ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES
PROJECT MANAGEMENT PROGRAM

PRACTICE AND CHALLENGES OF IMPLIMENTING CBE BIRR PROJECT: IN THE CASE OF COMMERCIAL BANK OF ETHIOPIA

BY

DAWIT TESFAYE

A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF GRADUATE STUDIES IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF ART IN PROJECT MANAGEMENT

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DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Assistant Professor Simon Tarekegne. All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

Name	**Signature**

St. Mary's University, Addis Ababa May, 2018

ENDORSEMENT

This thesis has been submitted to St. Mary's University, School of Graduate Studies for examination with my approval as a University advisor.

_____ _____

Advisor **Signature**

St. Mary's University, Addis Ababa May, 2018

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List of Acronyms

BPR: - Business Process Re-engineering

CBE: - Commercial Bank of Ethiopia

E Banking: - Electronic Banking

IT: - Information Technology

ICT: - Information Communication Technology

NBE: - National Bank of Ethiopia

PMI: - Project Management Institute

WBS: - Work Breakdown Structure

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Abstract

All projects have uncertainties that can either turn out to be an opportunity or a risk. The purpose of this study was to assess the practice and challenges of implementing CBE Birr project in the case of Commercial Bank of Ethiopia. The study was guided by the following specific objectives; (i) to find out the main reason for the initiation of CBE Birr project, (ii) to assess the challenging project management process group of the project, (iii) to examine the scope, time, quality and cost of the project and (iv) to identify the most challenging project scope, time, quality and cost change factors. The study used descriptive research design which incorporated quantitative approaches. The study used primary source of data using close ended questioner and employs Census method to collect all 28 CBE Birr project participants view but 22 of them were collected back with response rate of 79%.The study concludes that the existing organizational need is the main reason for the initiation of the project and the execution phase of the project is more challenging project management process group. In addition, there is moderate high and very high deviation in project scope, quality and time. Most interestingly the cost shows low and very low deviation. As major factor for the deviation in scope, quality and time are scope planning, activity duration estimating and quality assurance. Even if there is low cost as challenging factor cost budgeting is stated. Based on the findings the study recommended that detail project planning, encouragement of stakeholder involvement and experienced project participants required. Lastly the project can be used a best lesson learned project for other IT related projects In Ethiopian Banking Industry.

Key Words: - CBE Birr Project, Challenge

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In today's competitive world, the service industry in the world is changing, thus new technology has changed the method of customer services provision in many service organizations, geographical distance has lost its meaning and service availability, convenience, and speed of service distribution will lead competitive advantage for organizations, such as banks. Financial industries, in order to compete in the complex environment are forced to deliver the newest and most attractive services that their customers are demanding (Chakrabarty, 2011). In this regard, many banks in the world have developed their ICT systems.

With globalization and changes in technology in the financial market, the world has become closely integrated. Customers can access their accounts anywhere and banks customers' base is also spread across the world. Deregulation and liberalization have opened up new opportunities for banks but at the same time the pressure of competition has led to narrowing spreads, shrinking margins, consolidation and restructuring (Agrawal & Jain, 2013).

Technological innovations play a crucial role in banking industry by creating value for banks and customers, that it enables customers to perform banking transactions without visiting a brick and mortar banking system. On the other hand, e-banking has enabled banking institutions to compete more effectively in the global environment by extending their products and services beyond the restriction of time and space (Turban, 2008).

Even though nowadays, technology has significantly changed the landscape for providing financial services. When we come to Ethiopian financial sector, it is in its infancy in terms of providing technology-based products and services to its customers. Technology contributes towards efficient financial system which in turn is among the factors facilitating inflow of foreign direct investment. It is not only possible, but necessary to take advantage of new developments and innovation in technology, infrastructure and distribution networks to deliver financial services cost-effectively and easily accessible to the public (NBE, 2015).

The commercial bank of Ethiopia is one of the prominent state owned bank that render conventional bank services to the public in the country with 75 years of experience. As the biggest bank in Ethiopia, CBE has more than 1000 branches that accommodate more than 8.1 Million customers. The branches are controlled through 15 district offices. Moreover, CBE has presence abroad with branches in South Sudan. It also gives electronic payment services throughout the country by means of ATM s, POS, Mobile Phones and internet (CBE, 2018).

CBE has a vision to become a world class commercial bank and thus undertaking different projects to ensure the realization of its vision. Evidence tells that after the bank has implemented BPR to fundamentally re-engineer its business process in 2008, it has invested big amount of money in IT projects (Senait, 2011).Recently, CBE was undertaking a project to introduce agent banking service which is called CBE Birr to achieve the aim of expanding its service coverage.

1.2 Statement of the Problem

Banking systems are business enablers, which provide efficient service to bank customers. The organizational growth and customer touch points are mainly dependent on Information Technology used in banking Industry (Talegeta, 2012). Therefore implementing a suitable banking system is a mandatory requirement for the banks to meet its organizational goals and aspirations.

One of the current conceptual challenge facing project managers relates to the phenomenon of “unexpected becomes the expected” and “unanticipated becomes the anticipated” which impact on the dynamics of the project management process. Project organizations and project managers often struggle with triggering device of what might cause project to be delay, exceed budget and stakeholders dissatisfaction in the processes of managing projects (Pinto, 2014).

Even though there are a number of researches done in Commercial Bank of Ethiopia related with IT projects there is no paper done in connection with CBE Birr project this is due to the recent implementation of the project thus the this study can be the first study to assess the CBE Birr project. In addition, according to the project management plan of the CBE Birr project the CBE Birr project was expected to be completed on September 2016 but according to CBE (2018)

report it takes extended periods. This indicates as there is existing unidentified challenges which can be a reason for the delay of the CBE Birr project.

In other direction, according to PMI (2004) the delay of the project have its own impact on the implementation of the project mainly from cost, quality and scope perspectives due to the existing dependency between core processes this also implicates that the delay of the project also affect the overall Project management process.

According to Prinzo (2011), knowing the common challenges of implementation projects present can help organizations avoid them with a solid project plan and realistic goals, even the most complex implementation can realize success and return on investment in a reasonable amount of time. Thus this study enables to look the overall CBE Birr project and identify main challenges in doing the project.

1.3 Research Question

In connection to the implementation of CBE Birr Project the study attempt to answer

1. What is the main reason for the initiation of the project?
2. Which project management process group is more challenging?
3. Is the project implementation is in line with the planned scope, time, cost and quality?
4. What are the existing most challenging scope, time, quality and cost change factors?

1.4 Objective of the Study

The general objective of the study is to assess the practice and challenges of implementing CBE Birr project in the case of Commercial Bank of Ethiopia.

The specific objectives are:-

1. To find out the main reason for the initiation of the project.
2. To assess the challenging project management process group of the project.
3. To examine the scope, time, quality and cost of the project.
4. To identify the most challenging project scope, time, quality and cost change factors.

1.5 Significance of the Study

This study is done in connection with the essential elements of project management body of knowledge areas for the implementation of successful project. Thus, this study is important to help researchers to dig further more on areas related to IT project in Ethiopian banking industry; to enhance academic status; to improve knowledge about existing challenges in Handling banking projects and to assess and adopt and lesson learned in the banks project management best practices. In addition, to use as reference for guiding other projects which will be done in CBE and private banks and also for National bank to be an input for designing a procedure for IT projects and also to device strategies which enhance the use of ICT in banking industry.

1.6 Scope of the Study

Assessing all practice and challenges existing in the implementation of CBE Birr project is very broad, which should be discussed very deeply and widely. Due to the vastness of the topic the study is limited to assessing the process groups and project management knowledge areas of scope, quality; schedule; cost and risk of the CBE Birr project from project participant's point of view using PMI.

1.7 Limitation of the Study

This study faced with some limitation. These limitations are Shortage of information and other documented materials to use as reference for the study hinder to triangulate the data collected, and also the study is limited to assure project team members know in detail about the project arena. Furthermore, the study undermines part of project management process group which is the closing process stage due to the data collection before project close out. The problems, stated above, may have some impact on the results of the study that call up for other researchers to prove the reliability of this study.

1.8 Organization of the Paper

This research paper is organized and classified in to five chapters. The first chapter is the introduction part which contains the back ground, the statement of the problem, research question, objective of the study, significance of the study, scope of the study, limitation of the

study and organization of the paper are discussed. In the second chapter the study deals with the theoretical and empirical reviews related to the title. And the third chapter focuses on research design and methodology. The fourth devoted to data analysis and interpretation. The last chapter of this study concerned with the conclusion and recommendation of the study.

CHAPTER TWO
LITRATURE REVIEW

2.1 Theoretical Literature Review

2.1.1 Definition of Project

A project is a temporary endeavor with the objective to create a unique product or service. It is temporary in the aspect that it has a definite beginning and a definite end. The uniqueness with a project means that the provided service or product is different from all other services and products (Briner, et al, 1996). Many organizations use projects to response to requests that cannot be handled within the normal organizational limits. The size and length of a project can vary from one person to thousands and from a few weeks to more than five years (PMI, 2004).

A project ends when the objective has been reached, or when it becomes clear that the objective cannot be met, or if the need of the project no longer exists. When a project is terminated, documentation of lessons learned is made to make sure that the experiences drawn from the project can be used in future projects (Antvik & Sjoholm, 2007). The fact that a project is temporary does not mean that the result of the project also will be temporary. Most projects are undertaken to create a long lasting result (PMI, 2004).

The result of a project is unique because the exact same service or product has not been provided before. Even if the project is to develop a building that has been done to similar buildings thousands of times, it will still be a unique result since the conditions for each individual building is different from each other (PMI, 2004).

2.1.2 Project Management

The PMI definition of project management is ".application of knowledge, skills, tools and techniques to project activities to achieve project requirements. Project management is accomplished through the application and integration of the project management processes of initiating, planning, executing, monitoring and controlling, and closing" (PMI 2004, p. 8).

According to PMI (2000), the project team manages the work of the products, and the work typically involves:

- Competing demands for: scope, time, cost, risk and quality
- Stakeholders with different needs and expectations
- Identified requirements

It is important to consider many of processes within project management are iterative in nature. This is due to the existence and necessity for progressive elaboration in a project throughout the project life cycle (PMI, 2000).

2.1.3 Project Management Process Groups

A process is a way of doing something. As previously mentioned, the PMI (2004), identifies five processes that are used to manage projects. That is, initiating is done first, then planning, then executing, monitoring, and closing and so on. In the event that a project goes off course, re-planning comes into play, and if a project is found to be in serious trouble, it may have to go all the way back to the initiating process to be re-started. Then, the control system is at play throughout every process.

Most of the time project participants focus on the task at hand and totally forget about process issues. This is a concern for what must be done to the exclusion of concern for how it is being done. The flaw is that process issues will always affect task performance (James, 2008).

1. Initiating

Once a decision has been made to do a project, it must be initiated or launched. There are a number of activities associated with this. All projects start with an idea for a product, service or another desirable outcome. The initiating process group then determines the nature and scope of the project. Not performing this stage well means it's unlikely the project will be successful in meeting the business' needs (James, 2007).

The initiating process group involves the processes, activities, and skills needed to effectively define the beginning of a project. Setting all permits, authorizations, and initial work orders in place to secure an effective and logical progression of initial project activities sets the stage for

subsequent success throughout all project phases. Setting clear phases for work to be completed, initializing teams, and having the budget in place before work begins are vital for a strong start to any project across industry (Antvik & Sjoholm, 2007).

The project needs to be properly defined at this stage. This can be a short phase but is important for proper understanding of the project context. The project initiation stage according to Cobb (2012) is the stage in which a project's key stakeholders first come together to define the broad outlines of a project. A Key objective of this stage is to come to a common understanding of what the project is supposed to produce and estimate what it will take to do so. Critically, initiation stage can provide information to organizations and results in an assessment of whether a project fits with the organization's profit goals or business model (Cobb, 2012).

2. Planning

Planning is the roadmap that links goals to actions through the components of the work breakdown structure of a project (James, 2007). After initiating, the project is planned to an appropriate level of detail. The main purpose is to plan time, cost and resources adequately to estimate the work needed and to manage risk effectively during project execution. All of this information is recorded in the project management plan. As with the initiating process group, a failure to plan adequately lessens the project's chance of success (Maylor, 1999).

The planning process group sets forth the processes needed to define the scope of the project, set strategic plans in place to maximize workflow, and begin to assemble priority lists and plan team needs. This process group also addresses a more narrow clarification of all project goals and expectations and puts in place the project infrastructure necessary to achieve those goals according to the timeline and budgetary constraints (Antvik & Sjoholm, 2007).

Building the plan for the project is arguably the next step once the project has been defined and the context of the project understood by the stakeholders. The planning stage involves the formulation and revision of statements of intended activity, whether formalized or otherwise (Maylor, 1999).Organizations need to examine the timing of the project, undergo a critical appraisal of both the project output as well as developing strategy to implement them. In another

context Cobb (2012) further noted that this stage take notice of how project tasks will be arranged across the project's life cycle will be determined and mapped onto a project schedule.

The plans need to be approved by the major stakeholders before any work can actually begin. In view of this, it is argued that if organization employs this approach in managing the organization it can enhance effective and efficient utilizations of resources within the organization. As Lock (2007) revealed planning promote efficient working and operation when it is done sensibly and logically. Thus a well-planned project stands a far greater chance of being completed within time and budget. It is argued that planning could contribute largely to cost effectiveness and profitability.

3 Executing

Executing also refers to implementing the project plan. It is amazing to find that teams often spend time planning a project, and then abandon the plan as soon as they encounter some difficulty. Once they do this, they cannot have control of the work, since without a plan there is no control. The key is to either take corrective action to get back on track with the original plan or to revise the plan to show where the project is at present and continue forward from that point (James, 2007).

The executing process group involves managing teams effectively while orchestrating timeline expectations and reaching benchmark goals. Project managers utilizing this set of skills will demonstrate a high degree of organization and communication skills while addressing team concerns or other complex situations associated with getting the work done on time and within budget (Antvik & Sjoholm, 2007).

This is the stage in which tasks are delegated to project team members and most of the project's work is done is to keep the project on track once it has been launched (Cobb, 2012). However, working with the project team, leaders need to monitor and control the pace of project work, its costs, and performance quality (Lock, 2007). It is important to state that using this approach could help in working with external stakeholders and maintain supports; ensure flow of project resources; minimize but adapt to project pressures, disruptions, and changes (Cobb, 2012)

The executing process involves coordinating and guiding project team members to get the work done as laid out in the approved project plan. Executing processes, also known as implementation processes in other books, concentrate on keeping resources and people focused on the work (Antvik & Sjoholm, 2007).

5. Monitoring and controlling

These could actually be thought of as two separate processes, but because they go hand-in-hand, they are considered one activity. Control is exercised by comparing where project work is to where it is supposed to be, then taking action to correct for any deviations from target. Now the plan tells where the work should be. Without a plan, you don't know where you should be, so control is impossible, by definition (James, 2007).

Processing change orders, addressing on-going budget considerations, and mitigating unforeseen circumstances that may affect a team's ability to meet initial project expectations are all part of the core skills and competencies involved in the monitoring process group. Seasoned managers keep the momentum moving forward and guard the project against stalling by actively monitoring progress and using foresight and quick response to address project challenges (Antvik & Sjoholm, 2007).

Furthermore, knowing where you are is done by monitoring progress. An assessment of quantity and quality of work is made using whatever tools are available for the kind of work being done. The result of this assessment is compared to the planned level of work and if the actual level is ahead or behind of the plan, something will be done to bring progress back in line with the plan. Naturally small deviations are always present and are ignored unless they exceed some pre-established threshold or they show a trend to drift further off course (James, 2007).

The monitoring process group involves managing and tracking the project. Potential problems can be identified quickly for the team to take corrective action. The project management plan is used for this purpose. The controlling process is about watching over the project. Controlling a project involves measuring progress toward the objectives and taking action to ensure that deviations from the plan do not adversely affect the end results of the project (James, 2007.)

5 Closing

There are many reasons that work stops on projects. For some, it is because of the successful completion of the project's objectives. Some are stopped by their sponsors, due to changing needs or poor project performance, and others, as the skyline of Bangkok testifies, due to lack of the necessary resources to continue (James, 2007).

Bringing a project to a successful close on time and within budget is no small feat. The closing process group addresses the culmination of strong project management skills demonstrated throughout the other interrelated processes that guided the project. Following through to close all aspects of the process and submitting necessary paperwork on time is just as important as all other skills and processes. Good closure brings great reviews and can increase future word of mouth referrals.

This is the stage at which the final products, services, and other project outcomes are delivered to the client (Cobb, 2012). This stage requires proper managerial and leadership attention and commitment. The organizations need to examine again the cost, time and quality of the project. Does this reflect the initial plans of the project? Critical reflection on the scope and management of the entire project is important. This will probably guide management in managing future projects. It is therefore important that organizations always incorporate this into the overall organizational goals and strategies (Lock, 2007).

2.1.4 Project Management Core Processes

The success of project is measured by the four major project constraints specifically scope, schedule, cost and customer satisfaction (quality of performance).

Figure 2.1 Project Constraints

Source; Indigenous Leadership Development Institute (2012)

Based on the above Fig. 2.1it is possible to indicate the existing dependency among project constraints, and considering of each constraints aim it is possible to answer the following question according to (PMI, 2004).

- Project scope – Have all the project requirements (i.e., deliverables) been completed?
- Project cost – Is the cost of the project close to the amount the customer has agreed to pay?
- Schedule – Was the project completed on time?
- Customer satisfaction – Is the customer happy with the quality of the project?

Core processes are processes which have clear dependency that require them to be performed in essentially the same order on most projects in consideration of their integration (PMI, 2004).

1. Project Integration Management

Project integration management ensures that the project is properly planned, executed, and controlled, including the exercise of formal project change control. As the term implies, every activity must be coordinated or integrated with every other one in order to achieve the desired project outcomes (James, 2007).

Project integration management includes the processes and activities needed to identify, define, combine, unify and coordinate the various processes and project management activities within the project management process groups. In the project management context, integration includes characteristics of unification, consolidation, articulation and integrative actions that are crucial to project completion, successful meeting customer and stakeholder requirement and managing expectations (PMI, 2004, pp. 77).

2. Project Scope Management

Changes to project scope are often the factors that "kill" a project. Scope management includes authorizing the job, developing a scope statement that will define the boundaries of the project, subdividing the work into manageable components with deliverables, verifying that the amount of work planned has been achieved, and specifying scope change control procedures (James, 2007).

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. Project Scope Management is primarily concerned with defining and controlling what is and is not included in the project (PMI, 2004, pp. 103). The Project Scope Management processes include:

- Scope Planning - creating a project scope management plan that documents how the project scope will be defined, verified, and controlled, and how the work breakdown structure (WBS) will be created and defined
- Scope Definition – developing a detailed project scope statement as the basis for future project decisions
- Create WBS - subdividing the major project deliverables and project work into smaller, more manageable component
- Scope verification – formalizing acceptance of the completed project deliverables
- Scope control – controlling changes to the project scope.

3. Project Time Management

Project Time Management includes the processes required to accomplish timely completion of the project (PMI, 2004, pp. 123). The Project Time Management processes include:

- Activity Definition - identifying the specific schedule activities that need to be performed to produce the various project deliverables
- Activity Sequencing – identifying and documenting dependencies among schedule activities
- Activity Resource Estimating - estimating the type and quantities of resource required to perform each schedule activity.
- Activity Duration Estimating – estimating the number of work periods that will be needed to complete individual schedule activities
- Schedule Development – analyzing activity sequences, durations, resources requirements, and schedule constraints to create the project schedule
- Schedule Control – controlling changes to the project schedule.

4 Project Cost Management

It involves estimating the cost of resources, including people, equipment, materials, and such things. After this is done, costs are budgeted and tracked to keep the project within that budget (James, 2007).

Project cost management includes the process involved in planning, estimating, budgeting and controlling costs so that the project can be completed within the approval budget (PMI, 2004, pp. 157). The project cost management processes include:-

- Activity Resourcing Estimating – estimating the type and qualities of resources required to perform each schedule activity
- Cost estimating – developing an approximation of the costs of the resources needed to complete project activities
- Cost budgeting – aggregating the estimated costs of the costs of individual activities or work packages to establish a cost baseline
- Cost control – influencing the factors that create cost variances and controlling change to the project budget

5. 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. It implements the quality management system through policy and procedures, with continuous process improvement activities conducted throughout, as appropriate (PMI, 2004, pp. 179). The Project Quality Management processes include:

- Quality Planning - identifying which quality standards are relevant to the project and determine how to satisfy them
- Perform Quality Assurance - applying the planned, systemic quality activities to ensure that the project employs all processes needed to meet requirements
- Perform Quality Control - monitoring specific project results to determine whether they comply with relevant quality standards and identifying ways to eliminate causes of unsatisfactory performance.

2.1.5 Mapping of project management processes

The following diagram is not meant to exclusive but to indicate generally where the project management processes fit in to both the project management process groups and the project management knowledge areas (PMI, 2000, pp. 38).

Table 2.1 Mapping of project management processes to the core management process group

Knowledge area are Process group	Initiating	Planning	executing	Controlling	closing
Project integration management		Project plan development	Project plan execution	Integrated change control	
Project scope management	Initiation	Scope planning Scope definition		Scope verification, Scope change control	
Project time management		Activity definition Activity sequencing Activity duration estimating Schedule development		Schedule control	
Project cost management		Resource planning Cost estimating Cost budgeting		Cost control	
Project quality management		Quality planning	Quality assurance	Quality control	

Source: PMI (2000)

2.1.6 Project Risk Analysis

The main objectives of project risk management is to increase the probability and impact of events that are positive to the project and decrease the probability and impact of events that are negative to the project. Risk management include risk management planning, risk identification,

qualitative risk analysis, quantitative risk analysis, risk response planning and risk monitoring and control (PMI, 2004).

All projects have uncertainties that can either turn out to be an opportunity or a risk. Uncertainties often occur in areas where the management has little information of the current conditions. By effective management many uncertainties can be evolved into an opportunity rather than a risk (Antvik & Sjoholm, 2007). Risk analysis is often carried out early in a project when the information is highly limited within several areas. To manage risks and opportunities effectively, the analysis must be iterated throughout the project as more and more information becomes clear to the management team (Kululanga & Kuotcha, 2010).

Table 2.2 defined conditions for impact scales of risk on major project objectives

Project objective	Relative or numerical scales are shown				
	Very low/ .05	Low / .10	Moderate/ .20	High / .40	Very high/ .80
Cost	Insignificant cost increase	Less than 10% cost increase	10-20 % cost increase	20-40% cost increase	Greater 40% cost increase
Time	Insignificant time increase	Less than 5 % time increase	5-10 % time increase	10-20 % time increase	Greater than 20 % time increase
Scope	Scope increase barely noticeable	Minor areas of scope affected	Major areas of scope affected	Scope reduction unacceptable to sponsor	Project end item is effectively useless
Quality	Quality degradation barely noticeable	Only very demanding applications are affected	Quality reduction requires sponsor approval	Quality reduction unacceptable to sponsor	Project end item is effectively useless

Source: PMI (2004)

The purpose of a risk analysis is to gain control of the uncertainties in the project. When risks are identified it is therefore important that a strategy is developed in order to response to the risk (PMI, 2004). A response strategy can be to eliminate the probability or impact of a risk, or to accept the risk and calculate with a potential extra cost if the risk occurs (Kululanga & Kuotcha, 2010). A common, and effective, approach to analyze risks is to estimate the probability and impact of a risk. The risk response is then based on the combined value of each risk, which leads to a risk management where the response is in relation to the magnitude of the risk (Briner, et al, 1996).

2.2 Empirical Literature Review

There are studies conducted to find out the challenges of implementing a project in different fields and in different countries. The researcher reviews the most important ones among them.

Abduraheman and Ouiuwasoye (2016), stated project failures, project delay and cost overrun are more common in 21st century due to project management practice is more challenging in the 21st century than previously propounded. According to their finding the main challenges of project implementation in the 21 st Century was due to human resource, costing and estimating the resource, authority and control.

Mohammed (2016), analyzed the main challenges of Bangladesh Banking Industry and mainly found that consensus on requirements, the role of employees, vendor capabilities and credentials, the software flexibility, user friendliness and capability to meet requirements, employee skill set required and data migration are the main challenges faced by the commercial banks in Bangladesh

Dao (2014), used deductive approach, qualitative research method as well as semi-structured interviews and find out the main motivations for the implementation of e-banking services in Vietnam are to enhance the satisfaction level of customers and expand the market. The biggest challenges of the implementation process come from the lack of knowledge and unwillingness of customers as well as the under-developed infrastructure level.

According to Negalign and Lisanework (2016), the major challenges faced in the process of core banking system development in CBE include agreeing on what are actually necessary, security issues, empowering employees to use the new system, vendor capabilities and credentials, risk of the software capability to meet requirements and expectations, unavailability of the diverse skills required and data migration. Lack of suitable legal and regulatory framework for Core banking and electronic payment is another impediment for the adoption of new technology in the Ethiopia banking industry

2.2.1 Summary of Empirical Literature gap

Even though the research reviewed the most important literatures in the area of practice and challenges of project implementation, this study differ due to the following reasons. First, almost all challenges assessed in the empirical literatures after the projects are delivered but this study give an emphasis challenges of the project during the implementation of the project and the study can be best lesson learned project for CBE as well as Ethiopian banking industry because of assessment done on recent implemented CBE Birr project.

2.3 Conceptual Framework

The functions of project management provide for gaining agreement on what should be built, the cost or price of the product, and when it must be delivered. In project management jargon, we term this the cost-schedule-quality equilibrium or *triple constraint.* These three variables define the overall goals of a project; therefore, any project that is "on time, on budget, high quality" is declared a success. The difficulty, however, exists in their relationship to one another. The term *equilibrium* sums up the challenge: The quality of the product we create depends on the time and money we are willing to spend. After a balance between these variables is struck, a change to one will affect the other two (Eric, 2003).

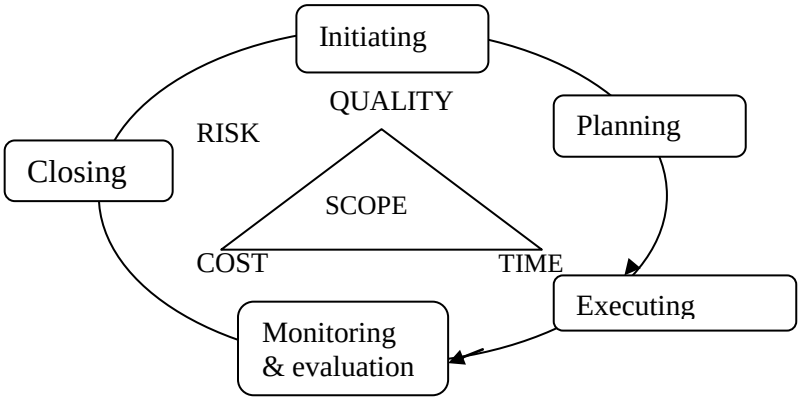

FIG 2.2 Mapping of project management process group with knowledge areas

Based on the literature reviewed, the researcher proposed conceptual model sowen in the above Fig 2.2. It shows generally where the project management processes fit in to both the project management process groups and the project management knowledge areas. The five processes that are used to manage projects which are initiating, planning, executing, monitoring and evaluation and closing with core processes of scope quality time and cost.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Research Design and Approach

In order to realize the objectives and to seek answer for the research questions descriptive research design is used to obtain the intended information. According to Yogesh (2006), the descriptive type of research is chosen because it helps to

- ✓ Identify present conditions and point to present needs.
- ✓ Study immediate status of a phenomenon.
- ✓ Fact findings.
- ✓ Examine the relationships of traits and characteristics (trends and patterns).

Descriptive researches are more concerned with facts. Accordingly this study attempt to describe the existing practice and challenges of doing CBE project depend on the view of the project participant. In general, the study used a descriptive approach in order to explain the practice and dig out challenges,

The quantitative approach also provides advantages through analyzing objectively data collected using questionnaire focuses primarily on the construction of quantitative data, and quantitative data is a systematic record that consists of numbers constructed by researcher utilizing the process of measurement and imposing structure (Geottrey et al, 2005). Thus, the research employees quantitative research approach

3.2 Target Population

The research emphasize on the CBE Birr project so the target population are all CBE Birr project implementing team members. The project is done by total of 28 project team members and the paper targeted to collect the entire project implementing team member's response. So, the research used a Census method to collect all project team members' view.

3.3 Source of Data

In order to get selected project team members view on the existing practice and challenges of the CBE Birr project, it is imperative to collect data from them. Hence, project team members serve as the main source of primary data.

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3.4 Data Collection Tools and Procedure

To collect the necessary data the study used primary source of data. Among the primary data collection tools close-ended questionnaires used to collect information. The reason that the researcher used the questionnaire is, as stated by Yogesh (2006) it is important to increase the likely hood of obtaining accurate information from the project participants**.**

The research permits was obtained through letter of cooperation from St. Mary's University and the CBE human resource learning and development manager administered and written cooperation letter for the CBE Birr Project manager. After giving the letter for the manager the questionnaire approved and collected from the participant of the project.

3.5 Method of Data Analysis

Data analysis is examining what has been collected in a research and making deduction and reference (Yogesh, 2006). The data so analyzed seeks to fulfill research objectives and provide answers to research questions.

The quantitative analysis of the study administered using descriptive statistics. Descriptive statistics involve the transformation of raw data into a form that would provide information to describe a set of factors in a situation. This is accomplished through ordering and manipulating the raw data collected (Geottrey et al, 2005).

This research used descriptive statistics including frequencies, percent by using tables. Descriptive statistics is the most appropriate statistic, since the nature of the study objectives and questions is to find, asses, examine and identify the current situation and practices and challenges of CBE Birr project

CHATER FOUR

Data Analysis and Interpretation

This chapter presents analysis, interpretation and findings of information collected from 22 CBE Birr Project participants. The study was expected to collect all 28 project participants' response but only 22 of them were collected back with response rate of 79%. The collected data is analyzed, presented and tabulated by percentage for the purpose of compare and contrast as shown below.

4.1 Initiation of CBE Birr project

In order to find the reasons for the initiation of the project the research took market demand; organizational need; legal requirement: customer request; technological advance and response for competitors as variables. The results are depicted in the following table.

Table 4.1 Project team member's response on reasons for the initiation of CBE Birr project

Reasons for initiation of CBE Birr Project	No of respondent	Percentage
Organizational need	7	31
Legal requirement	3	14
Customer Request	3	14
Technological advance	6	27
Response for competitors	3	14
Total	22	100

Source: Own Survey, 2018

From the above table it is possible to observe that organizational need have higher percentage share which is 31%, followed by technological advance with 27 %. Legal requirement, customer request and response for competitors got 14 % response respectively.

An important implication of these findings is that there is existing high organizational need in the Ethiopian Banking Industry which is not mentioned in NBE (2015), report in which the existing

main opportunity to be exploited to enhance the development of IT Projects is technological advancement.

Initiation stage can provide information to organizations and results in an assessment of whether a project fits with the organization's profit goals or business model (Cobb, 2012). In this regard project participants were asked about the alignment of the project with the strategy of the CBE and as the organization culture and structure permits initiative and innovative of project participants. In addition, the question tried to find out whether there is a practice of good project communication with stakeholder on time and quick and fair conflict resolution among stakeholder exist. .

Table 4.2 Project teams members response on business requirement, organization culture and structure and stakeholder management

Question	Yes	No
Does the project align with the business requirement	22	
Does the organization culture and structure permits initiatives and innovation in process of project management	22	
Is there good project communication to stakeholder on time	12	10
Is there quick and fair resolution of conflict among stakeholder	12	10

Source: Own Survey, 2018

According to the above table all respondents confirmed as the project align with the business requirement of CBE and the existing culture and structure permits the initiative and innovation of project management process. This indicates that when the organization and structure permits initiative and innovation in the process of project management gives the exposure to project participants to ensure control and monitor effectively and maintain continues insight to the health of the project (Briner et al, 1996).

Whereas the left collected responses regarding to existence of good project communication to stakeholder on time 12 respondents stated that there is a good project communication to stakeholder on time and 10 of the left respondents responded as there is the absence of good project communication to stakeholders on time. In the same manner, 12 respondents confirmed as there is quick and fair resolution of conflict among stakeholder and the left 10 respondents answered as there is no quick and fair resolution of conflict among stakeholders.

This can indicates that the good project communication to stakeholder on time and quick and fair resolution of conflict among stakeholder were treated in the same direction in the view of project participants. In addition, it also indicates whenever there is the absence of a good stakeholder management practice, quick and fair conflict resolution among stakeholder is unexpected. The results can be supported by Antvik & Sjoholm (2007), as there should be stakeholder analysis in order to include and those measures taken to limit the potential negative impact that are identified.

4.2 Assessment on Challenging Process Group

In order to find the result the respondents were asked about the main challenging process group of project management. The results are illustrated in the following figure.

Table 4.3Project team member's response on challenging process group

Process group	More Challenging	%
Initiating	4	18
Planning	4	18
Executing	12	55
Monitoring and Controlling	2	9
Closing	-	-
Total	22	100%

Source: Own Survey, 2018

The above table depict most respondents stated 55% of the challenge is arising from the process of execution where as 18 % of challenges are assigned for the initiation and also for the planning phase respectively. From the remaining respondents Monitoring and controlling have got 9% share of the total respondents and closing have got noting due to the project is not in the point of closing project phase.

It has been found that the result is compatible with Dao (2014) investigation, in which the more challenging process in doing E Payment Projects in Vietnam is execution. As Walker (2007), stated the process group is mainly involves in coordination of resources and integration of the activities according to the project management plan.

Executing consists of the processes used to complete the work defined in the project management plan. It's about accomplishing the project's objectives. The executing process involves coordinating people and resources, as well as integrating and performing the project activities. The deliverables are produced as outputs from the processes performed, as defined in the project management plan PMI (2004).

The planning and initiation process also have equal respondents in which the challenging part of initiation process group is reviewing the initiation process at the start of each new phase or sub-project. Project remains focused and start criteria is verified for each phase. The sub-project initiation processes also perform further validation and development of the project scope (PMI, 2004).

Where as in the planning the iteration process during planning process based on identified risks often are easier to identify after most of the planning has been made. This means the project team might have to reconsider the planning repeatedly concerning schedule, cost or resources with aspects of new identified risks or opportunities (Gupta et al, 2008).

The low monitoring and controlling can be associated with the result found in table 4.3.1, which indicates when the organization and structure permits initiative and innovation in the process of project management gives the exposure to project participants to ensure control and monitor effectively and maintain continues insight to the health of the project (Briner et al, 1996).

4.3 CBE Birr Project Risk Analysis

Risk analysis is often carried out early in a project when the information is highly limited within several areas. To manage risks and opportunities effectively, the analysis must be iterated throughout the project as more and more information becomes clear to the management team (Kululanga & Kuotcha, 2010).

A common, and effective, approach to analyze risks is to estimate the probability and impact of a risk. The risk response is then based on the combined value of each risk, which leads to a risk management where the response is in relation to the magnitude of the risk (Briner et al, 1996).

In order to clarify and undertake further analysis the research categorizes the respondents answer as Category A and Category B. The table below explains that how the categorization takes place and the interpretation of the categories. Categorization is also reacquired for the study for simplify the comparison and contrast of the degree of deviation in scope, schedule, cost and quality.

Table 4.4 Research Risk Impact Categorization

Category A	Category B
➢ Scope:- Minor scope change, ➢ Schedule:- Less than 5% schedule slippage ➢ Cost:- Less than 5% cost ➢ Quality:- Only demanding application are affected	➢ Scope :- Major scope areas affected, reduction in scope unacceptable to the client and end item of the project is effectively useless ➢ Schedule :- Greater than of 5% Schedule Slippage ➢ Cost :- Greater than of 5 % cost increase ➢ Quality :- Quality reduction require client approval, Quality reduction unacceptable to the client and Project end item is effectively unusable

Respondents were asked to indicate the existing phenomena of the project from the point of impact of risk in scope, schedule, cost and quality point of view. Respondents were answered according to the degree of the deviation and the study analyzed their response by categorizing in to two categories of impact of risk in which the first category is the very low and low, and the second incorporates the moderate, high and very high for further analysis. So as shown in table 4.5, the study collected response of project participants whether there is low and very low deviation or there is moderate, high and very high deviation on the major constraint of the project.

Table 4.5 Project team members' response on impact of risk scales on project objectives

Project objective	Risk Relative scales									
	Very low	%	low	%	moderate	%	High	%	Very high	%
Scope	2	9	2	9	14	64	2	9	2	9
schedule	4	18	4	18	10	46	2	9	2	9
Cost	12	55	-	-	6	27	2	9	2	9
Quality	6	27	4	18	8	37	2	9	2	9
Average	27%		11%		44%		9%		9%	
Sub Total	38%				62%					
Total	100%									

Source: Own Survey, 2018

As shown in the above table 38% of project participant responded that there is low and very low impact of risk from which on average 27% are stated that there is very low impact of risk. The percentage share of scope is 9% (scope decreases barely noticeable), schedule 18% (insignificant schedule slippage), cost 55% (insignificant cost increase) and quality 27% (quality degradation barely noticeable).

The left average 11% of project participants stated that there is low impact of risk from which percentage share of scope 9% (minor areas of scope are affected), schedule 18% (schedule slippage 5%), cost with no selection (schedule slippage 5%) and quality 18% (only demanding application are affected).

In the same way, there are 62% respondents stated that there is moderate, high and very high deviation in project constraints. On average 44% of impact of risk is moderate from which the percentage share of scope is 64% (major areas of scope affected), schedule 46% (overall Schedule slippage 5-10%), cost 27% (5-10% of cost increase) and quality 37% (quality reduction require client approval). Whereas on average 9% of respondents stated the impact of risk is high and very high respectively.

From average 9% of respondents for high impact of risk the percentage share of scope are 9% (Scope reduction unacceptable to the client), Schedule 9% (overall schedule slippage 5-10%), Cost 9% (10-20% cost increase) and Quality 9% (greater than of 20% cost increase). For the impact of risk stated as very high on average there is 9% of respondents from which the percentage share of Scope is 9% (project end item is effectively useless), Schedule 9% (Overall schedule slippage greater than of 20%), Cost 9% (greater than of 20% cost increase) and Quality 9% (project end item is effectively unusable).

More interestingly the study find that the highest number of respondents for the cost lies on Category which indicates low and very low cost (insignificant cost increase) and in other direction the majority of the respondents answer lies on Category B specifically as there is moderate impact of risk on scope (major scope areas are affected), schedule (5-10% of overall schedule slippage) and quality (quality reduction require client approval).

The finding was quite surprising and suggests that even though there is a high deviation in scope, time and quality there is insignificant cost increase, which is in contrary of PMI in which all the four constraints due to their dependency expected to show approximately equal change and impact of risk in the same direction.

Table 4.6 Challenging project Scope change

Scope change factors	No of respondents	Percentage
Scope planning	8	44
Scope definition	-	-
Create WBS	3	17
Scope verification	2	11
Scope control	5	28
Total	18	100%

Source: Own Survey, 2018

As illustrated in table 4.5, 18 participants categorized the scope under Category B in which moderate (major areas of scope affected), high (scope reduction unacceptable to the client) and very high (project end item is effectively useless). In consideration of this the research asked as from the components of the scope which one is the reason for the existing deviation in the project scope management. From 18 respondent's 8(44%) of respondents stated scope planning, scope verification and scope control with 2(11%) and 5(28%) respondents respectively. Scope definition was not seen as a factor for the existing deviation with no response.

The existing moderate, high and very high deviation is due to scope change factor of scope planning and defined as according to PMI (2004), it is all about creating a project scope plan that documents how the project scope defined, verified, and controlled, and how the work breakdown structure (WBS) is created and defined.

Table 4.7 Challenging project Schedule change factors

Schedule change factors	No of respondents	percentage
Activity definition	4	29
Activity sequencing	2	14
Activity resource estimating	-	-
Activity duration estimating	6	43
Schedule development	2	14
Schedule control	-	-
Total	14	100%

Source: Own Survey, 2018

As can be seen from table 4.5, the high number of respondents stated as schedule is categorized under category B in which the deviation is moderate (overall schedule slippage 5-10%), high (overall schedule slippage 10-20%) and very high (overall schedule slippage greater than of 20%). According to the collected data 67% of them respond as there is medium, high and very high deviation in schedule. From 14 of respondents the activity duration estimating get the highest share with 6(43%) of respondents and activity definition with 4(29%) which followed by activity sequencing and schedule development by equal 14% respondents respectively and activity resource estimating and schedule control with no respondents.

According to the result the Activity definition becomes highest schedule change factor and mainly associated with identifying the specific schedule activities that need to be performed to produce the various project deliverables (PMI, 2004). In addition, the result is not in line with Abduraheman and Ouiuwasoye (2016), finding in which activity resource estimating is as a main reason for the delay of the project.

Table 4.8 Challenging project Cost change factors

Cost change factors	Number of respondents	percentage
Cost estimating	3	30
Cost budgeting	5	50
Cost control	2	20
Total	10	100%

Source: Own Survey, 2018

Considering table 4.5, even though the results shows that the majority of respondents categorize the cost under category A in which there is insignificant cost increase, to make the analysis full the study collected the following data from 10(45%) respondents. The respondents argued that there is cost increase moderately (5-10% cost increase), highly (10-20% cost increase) and very highly (greater than of 20% cost increase). From the 10 respondents 3(30%) were argued that cost estimating, 5(50%) cost budgeting and 2(20%) cost control.

The result shows as cost budgeting is major change factor. This can be interpreted depend on the PMI (2004), definition as it deals with aggregating the estimated costs of the costs of individual activities or work packages to establish a cost baseline.

Table 4.9 Challenging project Quality change factors

Quality change factors	Number of respondents	Percentage
Quality planning	-	-
Quality assurance	8	67%
Quality control	4	33%
Total	12	100%

Source: Own Survey, 2018

As shown in table 4.5, from the 22 respondents 12(55%) are arguing that there is a moderate (quality reduction require client approval), high (quality reduction unacceptable to the client) and

very high (project end item is effectively unusable). From the 12 respondents the quality assurance have got the highest respondent which is 67% followed by quality control 33% and there is no respondent for the quality planning.

Quality assurance is about applying the planned, systemic quality activities to ensure that the project employs all processes needed to meet requirements according to PMI (2004) definition.

CHAPTER FIVE

Conclusion and Recommendation

5.1 Conclusion

The purpose the study is to analyze the practice and challenges of CBE Birr project implementation in the case of Commercial Bank of Ethiopia, therefore based on the analysis the following conclusion is drawn.

The study concluded the project align with the business requirement of CBE and market demand is the main reason for the initiation of the project and followed by organizational need and technological advance.

The study also indicates that the most challenging and difficult phase in undertaking the CBE Birr project is the execution phase. Which is also followed by the initiation process and planning process of the project.

The study concludes that the existing scope, schedule and quality are deviated moderately, highly and very highly. This indicated that the project is not in line with planned scope, schedule and quality except the cost which have 55% share of respondent arguing as it is low.

The study indicated that the major factors for the deviation on scope is scope planning, on schedule the most project slippage factor is activity duration estimating and on quality, quality assurance. Even though 55% of respondents were arguing there is a low cost deviation the left 45% stated that cost budgeting is the main reason for the existing cost deviation.

Thus the study concludes that creating a project scope plan, identifying the specific schedule activities, applying the planned, systemic quality activities to ensure that the project employs all processes needed to meet requirements, aggregating the estimated costs of the costs of individual activities or work packages to establish a cost baseline are major deviation factors of project management activities.

5.2 Recommendation

Based on the foregoing conclusions, the following recommendations were given.

- To prevent scope creep, the bank should identify all possible challenges in detail before the project goes on to the execution. This will minimize the scope creep having by a solution to prevent rather than of identifying challenges during implementing the project.

- The project should devise a detail project plan that include clearly defined deliverables, specific delivery dates, clear responsibility for each role and explicit ownership enable the project to be delivered on time, on expected quality, on expected cost and with expected deliverables.

- The project should incorporate experienced personnel on the project team for setting detailed expectation, enhance efficient decision making process and knowledge transfer in order to limit the scope change and minimize impact of these changes on the overall time-line.

- The project undermines stakeholder management in initiation process of the project. So, the project should enhance stakeholder management. In connection to stakeholder management there should be good project communication to stakeholders on time and also quick and fair resolution of conflict among stakeholder is needed.

- And this project should be taken as best lesson learned project in which the coming projects should take a lesson about the practice and existing challenges of undertaking IT projects in order employ as a means to avoid scope creep.

Finally the researcher believes that further researches needed to be under taken on implementation of IT projects in Ethiopian banking industry with a better scope and coverage.

Bibliography

Abdurahman, B & Oluwasoye, P. (2016). Project Management Practice: Redefining Theoretical Challenges in the 21st Century.

Jalil-Kerim, A & Hamdam, M. (2010). The Impact of Information Technology on Improving Banking Performance Matrix: Jordanian Banks as Case Study, European, Mediterranean & Middle Eastern Conference on Information System 2010, UAE.

Antvik, S & Sjoholm, H. (2007). Project Management and Methods. Stockholm: Elanders Sverige AB.

Briner, W; Hastings, C & Geddes, M. (1996).Project Leadership, Second Edition. Hampshire: Gower Publishing Limited.

Cobb, A. T. (2012). Leading Project Teams: The basics of Project Management and Team Leadership. California: Sage Publications, Inc.

Commercial Bank of Ethiopia. (2016).CBE-IS system development and customization report.

Commercial Bank of Ethiopia, (2017). Commercial Bank of Ethiopia CBE Birr Service: Web-Based CBE Branch User guide

Commercial Bank of Ethiopia, (2018).CBE- IS system development and customization report.

Dao P. N. (2014). Implementation of E-banking in Vietnam: Motivation and challenges

Geottrey, M; David, D & David, F. (2005).Essentials of Research Design and Methodology.

Gupta, K; Aha, D. W; Nau, D. S & Munoz-Avila, H. (2008).Knowledge-based Project Planning. Washington DC: University of Maryland General Research Board.

Indigenous Leadership Development Institute INC. (2012). Introduction to Project Management: EAM Software.

Chakrabarty, K. C. (2011). Beyond Core Banking Solution: Fast forward to Banking. Executive Roundtable organized by the Institution for Development and Research in Banking, Mumbai.

Kotler P. (2012). Marketing Management (14th Ed.).

Kululanga, G &Kuotcha, W. (2010). Measuring project risk management process for construction contractors with statement indicators linked to numerical scores. Engineering, Construction and Architectural Management.

James P. (2008). Mastering Project Management (2nd Ed.).

Lock, D. (2007). Project Management (9th Ed.).Aldershot: Gower Publishing Limited.

Maylor, H. (1999). Project Management (2nd Ed.). London: Pearson Education Limited.

Mohammad Ansur R. (2016). Core Banking Software (CBS) Implementation challenges of E-Banking: An Exploratory Study on Bangladeshi Banks

Kavitha N. (2012), Opportunities and challenges of Banking Industry: Ethiopian outlook

National Bank of Ethiopia, (2015).Birritu Annual Magazine. No 119.

National Bank of Ethiopia, (2009). Modernization of the National payment system in Ethiopia: Vision and Strategic framework.

Negalign M. & Lisanwork A. (2016).The Development of Core Banking System in Ethiopia: Challenges and Prospects (Case Study on Ethiopian Commercial Banks).

Pinto, J. K. (2014).Project Management, Governance, and the Normalization of Deviance. International Journal of Project Management.

Prinzo Rob, (2011). Five best practices ensuring a smooth software implementation.

Project Management Institute (PMI). (2000). A Guide to the Project Management Body of Knowledge (PMBOK® Guide) (2000 Ed.). Newton Square, PA: Author.

Project Management Institute (PMI). (2004). A Guide to the Project Management Body of Knowledge (PMBOK® Guide) (3rd Ed.). Newton Square, PA: Author.

Senait Berihu, (2011). IT Governance in Ethiopian Financial sector: A case analysis of Commercial Bank of Ethiopia.

Senn L & Childress J. (2000).The secrete of winning culture.

Batra S &Bhatia A. (2014), Information Technology in Banking Sector, International Journal of Research in Commerce, IT and Management, vol. 4, Issue 10.

Talegeta S. (2012), Innovation and Barriers to Innovation: Small and Medium enterprises in A.A, MBA Thesis, AAU.

Sunita Agrawal & Ankit Jain, (2013). Technological Advancement in Banking Sector in India: Challenges Ahead, National Monthly Refereed Journal of Research in Commerce and Management, Vol. 2, Issue 1.

Turban, E. (2002).Electronic commerce a managerial perspective. Prentice Hall, U.S.A.

Walker, A. (2007). Project Management in Construction (5th Ed.).Hong Kong: Blackwell Publishing Ltd.

Yogesh Kumar, 2006. Fundamental Research Methodology and Statistics.

Appendices

Appendix 1

St. Mary's University

School of Graduate Studies

Project Management program

Questionnaire

Name of Student: - Dawit Tesfaye

Dear Respondent,

The purpose of this questionnaire is to collect primary data for conducting a study on the topic, "**Practice and Challenges of Implementing CBE Birr Project; in the case of Commercial Bank of Ethiopia**" as partial fulfillment to the requirements for the degree of masters of art in Project Management at St. Mary's University.

In this regard I kindly request that you provide me with reliable information to the best of your knowledge so that the findings from the study would meet the intended purpose. I strongly assure you of confidential treatment of your answers, and would like to extend my deepest gratitude in advance for being a volunteer to devote your valuable time in filling this form.

Directions

No need to write your name,

In cases where answer options are available please make a √ mark in the appropriate box,

Part 1 Question directly related to the study

1, What is the main reason for the initiation of the project?

☐ Organization need ☐ Legal requirement ☐ Customer request

☐ Technological advance ☐ Response for competitors

2, Does the project align with the business requirement?

☐ Yes ☐ No

3, Does the organizational culture and structure permit initiative and innovation in process of project management?

☐ Yes ☐ No

4, Is there good project communication to stakeholder on time?

☐ Yes ☐ No

5, Is there quick and fair resolution of conflict among stakeholder?

☐ Yes ☐ No

6, Which process group is challenging in doing the project?

☐ Initiating ☐ Planning ☐ Executing

☐ Monitoring and Controlling ☐ Closing

7, What is the impact of risk in scope?

☐ Scope decreases barely noticeable/Low

☐ Minor areas of scope are affected/Very Low

☐ Major areas of scope are affected/Moderate

☐ Scope reduction unacceptable to the client/High

☐ Project end item is effectively useless/ Very High

8, If your answer is Moderate, High and Very High what the problem on scope was?

☐ Scope planning ☐ Scope definition ☐ Create Work Breakdown Structure

☐ Scope verification ☐ Scope control

9, What is the impact of risk in schedule?

☐ Insignificant schedule slippage /Very Low

☐ Schedule slippage 5% / Low

☐ Over all schedule slippage 5-10% /Moderate

☐ Over all schedule slippage 10-20% /High

☐ Over all schedule slippage greater than of 20%/ Very High

10, If your answer is Moderate, High and Very High what the problem on schedule was?

☐Activity definition ☐ Activity sequencing ☐Activity resource estimating

☐Activity duration estimating ☐ Schedule development ☐ schedule control

11, What is the impact of risk on cost?

☐ Insignificant cost increase/Very Low ☐ 5% cost increase/ Low

☐ 5-10% cost increase/ Moderate ☐ 10-20% cost increase/ High

☐ Greater than of 20% cost increase/ Very High

12, If your answer is Moderate, High and Very High what the problem on cost was?

☐ Cost estimating ☐ Cost budgeting☐ Cost control

13, What is the impact of risk on quality?

☐ Quality degradation barely noticeable/ Very Low

☐ Only demanding applications are affected/ Low

☐ Quality reduction require client approval/ Moderate

☐ Quality reduction unacceptable to the client/ High

☐ Project end item is effectively unusable/ Very High

14, If your answer is Moderate, High and Very High what the problem on quality was?

☐ Quality planning ☐ Quality assurance ☐ Quality control