**ADDIS ABABA UNIVERSITY**

**SCHOOL OF COMMERCE**

**COLLEGE OF BUSINESS AND ECONOMICS**

# Assessment of Practice and Challenges of Project Planning in Ethio Telecom

A Project Work Submitted to School of Graduate Studies of Addis Ababa University in Partial Fulfilment of the Requirements for the Masters of Arts Degree in Project Management

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# DECLARATION

I, the undersigned, hereby declare that the work contained in this project work is my own original work and it has not been submitted anywhere for any award. Any materials from other sources, whether published or unpublished have been properly cited and acknowledged in accordance with appropriate academic conventions.

Signature: _____ Date: _____

# LETTER OF CERTIFICATION

This is to certify that Melekamu Metaferia has carried out this research work on the topic entitled "Assessment of Practice and Challenges of Project Planning in Ethio Telecom" under my supervision. This work is original in nature and suitable for submission in partial fulfillment of the requirement for the award of Master of Arts Degree in Project Management.

SIGNATURE……. DATE……

Mengistu Bogale (Asst. Prof.)

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This is to certify that the thesis is prepared by Melekamu Metaferia, entitled: "Assessment of Practice and Challenges of Project Planning in Ethio Telecom" submitted in partial fulfillment of the requirements for the degree of Masters of Arts Degree in project management complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

Signed by the Examining Committee:

Internal Examiner_____Signature _____Date_____

External Examiner_____Signature _____Date_____

Advisor_____Signature _____Date _____

## Acknowledgment

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# Abstract

*Planning is the most critical phase for the success of any project. If the planning is faulty, the result will be un successful. Hence, the study aims to access the practice and challenges of project planning in Ethio telecom projects. The study used a combination of quantitative and qualitative research approach as both qualitative and quantitative data were collected and analyzed. Descriptive research design was employed in this study. To get the intended data structurally designed questioners were employed which have close ended and open ended questions. Primary and secondary source of data were used. Frequency, percentages and mean were used to analyze the data obtained. The findings of the study revealed that project scope planning, project schedule planning, project cost planning, project resource planning, project procurement planning and project integration planning were practiced well in a limited manner even though more effort is required from the organization to make the practice more effective in creating well organized and attainable project management plan. Whereas, project risk planning, project quality planning, project communication planning, project stakeholder planning and application of planning tools were poorly practiced under the study organization. Major project planning challenges were identified by the study and some of them which is agreed by most of the respondents were: Project implementation was not as per the planed schedule, as a company level culture of following quality standard, policy and procedure were weak, communication gap between key project stakeholders, lack of clarity on communication management plan, poor risk management, lack of adequate top management support, overall standard project management plan was not clearly defined and communicated, poor documentation of lessons learned from previously executed projects, no policy or process was put in place to force the projects to follow the standard project planning practices and lack of adequate project management training. Thus, this study suggested that the organization to pay full attention for every project planning areas and to made more effort to solve problem areas which are identified and analyzed under the study.*



**Key Words** -*: project planning practice, challenge of project planning, project planning tools*

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# Acronyms

| | |
|---|---|
| PMI | Project Management Institute |
| PMBOK | Project Management Body of Knowledge |
| WBS | Work Breakdown Structure |
| PMO | Project Management Office |
| SPSS | Statistical Package for Social Science |
| ERP | Enterprise Resource Planning |
| PMP | Project Management Profession |
| PERT | Program (or Project) Evaluation and review technique |
| PM | Project Management |

# CHAPTER ONE

# 1 INTRODUCTION

## 1.1 Back ground of the study

According to PMI (2013), the project is a temporary effort to create a distinctive product, service or outcome. A definite beginning and end are implied by the temporary nature of projects. The end is reached when the goals of the project have been accomplished or when the project is terminated because its goals will not or will not be fulfilled, or when there is no longer a need for the project.

A project plan is crucial to any project's success. Customers may need a project plan for broad and sometimes complex projects that records all activities within the program. The project plan then provides a blueprint for the life cycle of the project and, depending on the requirements and type of project, may be updated as much as once a month (PMI,2008).

A plan for a project is like a road map used for a driving trip. To achieve that aim, there is a specified goal and a defined direction. It is understood that somewhere along the way, unplanned road outages can occur and efforts are discussed to deal with such events. However, the main point of the plan is that the target, along with the time and cost to achieve the goal, is defined. For the project, the same attributes are valid. Every project should be managed by a plan tailored to the degree of formality relevant to its size and complexity (Richardson and Jackson, 2019).

One of the main documents needed by the project manager and his or her team is the project management plan. In terms of time, cost and quality/performance, it lists the phases and encapsulates all the key project criteria, expectations and specifications by defining the 'Why',' What',' When',' Who',' Where' and 'How' of the project. The project management plan also includes 'How much' in certain organizations, which is the cost of the project. (Lester, 2003).

A good result is not inherently guaranteed by carrying out a project according to the plan. The project will not result in the desired outcome if the planning is faulty, and vice versa; high-quality planning improves the likelihood that the project will be properly performed and completed successfully. In a project, researcher noted planning as a crucial success factor (Pinto & Slevin, 1988; Johnson et. al., 2001).

The study aims at to access the practice and challenges of project planning in Ethio telecom.

## 1.2 Back ground of the organization

Ethio telecom, previously known as the Ethiopian Telecommunications Corporation, is an Ethiopian telecommunication company serving as the major internet and telephone service provider. Ethio telecom is owned by the Ethiopian government and maintains a monopoly over all telecommunication services in Ethiopia. Based in Addis Ababa, it is one of the "Big-5" group of state owned corporations in Ethiopia, along with Ethiopian Airlines, the Commercial Bank of Ethiopia, Ethiopian Insurance Corporation, and the Ethiopian Shipping Lines.

By August 26, 2020, Ethio telecom planned to extended 842 new infrastructure site during 2020 fiscal year. This infrastructure expected to enable the company to host additional 5.2 million new customers. During this fiscal year, the company planned to generate 55.5 billion birr in revenue, a 16pc growth from the last fiscal year. It also plans to boost the country's telecom density to 51.3pc.

### 1.2.1 Brief Historical Review of Telecom Sector in Ethiopia

Telecommunications service was introduced in Ethiopia by Emperor Menelik II in 1894 when the construction of the telephone line from Harar to the capital city, Addis Ababa, was commenced. Then the interurban network was continued to expand satisfactorily in all other directions from the capital. Many important centers in the Empire were interconnected by lines, thus facilitating long distance communication with the assistants or operators at intermediate stations frequently acting as verbal human repeaters between the distant calling parties.

### 1.2.2 Telecommunications Sector in Ethiopia (1894-1942)

In that particular period, Ethio telecom had been renamed and restructured through different stages.

- First, the management of the service was under the Imperial Court of Menelik II in the name of the “CENTRAL ADMINISTRATION OF TELEPHONE AND TELEGRAPH SYSTEM OF ETHIOPIA” from 1890 up to 1907. Mr. Stevenin, a French citizen, was appointed as the General Manager of the service.

- The service was renamed as “THE CENTRAL OFFICE OF POST, TELEGRAPH AND TELEPHONE (PTT) SYSTEM OF ETHIOPIA” since 1907-1909. It was administered by Emperor Menilik II’s Advisor, Mr. Al Fred Ilg, a Swiss man.
- Then the service was renamed as “MINISTRY OF POST, TELEGRAPH AND TELEPHONE (PT and T)” in 1910. First, it was administered by Mr. Leo Shafno, a French citizen and then replaced by the first Ethiopian administrators Lij Gizaw Bezabih, Lij Beyene Yimer and their successors consecutively.

### 1.2.3 Post War Restoration (1942-1952)

After the independence from the Italian occupation, the re-established Ministry of PT and T took over the running of Telephone, Telegraph and Radio communications. It, therefore, rehabilitated the network of the whole country.

### 1.2.4 Under the Imperial Regime

The Imperial Board of Telecommunications of Ethiopia (IBTE) was established by the proclamation No. 131 on October 15, 1952

The main purpose of the Board, as stated in its establishment charter of article 5 was “to rehabilitate, extend, repair and maintain the telecommunication facilities of Ethiopia and to engage in the business of telecommunication for profit.”

In 1960, IBTE looked after the operational matters of central Ethiopia, and a dedicated regional office was created in Addis Ababa. At the same time, a radio division was created separately from the preceding Technical Division, bringing the number of division offices to seven.

### 1.2.5 Under the Dergue Regime (1974-1991)

Under the Dergue regime, the Ethiopian telecommunications was renamed as follows:

- In October 1975, the organization was renamed as “THE PROVISIONAL MILITARY GOVERNMENT OF SOCIALIST ETHIOPIA TELECOMMUNICATION SERVICES”
- It was renamed again as “ETHIOPIAN TELECOMMUNICATIONS AUTHORITY (ETA) on January 1981. It retained its name as ETA up to November 1996.

At this period, the telecommunication services had made a major change of technology ranging from Automatic to Digital technology.

### 1.2.6 Under the Federal Democratic Republic of Ethiopia (1991-Present)

The telecommunications sector was restructured and two separate independent entities namely the Ethiopian Telecommunications Authority (ETA) and the Ethiopian Telecommunications Corporation (ETC) were established by Proclamation No. 49/1996 on November 1996.

### 1.2.7 Establishment of Ethio telecom

As a continuation of the 2005/06-2009/10 five-year plan and after concentrating its efforts on education, health and agriculture, the Ethiopian government has decided to focus on the improvement of telecommunication services, considering them as a key lever in the development of Ethiopia, Ethio telecom is born, on Monday 29th November 2010, from this ambition of supporting the steady growth of our country, within the Growth Transformation Plan (GTP), with ambitious objectives for 2015.

## 1.3 Statement of the problem

Planning is one of the main components of any project and failure to plan will cause the failure of the project. This is one of the most prominent issues causing project failure. If the deliverability of the project and how it will be done are not clearly defined in the project planning stage, projects are likely to fail (Pinto, 2013).

Failure to stay on schedule, failure to remain within budget, and failure to achieve acceptable results are the most common indicators of poor project planning. In terms of cost, time, and quality of a project, project performance is measured. Projects usually fail because of issues in a project's selection, planning, implementation, or control phases. The failure of the entire project could result in a failure in one of the stages.

Different studies are carried out on project planning and its effect on project success by various scholars. According to Wang and Gibson (2008) reports, it demonstrates that time spent on project planning activities would minimize risk and increase the success of the project. Other researchers such as Morris (1998) and Thomas (2008) on project planning activities revealed that

poor planning and planning process problems would lead to a failed project. But the more planning a project takes, the more successful the project would be. One of the primary reasons for project failure in developing countries, according to Richard (2012), is the lack of an effective or weak project planning process.

According to Kerzner (2006), the key benefits of proper project planning are: (1) removing or minimizing uncertainty, (2) enhancing operational performance, (3) having a better understanding of project objectives, and (4) providing a framework for project monitoring and control.

Ethio telecom has a vision of being a world-class telecom service provider. In order to achieve this vision, the company is undertaking telecom infrastructure projects to increase service quality of the company, to meet customer satisfaction, to meet government expectation and to increase the company revenue.

Therefore, in order to fulfill that vision, the projects undertaken by the organization must be successful. Based on preliminary study conducted under the study organization major problems were identified such us, projects face high risk through their life, poor communication and interaction within stakeholders of the project and difficulty of implementing projects as per the planned schedule. So, in order to solve those problem areas and to meet the desired project outcome, the researcher believed that the study organization requires close study of the project planning process. Since there is no extensive empirical study regarding project planning practice and its challenge under the study organization, this study focuses on assessing the project planning practices and problem areas in Ethio telecom and finally helps the company to provide a better recommendation on project planning practices and take corrective actions and prevents project failure by producing reliable project plan.

### 1.4 Research Questions

The research questions for this study were:

1. What is the current project planning practice in Ethio telecom?
2. Which planning tools are applied?
3. What are the common challenging areas of project planning activities in Ethio telecom?

## 1.5 Objectives of the study

### 1.5.1 General objectives of the study

The general objective of this study was to assess the current project planning practices and challenges in Ethio telecom.

### 1.5.2 Specific objectives of the study

1. To assess the current project planning practices in Ethio telecom
2. To identify which planning tools are used in the study organization
3. To identify common challenging areas of project planning activities

## 1.6 Significance of the study

The result of the study will help all stakeholders in the project planning process as a source of information to understand the current planning practices and also identify improvement areas to meet the desired goal, reduce risks, avoid missed deadlines and finally to deliver the agreed product, service or result. On the other hand, the finding of the study may inform decision takers and policy makers to implement effective project planning that aligned with strategic plan of the organization. Finally, this research can be useful for further reference for those who are interested in this area to conduct deep study and analysis.

## 1.7 Scope of the study

Conceptually this study tried to assess only the project planning practices and challenges of the organization under study even if there are many concepts related with project management and should be assessed. Regarding with the project planning tools the study only focused on project scheduling, scoping and project management software tools. The major target population of the research was employees of Head Office PMO, Infrastructure Power and Environment PM Section, Fixed Line PM Section, Transport Network PM Section and Wireless and Access Network PM section, who are involved in the planning phase of the projects under the study organization.

## 1.8 Limitations of the study

To address the objective of the study the researcher tried to assess only the planning practices and challenges of the organization under the study even if there are several factors that affect the success of a given project.

### 1.9 Organization of the paper

The study has organized in five chapters as described below:

**Chapter 1:** Provides an introductory part of the research, which consists of back ground of the study, back ground of the organization, statement of the problem, research questions, objectives of the study, significance of the study, scope of the study, limitations of the study and finally presents the structure of the research.

**Chapter 2:** Provides a theoretical and empirical background to the thesis.

**Chapter 3:** Presents an overview of the research design and methodology which covers the research approach, research design, sources of data, population of the study, method of data collection, method of data analysis and presentation, ethics of the research and, finally reliability of the research are explained.

**Chapter 4:** This chapter summarizes and presents the finding of the research.

**Chapter 5:** This chapter provides the overall conclusions drawn from the research and recommendations by the researcher.

# CHAPTER TWO

# 2 LITERATURE REVIEW

This chapter presents relevant literature review and prior studies to support the objective of the study. Under this chapter, theoretical background on basic concepts and empirical reviews of the study also presented.

## 2.1 Theoretical Literature Review

### 2.1.1 Project

A project is a unique attempt to create a series of deliverables under clearly specified constraints of time, cost and quality. Projects are distinct from normal business operating activities as they are unique in nature, have a fixed timescale, have an authorized budget, have limited resources, involve an element of risk and achieve beneficial change (Westland, 2006). A project is a unique attempt to create a new product or service that follows certain requirements and criteria that are applicable. This initiative is carried out within the parameters of the project, including fixed time, costs, human resources, and asset limits (Knutson and Bitz, 1991).

### 2.1.2 Project Management

Project management is the discipline that refers to the project in all of those words that you think of. This discipline cultivates the skills needed to plan, track, monitor, and manage the people, time, budget, and quality of project work. Project management fulfills two purposes: (1) it provides technical and business documents to convey the plan and, subsequently, the status that encourages the evaluation of the plan against actual results, and (2) it promotes the development of management skills to enable effective management of individuals and their project (s). A constructive type of management is project management. Integral components of this approach are negotiation strategies and strong communication and analytical skills. The measurement of results against those targets is another main ingredient. Applying high quality standards to project work is central to this management style (Knutson and Bitz, 1991). Project management consists of applying knowledge, skills, tools and techniques to project tasks in order to fulfill the specifications of the project. Project management is achieved by applying and incorporating the

project management processes defined for the project accordingly. Project management helps companies to quickly and effectively implement projects (PMI, 2017).

### 2.1.3 Project Management Processes

To accomplish particular project goals, the Project Management Process Group is a logical grouping of project management processes. Process groups are independent of phases of projects. The processes for project management are classified into the five following Project Management Process Groups (PMI, 2008).

**Initiating Process Group**

The Initiating Process Group consists of those processes performed to define a new project or a new phase of an existing project by gaining authorization to start the project or phase. The aim of the Initiating Process Group is to align the expectations of the stakeholders and the purpose of the project, to inform the stakeholders of the scope and objectives, and to explore how their engagement in the project and its related phases will help ensure that their expectations are met. The initial scope is established within the initiating processes, and initial financial resources are committed (PMI, 2008).

**Planning Process Group**

The Planning Process Group consists of processes which determine the overall scope of the effort, define and refine the objectives, and establish the course of action necessary to achieve those objectives. The components of the project management plan and project documents used to implement the project are created by the processes in the Planning Phase Group (PMI, 2008).

**Executing Process Group**

In order to fulfill the project requirements, the Executing Process Group consists of those processes performed to complete the work specified in the project management plan. In accordance with the project management plan, this process group includes the coordination of resources, the management of stakeholder engagement, and the integration and execution of project activities. The main advantage of this Process Group is that the work necessary to fulfill the requirements and objectives of the project is carried out according to plan (PMI, 2008).

**Monitoring and Controlling Process Group**

The Group on the Monitoring and Controlling Process consists of the processes necessary to track, review and regulate the progress and performance of the project; identify any areas where improvements to the plan are required; and initiate the necessary changes. The main advantage of this Process Group is that the performance of the project is measured and analyzed at regular intervals, suitable events, or when situations of exception arise to detect and correct variances from the project management plan (PMI, 2008).

**Closing Process Group**

The Closing Process Phase consisted of the process(s) carried out to formally complete or close a project, phase, or contract. This process group verifies that the defined processes are completed, as necessary, within all the process groups to close the project or phase, and formally establishes that the completion of the project or phase of the project is complete. The main advantage of this Process group is that phases, projects, and contracts are properly closed (PMI, 2008).

### 2.1.4 Planning

The cornerstone (primacy) of management is planning: planning offers the entire basis from which all future functions of management emerge. It takes precedence over other managerial roles, such as organizing, staffing, directing and controlling, since until there is a plan, none of these functions can be exercised. However, it should be remembered that management functions are interrelated in that without the other function, no function can exist (Charles, 2003). The following are four types of planning, as per Basnyat (2019);

**Operational Plans**

It could be ongoing or single-use operational planning. The latter is usually developed for a particular event, such as a unique marketing campaign, that will only occur once. Ongoing plans may include rules and regulations, procedures, and the company's day-to-day functioning.

**Strategic Plans**

The cornerstone of an organization is strategic planning. Strategic plans ultimately determine the significant decisions made within an organization. Strategic plans can vary from three years to ten

years in scope. The mission, values, and vision of the organization include these plans. A successful strategic plan always considers things in the long-term and remembers the big picture.

**Tactical Plans**

Tactical planning is supportive of the strategic plan. This includes the tactics that would be used to implement the strategic plan. There are clear questions within a tactical plan that need to be addressed about what it will take to achieve the objectives set in the strategic plan; the most significant question is how the organization will accomplish the mission. This style of planning is short-term and very focused. Sometimes, tactical plans are versatile and frequently break down the strategy into many components and assign actionable tasks to each part.

**Contingency Planning**

For any business, contingency planning is necessary because the risk of unexpected changes is still there. In order to move towards the target, a contingency plan is developed for when the unexpected happens or a significant change has to be made. Not every change can be expected, which is why getting a contingency plan in place is crucial. The significance of making a contingency plan should be recognized by any business leader.

### 2.1.5 Project Planning

Project planning is described as setting up a set of directions in sufficient detail to tell the project team exactly what needs to be done, when it needs to be done and what resources need to be used to successfully deliver the project's results (Meredith and Mantel, 2006). According to Slevin & Pinto (1986), project planning is the degree to which the effort, time, cost, and personnel resources necessary to implement the project are defined or estimated by time tables, milestones, workforce, equipment, and budget.

### 2.1.6 Project Planning Process

The project plan is the major outcome of the planning process. This document would be produced during the project planning process by the project team. The project plan comprises the following elements: overview, project objectives, general approach, contractual dimensions, schedules, resources, staff, risk management plan and methods of assessment (Meredith and

Mantel, 2006). According to Elizabeth and Richard (2012), having a well-developed project plan is one of the crucial factors for project success and the following are ten steps for developing a project plan.

1. **Explain the project plan to key stakeholders and discuss its key components**

The project plan is a collection of living documents, one of the most misunderstood terms of project management, which can be expected to change over the life of the project. Like a roadmap, it offers the project's direction

2. **Define roles and responsibilities**

All documents will not be reviewed by all main stakeholders, so it is important to decide who needs to approve which sections of the plan on the project. Project sponsors, designated business experts, project managers, project teams, end users and others are some of the main players, such as auditors, quality and risk analysts, procurement specialists, and so on.

3. **Hold a kickoff meeting**

An efficient way to get stakeholders together to discuss the project is the kickoff meeting. It is an important way for the planning process to be started

4. **Develop a Scope Statement**

In the project plan, the Scope Statement is arguably the most significant document. For the rest of the project, it's the base. It defines the project and is used to achieve mutual consensus about the scope among the stakeholders.

5. **Develop scope baseline**

In the Scope Statement, once the deliverables are confirmed, they need to be formed into a work breakdown structure (WBS), which is a decomposition of all the project deliverables. The scope base line is created by this deliverable WBS. The WBS is frequently viewed as a breakdown of the task, but the next step identifies activities and tasks as a separate breakdown.

6. **Develop the schedule and cost baselines**

Here are the steps involved in developing the schedule and cost baselines.

- Identify the activities and tasks required for each of the work packages to be created and create a WBS of tasks.
- Identify, if known, resources for each task.
- To complete each task, estimate how long it will take.
- Estimate the cost of each task, using each resource's average hourly rate.
- Consider resource constraints, or how much time each resource will devote to this project in a practical way.
- Identify which tasks rely on other tasks and create a critical path.
- Create a timetable, which is a timeline of all activities and forecasts. It indicates by the selected time period (week, month, quarter, or year) which resource is doing the tasks, how much time they are supposed to spend on each task, and when the start and end of each task are scheduled.
- Establish the baseline of cost, which is a time-phased budget, or cost by period of time.

7. **Create baseline management plans**

You can create the steps that the team will take to handle variances to these plans once the scope, schedule, and cost baselines have been defined. A review and approval process for changing the baselines is typically included in all these management plans.

8. **Develop the staffing plan**

The staffing plan is a chart that shows the time periods that each resource will come on and leave the project, usually months, quarters, years. It is equivalent, like a Gantt chart, to other project management charts, but does not show tasks, estimates, start and end dates, or the critical path.

**9. Analyze project quality and risks**

The quality of the project is to ensure that the final product not only complies with consumer requirements, but is something that the sponsor and key business experts really want to use. While a risk is an incident that may or may not occur, if it were to occur, it may have a major impact on the result of a project.

10. **Communicate**

The Communication Plan is one significant part of the project plan. This document states who needs to report on the project, how much, in what format, and using what media, how to escalate issues, and when and where to store project information, and who can access it.

### 2.1.7 Project Planning Best Practices

According to Muslihat (2017), the followings are the best project planning practices.

- **Be professional**

Ensure the 'business case' you use is a formal, written document when persuading potential stakeholders to get behind your project. This will solidify your project ambition and provide a professional vibe as well.

- **Expect risks**

In your project plan, don't forget to do a risk assessment. It can be risky project work, and you'd be a fool not to anticipate risks. Do a risk assessment as part of the initial phase to determine the provisions you will need to take for high-level risk tasks. Make sure your buffer time is included in your schedule.

- **Complete risky tasks first**

Planning to focus on tasks that have the highest risk level first, speaking of high-level risk tasks. Doing so will mitigate risk and can ensure that if something goes wrong, there is enough time to sort it out.

- **Control change**

When it comes to delivering a project, change is inevitable, but that doesn't mean it can turn the team off course. Having a change management plan in place will prevent the project from being taken over by sudden changes. It doesn't have to be complicated, all it has to do is take the steps that should be taken when a proposed change is introduced.

- **Choose your team wisely**

Your project is just as good as the individuals conducting it, so before you recruit them, make sure you know the availability of your team members. Overlooking holidays or scheduled time off will lead to delays in the project. By incorporating this time in your project schedule timetable, or by finding temporary relief solutions, prevent hiccups.

- **Invest in them, too**

When it comes to assembling them, do not be averse to enhancing the team. It might seem like extra work to provide training and support, but it can bring loyalty to the project, as well as long-term productivity.

- **Develop a close team**

Break the ice by doing a couple of team building exercises once you've put together the perfect crew. A key aspect of teamwork is not only getting to know your colleagues, but gaining faith and comfort will emphasize that cohesion.

- **Keep stakeholders connected**

Remember that stakeholders are not just individuals who hired you to do the project. They are everybody who is influenced by the project's result. Don't forget to include all the individuals who are invested while convincing them of your vision in the initial phase or communicating changes and progress updates to the project plan.

- **Have the right tools**

A provided, but it has to be said: use a cloud-based solution for project management. Not only does it provide you with the resources you need to automate the process, but it will also equip the team to work at optimum productivity and efficiency.

- **Make the plan accessible**

Not only does sharing the project plan with team members allow clarification for anyone who works on the project, but a better quality plan can be produced. As errors and inaccuracies can be better detected and rectified, it is often better to have more than one pair of eyes on a significant document.

### 2.1.8 Project Planning Knowledge Areas

The study on project planning practice of the organization will have conducted on project planning processes areas which are defined on PMBOK guide listed and described below.

1. **Project Scope Planning**

According to PMI (2013), project scope management includes the processes necessary to ensure that the project includes all the required work and only the work required to effectively complete the project and project scope planning processes are listed below.

- Plan scope management: The process is to develop a scope management plan that documents how to define, validate, and control the project and product scope.
- Collect requirements: It is the process of determining, documenting and managing the needs and requirements of stakeholders in order to achieve objectives.
- Define scope: It is the process of developing a comprehensive project and product description.
- Create WBS: The process is the breakdown into smaller, more manageable components of project deliverables and project work.

2. **Project Schedule Planning**

According to PMI (2017), project schedule management includes the processes needed to manage the project's timely completion and the project schedule planning processes are listed below.

- Plan schedule management: is the process of establishing the policies, procedures, and documentation for planning, developing, managing, executing, and controlling the project schedule.
- Define activities: The process is to identify and document the specific activities to be done to produce the deliverables of the project.
- Sequence activities: This is the process of identifying and documenting the relationships between the activities of the project.
- Estimate activity durations: It is the process of estimating the number of work periods needed with estimated resources to complete individual activities.

- Develop schedule: It is the process of analyzing activity sequences, durations, resource requirements, and schedule constraints to build a schedule model for project execution and monitoring and control.

**3. Project Cost Planning**

According PMI (2013), project cost management includes the processes for planning, estimating, budgeting, financing, funding, managing and controlling costs in order to complete the project within the approved budget and the project cost planning processes are listed below.

- Plan cost management: The process is to determine how the cost of the project is estimated, budgeted, managed, monitored, and controlled.
- Estimate costs: The process is to establish an approximation of the cost of resources required for the completion of project work.
- Determine budget: It is the process by which the approximate costs of individual activities or work packages are aggregated to create an approved cost baseline.

**4. Project Quality Planning**

According to PMI (2013), project quality management includes the processes for integrating the quality policy of the company with regard to planning, management and monitoring of project and product quality criteria in order to achieve the goals of stakeholders and the project quality planning process is described below.

- Plan quality management: It is the process of identifying the project and its deliverables with quality requirements and/or standards and documenting how the project can demonstrate compliance with quality requirements and/or standards.

**5. Project Resource Planning**

According to PMI (2017), project resource management provides the processes for identifying, acquiring and managing the resources required to complete the project successfully and the project resource planning processes are listed below.

- Plan resource management: It is the process of determining how team and physical resources are estimated, acquired, managed, and used.
- Estimate activity resources: The process of estimating team resources and the type and quantity of materials, equipment, and supplies required for project work to be carried out.

## 6. Project Communications Planning

According to PMI (2017), project communications management includes the necessary processes to ensure that the project's and its stakeholders' information needs are met through the development of artifacts and the implementation of activities to achieve an efficient exchange of information and the planning processes for project communication is described below.

- Plan communications management: The process is to develop an effective strategy and plan for the activities of project communication based on the knowledge needs of each stakeholder or group, the organizational assets available and the project needs.

## 7. Project Risk Planning

According to PMI (2013), project risk management involves risk management planning, identification, analysis, response planning, implementation of responses and risk monitoring processes for a project and the project risk planning processes are listed below.

- Plan risk management: It is the process of defining how risk management tasks for a project can be carried out.
- Identify risks: It is the process by which individual project risks and causes of overall project risk are identified and their characteristics reported.
- Perform qualitative risk analysis: It is the process by which individual project threats are prioritized for further study or intervention by determining their likelihood of occurrence and effect as well as other features.
- Perform quantitative risk analysis: The process is to evaluate numerically the cumulative impact of individual project threats found and other sources of uncertainty on overall project goals.
- Plan risk responses: The process includes the development of options, selection of solutions and agreement on steps to address the overall exposure to project risk, as well as the treatment of individual project risks.

## 8. Project Procurement Planning

According to PMI (2013), project procurement management involves the processes required from outside the project team to buy or acquire goods, services or results needed and the project procurement planning process is described below.

- Plan procurement management: It is the process by which project procurement decisions are documented, the strategy is defined and potential sellers identified.

**9. Project Stakeholder Planning**

According to PMI (2017), project stakeholder management involves the procedures necessary to recognize the persons, groups, or organizations that may influence or be influenced by the project, to evaluate the perceptions of stakeholders and their impact on the project, and to establish appropriate management strategies to involve stakeholders effectively in project decisions and execution and the project stakeholder planning process is described below.

- Plan stakeholder engagement: The process includes project stakeholders in the creation of approaches based on their needs, aspirations, desires, and future effects on the project.

**10. Project Integration Planning**

According to PMI (2017), project integration management involves the processes and activities within the project management process groups to classify, describe, merge, unify and organize the different processes and project management activities and the planning process for Project Integration is described below.

- Develop project management plan: It is the process by which all plan components are identified, prepared and organized and consolidated into an integrated project management plan.

### 2.1.9 Project Planning Tools

Tools for project planning allow all involved to keep track of project demands and deadlines. Some of the most common project planning tools, according to Wilson (2020), include the following:

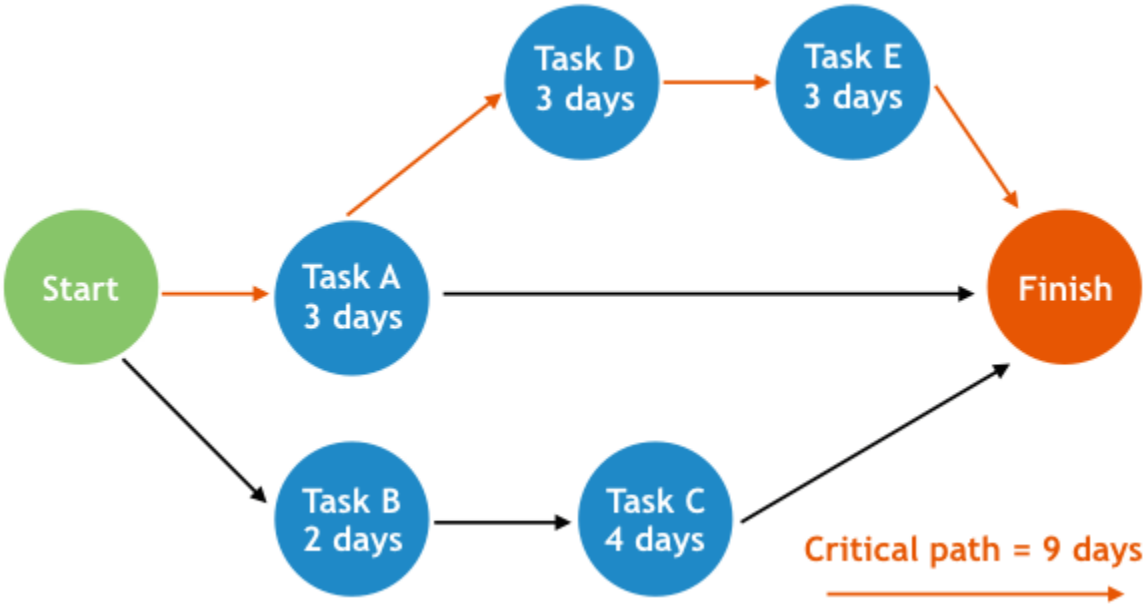
- **Network Diagrams**

One of the most important tools of project management that can be used in the project planning process is network diagrams. Often known as a "Arrow" diagram, since the diagram consists of various arrows that can be used to connect various activities and to show precedence as well. You can also demonstrate interdependencies between different operations of a project by using these arrows.

- **Critical Path Method**

CPM is an important tool which project managers use thoroughly. This is because, in real time, this instrument will track and measure the project's progress. It is to make sure that all the current tasks carried out by the team are finished in time. The project's Critical Path is the longest sequence on the network diagram of tasks performed. For all tasks that are involved in a given sequence, it is often defined as having zero slack time. So, if any activity has the slightest delay, it will cause a delay in the overall deployment of the project.

**Figure 2.1: Critical Path**




Source: Wilson (2020)

- **Gant Chart**

A Gant Chart is a visual representation of all of the scheduled overtime activities relevant to your project. They are used for planning initiatives of all sizes and shapes. Since they are an excellent tool to illustrate the work that is planned for a particular day to be completed on a project. They often illustrate the entire tenure of a specific project in one clear perspective. Here are some of the project characteristics that can be monitored on a Gantt chart.

- ✓ A project's start and end dates

- ✓ What are the tasks for the project?
- ✓ Who are the members of the team engaged in each project?
- ✓ Who deals with each individual assignment
- ✓ What is each individual task's duration?
- ✓ How are any of the tasks related or dependent on each other?

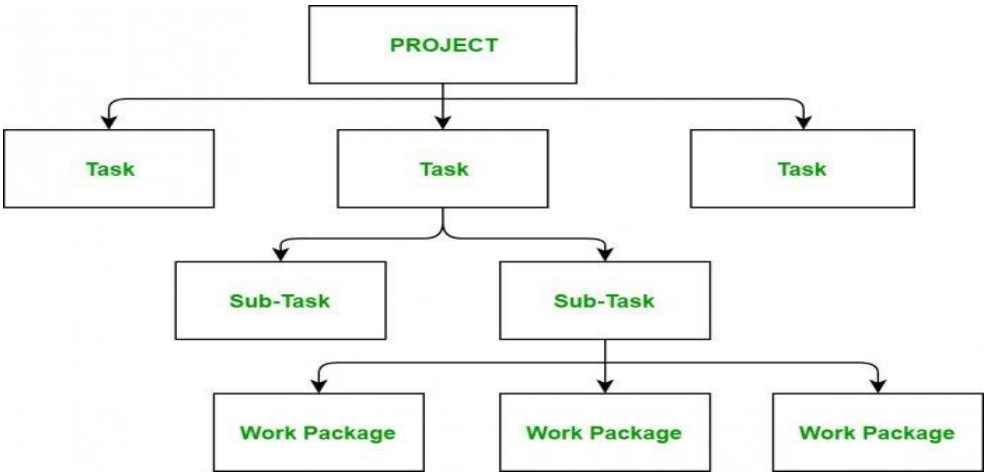
- **PERT**

The project assessment review method, more commonly referred to as PERT, is a type of Network Diagram PM Tool that is also used to evaluate the project's critical path. This approach makes it easier to plan complex tasks while making accurate estimates of each individual activity's length. It is a kind of network diagram, but it is different in that it uses three kinds of predictions rather than just one that is most likely, optimistic and pessimistic.

- **Work Breakdown Structure**

In the project management model, WBS is an amazing tool. It illustrates a hierarchical breakdown of work activities used to define the project's scope. It is also used to define all of the deliverables needed in the project's development.

**Figure 2.2: WBS**




Source: Wilson (2020)

### 2.1.10 Project Planning Challenges

The following are the four major challenges that you must avoid in order to create an optimal project plan, according to Miller (2020).

- **A lack of details:** Make sure that you include every little detail in your strategy so that there will be no project implementation issues.
- **Unclear job roles:** If activities are not carried out by the right executives, the project plan would be unsuccessful. In your strategy for better implementation, describe job roles clearly.
- **No room for changes:** You must keep space for demands for improvement, regardless of whether you are handling in-house or outsourced projects. Higher-ups or customers in their project will want new features, and you must be prepared for such requests.
- **Ineffective risk mitigation strategies:** Projects are vulnerable to threats, so it is important to add project mitigation techniques to the plan. Establish surefire approaches to optimal risk management.

## 2.2 Empirical Literature Review

The theoretical part of this paper demonstrates that project planning is a very important factor for project completion to be successful. If there is no properly defined project plan, it is impossible to determine what is needed for projects to be completed according to the specified budget, cost, time and quality.

When we come to the empirical literature analysis, a paper by Lemma (2014), shows that the consistency of the project plan strongly influences project performance. If it has a well-established plan, the likelihood of completing a given project successfully would be strong. A paper by Sadik (2017), indicates that it is very important to have a properly defined plan and it contributes positively to the success of a project. On the other hand, failing to plan projects properly is the main reason for project failure. A paper by Endalkachew (2018), shows that project planning challenges have an important impact on the success of the project.

With regard to the factor influencing the results of the project, Whittaker (1999), revealed three common reasons for project delays, the first reason being poor project planning or weak project

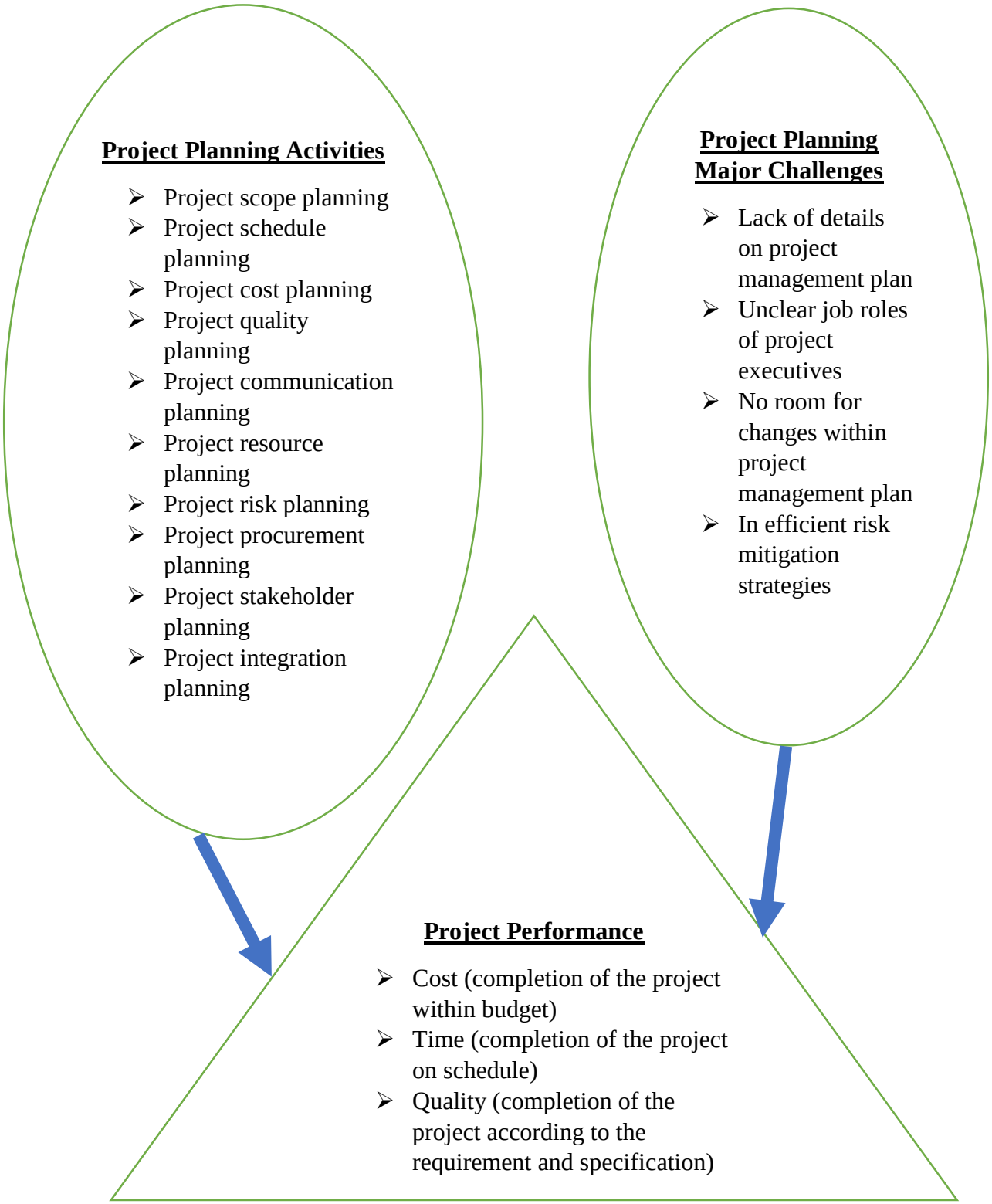
plan. A positive relationship was also reported by Aladwani (2002), between project planning and project results. The relationship between project planning efforts and project performance has also been examined by Dvir, Raz & Shenhar (2003). Their findings showed that the planning activities and overall project progress was strongly correlated.

Research work by [(Whittaker 1999), (Dvir, Raz and Shenhar 2003)] and others has shown that project planning in developing countries is one of the reasons for project failure. According to Idoko (2008), several projects are experiencing substantial time and cost overruns in developing countries, failing to realize their intended benefit or even entirely terminated and neglected before or after completion. The lack of effective planning processes is one of the key factors for the failure of projects in developing countries.

### 2.3 Conceptual Framework

By reviewing theoretical literatures which is related with the study, the researcher developed the conceptual frame work which shows that following of PMI standard project planning practices have a positive impact on project success and on the other hand challenges in project planning process have a negative impact on successful completion of the projects.

**Figure 2.3: Conceptual Framework**




Source: own survey (2021)

# CHAPTER THREE

# 3 RESEARCH DESIGN AND METHODOLOGY

## 3.1 Introduction

This section presents an overview of the research design and methodology which covers the research approach, research design, sources of data, population of the study, method of data collection, method of data analysis and presentation, ethics of the research and, finally reliability of the research.

## 3.2 Research Approach

According to Creswell (2003), mixed methods research approaches offers benefits that compensate for the shortcomings in both quantitative and qualitative research. The researcher has therefore chosen a mixed approach for this study to use the advantages of both approaches for reliable finding by combining.

## 3.3 Research Design

The purpose of this research is to assess the project planning practices and challenges of the organization under study. Descriptive research design is applied to describe what the current project planning practice and challenges looks like under the study organization. The researcher has chosen this design because the major purpose of descriptive research is description of the state of affairs as it exists at present and it reports what has happened or what is happening (Kothari, 2004).

## 3.4 Sources of Data

Primary and secondary data sources are used to gather data for the study. According to Kothari (2004), Primary data are those which are collected a fresh & for the first time & happen to be original in character. Therefore, for this study, Primary data is collected from the respondents based on a structurally designed questionnaire which have included both closed ended and open-ended questions. According to Kothari (2004), Secondary source of data is those which are made available i.e. data which have already been collected & analyzed by someone else. Therefore, for

this study, secondary data collected from company's documents, research findings, articles, reports and other related project publications.

### 3.5 Population of the Study

The target population for this study includes 37 employees of Head Office PMO, Infrastructure Power and Environment PM Section, Fixed Line PM Section, Transport Network PM Section and Wireless and Access Network PM section, who are involved in the planning phase of the projects under the study organization. Therefore, the researcher employed census survey since the target population was manageable.

### 3.6 Methods of Data Collection

In order to succeed the objective of this research, both primary and secondary sources of data were used. The primary data are collected through structured questionnaire, which have included both closed ended and open-ended questions. Questionnaires were distributed to Head Office PMO, Infrastructure Power and Environment PM Section, Fixed Line PM Section, Transport Network PM Section and Wireless and Access Network PM section employees, who are involved in the planning phase of the projects under the study organization. The secondary data was collected by reviewing related company's documents, research findings, articles, reports and project publications.

### 3.7 Methods of Data Analysis and Presentation

The collected data was analyzed both quantitatively and qualitatively. The data collected via questionnaires for close ended questions part, analyzed with descriptive statistics using statistical package for social scientists (SPSS) version 20. While the data obtained with open ended questionnaires part, analyzed qualitatively by bringing the common thoughts of the responses together into a common understanding.

### 3.8 Ethics of Research

The researcher followed ethically and morally acceptable principles throughout the research process. The data were collected with the full permission of the participants and confidentially

without disclosing the respondents' identity. The findings of the research were presented without any deviation from the result of the research.

### 3.9 Reliability of the Research

The reliability of the research has been taken into consideration for ensuring the quality and credibility of the study. The researcher did Cronbach's alpha test to check reliability, of the questionnaire using SPSS version 20.

# CHAPTER FOUR

# 4 RESULTS AND DISCUSSION

## 4.1 Introduction

This chapter deals with the presentation, analysis and interpretation of the data which was gathered from respondents. To analyze the collected data from close ended part of the questionnaires statistical procedures were carried out using SPSS version 20. On the other hand, for open ended questionnaires part qualitative analysis is conducted.

## 4.2 Response Rate

Among the total of 37 questionnaires distributed to Head Office PMO, Infrastructure Power and Environment PM Section, Fixed Line PM Section, Transport Network PM Section and Wireless and Access Network PM section staffs, 34 questionnaires were appropriately filled and returned which gives 92% return rate which is assumed to be suitable for further analysis.

## 4.3 Respondents' Demographics

The background information of the respondents includes gender, age, educational level, position, project related work experience and educational back ground on project management field. Table 4.1 shows the results of frequency analysis for participants' gender,73.5 percent of the respondents were male and the rest 26.5 percent were female.

**Table 4.1 Respondents Gender Description**

| Gender | Frequency | Percent |
|---|---|---|
| Male | 25 | 73.5 |
| Female | 9 | 26.5 |
| Total | 34 | 100.0 |

Table 4.2 shows that age of survey participants which revealed that 23.5 percent were below 30, majority of the respondents were between 31 and 40 and the rest 20.6 percent of the respondents were between 41 to 50.

**Table 4.2 Respondents Age Description**

| Age | Frequency | Percent |
|---|---|---|
| Below 30 | 8 | 23.5 |
| 31-40 | 19 | 55.9 |
| 41-50 | 7 | 20.6 |
| Total | 34 | 100.0 |

Table 4.3 shows educational qualification of the respondents, the first highest number of the participants, 53 percent were first degree graduates and the second highest number of participants were 41.2 percent had MA/MSc. The rest respondents were MBA graduates and BSC + Post graduate diploma which have a cumulative portion of 5.9 percent from all participants.

**Table 4.3 Respondents Educational Qualification**

| Educational Level | Frequency | Percent |
|---|---|---|
| MBA | 1 | 2.9 |
| MA/MSc | 14 | 41.2 |
| BSC + Post graduate diploma | 1 | 2.9 |
| BA/BSc | 18 | 53 |
| Total | 34 | 100 |

Table 4.4 shows current position of the participants; majority of the respondents had Non-Managerial position and the rest 23.5 percent of the respondents had managerial position.

**Table 4.4 Respondents Current Position**

| Position in the organization | Frequency | Percent |
|---|---|---|
| Managerial | 8 | 23.5 |
| Non-Managerial | 26 | 76.5 |
| Total | 34 | 100.0 |

Table 4.5 shows project related experience of the respondents; all of the participants had a project related experience from the minimum of one year to the maximum of more than 15 year and majority of the respondents had from 1 to 3 years' experience on the field.

**Table 4.5 Respondents Project Related Experience**

| Service period in project work | Frequency | Percent |
|---|---|---|
| 1 to 3 years | 17 | 50 |
| 4 to 5 years | 4 | 11.76 |
| 6 to 10 years | 4 | 11.76 |
| 11 to 15 years | 8 | 23.54 |
| Above 15 years | 1 | 2.94 |
| Total | 34 | 100 |

In terms of educational background on project management field, majority of the respondents had project management related back ground and the remaining 29.4 percent of the respondents had no project management related background (Table 4.6).

**Table 4.6 Educational Background of Respondents on Project Management Field**

| Educational background on project management related field | Frequency | Percent |
|---|---|---|
| Have PM back ground | 24 | 70.6 |
| Have No PM back ground | 10 | 29.4 |
| Total | 34 | 100.0 |

Table 4.7 shows respondents level of education on project management field; the first highest number of the participants, 66.7 percent had taken PMP training and the second highest number of participants were second degree graduates. The remaining 8.3 percent had PMP certificate

**Table 4.7 Respondents Level of education who have a background on Project Management field**

| Level of education on PM related field | Frequency | Percent |
|---|---|---|
| MA in Project Management | 6 | 25 |
| PMP certificate | 2 | 8.3 |
| PMP training | 16 | 66.7 |
| Total | 24 | 100 |

### 4.4 Assessing project planning practices by using project planning knowledge areas

Practice of project planning is assessed by taking mean scores of the responses of respondents for each questions under each planning knowledge areas and results are discussed in the following sections. Mean values have been interpreted by adopting the criteria suggested by Moidunny (2009), which is 1 to 1.8 very low, 1.81 to 2.6 low, 2.61 to 3.2 medium, 3.21 to 4.20 high and 4.21 to 5 very high.

According to table 4.8 shown below 2(5.9%) respondents were disagreed that scope management plan was defined and 9(27%) were not sure whether scope management plan was defined or not, however majority of the respondents agreed and strongly agreed that scope management plan was defined, with response rate of 18(53%) and 5(15%) respectively. This indicates that majority of the respondents believed that scope management plan was defined in project planning process of the organization under the study.

In response to the question that was raised to know if requirements were clearly defined, 1(2.9%) of respondents disagreed and 10(29%) of respondents were uncertain, whereas 18(53%) agreed and 5(15%) strongly agreed. Hence, this result shows that majority of the respondents were agreed that requirements were clearly defined.

The same table shows the response of the respondents for the question raised to know if project scope was well defined in the planning phase of the project and out of 34 respondents, 1(2.9%) strongly disagreed,5(14.7%) disagreed and 5(15%) not sure, however 17(50%) agreed and 6(18%) strongly agreed. Therefore, this result shows that majority of the respondents were agreed that project scope was well defined in the planning process of the projects.

Therefore, according to the above explanation the average mean which is 3.73, indicates that scope planning practice was in a good position under the study organization.

**Table 4.8 Practice of Project Scope Planning**

| Project Scope Planning Practice | Strongly disagree | | Disagree | | Neutral | | Agree | | Strongly agree | | Total | | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | n | % | n | % | n | % | n | % | n | % | n | % | |
| Scope management plan was defined | 0 | 0 | 2 | 5.9 | 9 | 26.5 | 18 | 52.9 | 5 | 14.7 | 34 | 100 | 3.76 |
| Requirements were clearly defined | 0 | 0 | 1 | 2.9 | 10 | 29.4 | 18 | 52.9 | 5 | 14.7 | 34 | 100 | 3.79 |
| The project scope was well defined in the planning stage | 1 | 2.9 | 5 | 14.7 | 5 | 14.7 | 17 | 50 | 6 | 17.6 | 34 | 100 | 3.65 |
| **Average** | | | | | | | | | | | | | **3.73** |

As presented by table 4.9 below, all the factors under schedule planning have a mean value from 3.26 to 3.76. This result indicates that project schedule planning practice is well in Ethio telecom projects. The result also in line with document reviews of the project which revealed that schedule planning tasks were well prepared under the study organization.

**Table 4.9 Practice of Project Schedule Planning**

| Project Schedule Planning Practice | Strongly disagree | | Disagree | | Neutral | | Agree | | Strongly agree | | Total | | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | n | % | n | % | n | % | n | % | n | % | n | % | |
| Schedule management plan was defined | 0 | 0 | 4 | 11.8 | 5 | 14.7 | 20 | 58.8 | 5 | 14.7 | 34 | 100 | 3.76 |
| Project activities were well defined | 0 | 0 | 4 | 11.8 | 7 | 20.6 | 17 | 50 | 6 | 17.6 | 34 | 100 | 3.74 |
| Project activities were well sequenced | 2 | 5.9 | 5 | 14.7 | 12 | 35.3 | 12 | 35.3 | 3 | 8.8 | 34 | 100 | 3.26 |
| Duration of activities were determined in the planning phase | 0 | 0 | 7 | 20.6 | 5 | 14.7 | 16 | 47.1 | 6 | 17.6 | 34 | 100 | 3.62 |
| **Average** | | | | | | | | | | | | | **3.6** |

As indicated on table 4.10 below, the results obtained in response of the questions asked regarding with the practice of cost planning, majority of the respondents were believed that project cost was estimated properly in the planning phase and the required budget also determined as the means shows 3.38 and 4.03 respectively. The same table shows for the question raised to know if project cost management plan was defined and the result shows that mean value of 3.18 and this indicates that the organization has not made more attention on this area. The average mean of the cost planning practice which is 3.53 revealed that the organization under the study has a good cost planning practice.

**Table 4.10 Practice of Project Cost Planning**

| Project Cost Planning Practice | Strongly disagree | | Disagree | | Neutral | | Agree | | Strongly agree | | Total | | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | n | % | n | % | n | % | n | % | n | % | n | % | |
| Cost management plan was defined | 1 | 2.9 | 9 | 26.5 | 8 | 23.5 | 15 | 44.1 | 1 | 2.9 | 34 | 100 | 3.18 |
| Project cost was well estimated in the planning phase | 2 | 5.9 | 5 | 14.7 | 6 | 17.6 | 20 | 58.8 | 1 | 2.9 | 34 | 100 | 3.38 |
| The required budget was determined | 0 | 0 | 0 | 0 | 4 | 11.8 | 25 | 73.5 | 5 | 14.7 | 34 | 100 | 4.03 |
| **Average** | | | | | | | | | | | | | **3.53** |

Table 4.11 illustrates that majority of the respondents were not believed that quality management plan was defined in the projects of Ethio telecom as the mean shows 2.85. The result implies that the organization under the study has poor quality planning practices.

**Table 4.11 Practice of Project Quality Planning**

| Project Quality Planning Practice | Strongly disagree | | Disagree | | Neutral | | Agree | | Strongly agree | | Total | | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | n | % | n | % | n | % | n | % | n | % | n | % | |
| Quality management plan was defined | 3 | 8.8 | 10 | 29.4 | 11 | 32.4 | 9 | 27 | 1 | 2.9 | 34 | 100 | 2.85 |

From table 4.12 it can be seen that the average mean result of resource planning practice is 3.47. From the result we can conclude that resource planning practice of the organization under the study is in a good position.

**Table 4.12 Practice of Project Resource Planning**

| Project Resource Planning Practice | Strongly disagree | | Disagree | | Neutral | | Agree | | Strongly agree | | Total | | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | n | % | n | % | n | % | n | % | n | % | n | % | |
| Resource management plan was defined | 1 | 2.9 | 6 | 17.6 | 6 | 17.6 | 15 | 44.1 | 6 | 17.6 | 34 | 100 | 3.56 |
| The resource required (human and physical) for the projects were well prepared | 2 | 5.9 | 5 | 14.7 | 12 | 35.3 | 8 | 23.5 | 7 | 20.6 | 34 | 100 | 3.38 |
| **Average** | | | | | | | | | | | | | **3.47** |

As shown on Table 4.13, most of the respondents were not agreed that communication management plan was defined and communication channels of projects were determined in the planning process of Ethio telecom projects as the average mean score result revealed that 2.84. The result indicates that practice of communication planning is poor under the study organization.

**Table 4.13 Practice of Project Communication Planning**

| Project Communication Planning Practice | Strongly disagree | | Disagree | | Neutral | | Agree | | Strongly agree | | Total | | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | n | % | n | % | n | % | n | % | n | % | n | % | |
| Communication management plan was defined | 2 | 5.9 | 14 | 41.2 | 9 | 26.5 | 9 | 26.5 | 0 | 0 | 34 | 100 | 2.74 |
| Communication channels of projects were determined during planning process | 2 | 5.9 | 11 | 32.4 | 9 | 26.5 | 11 | 32.4 | 1 | 2.9 | 34 | 100 | 2.94 |
| **Average** | | | | | | | | | | | | | **2.84** |

As indicated on Table 4.14, most of the respondents were placed themselves on strongly disagree and disagree scale regarding with the factor of risk management plan was defined, risks were identified and registered, project risk analysis was conducted during planning phase and risk response plan was developed. The average mean of risk planning practice is 2.7 and from this result we can understand that the organization is not paying more attention on risk planning.

**Table 4.14 Practice of Project Risk Planning**

| Project Risk Planning Practice | Strongly disagree | | Disagree | | Neutral | | Agree | | Strongly agree | | Total | | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | n | % | n | % | n | % | n | % | n | % | n | % | |
| Risk management plan was defined | 3 | 8.8 | 12 | 35.3 | 9 | 26.5 | 10 | 29.4 | 0 | 0 | 34 | 100 | 2.76 |
| Risks were identified and registered | 3 | 8.8 | 11 | 32.4 | 12 | 35.3 | 8 | 23.5 | 0 | 0 | 34 | 100 | 2.74 |
| Project risk analysis was conducted during the planning stage | 4 | 12 | 12 | 35.3 | 10 | 29.4 | 7 | 20.6 | 1 | 2.9 | 34 | 100 | 2.68 |
| Risk response plan was developed | 2 | 5.9 | 14 | 41.2 | 13 | 38.2 | 5 | 14.7 | 0 | 0 | 34 | 100 | 2.62 |
| **Average** | | | | | | | | | | | | | **2.7** |

As shown on table 4.15, most of the respondents believed that procurement management plan was defined during planning phase of the projects which are undertaken by Ethio telecom which mean result revealed that 3.41. The result indicates that good project procurement planning practice was in place under the study organization.

**Table 4.15 Practice of Project Procurement Planning**

| Project Procurement Planning Practice | Strongly disagree | | Disagree | | Neutral | | Agree | | Strongly agree | | Total | | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | n | % | n | % | n | % | n | % | n | % | n | % | |
| Procurement management plan was defined | 2 | 5.9 | 3 | 8.8 | 10 | 29.4 | 17 | 50 | 2 | 5.9 | 34 | 100 | 3.41 |

As depicted on table 4.16, Regarding with stakeholder planning practice of the organization under the study the average mean score which is 3.13 revealed that the organization required to made more effort on stakeholder planning practice.

**Table 4.16 Practice of Project Stakeholder Planning**

| Project Stakeholder Planning Practice | Strongly disagree | | Disagree | | Neutral | | Agree | | Strongly agree | | Total | | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | n | % | n | % | n | % | n | % | n | % | n | % | |
| Stakeholder management plan was defined | 2 | 5.9 | 7 | 20.6 | 11 | 32.4 | 14 | 41.2 | 0 | 0 | 34 | 100 | 3.09 |
| key stakeholders were actively involved in planning stage | 0 | 0 | 10 | 29.4 | 10 | 29.4 | 12 | 35.3 | 2 | 5.9 | 34 | 100 | 3.18 |
| Roles of stakeholders were identified during the planning stage | 1 | 2.9 | 7 | 20.6 | 13 | 38.2 | 13 | 38.2 | 0 | 0 | 34 | 100 | 3.12 |
| **Average** | | | | | | | | | | | | | **3.13** |

Regarding with integration planning practice of the organization under study as shown on table 4.17, majority of the respondents believed that project management plan was defined which mean result is 3.65. regarding with the question that was raised to know if project management plan was detailed and easily understandable by every stakeholder and the result shows that mean value of 3 and this indicates that the organization has not made more attention on this part. The average mean which is 3.32 implies that the organization is in a good line on integration planning practices.

**Table 4.17 Practice of Project Integration Planning**

| Project Integration Planning Practice | Strongly disagree | | Disagree | | Neutral | | Agree | | Strongly agree | | Total | | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | n | % | n | % | n | % | n | % | n | % | n | % | |
| Project management plan was defined | 1 | 2.9 | 2 | 5.9 | 10 | 29.4 | 16 | 47.1 | 5 | 14.7 | 34 | 100 | 3.65 |
| Project management plan was detailed and easily understandable by every stakeholder | 1 | 2.9 | 9 | 27 | 16 | 47.1 | 5 | 14.7 | 3 | 8.8 | 34 | 100 | 3 |
| **Average** | | | | | | | | | | | | | **3.32** |

## 4.5 Analysis of Application of Project Planning Tools

As illustrated on table 4.18 below, majority of the respondents believed that work break down is used at the time of planning which mean score is 3.68 and the result implies that the organization under study is in the good position on the application of this planning tools. The result also in line with document reviews of the project which revealed that WBS is used in Ethio telecom projects at the time of planning process.

Regarding with the question that was raised to know if Gant chart is applicable while planning in projects and the result shows that mean value of 3.24. This result implies that the organization is using this tool in project planning process of the company.

In response to the question that was asked to know if network diagram, Critical path method and Program (or Project) evaluation review technique is applicable while planning in projects and the results shows that mean value of 2.68, 2.79 and 2.82 respectively. The result revealed that culture of the organization using those planning tools were poor.

The same table shows that the response of the respondents for the question that was raised to know if project management software is applicable while planning and the result shows that

mean value of 3.12. The result indicated that application of software is not good enough under the study organization.

Therefore, according to the above elaboration the average mean which is 3.05, indicates that the application of project planning tools was not good enough.

## Table 4.18 Application of Project Planning Tools

| Application of Project Planning tools | Strongly disagree | | Disagree | | Neutral | | Agree | | Strongly agree | | Total | | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | n | % | n | % | n | % | n | % | n | % | n | % | |
| Work break down is used while planning | 0 | 0 | 6 | 17.6 | 6 | 17.6 | 15 | 44.1 | 7 | 20.6 | 34 | 100 | 3.68 |
| Gant chart is applicable while planning in projects | 1 | 2.9 | 6 | 17.6 | 13 | 38.2 | 12 | 35.3 | 2 | 5.9 | 34 | 100 | 3.24 |
| Network diagram is applicable while planning in projects | 3 | 8.8 | 10 | 29.4 | 16 | 47.1 | 5 | 14.7 | 0 | 0 | 34 | 100 | 2.68 |
| Critical path method is applicable while planning in projects | 3 | 8.8 | 9 | 26.5 | 15 | 44.1 | 6 | 17.6 | 1 | 2.9 | 34 | 100 | 2.79 |
| Program (or Project) Evaluation and review technique is applicable while planning in projects | 4 | 11.8 | 6 | 17.6 | 16 | 47.1 | 8 | 23.5 | 0 | 0 | 34 | 100 | 2.82 |
| Project management software is applicable while planning | 3 | 8.8 | 5 | 14.7 | 12 | 35.3 | 13 | 38.2 | 1 | 2.9 | 34 | 100 | 3.12 |
| **Average** | | | | | | | | | | | | | **3.05** |

### 4.6 Analysis of Project Planning Challenges in Ethio Telecom

In open ended questionnaires part, the respondents were asked to list the major challenges of project planning process in the company. The researcher identified that out of 34 respondents, 25 of them were tried to describe the challenges they are facing in project planning process under the study organization. In general, the researcher analyzed the response of the respondents by bringing the common challenges of the responses together into a common understanding and assigns a rank on the base of which challenges mentioned most frequently by the respondents. So, the first challenge which is ranked at the top level was project stakeholders planning challenge which is mentioned by twelve respondents. The next one, which is ranked on the second level was, challenges related with project schedule planning, project cost planning and project communication planning, which is mentioned by seven respondents. Challenges related with project scope planning, project integration planning and project planning tools and techniques ranked at 3rd level, which is mentioned by six respondents. The next one which is ranked on the 4th level was challenges related with project risk planning, which is mentioned by five respondents. The 5th one was challenges related with project resource planning which is mentioned by four respondents. The next one was challenges related with project procurement planning which is mentioned by three respondents and ranked at 6th level. The last one was project quality planning related challenge ranked at 7th level which is mentioned by two respondents.

Generally, the following challenges were analyzed by the researcher by categorizing those challenges in to project planning areas.

#### 4.6.1 Challenges Related with Project Scope Planning

In project scope planning process of the organization one of the challenge was poor requirement collection methods/techniques. This was due to lack of effective requirement management in order to collect every single details of the project. This problem leads important projects parts to be missed at the time of execution. The next challenge was difficulty of having clearly defined scope of the project at the planning phase. This was because of lack of adequate sponsorship and stakeholder involvement in the scope planning process. This problem creates scope creep within

projects and repeatedly change of scope for large projects were in place under the study organization.

### 4.6.2 Challenges Related with Project Schedule Planning

One of the challenge under schedule planning process were project implementation was not as per the planned schedule. This was because of the planning lacks consideration of one or many of the conditions for implementing the projects such us; resource readiness, land preparation and paper works. This problem creates schedule over run in the project. The other challenge was unrealistic deadlines for large projects. This was due to the planning lacks considering every details of the project. This problem brings stress within project execution team and also affects the quality of the end result.

### 4.6.3 Challenges Related with Project Cost Planning

In project cost planning, difficulty of getting clear data or information which is required for cost estimation was one of the challenge. This happened due to the project lacks every detail parts of the design. This problem brings un reliable cost estimation of the projects and lack of reliable project cost estimation for large projects were in place under the study organization.

### 4.6.4 Challenges Related with Project Quality Planning

As a company level culture of following quality standard, policy and procedure were weak. This was due to the organization lacks effective project quality management for ensuring that all project activities accurately to design, plan and execute a project in order to meet the required quality expectations. This problem leads the final product to lack the expected quality and customer’s satisfaction.

### 4.6.5 Challenges Related with Project Resource Planning

In project resource planning process of the organization the first challenge was resource calendars were not clearly known in order to estimate the project schedule accurately. This was due to the availability of resources including both human and physical were not properly defined in the calendar. This problem brings a schedule over run in the project. The next challenge was the problem of assigning the right person for the right project. This was because of sufficient time is not spent in analyzing and selecting the required qualified personnel for the job. As a

result of this problem the projects faces difficulty to meet the desired objective. The other challenge was lack of adequate project management training. This was due the required attention was not given by human resource department. This problem leads employees to be frustrated and un happy.

### 4.6.6 Challenges Related with Project Communication Planning

lack of clarity on communication management plan was the first challenge under project communication planning. This was due to the communication management plan lacks how and to whom information is distributed throughout the projects effectively. As a result of this communication gap between key project stakeholder's were in place under the study organization and this leads the projects likely to fail.

### 4.6.7 Challenges Related with Project Risk Planning

Poor project risk management was a challenge under the study organization. This was due to the organization is not made the necessary attention on this area. As a result of this the organization faces difficulty to identify risk areas of the project and to develop risk mitigation strategies in order to tackle risky areas when problems occurred in the organization such us; price escalation, political instability, hard currency problems and others.

### 4.6.8 Challenges Related with Project Procurement Planning

Under procurement planning hard currency problem was the most significant challenge. This problem exists as country level also and due to this the organization was not able to get enough hard currency in order to purchase the required project material on time. This problem leads the schedule date of the projects to be revised frequently.

### 4.6.9 Challenges Related with Project Stakeholder planning

Regarding with stakeholder planning there was a gap in stakeholder engagement planning. This was due to the organization was not identifying key stakeholders properly and also weak in creating a methodology and approach for how the project team will communicate with those stakeholders. As a result of this problem the project teams were not getting adequate top management support. The next challenge was lack of adequate project management knowledge within key stakeholders of the project. This creates miscommunication between the project team

and key stakeholder of the project. The other challenge was difficulty of spending enough time on the planning stage due to the sponsor needs to hurry to the execution part. This leads the projects to execute without detailed and well defined plan. The next challenge was ambitious objectives from the government or high management without taking into account the actual situation on the ground. This problem leads the project team to execute projects with resource constraint.

### 4.6.10 Challenges Related with Project Integration Planning

The most important challenge under integration planning was overall standard project management plan was not clearly defined and communicated. This leads the project team members to have difficulty in executing the project properly. The next challenge was poor interaction between departments i.e. project with another project departments and also project with functional departments. Without a good relationship and support between departments successful result is not expected to achieve. The other challenge was no policy or process was put in place to force the projects to follow the standard project planning practices. This leads the projects to lack following of effective project planning practices. Poor documentation of lessons learned from previously executed projects were the most significant challenge under the study organization. This was due the organization lacks a policy that forces the project team to prepare and document lessons learned at the time of every project completion. This creates the team to lack important lessons from past mistakes and good practices that can be an input for future projects success.

### 4.6.11 Challenges Related with Application of Project Planning Tools

lack of adequate knowledge by the project management team to use project management software (ERP and Microsoft project) was the most significant challenge under application of project planning tools. This was due to lack of sufficient training on planning tools were not planned and provided by human resource department. This problem leads the project team to frustration and also reduces the planning quality of the projects.

# CHAPTER FIVE

# 5 CONCLUSIONS AND RECOMMENDATIONS

## 5.1 INTRODUCTION

This section presents the conclusions derived from the analysis and the recommendations that can help to improve the practice of project planning in Ethio telecom.

## 5.2 CONCLUSIONS

According to the results and data analysis of the study, the following conclusions were drawn.

- According to the data gathered and analysis made, project scope planning is practiced in a good way. however, difficulty of having clearly defined scope of the project at the planning phase, poor requirement collection methods and repeatedly change of scope in large projects were the challenges identified under project scope planning practice of the organization.
- In Ethio telecom projects, project schedule planning practice is good. However, in the schedule planning process, there are also trouble areas which the organization faces, such as; execution of the project is not according to the schedule and unrealistic deadlines for large projects.
- Regarding with project cost planning, the organization under the study has a good practice. even though the practice is good, difficulty of getting clear data or information which is required for cost estimation and lack of reliable cost estimation for large projects were the improvement area which needs an attention from the organization.
- Project quality planning is poorly practiced in Ethio telecom projects. Respondents also mentioned the most significant challenges in this area was, culture of following quality standard, policy and procedure is weak at a company level.
- Project resource planning is practiced well under the study organization. However, problem areas also identified which needs more attention from the organization like; resource calendars were not clearly known in order to estimate the project schedule accurately, the problem of assigning the right person for the given project and lack of sufficient project management training.
- The findings of the study revealed that project communication planning is poorly practiced under the study organization. Problem areas also identified which needs more attention from

the organization like; communication gap between key project stakeholders and lack of clarity on communication management plan.

- Project risk planning is poorly practiced under the study organization. The finding revealed that risk management plan was not defined well, risks were not properly identified, registered and prioritized and also risk response plan was not carefully conducted. Poor risk management is the improvement area which needs more attention from the organization under the study.
- Project procurement planning is practiced well in Ethio telecom projects. However, hard currency problems for procuring project materials were the main challenge which is identified here.
- Stakeholder planning is not practiced good enough. challenges were identified which needs more attention from the organization like; lack of adequate project management knowledge and skill with in key stakeholders of the project, there is not enough time spent on the planning stage because the sponsor needs to hurry through the execution part, gap in stakeholder engagement planning, lack of adequate top management support, ambitious objectives from the government or high management without taking into account the actual situation on the ground and challenges of team work.
- Project integration planning is practiced well under the study organization. Improvement areas also identified which required more attentions like; overall standard project management plan was not clearly defined and communicated and poor interaction between departments i.e. project with another project departments and also project with functional departments, inadequate documentation of lessons learned from previously executed projects and no policy or process was placed in place to force the projects to follow standard project planning practices.
- Regarding with project planning tools, WBS and Gant chart is used in planning process of the organization under the study in a limited manner. Whereas Network diagram, Critical path method, Program (or Project) Evaluation and review technique and Project management software were poorly practiced. lack of adequate knowledge by the project management team to use project management software (ERP and Microsoft project) is the most significant challenges here.

## 5.3 RECOMENDATIONS

So as to improve the practice of project planning and to tackle problem areas in planning process of Ethio telecom projects, the researcher recommended the following major points.

- At early stage of the projects key stakeholders must be identified along with their level of power and influence. Every stakeholder who are involved in the planning phase of the project must work closely in order to create well organized and attainable project plan.
- A great concern must be given to risk planning by identifying risky areas in the project, registering and prioritizing them and finally by developing the risk response plan which can reduce or eliminate any threats of the project.
- Even though some planning tools are applied in a limited manner by the organization still more effort is required to use extensively.
- In the planning phase of the project, the organization must develop communication management plan to identify how the information will be communicated to team members, sponsors, stakeholders, customers and every single person involved in the project and also which communication channels will be used.
- The great concern must be given for project quality planning by identifying quality requirements of the project, which standards supposed to comply with and in what manner.
- Advanced project management training need to be provided for those who are involved in the planning phase of the project in order to increase their effectiveness in following standard project planning practices and to use project planning tools effectively.
- The company must have standard policy, process and procedures that must guide those staffs who are involved in the planning phase of the project.
- The company must develop a culture of documenting lessons learned from previously executed projects.
- In assigning the right person for the right project, the organization must pay attention, because successful project execution is not feasible without the appropriate personnel in place.
- For successful outcome, interaction between project with project and also project with functional departments must be improved.

- Sufficient time should spend on planning stage due to the phase is very critical for successful outcome of the project and top management also need to be aware of this.
- Team work culture must be developed in the organization through creating awareness about the advantage of team work for successful outcome.
- Top managements must be supportive for the issues which needs their support and involvement in order to create a good project management plan.
- In the process of scope definition, schedule estimation and cost estimation, the organization must pay special attention to large projects, as the study showed that these problems were in place for large projects.
- From the findings it is observed that scope planning, schedule planning, cost planning, resource planning, procurement planning and integration planning, somewhat practiced in line with PMI standard project planning practices. But still more effort is required from the organization to make the practice more effective in creating well organized and attainable project management plan.
- The researcher suggests that other project planning processes and practices be included for further study, as this study focused only on project planning processes which are defined on PMBOK.

## References


Aladwani, A.M. (2002), "IT project uncertainty, planning and success. An empirical investigation from Kuwait", Information Technology & People, Vol. 15, No.3, pp.210 –226

Basnyat, M, 2019, 4 types of planning, viewed on 20 Sep 2020, available on: https://manojbasnyat7.medium.com/4-types-of-planning-a811da446a5e

Creswell, J. W. 2003. Research design: Qualitative, quantitative, and mixed methods approaches 2nd edition. Thousand Oaks, CA: Sage.

Dvir, D., Raz, T. and Shenhar, J. (2003). An empirical analysis of the relationship between project planning and project success. International Journal of Project Management, 21(2): 1–7

Elizabeth, L and Richard, L, 10 steps to creating a project plan, viewed on 25 Sep 2020, available on: https://www.projecttimes.com/articles/10-steps-to-creating-a-project-plan.html

Endalkachew Tadesse (2018), a research paper on Practice and Challenges of Project Planning: the case of Satcon Construction Company Head Office in Addis Ababa Ethiopia

Ethio Telecom (2013), Ethio Telecom Company Profile Draft, Addis Ababa

Idoko, L. A. (2008) Developing local capacity for project management – key to social and business transformation in developing countries PMI global congress 2008. Project management institute

Johnson, J., Karen, D., Boucher, K. C. & Robinson, J. (2001). Collaborating on Project Success. Software Magazine

Knutson, J. and Bitz, I. (1991), Project Management, (1st edition), How to Plan and Manage Successful Projects.

Kerzner, H. (2006). Project Management: A Systems Approach to Planning, Scheduling and Controlling. 9th edition, John Wiley and Sons.

Kothari, C.R. (2004), Research Methodology, Methods and Techniques .2nd ed., New Delhi, New Age International, Ltd., Publishers, ISBN (13)

Lester, A. (2003), Project Planning and Control, (4th edition), Elsevier Butterworth-Heinemann.

Meredith J. R. and Mantel S. J. (2006). Project Management - A Managerial Approach. (6th Edition), John Wiley and Sons.

Milner, D, 2020, major challenges that you must avoid while planning, viewed on 20 Oct 2020, available on: https://www.quora.com/What-are-key-challenges-in-project-planning

Moidunny, K. (2009). The effectiveness of the national professional qualifications for educational leaders (NPQEL), Bangi: The national university of Malaysia.

Morris, P. W. G. (1998). Key issues in project management. In J. K. Pinto (ed.), Project Management Institute, Project management handbook.

Muslihat, D, 2017, 10 project planning best practices, viewed on 30 Sep 2020, available on: https://zenkit.com/en/blog/10-project-planning-best-practices/

Pinto, J. F. (2013). Lies, demned lies, and project plans: Recurring human errors that can ruin the project planning process. Business Horizons, Vol.56, No.5; pg.643-653

Pinto, J. K. & Slevin, D. P. (1988). Critical Success Factors across the Project Life Cycle. Project Management Journal, 19, 3, 67-75

PMI (2017), A guide to the project management body of knowledge, (Sixth Edition), Project Management Institute, Newtown Square, PA

PMI (2008), A Guide to the Project Management Body of Knowledge, (4th Edition), Project Management Institute, Newtown Square, PA

PMI (2013), A Guide to the Project Management Body of Knowledge, (5th Edition), Project Management Institute, Newtown Square, PA

Richard A. (2012), Project Planning Techniques, Management Concepts, Vienna, VA

Richardson Gary L. and Jackson Brad M. (2019), Project Management Theory and Practice, 3rd edition, Taylor and Francis Group.

Sadik Mohammed (2017), a research paper on the Project Planning Practices of Addis Ababa Housing Project in the sites Project14, Project13, Kilinto and Head office

Slevin D.P. and Pinto, J.K (1986), “The project implementation profile: new tool for project managers”, Project Management Journal, Vol. 17 No.4, 1986, pp.57–70

Tekalign Lemma (2014), a research paper on the role of project planning on project performance in Ethiopia

Thomas, M., Jacques, P. H., Adams, J. R. & Kihneman-Woote, J. (2008). Developing an effective project: planning and team building combined. Project Management Journal

Wang, Y.-R. & Gibson, G. E. (2008). A study of pre-project planning and project success using ANN and regression models. In The 25th International Symposium on Automation and Robotics in Construction

Westland, J. (2006), The Project Management Life Cycle a Complete Step by Step Methodology for Initiating, Planning, Executing and Closing the Project. London: Cambridge University Press

Whittaker, Brenda (1999), “What went wrong? Unsuccessful information technology projects”, Information Management & Computer Security, Vol. 7, No.1, pp. 23- 29

Wilson, F, 2020, what are the project management tools for effective project planning, viewed on 15 Oct 2020, available on: https://www.ntaskmanager.com/blog/project-management-tools-for-effective-project-planning/

## APPENDIX 1 QUESTIONNARIE


**Addis Ababa University**

**School of Commerce**

**Master of Project Management Program**

**Questionnaire to be filled by respondents**

**Dear Respondents:**

The title of this project work is **"Assessment of practice and challenges of project planning in Ethio telecom''**

The purpose of this questionnaire is to collect information for the study that assesses the practice and challenges of project planning in Ethio telecom. The study is a requirement for achieving master degree. Your response to each question is indispensable for the effectiveness of this study. The student researcher would like to assure you that your response to the questionnaire would be kept confidential and it has no intention except for academic purpose. Please don't write your name or any personal identifier on the questionnaire. For any clarification needed, please contact me on the below Telephone number.

Thank you in advance for your co-operation.

Kind Regards

Melekamu Metaferia

Mobile:-0911510430

**PERSONAL DETAILS OF THE RESPONDENT**

1. Gender:
   Male [ ] Female [ ]
2. Age:
   Below 30 [ ] 31-40 [ ] 41-50 [ ] above 50 [ ]
3. Educational Level:
   PHD [ ] MA/MSc [ ] BA/BSc [ ] Diploma [ ]
   If other, please specify_____
4. Position in the organization:
   Managerial [ ] Non-Managerial [ ]
5. Service period in the project work (in year) _____
6. Do you have educational background on project management field?
   Yes [ ] No [ ]
7. If your answer for question No. 6 is yes, specify the type_____

**Instructions:** Please tick [√] in the provided space which is the most suitable using the given scale. Please also answer all the questions considering the projects you are participated to enhance the objectivity of the project work.

| **No** | **Description** | **Scale** | | | | |
|---|---|---|---|---|---|---|
| | | **Strongly disagree** | **Disagree** | **Neutral** | **Agree** | **Strongly agree** |
| 1. | Scope management plan was defined | | | | | |
| 2. | Requirements were clearly defined | | | | | |
| 3. | The project scope was well defined in the planning stage | | | | | |
| 4. | Work break down is used while planning | | | | | |
| 5. | Schedule management plan was defined | | | | | |
| 6. | Project activities were well defined | | | | | |
| 7. | Project activities were well sequenced | | | | | |
| 8. | Duration of activities were determined in the | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | planning phase | | | | | |
| 9. | Cost management plan was defined | | | | | |
| 10 | Project cost was well estimated in the planning phase | | | | | |
| 11 | The required budget was determined | | | | | |
| 12 | Quality management plan was defined | | | | | |
| 13 | Resource management plan was defined | | | | | |
| 14 | The resource required (human and physical) for the projects were well prepared | | | | | |
| 15 | Communication management plan was defined | | | | | |
| 16 | Communication channels of projects were determined during planning process | | | | | |
| 17 | Risk management plan was defined | | | | | |
| 18 | Risks were identified and registered | | | | | |
| 19 | Project risk analysis was conducted during the planning stage | | | | | |
| 20 | Risk response plan was developed | | | | | |
| 21 | Procurement management plan was defined | | | | | |
| 22 | Stakeholder management plan was defined | | | | | |
| 23 | key stakeholders were actively involved in planning stage | | | | | |
| 24 | Roles of stakeholders were identified during the planning stage | | | | | |
| 25 | Project management | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | plan was defined | | | | | |
| 26 | Project management plan was detailed and easily understandable by every stakeholder | | | | | |
| 27 | Gant chart is applicable while planning in projects | | | | | |
| 28 | Network diagram is applicable while planning in projects | | | | | |
| 29 | Critical path method is applicable while planning in projects | | | | | |
| 30 | Program (or Project) Evaluation and review technique is applicable while planning in projects | | | | | |
| 31 | Project management software is applicable while planning | | | | | |

32. List the major challenges of project planning in your organization?

_____
_____
_____
_____
_____

## APPENDIX 2 RELIABILITY TASTE TABLE

Reliability taste table for the overall questions regarding with the project planning practice of the organization under the study is described below.

| Cronbach's Alpha | N of Items |
|---|---|
| .937 | 31 |