to formally complete the project, phase, or contractual obligations come under the closing process group. This process group, when completed, verifies that the defined processes are completed within all of the process groups to close the project or a project phase, as appropriate, and formally establishes that the project or project phase is complete (PMI, 2013).

2.1.4 PROJECT MANAGEMENT MATURITY

The trend of using maturity models for increasing organization's performance have been increasing in recent years. (Crawford, 2010) Maturity in organizational context is a state that creates perfect condition for organization to achieve its desired objectives (Mateen, 2015). Mateen (2015) also quoted Andersen and Jessen (2003) who stated that maturity, when applied to projects of organization, provides perfect condition to handle projects. The use of maturity models in the diagnosis of Project Management culture in organizations; especially aim to identifying weaknesses and strengths in their project management processes, so that it can then define a set of actions and measures to better its performance as an organization (Ferreira and Pereira, 2015).

According to Kerzner (2003), maturity in project management is the implementation of a standard methodology and accompanying processes such that there existed a high likelihood of repeated success. Andersen & Jessen (2003) refer to maturity as “a state where an organization is in perfect condition to achieve its objectives. Project maturity would then mean that the organization is perfectly conditioned to deal with its projects.”

Maturity- Maturity is defined by many writers differently in closely related way. Some of the definitions given are presented here under.

“Maturity is the extent to which a specific process is explicitly defined, managed, measured, controlled, and effective. Maturity implies a potential for growth in capability and indicates

both the richness of an organization's (Project Management) process and the consistency with which it is applied in projects throughout the organization.” (Paulk, Curtis, Chrissis, & Weber, 1993)

Organizational Maturity is “the extent to which an organization has explicitly and consistently deployed processes that are documented, managed, measured, controlled, and continually improved.” [(CMMI Product Team, 2002, p. 582)

Cited by Cooke-Davies, (2005) “Maturity is the level of sophistication that indicates organizations current project management practices and processes”.

“The degree to which an organization practices project management measured by the ability of an organization to successfully initiate, plan, execute, monitor and control individual projects.” (Project Management Institute, 2003).

According to Chrissis, Konrad, &Shrum, (2003), a matured process is well understood throughout a mature organization; usually through documentation and training, and the process is continually being monitored and improved by its users. A mature organization has an organization-wide ability for managing initiatives based on standardized and defined management processes.

2.1.5 PROJECT MANAGEMENT MATURITY MODELS

Until recently, the concept of “maturity” was seldom used to describe the state of an organization’s effectiveness at performing certain tasks. Today, we find this maturity concept used increasingly to map logical ways to improve an organization’s services. (PMM, 2015)

In order to measure project management maturity of a project organization, one can use a variety of models, some of which include:

- Capability Maturity Model Integrated by Software Engineering Institute (SEI-CMMI)
- Project Management Maturity Model by H. Kerzner
- Project Management Maturity Model by PM Solutions
- Organizational Project Management Maturity Model by Project Management Institute
- Project Management Process Maturity (PM)2 by Kwak and Ibbs
- PMO maturity cube by Pinto, Cota and Levin
- PMO maturity model (PMO Continuum) by Hill

Capability Maturity Model Integration (CMMI)

The first ever version 1.0 of Capability Maturity Model (CMM) was first presented by Software Engineering Institute (SEI) division of Carnegie Mellon University in 1991 (Mateen, 2015). This model was later replaced by its successor, the Capability Maturity Model Integration (CMMI) in 2002, the year of publication of the first version 1.1 (SEI, 2006).

According to SEI (2006), the latest version of CMMI (2.1), released in 2006, comprises a framework that allows the generation of multiple models. CMMI for development is one of those models: it provides guidance for managing, measuring, and monitoring software development processes and help organizations to improve their software development processes for both products and services by describing characteristics of best practices. CMMI offers five maturity levels that can only be reached one after the other in order to stage the process improvement effort (SEI, 2006).

- ❖ Level 1- Initial: In this level processes are unpredictable, poorly controlled and reactive to situations.
- ❖ Level 2- Managed: Processes are planned, documented, performed, monitored and controlled at the project level. This stage is often reactive.
- ❖ Level 3- Defined: During this maturity level, processes are well characterized and understood. Processes, standards, procedures, tools, etc. are defined at the organizational level. This stage is a proactive level.
- ❖ Level 4- Quantitatively Managed: In this stage, processes are controlled using statistical and other quantitative techniques.
- ❖ Level 5- Optimizing: Once an organization reaches this level, process performance is continually improved through incremental and innovative technological improvements.

Project Management Maturity Model (PMMM by H. Kerzner)

According to Kerzner (2014), models can be used to assist corporations in performing strategic planning for project management and achieving maturity and excellence in a reasonable period of time. The foundation for achieving excellence in project management can best be described as the project management maturity model (PMMM) that can be used as a foundation for achieving excellence in project management. The model is comprised of five levels, each level representing a different degree of maturity in project management.

- ❖ Level 1- Common Language: In this level, the organization recognizes the importance of project management and the need for a good understanding of the basic knowledge on project management, along with the accompanying language/terminology.
- ❖ Level 2- Common Processes: In this level, the organization recognizes that common processes need to be defined and developed such that successes on one project can be repeated on other projects. Also included in this level is the recognition that project management principles can be applied to and support other methodologies employed by the company.
- ❖ Level 3- Singular Methodology: In this level, the organization recognizes the synergistic effect of combining all corporate methodologies into a singular methodology, the center of which is project management. The synergistic effects also make process control easier with a single methodology than with multiple methodologies.
- ❖ Level 4- Benchmarking: This level contains the recognition that process improvement is necessary to maintain a competitive advantage. Benchmarking must be performed on a continuous basis. The company must decide whom to benchmark and what to benchmark.
- ❖ Level 5- Continuous Improvement: In this level, the organization evaluates the information obtained through benchmarking and must then decide whether or not this information will enhance the singular methodology (Kerzner, 2014).

According to Kerzner (2014), these levels do not need to be performed sequentially, rather, some of the above levels can and do overlap. Although overlapping does occur, the order in which the phases are completed cannot change. For example, even though Level 1 and Level 2 can overlap, Level 1 must still be completed before Level 2 can be completed (Kerzner, 2014).

(PM) 2 Maturity Assessment Methodology

Professor William C. Ibbs formed a research team at the University of California at Berkeley set itself a goal to investigate the benefits to organizations through financial and organization factors that result from the implementation of the project management processes (Ibbs&Kwak, 1997b). One of their research steps was the develop of a five-level "Project Management Process Maturity: (PM) 2 model would allow the project management process information for a number of organizations to be collected and compared (Ibbs&Kwak, 1998)

and to be used in furthermore re-researches. These five levels of maturity process are described as follows (Kwak, 1997):

- ❖ **Level 1 – Ad-hoc Stage;** - Organizations at level 1 do not use formal procedures for executing a project. Project activities are poorly defined and cost estimates are inferior.
- ❖ **Level 2 – Planned Stage;** - At the planned stage, informal and incomplete procedures manage a project. The organization has strength in doing similar and repeatable work.
- ❖ **Level 3 – Managed Stage;** - Most of the project management problems are identified and in-formally documented. PM data for project planning and management are collected across the organization.
- ❖ **Level 4 – Integrated Stage;** - At the integrated stage, an organization can manage, Integrate, and control multiple projects efficiently. PM process data are standardized, collected, and stored.
- ❖ **Level 5 – Sustained Stage;** - At the sustained stage, PM processes are continuously improved. PM data are collected and rigorously analyzed to improve processes. Innovative ideas are vigorously pursued. The final aim of Ibbs's team is the determination of “success drivers”, i.e. to determine the most critical factors for the success of a project and being able to calculate the magnitude of the return on investment that an organization draws from the raise of its project management process maturity (Ibbs&Kwak, 2000).

Organizational Project Management Maturity Model (OPM3)

Developed by PMI, the Organizational Project Management Maturity Model (OPM3) is a framework that provides an organization-wide view of portfolio management, program management, and project management to support achieving best practices within each of these domains (PMI, 2008).

An OPM3 assessment evaluates the degree of an organization’s ability to meet their strategic objectives through successful delivery by using recognized Best Practices to manage portfolios of programs and projects (PMI, 2008). An OPM3 Maturity Assessment is flexible enough to be used to assess maturity in these different focus areas:

1. Specific domains (project, program, and/or portfolio),
2. Organizational Enablers, or

3. Specific stages of process improvement (standardize, measure, control, or continuously improve).

OPM3 framework cycle constitutes following steps for measuring maturity: Acquire Knowledge, Perform Assessment, Manage Improvements, and Repeat the process.

- ❖ **Acquire Knowledge** - this component of OPM3 cycle requires preparation for assessment of project management maturity. A good understanding of OPM3 contents is developed before carrying out assessment. Also, understanding of organization for project management practices is developed (PMI, 2008).
- ❖ **Perform Assessment** - involves gathering all the data required for measurement of maturity assessment. For this purpose, the PMI has devised a set of self-assessment method (SAM) questionnaire that enables an organization perform a high-level and a comprehensive assessment of its project management practice. The results of data are formulated in a form of graph which depicts organization's maturity level for project, program and portfolio management (PMI, 2008).
- ❖ **Manage Improvements** - the results from perform assessment stage are compared against best practices standard of project, program and portfolio management. This best practice standard defined by PMI provides basis of improvement. The outcome of comparison between existing practices and best practices allows recommendation for improvement (PMI, 2008).

The PMO Maturity Cube (a Project Management Office Maturity Model)

Pinto, De Matheus Cota, and Levin developed a maturity model that focuses on PMOs maturity named The PMO Maturity Cube. The PMO Maturity Cube, as its name suggests has three dimensions and their own categories. The dimensions are Scope of the PMO (Enterprise, Departmental or Program/Project PMO); Approach (Operational, Tactical or Strategic PMO) and Maturity (Basic, Intermediate or Advanced) (Pinto et al, 2010).

The proposal of this model sums up the main standard ways of typifying PMOs in essentially two principal dimensions: scope and approach (Pinto et al, 2010).

The scope of a PMO comes from how wide reaching its actions within the organization are. Basically, there are three mutually exclusive possibilities: the project-program PMO, the scope of which covers just one of the organization's projects or programs; the departmental PMO, which covers an area, department, directorship, or business unit, i.e., just a part of the

organization; and finally the corporate or enterprise PMO, which covers the organization as a whole (Pinto et al, 2010).

Approach has to do with how the PMO operates. This may be strategically, tactically, or operationally, or it may operate with all three simultaneously (Pinto et al, 2010). The authors also suggested that the driver of the approach of a PMO must be its mission, which will define how strategic, tactical, or operational it should be.

The third dimension is the maturity of the PMO in which the authors define as the degree of sophistication it provides to each service for which it is responsible (Pinto et al, 2010). By considering the twenty-seven roles of PMOs put forward by Hobbs and Aubry (2007), the authors analysed as to their possible different levels of sophistication for carrying them out, from the most trivial way to the most complicated. This determines the degree of maturity when carrying it out (Pinto et al, 2010).

The PMO Maturity Cube results from unifying these three concepts, which have all been consolidated into one specific model for evaluating the maturity of PMOs for any type of organization.

Project Management Office (PMO) Continuum

According to Hill (2008), a project management methodology provides a standard, repeatable process to guide project performance from concept to completion. This “project management methodology” function enables the Project Management Office (PMO) to:

- Establish the standard approach to project management that is to be used by all project managers within the relevant organization.
- Introduce project management practices incrementally, beginning with those that have the greatest impact on project and business success.
- Achieve consensus for implementing a common project management life cycle across the relevant organization’s technical and business areas.
- Provide for collection of pertinent project data used in individual and aggregate analyses of project performance.
- Identify and incorporate technical and business processes into the project management methodology (Hill, 2008).

Hill (2008) stated that the PMO and the project management methodology evolve through five stages. He called these PMO stages “PMO competency continuum”. Along these stages, the project management methodology of the PMO is characterized by:

- Development and implementation of increasingly more complete and comprehensive project management processes and practices
- Wider cross-functional influence at advanced stages of the continuum, in association with the broader oversight authority and responsibility for project management prescribed by the methodology
- Increased integration of technical and business process activities

Project Office	Basic PMO	Standard PMO	Advanced PMO	Center of Excellence
- Applies effective practices for project performance and oversight; and employs standard lifecycle processes when available	- Introduces critical processes and practices of project management - Identifies and develops critical processes - Manages cross-project critical process use - Identifies best and preferred practices	- Establishes and monitors use of a complete project management methodology - Provides full project life-cycle coverage - Integrates technical processes - Conducts methodology user training	- Enhances content and monitors use of a comprehensive methodology - Integrates business processes - Optimizes automated tool alignment - Facilitates methodology use across relevant business units	- Conducts project management methodology analyses - Examines process variation in business units - Assesses methodology use and ongoing process improvement

Project Management Maturity Model (PMMM by PM Solutions)

Like the CMM and PMMM by Kerzner, the model also follows the five levels of process maturity and PM knowledge areas from the Project Management Institute's PMBOK guide. The model is helpful to measure an organization's project management maturity and to direct organizations towards important PM capabilities that organizations should acquire in order to achieve project management growth and excellence. The five levels of PM Solutions (2014) are depicted below

- ❖ Level 1: Initial Process - Not established practices or standards. Metrics and project documentation are informally collected.

- ❖ Level 2: Structured Process and Standards - Basic metrics and project documentation are present but no organizational standard is set.
- ❖ Level 3: Organizational Standards and Institutionalized Process - All projects use organizationally institutionalized formal standards.
- ❖ Level 4: Managed Process - Metrics are used to manage projects, and integrated into other corporate systems to maximize overall organizational performance.
- ❖ Level 5: Optimizing Process - Lessons Learned is routinely studied to improve PM processes.

The model examines an organization's implementation across the ten project management knowledge areas namely as Project Integration Management, Project Scope Management, Project Time Management, Project Cost Management, Project Quality Management, Project Human Resource Management, Project Communications Management, Project Risk Management, Project Procurement Management and Project Stakeholder Management.

2.1.6. PROJECT MANAGEMENT KNOWLEDGE AREAS

Knowledge Area represents a complete set of concepts, terms, and activities that make up a professional field, project management field, or area of specialization and they are used on most projects most of the time (PMI, 2013). The ten PM Knowledge Areas are discussed below.

Project integration management: It includes the processes and activities to identify, define, combine, unify, and coordinate the various processes and project management activities within the Project Management Process Groups (PMI, 2013). This Knowledge Area addresses the glue that links all of the deliverables from the Process Groups into a unified whole (Wysocki, 2014).

Project scope management: This knowledge area includes the processes required to ensure that the project includes all the work required, and only the work required, to complete the project successfully. Generally, managing the project scope is primarily concerned with defining and controlling what is and is not included in the project (PMI, 2013).

Project time management: Project time management includes the processes required to manage the timely completion of the project (PMI, 2013). It provides time estimates for both the duration of a project task and the actual effort or labour time required to complete the task. It also involves comparing estimated times to actual times as well as managing the schedule and cost variances (Wysocki, 2014).

Project cost management: Project cost management includes the processes involved in planning, estimating, budgeting, financing, funding, managing, and controlling costs so that the project can be completed within the approved budget (PMI, 2013).

Project quality management: Project Quality Management includes the processes and activities of the performing organization that determine quality policies, objectives, and responsibilities so that the project will satisfy the needs for which it was undertaken (PMI, 2013).

Project human resource management: Project human resource management focuses on actions related to the human aspect of the project and, according to PMI (2013), it includes the processes that organize, manage, and lead the project team.

Project communication management: Project communications management includes the processes that are required to ensure timely and appropriate planning, collection, creation, distribution, storage, retrieval, management, control, monitoring, and the ultimate disposition of project information (PMI, 2013).

Project risk management: Project risk management includes the processes of conducting risk management planning, identification, analysis, response planning, and controlling risk on a project. Its objectives are to increase the likelihood and impact of positive events, and decrease the likelihood and impact of negative events in the project (PMI, 2013).

Project procurement management: The processes necessary to purchase or acquire products, services, or results needed from outside the project team are included under project procurement management according to PMI (PMI, 2013).

Project stakeholder management: Project stakeholder management includes the processes required to identify the people, groups, or organizations that could impact or be impacted by the project, to analyse stakeholder expectations and their impact on the project, and to develop appropriate management strategies for effectively engaging stakeholders in project decisions and execution (PMI, 2013).

2.1.7. USES AND BENEFITS OF PROJECT MANAGEMENT MATURITY MODELS

Maturity models are designed to provide a framework that an organization needs to develop its capabilities, in order to deliver projects successfully in the long term (Jugdev& Thomas,

2002; Mittermaier & Steyn, 2009 cited in Backlund et al,2014). Backlund, et al (2014) also stated the following points as importance of using PM maturity models and assessment:

- To set direction, prioritize actions, and begin cultural change rather than primarily identifying the current level at which an organization is performing.
- To compare project capability between organizations, or between a specific organization and industry norms as a means to benchmark their maturity relative to others.
- PM maturity assessment can be utilized as a “check-up” tool to measure progress and to identify the next logical steps forward and hence support organizations to view PM as a strategic enabler.

A critical review of applying Project Management Maturity Models

A criticism of using Project Management Maturity Models include

- The focus on explicit PM knowledge areas and not on intangible assets, which are not measurable but can contribute to a mature PM capability;
- The comprehensive and complex frameworks may prevent potential users to apply the model;
- The models are inflexible when a flexible model is required for managing change and improvements;
- The models are overly disciplinary, impractical, and overwhelming as methodologies;
- The models focus on the work processes and some ignore the human resource or organizational aspects. (Jugdev & Thomas, 2002 in Backlund et al, 2014)

Choosing a Model for Project Management Maturity Assessment

According to Man (2007), the evaluation of maturity models for PMMMs could be developed along three dimensions: a. structure, b. applicability and c. usage

Using the above three criteria and other characteristics of the models, the researcher has chosen to apply the Project Management Maturity Model (PMMM) that was presented by PM Solutions to assess the project management maturity of the PMO of Commercial Bank of Ethiopia. The model is well structured with a two-dimensional framework which is based on accepted industry standards. The first dimension reflects the level of maturity. It is based on the structure of the SEI Capability Maturity Model. The second dimension depicts the key areas of project management addressed. It adopts the structure of the PMI’s nine knowledge areas. It is relatively easy to use and the outcomes of the model are applicable to enhance the maturity of organizations towards project management.

In addition, using the model has the following advantages:

- Has well defined knowledge areas and processes devised by the PMI.
- Has well defined maturity levels.
- Integrates various project management maturity models.
- It illustrates a series of steps to help an organization improve its overall PM effectiveness.
- Up to date knowledge areas and processes can be included.

Project management maturity model provides best practice to access the maturity level of organization's project management processes: map a logical path to improve organization's processes: set priorities for short term process improvement actions: discern the need for a project management office and access where it fits in an organization structure: track progress against project management improvement plan and build a culture of project management excellence. (Crawford,2014)

2.1.8 PROJECT SUCCESS FACTORS

Atkinson (1999) claims that early literature considered the success of a project on three parameters namely, time, budget and required quality (the so-called golden triangle) as the main criteria. However, he contends that there are more, possibly competing, criteria that can be identified. Wateridge (1998) was cited by Cooke-Davis (2002) arguing that the decision to achieve time and cost constraints, project managers fail from putting great focus the happiness of users towards the system.

Kerzner (2003) explains that defining project success on the basis of the completion of an activity within the constraints of time, cost, and performance was the definition used for the two decades or so. He states that for a project to be called successful, it must be:

- Within the allocated time period
- Within the budgeted cost
- At the proper performance or specification level
- With acceptance by the customer/user
- With minimum or mutually agreed upon scope changes
- Without disturbing the main work flow of the organization and
- Without changing the corporate culture

2.2 DEFINITION OF E-BANKING

E-banking has been defined in many ways by different scholars:

- Abid and Noreen (2006) defined it as any use of information and communication technology and electronic means by a bank to conduct transactions and have interaction with stakeholders
- Magembe et al (2002) also defined electronic banking (e-banking) is nothing but e-business in banking industry. E-banking is a generic term for delivery of banking services and products through electronic channels, such as the telephone, the internet, the cell phone, etc.
- E-banking is a form of banking service where funds are transferred through an exchange of electronic signal between financial institutions, rather than exchange of cash, checks, or other negotiable instruments (Kamrul, 2009).

2.2.1 TYPES OF E-BANKING

Among the many e-banking delivery channels to provide banking service to customers, ATM, POS, Mobile, fund transfer and internet banking are the most widely used and discussed below: -

Funds Transfer: Customers can now electronically transfer funds across the globe without any problem or delay as compared to the traditional method before the advent of information technology when funds are seriously delayed before they are delivered to the recipients.

ATM: It is a machine where cash withdrawal can be made over the machine without going in to the banking hall. It also sells recharge cards and transfer funds; it can be accessed 24 hours/7 days with account balance enquiry (Fenuga, 2010). ATM is same as teller point but it run automatically through identity like card and password. It does not need any slip or Cheque but it is very much based on account holder's ATM card and its Password. Generally, ATM machines provides the same services, such as money withdrawal, fund transfer, balance enquiry, mini statement, and money transfer from one account to the other.

A fundamental advantage is that it needs not to be located within the banking premises. It is usually in stores, shopping malls, fuel stations etc. It saves customers time in service delivery as alternative to queuing in bank halls, customers can invest such time saved into other

productive activities. ATMs are a cost-efficient way of yielding higher productivity as they achieve higher productivity per period of time than human tellers.

INTERNET BANKING: Internet banking is a relatively new front-office technology. It allows customers of a financial institution to conduct financial transactions on a secure website operated by the institution, which can be a retail or virtual bank, credit union or society. It may include any of transactions related to online usage. Banks increasingly operate websites through which customers are able not only to inquire about account balances, interest and exchange rates but also to conduct a range of transactions and get information about the banks and their services. (Alabar, 2012).

POS: POS also sometimes referred to as point of purchase (POP) or checkout is the location where a transaction occurs. A "checkout" refers to a POS terminal or more generally to the hardware and software used for checkouts, the equivalent of an electronic cash register. A POS terminal manages the selling process by a salesperson accessible interface. The same system allows the creation and printing of the receipt. POS systems record sales for business and tax purposes (Shittu, 2010).

MOBILE BANKING: Mobile banking is being regarded in the industry as “the delivery channel of the future” for various reasons. First and foremost is the convenience and portability afforded. It is just like having a bank in the pocket. Other key reasons include the higher level of security in comparison to the internet and relatively low costs involved. The possibility that customers will adopt mobile banking is high, considering the exponential growth of mobile phone users worldwide. Mobile banking typically provides services such as the last information on account balance, previous transactions, bank account debits and credits, and credit card balance and payment status.

2.3 EMPIRICAL LITERATURE REVIEW

A majority of firms (91%) world-wide have project management processes in place. There is a direct and strong correlation between the project management maturity of a firm and its overall performance. High-performing firms are much more mature in their project management practices than low performers. There is a correlation between the length of time project management has been in place in a firm and its project management maturity and overall performance. Organizations have seen considerable value by increasing the level of their project management maturity. Most organizations (76%) have improved in PM maturity

over the past five years with 33% moving from Level 1 to Level 2. Firms have steadily and consistently moved up in levels of project management maturity between 2001 and 2014. (Pm solution research center, 2014)

Desalegne (2018), concerning the roles of PMO in the bank, many participants in the study believed in exercising of roles relating to training and consulting, managing practices compared to the other roles of PMO despite there is perception variation on individual attributes (indicators) with in the five roles. Moreover, overall result revealed that attributes related to managing of archives of project documentation, reporting of project status to upper management and providing of advice to upper management registered a higher agreement level in comparison with other attributes, while attributes like coordinating vendors/contractors relationship management, recruiting, selecting, evaluating and determining salaries of project management and managing of one or more programs/projects agreed by least percentage of participants (below 50%) comparing to other attributes.

Abreham (2017), on his study of the level of project management office maturity in case of CBE at 2017, based on the data gathered and analysed, concluded that all of the knowledge areas have lower maturities. The maximum level obtained was maturity level three assessed on three knowledge areas. Three knowledge areas had a maturity level of two and the remaining areas had the lowest maturity level (level one). The PMO's project management practice is generally characterized by no established practices or standards; but basic and non-standard processes that are practiced on projects. This signals a need for improvement in project management practices.

Yoseph (2017), on his study entitled "Assessment of the Relationship between Project Management Maturity and Project Management Success: The Case of Initiative Africa" 2017, concluded that despite some contradicting findings, the study has shown a positive correlation between project management maturity and project success. The maturity of IA based on all three parameters lies above 3, level 3 (i.e. Measure as per OPM3) meaning that the organization has a standard processes used by all projects, and processes are measured to evaluate effectiveness.

Zerithun (2017), under her paper entitled "Assessing the relationship between Project Management Maturity and Competitiveness: The Case of Commercial Bank of Ethiopia" 2017, based on findings her study concluded that project management maturity has positive correlation with organizational competitiveness. Moreover, the Commercial Bank of Ethiopia

properly implement the project management practices, yet the organization requires an improvement in the organization project management maturity level to manage all the projects undertaken by an organization effectively.

It was revealed that Iraqi bank employees are possible to adopt and implement e-banking system rather than keep on using traditional manual procedures only if they are sure that the new system are easy to use and help them accomplish their work tasks effectively. (Eko and Hassam 2016)

Uvaneswaran, Eldana, Seid (2017), based on the findings of secondary data sources of their study; e-banking does have an impact on profitability of Commercial Bank of Ethiopia. Since the introduction of e-banking by the bank through Core banking system in 2012, there have clearly been changes in all the profitability ratios of the bank in terms of (ROA, ROE, and NIM).

Amakelew (2018), has summed up his finding and conclude that, the total number of registered and active status E banking user were incremental for the past five years and the newly recruited E banking user from the newly opened account showed progress yearly for the past five years, and at the mean time total number of yearly E banking transaction and transaction amount also showed progress considerably.

Berhan (2018), under his research, revealed that regarding the variable of convenience and trust both respondents who are users and non-users of mobile banking services perceived that it is convenient or easy to use and useful and trusty respectively, even though the degree of preciseness is more for users of mobile banking.

Meaza's (2018) paper approved, under her study entitled "the practice of electronic banking in Ethiopia", that basic benefits of E-banking for the customers are convenience, accessibility, ease of use, low cost of using banking activity, providing real time information and getting quality service. It also identified that the basic benefits of E-banking for banks are simplifying works of employee, reduce costs per transaction, improve customer satisfaction, attract new segment of customers, additional revenue stream, and provide good image for the bank. On the other hand, the study approves that; increasing speed and efficiency, productivity, reliability and accessibility of financial service and also acts as information control tool for governments are the benefits of E-banking for the Economy.

This study will try to add knowledge on the present level of project management maturity and its contribution to the implementation of e-banking technologies.

2.4 CONCEPTUAL FRAMEWORK

The research in circle the practice of project knowledge areas, the maturity level of these knowledge areas and tried to identify the contribution and relationship between project maturity and project success.

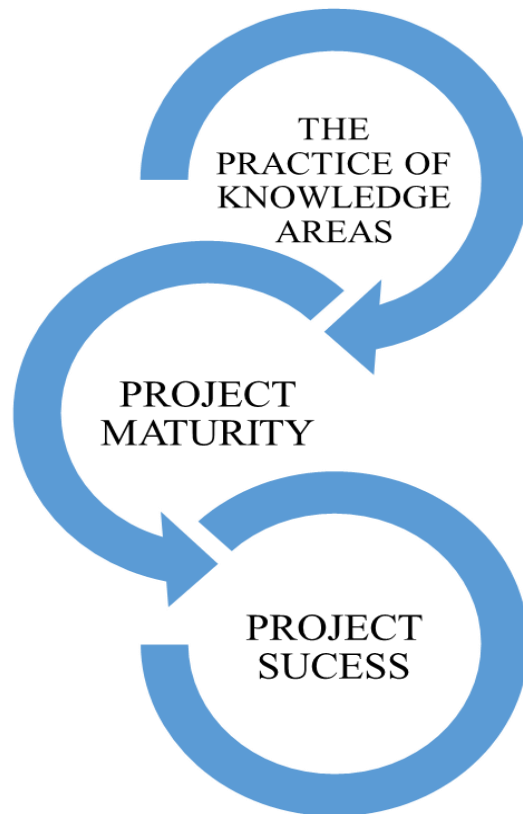


Figure 2.1 conceptual framework

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN

Research design is a blue print for selecting the sources and types of data relevant to the research questions and provides the basic direction for carrying out a research project to obtain answers to research questions (Zikgmund et al., 2010). One of the types (classifications) of research is descriptive research, and according to Kothari (2004) descriptive research studies are those studies which are concerned with describing the characteristics of a particular individual, or of a group. Since this study tries to describe the project management maturity level, it employs a descriptive study research design.

3.2 SOURCE OF DATA AND INSTRUMENT OF DATA COLLECTION

To collect all essential information for the research primary data sources were used. To collect relevant primary data for the study questionnaire is used as an instrument of data collection. The questionnaires were administered to a sample of project managers and project team members who are selected from e-banking related projects undertaken previously by Commercial Bank of Ethiopia.

The questionnaire was developed based on reviewed literature and customized to the case under investigation. The questionnaire is validated by reviewing these and other literatures that are both empirical and theoretical. The questionnaire is divided into three parts. The first part is designed to capture general data about the respondents. The second part has questions developed from literature about the maturity of the PMO. The questions are grouped into nine knowledge areas set by PMI in the project management body of knowledge (PMBOK) guide. Under these knowledge areas various questions are devised to measure the degree of maturity of the project management practice. The third part of the question focuses on the contribution of PMO maturity for the successful implementation of e-banking technology projects. The last part is an open ended question to capture general knowledge about the topic

3.3 VALIDITY AND RELIABILITY

Creswell (2009) stated that using different data collection tools helps to crosscheck information. The validity of the data collection instrument is checked against available literature. The reliability of the data collected were also checked by using different methods. The first method the researcher used is eliminating questionnaires that were filled wrongly such as different and opposite answers given for interrelated questions. The other method the

researcher used is secondary data obtained through various methods for its help on triangulation of the data and ensured reliability of the data.

3.4 SAMPLING AND SAMPLING TECHNIQUES

Saunders, et al (2009) stated that purposive or judgmental sampling enables to use judgment to select cases that will best enable to answer the research question(s) and to meet the research objectives. Since e-banking technology implementation is limited to the example of product mentioned on the literature review and the bank has undertaken these limited e-banking projects previously, the population of the study is the managers of the projects and the team members of the project. CBE birr project, Mobile and Internet banking project and Application Management Departments are the sections the researcher included on the survey. The researcher believed that taking the project managers and the team members as a sample would provide the necessary information regarding project management practice of the case under survey.

3.5 DATA ANALYSIS METHODS

In order to evaluate the PM maturity level of the PMO mixed analysis were employed. The responses from the questionnaires were summarized and analysed categorically against the five levels of the selected project management maturity model by PM Solutions.

The answers from part one of the questionnaires were helpful in providing general information about project managers and the team members and their exposure towards project management discipline. The first category of the second part of the questionnaire provided information regarding general project management practice that was used together with the first part to analyse the general project management environment. The second part of the questionnaire provides data that was useful to conduct the analysis which in turn was carried out in relation to the nine knowledge areas set by PMI in the project management body of knowledge (PMBOK) guide. The last part of the questionnaire has indicated the success factors the PMO maturity has for the successful implementation of e-banking technology. Descriptive statistics were used to analyse the data obtained from the questionnaires.

3.6 ETHICAL CONSIDERATION

According to Saunders, et al (2009) mention by Abraham (2017), there are key ethical issues that arise across the stages and duration of a research project. They stated that the issues

relate to privacy and consent of participants, maintenance of the confidentiality of data and their anonymity. The researcher has obtained the consent of selected respondents orally before delivering questionnaires. Since the researcher used questionnaires to gather data from respondents, their privacy is not compromised and confidentiality of the data they provided is protected and used for the purpose of the research project only.

CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION

4.1 DATA PRESENTATION AND ANALYSIS

Relevant qualitative data using judgement sampling were gathered through questionnaires distributed to project managers and project team members from different e-banking technology projects the bank has undertaken. Out of forty distributed questionnaires thirty were filled and returned rendering a 75% response rate. Data obtained through the distributed questionnaires were analysed using Microsoft excel and interpreted using descriptive statistics. Major findings have been summarized and presented as follows.

4.1.1 DATA OBTAINED FROM QUESTIONNAIRES

Demographic Profile of Respondents

This section summarizes the demographic characteristics of the respondents, which includes sex, age, education level, work experience, project management experience and project management trainings. The main purpose of the demographic analysis in this research is to describe the characteristics of the respondents so that the analysis could be more meaningful for readers.

Table 4.1: Demographic Profile of Respondents

Characteristics	Response	Frequency	Percentage
Sex	Male	24	80
	Female	6	20
Age	25-29	24	60
	30-35	12	40
Educational level	Degree	18	60
	Masters	12	40
Field of study	MBA	9	30
	Economics	3	10
	Accounting	6	20
	computer science	12	40
Work experience(over all)	1-5 years	9	30
	above 6 years	21	70
Work experience (on project activities)	1-3 years	9	30
	4-10 years	3	10
	>10years	18	60
Formal training outside the bank	Yes	3	10
	No	27	90
Training taken related to pm provided by the bank	Yes	3	10

	No	27	90
Involved in project management or projects before the current assignment	Yes	6	20
	No	24	80

Table 4.1 describes the demographic profile of the respondents. Out of thirty respondents 80% were male while 20% are female. In terms of educational level, 18 respondents (60%) were holders of BA degrees with 12 of the respondents having MA Degree (40%). Regarding the work experience of respondents, most of them (70%) have above 6 years' experiences of overall work experience; nine respondents (30%) have less than 5 years of work experience. Majority of the respondents (60%) have more than ten years of work experience in project management. 10% of the respondents have 4-10 years of experience while 30% of them have less than three years of experience in project activities. 90% of the respondents have not received project management training whether provided by the bank of other institution. When it comes to prior exposure to project environment only six respondents (20%) had such type of experience.

General Project Management Practice

Questions intended to capture the general project management practice were provided for respondents. The results obtained are discussed below.

From the data collected 100% and 80% of respondents agreed that the bank recognized the need and benefit of project management and the support the bank's management provides for project management development respectively. When it comes to standard project management processes and methodologies 80% of the respondents replied that the bank has standard for PM processes and methodologies and 10% replied either there are no standards for PM processes and methodologies or they don't know if there is. Majority (60%) of the respondents replied that the bank is providing training for its PM team and 40% replied no trainings were provided. As shown on the above table 60% of the participants replied that there is solid knowledge base of Project Management with project managers, 20% of the respondents replied that Project Managers of the bank do not have solid knowledge base of Project Management whereas 20% replied they don't know if they have solid knowledge base of PM. 70% of the respondents replied that Project Management processes, methodologies

and procedures are formally applied in managing projects in the bank whereas 30% replied they don't know if it is applied formally.

Project Scope Management

According to the responses obtained, there is awareness about the need or importance of project scope management and there is effort of managing project scope. 70% of the respondents replied that the effort of managing scope is formal but only 60% replied there are standardized tools used in project scope management process. 60% of the respondents replied Work Breakdown Structure (WBS) was prepared for the projects, whereas only 50% replied WBS Dictionary was prepared for the projects and 30% replied WBS dictionary was not prepared for their projects, the rest 20% don't know. 18 respondents (60%) replied yes to the question "Is there any effort of monitoring and controlling scope in your project?" and 6 respondents (20%) replied no indicating that there is minimal effort of monitoring and controlling scope in most of the projects.

Project Time Management

The respondents (60%) agreed that there is awareness about the importance of project time management and there is almost less (40%) formal effort of project time management according to the respondents. 80% of the response shows the projects have project schedules (plans) with approved start and finish dates. The 50% of the respondents also replied that relationships among activities are identified and the activities sequencing performed during project time management. 80% of the respondent claimed WBS were used when defining the schedule activities. Moderate (60%) amount of activity duration estimate is also prepared according to the respondents. 80% of the respondents also replied that monitoring and controlling of project schedule is performed and project schedule updated regularly.

Project Cost Management

From all the respondent 70% claimed there is awareness about the importance of project cost management in PMO and there is an effort for managing cost even though it has less chance of being formal. For almost all projects, project cost estimates and budget are prepared. 21 respondents (70%) replied that historical data of the PMO was used while budget was prepared and 10% of the respondents replied that historical data was not consulted and six (20%) replied "I don't know". 70% of the respondents replied that the budget is base lined and 30% replied the project budget was not base lined. Almost all of the respondent replied

that the project budget is updated regularly and agreed that an effort is made to monitor and control project costs.

Project Quality Management

All of the respondents replied that there is awareness about importance of Project Quality Management and there is some effort of managing quality in projects. But only 18 respondents (60%) stated that the effort of project quality management is formal and 12 respondents (40%) replied the effort of project quality management is performed informally. 24 respondents (80%) replied that quality planning is performed for projects where 20% replied quality planning is not performed and. Majority (70%) of the respondents also replied that there are quality assurance activities being implemented in their projects whereas 30% replied the activities have no quality assurance. Quality reviews and control processes are also implemented in majority (70%) of the projects.

Project Human Resource Management

27 of the respondents replied that the importance of project human resource management is recognized and 24 of them replied there is a formal effort in place for this purpose. Almost all (90%) of the respondents replied planning is performed for acquisition and management of human resources for projects. Skill requirement, roles and responsibilities are also defined moderately for all project positions as per the responses of all respondents (80% response). Regarding provision of formal and informal training for project team members, 60% of the respondents replied such trainings were provided and 40% replied that the trainings were not provided. Concerning formal tracking and monitoring of human resource cost and time, the responses are equally divided (50% response for both yes and no).

Project Communications Management

90% and 80% percent of the respondents respectively replied that there is awareness about the importance of project Communication management and communication management is performed. 21 respondents out of 30 agreed that Project Communication requirement analysis is performed in their respective projects. When it comes to project communication plan, only 60% had project communication plan. From the thirty samples taken, only half of them replied yes to having a system/procedure for handling project documents while the rest replied no. Half of the projects have a system for collecting and distributing information and the remaining 50% have no system. Only 60% of the respondents have agreed that

performance reports are prepared and provided to relevant stakeholders of the projects. According to the respondent information, 60% of the projects have a standard format for preparation of project reports and the remaining 40% have no such format. 60% of the respondents replied that they share lessons learned with project team members

Project Risk Management

Only 24 respondents replied yes regarding awareness about the importance of project risk management. The same amount of the respondents agreed that there is an effort of managing risks in their respective projects before the risks cause adverse effect. According to the respondents (60%) risk management is performed formally and risks are identified and documented in their projects. When it comes to analysing risks in order to determine their potential impact 21 (70%) of the respondents replied yes whereas nine (30%) respondent replied no. Only 18 (60%) participants replied their projects have detailed risk response plan prepared for risks that need attention of the management, 40% replied detailed risk response plan is not prepared. 60% of the respondents replied risk response plan and strategy is updated continuously and 40% replied the opposite. 50% of the respondents replied that risk monitoring and control is performed in their projects.

Project Procurement Management

All 27 respondents replied that there is awareness about the importance of project Procurement management. 60% the respondents replied that there is an effort of managing project procurement to ensure delivery of procured items/services as agreed in the contract. Regarding formality of the project procurement management, 12 respondents (40%) replied there is formality on the effort to manage project procurement and the rest 18 respondent (60%) replied the project procurement management is informal. 40% of the respondents replied planning is performed on procurement of goods and services needed for the projects. 40% of the respondents replied that there are standard project procurement documents and 20% replied the project procurement documents are not standardized. Only 60% of the respondents replied their projects have a documented contract management/administration processes and 30% replied their projects don't have a documented contract management/administration processes while 3 of the respondents don't have any knowledge about the issue. Almost all respondents replied no regarding availability of staff trained in contract/procurement management.

Project Stakeholder Management

90% of the respondents agreed that there is awareness about the importance of stakeholder management, and the formal effort of the PMO on identifying stakeholders, while 10% of the respondents don't know the knowledge area. 80% replied stakeholders' analysis is done for their projects and 20% replied the analysis is not performed. When it comes to stakeholder management plan 21 respondents (70%) replied there is a plan for stakeholder management and the remaining 30% replied there is no plan. 70% replied yes that there is a continuous effort of communicating and working with stakeholders to influence their expectation, address their concern and resolve issues. According to the data obtained, a strategy is developed for 70% of the projects for managing each key stakeholder's expectation whereas such strategy is not developed for 20% of the projects.

Project Success Factor

Table 4.2 Respondents answers for contributors of project success

Measures		Rate					
		Poor		Neutral		Good	
		Freq	%	freq	%	Freq	%
1	Compliance with budget			6	20	24	80
2	Compliance with time	9	30	3	10	18	60
3	Compliance with quality	3	10	12	40	15	50

80% of the respondent replied the project has compliance with the project budget that leads to the project success while 20% stayed neutral on the issue. Only 60% of the respondents agreed the implementation of e-banking technologies was accomplished with the time constraint of the project whereas 30% of the respondent agreed on the poor performance of the bank. Regarding the quality standard of the project, based on the respondent replied, the banks performance was no excellent. Only 50% of the respondent replied good performance while 40% stays neutral and rest 10% indicated the poor performance.

Open ended questions response

The first question focuses on other contributors of project success in the context of the CBE. And the respondents the following contributors for project success:

- team work
- skilled and good communicator leaders
- training for team members
- benefit and recommendation for team members
- CBE management continuous follow up

The second question asks if more application of project management tools and methodologies is expected in CBE context. Majority of the respondent acknowledge the importance of project management tools and methodologies for the following reasons in the general:

- the existence of potential technology product and innovation that would be implemented in the future
- the necessity of methodologies for appropriate implementation of project
- to complete a project on time it requires different tools and methodologies

The last question generalizes all the questionnaire by trying to find out the impact of project management office maturity level on the success of the projects implemented and if they have a direct relationship. The following replies were obtained for the question.

- There is direct relationship between project maturity level and success rate
- The relation will help to look at different aspects that will lead the project to succeed on specified time with expected quality
- It will help for good progress of the project
- When the project management office matures and be well organized the percentage of success of a project increase

4.1.2. SUMMARY OF KNOWLEDGE AREAS MATURITY LEVEL

Project Scope management

According to the PMBOK (PMI, 2013), project Scope Management includes the processes required to ensure that the project includes all the work required, and only the work required, to complete the project successfully.

Based on the findings the processes that are included under the scope management process are not being implemented effectively in CBE's PMO. The plan scope, collect requirements, define scope, create work breakdown structure, validate scope and control scope processes are included under project Scope Management (PMI, 2013). Most of these processes are not

performed formally for projects. The PMO does not also have a developed methodology designed to scope projects effectively across the board, rather projects are scoped on ad hoc basis. Hence the project scope management practice of the PMO is at level one or Initial Process level.

Project Time management

According to PMI (2013), Plan Schedule Management, Define Activities, Sequence Activities, Estimate Activity Resources, Estimate Activity, Develop Schedule and Control Schedule are processed included under project time management.

Project time management is given emphasis in CBE's PMO and the process is supplemented by a project plan (schedule) prepared almost for each project. The statement of work, activity list, work breakdown structure, activity resource requirements, activity duration estimates and requirements analysis are the major inputs used in the process.

Despite having a project schedule for almost much of the projects, the response showed that the project time management process does not produce critical paths and lead and lag times for effective time controlling. There is an effort of project time controlling based on the project schedule. Hence with a relative better uniformity of the project time management process in the projects, it can be said that the maturity is at level two or structured process and standard level.

Project Cost management

Project cost management involves the processes of Plan Cost Management, Estimate Costs, Determine Budget and Control Costs according to PMI's (2013) PMBOK.

The project cost management of the CBE's projects is guided by the bank's budget guideline as indicated in the findings. This has provided a more uniform process for projects. The project cost management practice maturity, therefore can be classified as level three since defined and documented cost management process is available for the projects and it is standard to the organization.

Project Quality management

Project Quality Management includes the processes and activities of the performing organization that determine quality policies, objectives, and responsibilities so that the project

will satisfy the needs for which it was undertaken (PMI, 2013). In addition, Project Quality Management works to ensure that the project requirements, including product requirements, are met and validated (PMI, 2013).

In this regard from summarizing the results, the PMO does perform quality planning and there are better efforts of managing project quality formally. This puts project quality management practice of the PMO at level two or structured process and standard level.

Project Human Resource management

According to PMI (2013), Plan Human Resource Management, Acquire Project Team, Develop Project Team and Manage Project Team are the processes that should be observed under Project human resource management. The planning step of the project human resource management process focuses on identifying and documenting project roles, responsibilities, required skills, reporting relationships, and creating a staffing management plan (PMI, 2013).

These planning processes are being implemented in the projects that were surveyed. The process is supported by the human resource policy and guidelines of the bank. In addition, human resource cost and time is not formally tracked and monitored in the projects. Hence the project human resource management practice is found at level three (Organizational Standards and Institutionalized Process level) of the PMMM.

Project Communication management

The PMO sets a communications requirement for projects which is used for planning communications. The manage communications stage, which is the process of creating, collecting, distributing, storing, retrieving and the ultimate disposition of project information in accordance with the communications management plan according to PMI (2013), is also performed in the projects.

The overall project communications management of the PMO is project based and lacks a standardized system for handling project documents. Since a standardized system for handling project documents is lacking, various project documents including closing project reports and lessons learned are not maintained in a structured manner and made available for consumption of future projects. The project communications management hence is at level two maturity level.

Project Risk management

The processes stipulated by the PMI (2013), Plan Risk Management, Identify Risks, Perform Qualitative Risk Analysis, Perform Quantitative Risk Analysis, Plan Risk Responses and Control Risks, are included under project risk management.

From these processes the risk identification, qualitative analysis and risk response plans are the only processes applied by CBE's projects and when applied, they are not applied uniformly across all projects. This puts the project risk management practice of the projects at level two maturity since no organizational standard is set for project risk management despite availability of basic project risk documentation for other processes of the bank.

Project Procurement management

The PMO's role in the procurement regard is limited to providing expert judgment and estimation on ad-hoc basis. The project procurement management practice maturity at the PMO can be said at level one or initial process level based on the current practice.

Project Stakeholder management

Project Stakeholder Management includes the processes required to identify the people, groups, or organizations that could impact or be impacted by the project, to analyse stakeholder expectations and their impact on the project, and to develop appropriate management strategies for effectively engaging stakeholders in project decisions and execution (PMI, 2013). Project stakeholder management involves the Identify Stakeholders, Plan Stakeholder Management, Manage Stakeholder Engagement and Control Stakeholder Engagement processes according to PMI (2013).

In CBE's PMO there is a process of identifying stakeholders and analysing their expectations. But the identification of stakeholders is not accompanied with a formal stakeholder management plan and a strategy to engage stakeholders and manage their expectations. The overall project stakeholder management maturity of the projects is at level two or Structured Process and Standards level maturity.

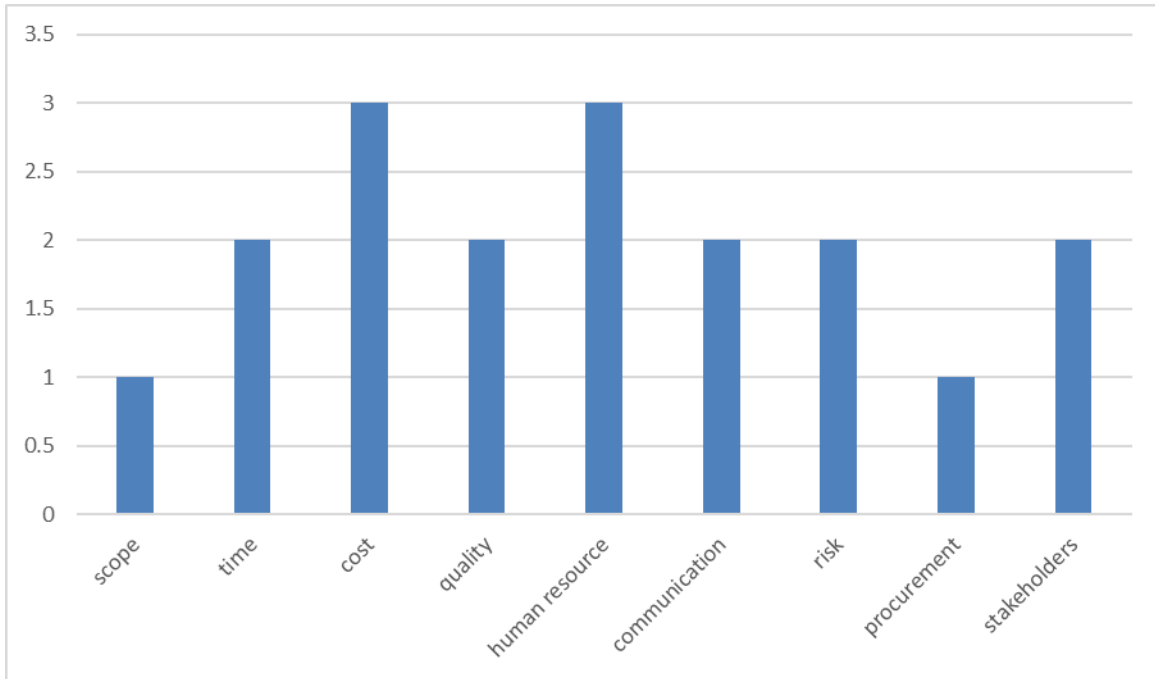


Fig 4.1 summary of knowledge areas maturity level

The vertical axis of the chart shows the level of the maturity level while the horizontal axis shows the knowledge areas under study.

4.1.3. SUMMARY OF PROJECT MATURITY CONTRIBUTION ON PROJECT SUCCESS

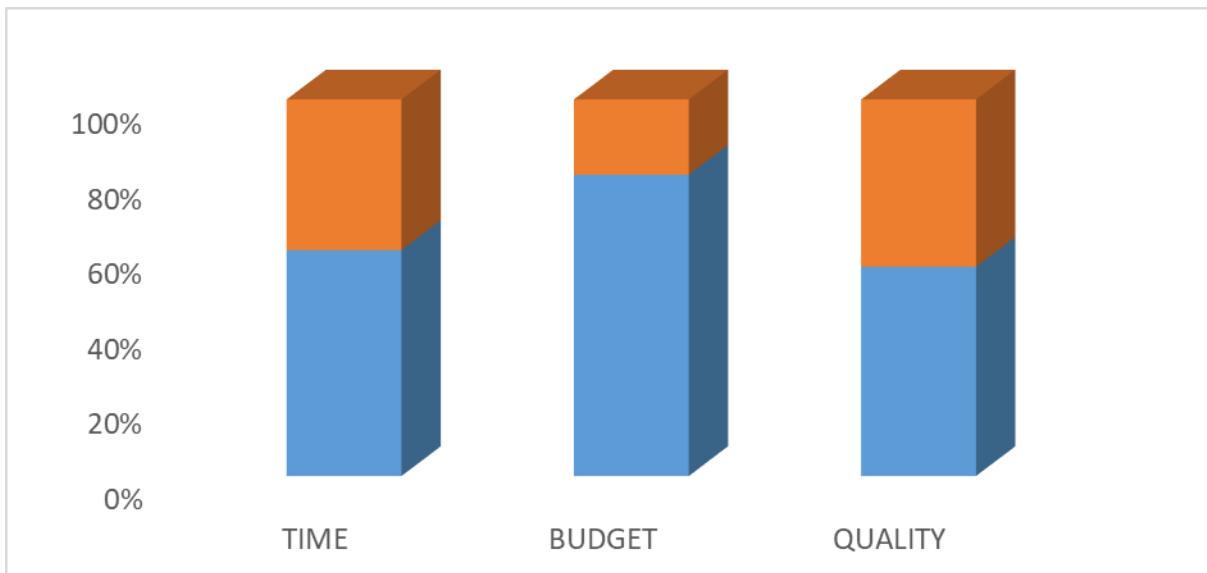


Figure 4.2 summary of project maturity contribution on project success

The result obtained and summarized showed that the correlation analysis conducted between project management maturity and project management success displayed a positive correlation on all three parameters. However, only budget management maturity had a significant relationship with project management success. Time management has appositive but lower correlation and quality management has the lowest correlation with project maturity compared to the others.

4.1.4 SUMMARY OF OPEN ENDED QUESTIONS



Figure 4.3 contributors for project success other than PMO maturity

As showed in the figure for the first question the last question of the research, it was indicated or identified that project team work, skilled and good communicator leaders, training for team members, benefit and recommendation for team members and management continuous follow up were other contributors for project success for its completion of an activity within the constraints of time, cost, and budget.

For the last two questions the responses collected are summarized as follow. Efforts in incorporating PM tools and methodologies in the process will bear positive impact on the project management success of the organization, with improvements in quality and time management being the significant maturity area. Also there is direct relationship between project maturity level and success rate of the project with significant impact of PMO on forecasting different aspects that will lead a project to its success with all the project constraint meet their target.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATION

5.1 CONCLUSION

Dynamic and complex business environment organizations find themselves in a need to manage projects. So the practice of project management has to be improved to realize its benefits. The main objective of the study was to study the level of maturity of CBE PMO on successful implementation and its contribution of e-banking technologies in CBE. From the results shown, based on the data gathered and analyzed, all of the knowledge areas have lower maturities. The maximum maturity level obtained was maturity level three assessed on two knowledge areas namely project cost management and project human resource management. Five knowledge areas (project time management, project quality management, project communication management, project risk management and project stakeholder management) had a maturity level of two and the remaining two areas (project scope management and project procurement management) had the lowest maturity level (level one). The PMO's project management practice is generally characterized by no established practices or standards; but basic and non-standard processes that are practiced on projects. This signals a need for improvement in project management practices.

From the knowledge areas practiced by the projects, those areas that have established processes that were used for a long time in the operations of the bank exhibited relatively higher maturity. These areas are project cost and human resources management areas. Although the two areas exhibited a higher maturity as compared to the rest of the knowledge areas, their integration into the PMO/project environment was not as per the prescribed practices of the knowledge areas. This has limited their maturity to level three only.

Other practices that also had already established processes and practices in the bank's operations also exhibited lower maturity. The bank has relatively a well-established communication, risk, time, quality and stakeholder management practices. However, the maturity level in these areas was lower since the management areas were not integrated well to the project environment. Other concepts that came with project undertakings such as project scope management and project procurement management also have lower maturity indicating the need to enhance the project management practice in these and other areas as well.

Another objective and question to answer was to identify the contribution of the project management office maturity level for the successful implementation of e-banking

technologies. The results showed that the correlation analysis conducted between project management maturity and project management success displayed a positive correlation on all three parameters. However, only budget management maturity had a significant relationship with project management success. It can be related with the relatively high maturity of project cost management.

Furthermore, the last but not the least question was if there were any external contributors for project success. The response collected shows that team work, the presence of skilled and good communicator leaders, training for members, benefit and recommendation for team members and continuous follow up by managers were the other contributors for successful implementation of a project that were raised in the study. This implies, by improving the implementation of mature process around the constraints of project success and by improving the above list of contributor's project success can be achieved.

5.2 RECOMMENDATION

The average low level of project management maturity exhibited in CBE's program management office (PMO) shows how poor the project management practice is. To enhance the project management practices and bring effectiveness in project management, improvement efforts need to be under taken to improve the current conditions. Also the importance of PMO maturity on project success should not be neglected and other contributors mentioned on the findings should be practiced and improved as much as possible. It should be taken under consideration that the PMO maturity has a direct relationship with the project success. Improving and enhancing the first is increasing the probability of the last one. In this regard the researcher recommends the following:

- It will be helpful and important if Project management knowledge areas are developed and practiced effectively in order to increase project management maturity in the bank.
- Knowledge areas that are new to the bank should be carefully studied and procedures should be designed to help project managers and also knowledge areas that are not even new for the bank should be sufficiently exploited to reach the maximum level of maturity.
- The project management office should contribute in supporting project managers and project teams by carefully collecting, compiling and disseminating lessons learned

from past project implementation; creating project management standards; and creating awareness among all stakeholders towards projects.

- The capacity of the PMO should be enhanced by strengthening its human and other resources and by providing trainings about project activities for team members. The bank should design and deliver different trainings that could solve skill gap of project managers in relation to project management and project management knowledge areas.

5.3 SUGGESTIONS FOR FURTHER RESEARCH

Since the idea of project management maturity is relatively new and not practiced in Ethiopia, it would be valuable to conduct further research in the topic. Since this research is based on one case, further study can be conducted on many organizations and sectors. This will allow for greater reliability to provide important statistical generalizations.

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Appendixes

Research Questionnaire

Dear Sir/Madam,

I am undertaking a research titled “Assessment of Project Management Maturity on implementing e-banking technologies: case study Commercial Bank of Ethiopia” for the partial fulfilment of the requirement of Master of Arts (MA) degree in Project Management. This survey is part of academic research that aims to assess the current level in project management maturity of CBE’s PMO and assess the contribution of PMO maturity in successful implementation of e-banking technologies. The achievement of the research’s aim depends on your cooperation in filling out this survey questionnaire.

The first component of the questionnaire is allotted to the demographics of the respondents in terms of age, sex, educational experience, and so on. The second portion of the questionnaire is composed of questions on the ten knowledge areas of project management where you, the respondent is expected to simply by ticking on boxes allotted. The third portion is dedicated to the respondent’s evaluation of their projects level of success. The fourth and final part is allotted to open ended questions. The entire questionnaire should take no more than 30 minutes.

I am grateful for your time and responses. I thank you in advance, for your invaluable cooperation. You are NOT expected to write your Name. All the information you provide will be kept in strict confidentiality and it will be only used for this academic research **ONLY**.

Part I. Personal Information

1. Sex: Male Female
2. Age: less than 25 25-29 years
30-35 years above 25
3. Education background: up to diploma BA degree MA or above
4. Field of study _____
5. Your service year in the bank: _____ years.
6. Your service year since assigned to the PMO/Project _____
(please specify as Months or Years).
7. Please state your current position _____
8. Do you have a formal training, outside the bank, in project management?
Yes
No
If yes, please specify the type and level of training you received _____
9. Have you taken trainings related to Project Management provided by the bank?

Yes

No

If yes, please specify the type of training you received _____

10. Have you ever been involved in project management or project teams prior to your current assignment (it can also be in another organization)?

Yes

No

If yes, please specify the type of company and project you were involved with _____

Part two: Project Management Process and Knowledge Areas

General Direction: Answer all the Questions that follow based on your knowledge of practice of Project Management in the project you are participating. Note that the question should be answered based on the context of e-banking technology projects only.

Please Choose:

Yes: If the description approximates the condition in your project.

No: If the description does not come close to the condition in your project.

Not applicable: If you think the practice or the description is inapplicable for your case.

I don't Know: If you do not have information/knowledge about the question.

	Project management practice-general	yes	no	Not applicable	I don't know
1	Is the need and benefit of project management recognized by the bank management?				
2	Does the management of the bank provide support for project management development?				
3	Does the bank have standard project management processes and methodologies?				
4	Does the bank provide project management training for its project management team?				
5	Do project managers of the bank have solid knowledge base of project management?				
6	Are project management processes, methodologies and procedures applied formally in managing in the bank?				

	Project scope management	yes	no	Not applicable	I don't know
1	Is there awareness about the need or importance of project scope management in the PMO and project management team?				
2	Is there any effort of managing project scope in the bank/project?				
3	Is the effort of scope management formal?				
4	Are standardized tools used in scope management process?				
5	Is WBS (work breakdown structure) prepared in defining scope in your project?				
6	Is a WBS dictionary prepared? (Document providing description of work, responsible department, resource required etc.)				
7	Is there any effort of monitoring and controlling scope in your project?				

	Project time management	yes	no	Not applicable	I don't know
1	Is there awareness about the importance of project time management in the PMO and PM team?				
2	Is there any effort of managing time in your project?				
3	Is the effort of the time management formal?				
4	Is a schedule (plan) prepared for the project?				
5	Is the schedule base lined? (start and finish date are approved and fixed)				
6	Is work breakdown structure used when defining the schedule activities?				
7	Are relationships among activities identified and the activities sequenced?				
8	Is activity duration estimate prepared?				
9	Is progress of project activities continuously monitored and controlled?				

	Project cost management	Yes	no	Not applicable	I don't know
1	Is there awareness about the importance of project cost management in the PMO and PM team?				
2	Is there any effort of managing cost in your project?				
3	Is the effort of cost management formal?				
4	Is estimate of the project cost prepared?				
5	Is a budget prepared for the project?				
6	Is the PMO historical actual cost data consulted in preparing the budget?				
7	Is the budget base lined? (the budget allocated to work packages and resources)				
8	Is the budget updated regularly?				
9	Is there any effort to monitor and control the project cost?				
10	Is the project schedule updated regularly?				

	Project quality management	yes	no	Not applicable	I don't know
1	Is there awareness about the importance of Project Quality Management in the PMO and project management team?				
2	Is there any effort of managing quality in your project?				
3	Is the project quality management effort formal?				
4	Is quality planning performed for your project? (requirements and quality standards are determined and strategies are devised)				
5	Are Quality Assurance activities implemented in your project? (these are processes, procedures and standards defined/developed to assure quality objectives are met)				
6	Is a review to determine whether project activities comply with policies, processes, and quality requirements performed?				

7	Is quality control process implemented in your project? (determining whether project products and activities comply with relevant quality plans)				
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	Project human resource management	yes	no	Not applicable	I don't know
1	Is there awareness about the importance of Project HR management in the PMO and PM team?				
2	Is there any effort of HR management in the project or project?				
3	Is the effort of HR management formal?				
4	Is there any planning for acquisition and management of human resource?				
5	Is skill requirement, roles and responsibilities defined for all project positions?				
6	Is training (formal/informal) provided to project team members?				
7	Is human resource cost and time formally tracked, and monitored in your project?				

	PROJECT communication management	yes	no	Not applicable	I don't know
1	Is there awareness about the importance of project Communication management in the PMO and Project Management team?				
2	Is Communication management performed?				
3	Is Project Communication requirement analysis performed in your project?				
4	Is a plan/strategy prepared to address identified communication needs?				
5	Does your project have a system/procedure for handling project documents?				
6	Does your project have a system for collecting and				

	distributing information?				
7	Are performance reports prepared and provided to relevant stakeholders?				
8	Does your project have a standard format for preparation of project reports?				
9	Does project manager share lessons learned with project members?				

	Project risk management	yes	no	Not applicable	I don't know
1	Is there awareness about the importance of project risk management in the PMO management and project management team?				
2	Is there any effort of managing risks in your project before they cause adverse effect?				
3	Is risk management performed formally in your project?				
4	Is there any effort of identifying and documenting risks in your project?				
5	Are identified risks analyzed to determine their potential impact?				
6	Is a detailed risk response plan prepared for risks that warrant action/attention?				
7	Is the risk response plan and strategy continuously updated?				
8	Is risk monitoring and control performed in your project? (Is there any effort of identifying and documenting new risks, closing those out dated and tracking those already identified)				

	Project procurement management	yes	no	Not applicable	I don't know
1	Is there awareness about the importance of project Procurement management in the PMO or Project Management team?				
2	Is there any effort of managing project procurement to ensure delivery of procured items/services as agreed in the contract?				
3	Is the effort of managing project procurement formal?				

4	Is planning done for procurement of goods and services needed for your project?				
5	Does your project have standard procurement documents?				
6	Does your project have a documented contract management/administration processes?				
7	Does your project have a staff trained in contract /procurement management?				

	Project stakeholder management	yes	no	Not applicable	I don't know
1	Is there awareness about the importance of stakeholder management in the PMO and project management team?				
2	Is there any effort of identifying stakeholders and responding to their need?				
3	Is stakeholder management performed formally in your project?				
4	Is stakeholders' analysis done for your project?				
5	Is a stakeholder management plan prepared (is there a devised strategy on how to handle the stakeholder's needs and expectations)?				
6	Is there any continuous effort of communicating and working with stakeholders to influence their expectation, address their concern and resolve issues?				
7	Is a strategy developed for managing each key stakeholder's expectation?				

Part Three: Project Success Factors

Rate the performance of commercial bank of Ethiopia on implementation of e-banking technology projects based on the following parameters.

Measures		Rate				
		Very poor	poor	neutral	good	Very good
1	Compliance with budget					
2	Compliance with time					
3	Compliance with quality (deliver exactly the output expected)					

Part four: Open-ended questions

a. What do you think are the contributors to project success in CBE context other than the success factors?

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

c. What do you think about the impact of project management office maturity level on the success of the project? Do they have a direct relationship? How?
