



**AN ASSESSMENT OF PROJECT MANEGMENT OFFICE  
ROLE AND TYPE IN ETHIO TELECOM**

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**Addis Ababa, Ethiopia**

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**ADDIS ABABA UNIVERSITY**  
**GRADUATE STUDIES PROGRAM**  
**MASTER OF ARTS IN PROJECT MANAGEMENT**

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TYPE IN ETHIO TELECOM**

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**DECLARATION**

I, the undersigned, declare that this research paper is submitted to the Partial Fulfillment of Master of Art Degree in Project management (MA). And it is my original work, and this work has not been previously formed as the basis for the award of any academic Degree or Diploma Program in this or any other institution. Any materials borrowed from other sources, whether published or unpublished have been properly cited and acknowledged in accordance with appropriate academic conventions.

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## **ABSTRACT**

*The Project Management Office (PMO) has recently become a vital business unit in many organizations worldwide and is critical to the success of project management functions in many organizations. It also the new phenomena to our country project management culture. This research project has been developed with the aim of studying the project management office role and type in ethio telecom. The study conducts in-depth literature review on Project Management Office. The PMO has different roles and responsibilities, type, structure, staff numbers, and maturity level and these factors often vary between organizations depending on the needs of organization itself. The accurate identification of the PMO roles and type is important as some organizations might spend money and resources on establishing PMOs that don't satisfy their needs and requirements. To achieve the objectives of this research, a mixed research methodology that involved mixed approaches have been used studying the existing ethio telecom PMO roles, type, structure and maturity. The data collection uses semi-structured interview questions and questionnaires as a primary data gathering sources and organizational documents and reports as secondary data sources. The outcomes of this research show that ethio telecom needs significant modifications and designs to its project management office and its roles and type were contradicted with the concept of program/project management office. The research recommended some recommendations that might help to modifying its roles and responsibilities, staffing appropriate employees and empowering this PMO in the company and helping to achieve more projects performance enhancement.*

**Keywords:** *Project Management Office, Roles of the PMO, PMO type and Structure*

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## **ABRIVATIONS**

ETHIO.....ETHIO TELECOM

PMBOK .....PROJECT MANAGEMENT BODY OF KNOWLEDG

PMI.....PROJECT MANAGEMENT INSTITUTE

PMO.....PROJECT MANAGEMENT OFFICE

PO.....PROJECT OFFICE

SPPMO.....STRATEGIC AND PROGRAN/PROJECT MANAGEMENT  
SUPPORT OFFICE

TEP.....TELECOM EXPANSION PROGRAM

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## **Chapter one: Introduction**

### **1.1 Back ground of the study**

We are living in dynamic world, rapid changes and increasing globalization are making unprecedented demands on new markets, create new products and access new expertise. For this demand project management is powerful tool to tackling such assignments.

While the project management was studied in details during the last few decades, many of the projects performance and/or achievement were not satisfactory in terms of achieving the project objectives within the planned duration and/or the allocated budget and may lead to a project failure This unsatisfactory projects performance tended to increase with the recent increment of the projects number due to the boom in many businesses such as IT, telecommunications, real estate...etc, and drastically was affected by the complexity of some of these projects (Dai & wells 2004).

Accordingly, many researchers tried to find out the reasons of the insufficient projects performance, how to improve these projects achievement, and how to reduce the chances of its failure. Out of many possible reasons of this failure, it was highlighted by Gardiner (2005) that limited resources may be considered as the most significant cause of organizations' failure in managing the complexity and change especially when these resources are required to be pooled between the organization normal operations and the projects. Due to the big number of the concurrent projects in the organization or the high complexity of some of the projects, program/project managers seek for a support in managing these limited resources and for proper implementation of project management principles, processes, and practices which can have a significant impact on organizations: time to market, cost to market Product and service quality to market, and Customers' recognition of enterprises as a world-class leader. These are some of the driving forces influencing enterprises to establish project management office as an enterprise-level.

The Project Management Institute (2013) mentioned in the PMBoK that the project management office (PMO) can help the project managers in several means that may include the resources management by sharing or reallocating these resources across the projects which are under the direction/custodian of the PMO. The Project Management Office (PMO) is one of the most important ways of supporting the project managers in managing their projects in such ways to improve these projects performance and reduce or avoid failure, while on the other hand "the PMO will be responsible for the oversight of all projects" (Levine 2005, p. 55).

The Project Management Offices (PMOs) might be considered as the normal evolution of the projects management in any organization when the project management becomes a normal part of the organization's business. It gives organizations the ability to achieve consistently successful results across their entire projects and it is a valuable tool to support and to increase the controlling of problems. Without an adequate control process most organizations are exposed to an increased potential for project failure. As both the complexity and the number of projects grow, there is an increased probability of experiencing interrelated problems (Levine 2005). Especially for project-based organizations and for organizations with large capital investment manly affected by this problem. Without proper oversight there is an elevated risk of implementing interrelated activities that consume project resources without any appreciable added value to the organization.

### **1.2 Back ground of the company**

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, Ethio-Insurance, and the Ethiopian Shipping Lines. It established as a public enterprise on 29th day of November 2010 as per the Council of Ministers Regulation No. 197/2010. The company aims to provide next generation network services based on a world class standard information technology services and to build a competent next generation network- based workforce with appropriate knowledge, skill, attitude, and work culture.

Since its establishment as ethio telecom, the company has registered several accomplishments required to transform the company to a level expected from a competent and modern telecom service provider. Ethio telecom was managed, on a management contract arrangement from 2010 to 2013 June, by France Telecom, and was required to comply with Ethiopian Government orders. The government said it outsourced the management as ETC was not able to meet the demands of the fast-growing country. It also said that telecommunications services would not be privatized, at least not in the near future. Ethio telecom generates revenue of over US\$ 300 million for the Ethiopian government, and was dubbed a "cash cow" by the current Prime Minister Hailemariam Desalegn. So far, it has availed full range of coherent telecom Products and Services for all markets and segments, undertaken high level capacity building programs within very short period of time, tried to curb recurrent quality of service problems, launched the first professional Call Centre in Ethiopia.

### **1.2.1 Brief Historical Review of Telecom Sector in Ethiopia 1894-1942**

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 this particular period, the telecom has 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 Menelik 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.

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

- ❖ 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.

### ***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, a Regional office was created at Addis Ababa. And at the same time, Radio Division was created separated from the receding Technical Division bringing the number of Division Offices to seven during the same period.

### **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.

### **Under the Federal Democratic Republic of Ethiopia**

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.

### **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. It established as a public enterprise on 29th day of November 2010 as per the Council of Ministers Regulation No. 197/2010. The company aims to provide next generation network services based on a world class standard information technology services and to build a competent next generation network- based workforce with appropriate knowledge, skill, attitude, and work culture.

Since its establishment as ethio telecom, the company has registered several accomplishments required to transform the company to a level expected from a competent and modern telecom service provider. Ethio telecom was managed, on a management contract arrangement from 2010 to 2013 June, by France Telecom, and was required to comply with Ethiopian Government orders. The government said it outsourced the management as ETC was not able to meet the demands of the fast-growing country. It also said that telecommunications

services would not be privatized, at least not in the near future. Ethio telecom generates revenue of over US\$ 300 million for the Ethiopian government, and was dubbed a "cash cow" by the current Prime Minister Hailemariam Desalegn. To achieve the Growth and Transformation Plan (GTP) the company undertakes telecom expansion program (TEP) with the collaboration of international organizations.

### **1.3 Statement of the problem**

The effort and money spent in implementing PMOs has made a big difference in the level of success achieved in executing projects and programs. Organizations have a PMO for one or more of the following reasons: 1) To reduce the risk of projects failing to deliver to time, cost and quality targets 2) To increase the success of projects and programs in delivering the business value expected 3) To make more efficient use of project resources by using a "shared service" 4) To make more effective use of scarce skills and resources across projects and programs (John 2013).

Based on the above one or more reasons Ethio telecom has its own PMO. This PMO established by France Telecom at the time of management reform. Ethio telecom is the only telecom service provider company in the country by having more than 55,761,398 customers. In order to serve these customers properly, to increase the number of customers and to expand the accessibility of telecom services all over the country major program was planned and launched with huge investment during the last few years. The huge investment that was planned to achieve the company ambitious goal were telecom expansion program in 2013, and implemented with the help of experts' consultancy from France Telecom and construction agreement with vendors like HUAWEI, ZTE and Ericson. Even though there is no a compiled report for program/project closer and its success ,currently as the company announcement ethio telecom was finished its huge first round telecom expansion program. In this program there were different problems which identified by the researcher preliminary study. The pilot study, it was evident that the expansion program has problems which could be addressed by PMO, the problem of

- Managing project documentation archives.
- Standardized report forms and Developed and implemented project tools (methodology).
- Managing a database of lessons learned and managing a risk database
- Maintaining a project workbook or library
- Identifying and documenting best practices.

- Track and record changes made to project requirements.
- Develop competency in personnel, including training and Enhance team development...etc.
- Quicker access of higher quality data that is centrally stored
- Support for project management practices and program/project managers

But having a PMO does not by itself increase program/project success therefore the researcher interested to study the application of the PMO concept as a tool to enhancing her organization's program/projects performance and to avoid projects failure and dalliance. Therefore the researcher tried to study ethio telecom's PMO types and its roles.

### **1.4Research questions**

The main question of this research was what are the major problems of program/project management office in ethio telecom which bottlenecked to apply important project management office's concepts in the organization program/project management?

Specifically the researcher was seeks to answered the following research questions after collecting and analyzing the data.

**RQ1.** What are the problems of project management office which hinders to attain its goal and objective?

**RQ2.**Is the organization chooses the proper type and structure of project management office?

**RQ3.**What roles and functions is the PMO mandated with?

### **1.5Objective of the study**

The general objective of this study was to study the PMO and the suitability of applying their principles in ethio telecom and to show the existing PMO's problems to improve its application in the process of program/project management for the concerned body of the company.

The specific objectives of this research were to try:

- ❖ To identify the PMO's structure and roles and functions in organization.
- ❖ To identify the most common PMO types in this organization.
- ❖ To discover the gap and limitation of ethio telecom PMO.

## 1.6 Significance of the study

The researcher believes that the result of this study would have the following contribution

- 1) It would serve as good sources of information for the organization managers regarding the existing project management office problems and limitations to improve projects achievement, and to reduce the chances of its failure
- 2) It would also help managers to improve the PMO efficiency.
- 3) Furthermore, it may inform the decision maker to implement the suitable roles and responsibility that matches with their organizations' strategies and projects' sizes and types.
- 4) It would also help the member of PMO to achieve their personal goals by identifying their role and responsibility.
- 5) In addition to this the study may become useful for further study to those who want to undertake more research in this area.
- 6) It defines and communicates the PMOs' roles and responsibilities across the organization for optimizing the knowledge sharing.

## 1.7 Definition of terms and concepts

The following section defines terms and concepts used throughout this study

- **Function:** - An activity that is natural to or the purpose of a person or thing.
- **Maturity:** - The state, fact, or period of being mature
- **Project:** - is a temporary endeavor undertaken to create a unique product, service, or result (PMI 2013, p. 3)
- **Project Management** supports the execution of an organization's competitive strategy to deliver a desired outcome (such as fast time-to-market, high-quality and low-cost products) as one of the key business processes that enable companies to implement value delivery systems (Milosevic & Srivannaboon, 2006, p. 99).
- A **Project Manager** is the person responsible for managing a project (Project Management Institute, 2013).
- **Project management office (PMO):** - is a management structure that standardizes the project-related governance processes and facilitates the sharing of resources, methodologies, tools, and techniques. (PMI 2013, p. 3)
- **Project Portfolio Management** is the activity of aligning resource demand with resource availability to achieve a set of strategic goals (Jamieson & Morris, 2004).

- **Role:** - The function assumed or part played by a person or thing in a particular situation.
- **Structure:** - The arrangement of and relations between the parts or elements of something complex.
- **Type:** - A category of people or things having common characteristics

### **1.8 Scope of the study**

Delimitation of a research study explains how the scope of the study is focused on one specific area. The assessment of Project management office can be seen from different perspectives. However, this research was limited to assessing the existing project management office problem and its type and role in ethio telecom. The study also had delimited to members of PMO how are currently working in ethio telecom head office. And it focused on ethio telecom project management office at the head office.

### **1.9 Limitation of the study**

The study had some limitations that was not explored all the existing information. Since it was focused on assessing the gap of existing PMO, thus there were not sufficient background information about the subject matter that can highly support the study because project management is newly emerged business filed for the world relative to others and also for our country . And also the hugeness of the organization affects to accesses all available data in the organization. Therefore, the availability of relevant data was influenced the study. Since the study needed sufficient data to attained its objective and it needed some amount of fund to collect and analyzed the data. Thus, the lack of finance and time and fear of respondents to respond questioner and interview genuinely due to secure reasons were other expected constraints to conduct this research.

### **1.10 Organization of the Research Report**

This paper comprised five chapters in which the first part illustrates the study backgrounds, statements of the problem, basic research questions, objectives, significance, scope and limitation of the study and the second chapter deals with review of related literature and the third chapter describes research design and methodology of the study and the analysis used, results and discussion would be discussed in the fourth chapter, finally the last chapter will be dealing with the research conclusion and recommendations.

## **Chapter two: Literature review**

This chapter presents the literature review on project management office. The chapter was organized in three sections. Section 2.1 presented the theoretical review; this was followed by a review of the empirical evidence about the importance of project management office in section 2.2 finally section 2.3 Presented the conceptual framework of this study.

### **2.1 Theoretical overview**

To elaborate the concept of PMO we have to look some literatures. Although the concept of a project management office (PMO) or project office (PO) has been around for many years, the functions, purposes, and definitions of these offices have changed over time. At the end of the 1990s and the beginning of the 2000s, the theme of project management offices (PMOs) was beginning to be widely discussed in various books (Block & Frame, 1998; Dinsmore, 1999; Bolles, 2002; Crawford, 2002; Englund, Graham, & Dinsmore, 2003; Kendall & Rollins, 2003; Hill, 2004; Williams & Parr, 2004; Letavec, 2006). Studies are more recent in academic literature (Dai & Wells, 2004; Hobbs & Aubry, 2007; Aubry, Hobbs, & Thuillier, 2008; Hurt & Thomas, 2009), and their conclusions about the contribution or value of PMOs are “ambiguous” (Taylor 2011).

PMO evolved from a PO that was responsible for one project or program to the more multi-project management scenarios currently found. The PMO keeps evolving and changing as the needs of industry change and as new principles and methodologies are developed. It is therefore necessary for a PMO to change and adapt continually to an organization’s needs in order to remain valuable. Currently, the project management discipline is involved in a wide variety of industries. (J. van der Lined & H. Steyn, 2016)

Nevertheless, due to the need of innovation to compete and sustain in the market while needs to shortening the time of introducing the product or service to the end user (Schumpeter 1950 cited in Aubry, et al., 2008), organizations had to increase the existing project’s number. This existing projects’ number increment led to complicating the process of managing these multi-projects at the same time (Aubry, Hobbs & Thuillier 2007). It was recently noticed that an increment in recognizing the multi-project management issues as it became serious for companies, even though most of the researches still reviewing and studying single projects management (Unger, Gemünden & Aubry 2012).

Recently, many researchers studied these issues and tried to find ways to improve the multi-project management achievement. Aubry, Hobbs and Thuillier (2007) agreed with Dai and

wells (2004) on that the project management office (PMO) might be considered as one of the most important methods to improve the organization's performance in managing multi-projects to achieve the organization's strategic objectives. It was claimed by Aubry, Hobbs and Thuillier (2007) that PMOs shouldn't be treated as separate entities in companies anymore, they may be considered as a gate for studying and applying the basis of the organizational project management. Where PMO was pointed out as one of the organization's entities those "form a complex web of relationships working in a network-like form visible on the organization chart" to achieve the organization's strategic objectives "through projects in order to maximize value" (Aubry, Hobbs & Thuillier 2007, p. 332).

### **2.1.1 What is PMO?**

The Project Management Institute (2013) defined the PMO as "a management structure that standardizes the project-related governance processes and facilitates the sharing of resources, methodologies, tools, and techniques" (p.10), and they stated that its responsibilities vary from providing project management support to having real responsibilities for managing projects directly. While others have defined it as "an organizational entity established to assist project managers, teams and various management levels on strategic matters and functional entities throughout the organization in implementing project management principles, practices, methodologies, tools and techniques".

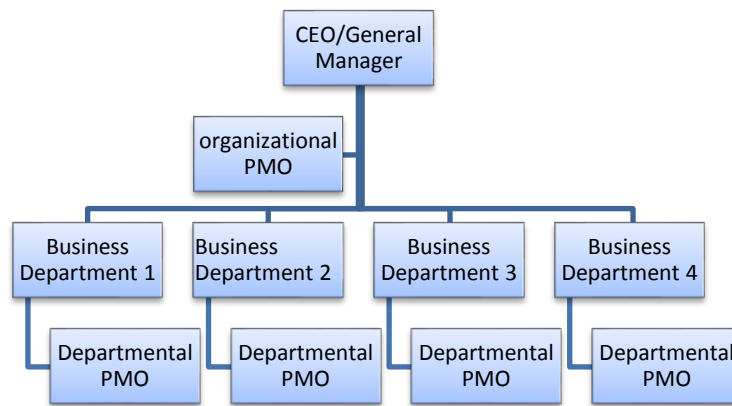
Some researchers have mentioned that there is no specific definition for the PMO, and other mentioned that the PMO roles include leadership and achievements (Taylor 2011). On the other hand PMO is "the department or group that defines and maintains the standards of process, generally related to project management, within the organization. The PMO strives to standardize and introduce economies of repetition in the execution of projects. The office is also the source of documentation, guidance and metrics on the practice of project management and execution" (Pole to Pole Communications).

The terminologies used to indicate the PMO vary between organizations based on its roles and maturity as it is called *Project Office* for low mature PMOs and *Project Management Office* for standard PMOs, and *Program/ Portfolio Management Office* or *Enterprise Project Office* for high level PMOs (pmsolutions 2011). The pmsolutions 2012 has mentioned that there are new terminologies used for the PMO as Strategy Management Office or the Planning and Innovation Office. However the global known name for this business unit is

Project Management Office. As Project Management Solutions (2011) has mentioned that PMO is now seen as change agents within some organizations and that it is taking a higher role from being not only divisional to be enterprise PMO.

Accordingly, the PMO can be for a specific project or program, or for some departments such as Information Technology, or it can be at the organizational level, while in big size organizations, there can be multiple PMOs at different level within organization (Duggal 2007) as illustrated in Figure 2.1. However in multiple levels PMOs, the organizations should have a **central/ organizational PMO** that have all related data and information about the projects and portfolios

Figure (2.1): Multiple Levels PMOs



(Source: Duggal 2007)

The PMO can have centralized or decentralized modes, and each of them have their own advantages and disadvantages and can be suitable according to the purpose of the PMO which are illustrated in Table (2.1) Shamur (2009).

Table (2.1): Advantages and Disadvantages of Centralized MO

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>● <b>Improve project standardization in the organization.</b></li> </ul>	<ul style="list-style-type: none"> <li>● It move too slowly when it came to small in house projects</li> </ul>
<ul style="list-style-type: none"> <li>● <b>Improve the reporting for upper management</b></li> </ul>	<ul style="list-style-type: none"> <li>● Not get full cooperation from the functional mangers</li> </ul>
<ul style="list-style-type: none"> <li>● <b>Improve professionalism of project managers</b></li> </ul>	<ul style="list-style-type: none"> <li>● Limited sometimes by its own standards</li> </ul>

(Source: Shamur 2009)

### 2.1.2 Different types of PMO

PMI (2013) claimed that based on the degree of control and the effect on projects, PMOs may occur in organizations in different types:

- ❖ **Supportive:**-PMOs provide a consultative role to projects by supplying templates, best practices, training, access to information and lessons learned from other projects. This type of PMO serves as a project repository. The degree of control provided by the PMO is low.
- ❖ **Controlling:** - PMOs provide support and require compliance through various means. Compliance may involve adopting project management frameworks or methodologies, using specific templates, forms and tools, or conformance to governance. The degree of control provided by the PMO is moderate.
- ❖ **Directive:** - PMOs take control of the projects by directly managing the projects. The degree of control provided by the PMO is high

On the other hand Harold Kerzner (2009) also classifies PMO types into three which are commonly used in companies;

- ❖ **Functional PO:** This type of PO is utilized in one functional area or division of an organization, such as information systems. The major responsibility of this type of PO is to manage a critical resource pool, that is, resource management. The PMO may or may not actually manage projects.
- ❖ **Customer Group PO:** This type of PO is for better customer management and customer communications. Common customers or projects are clustered together for better management and customer relations. Multiple customer group POs can exist at the same time and may end up functioning as a temporary organization. In effect, this acts like a company within a company. This type of PMO will have a permanent project manager assigned and managing projects.
- ❖ **Corporate (or Strategic) PO:** This type of PO services the entire company and focuses on corporate and strategic issues rather than functional issues. If this type of PMO does management projects, it is for cost reduction efforts.(p,958)

Dinsmore (1999, cited in Hobbs & Aubry 2010) was one of the first researchers who sorted the PMOs into four types, one type of them for the single-project entity and three types for the multi-projects entities, since then, many other researchers sorted the PMOs into three or four types

‘**Single-project Entities**’ as explained by Dinsmore (1999), Crawford (2002), and Garfein (2005, cited in Hobbs and Aubry 2010) is the simplest shape of the project management office which consists of a project team who are dedicated to run and manage a single project by focusing on scheduling and reporting the progress of this single project’s activities. Crawford (2002) called the single-project PMO as ‘Level 1: Project controls Office’ that has a main task of supporting and managing a single project by focusing on and controlling the project’s plan, schedule and monitoring and controlling reports. In this level the PMO doesn’t see any other project and doesn’t involve or participate in these other projects’ management processes.

While the ‘**Multi-project PMOs Entities**’ were defined and categorized by Dinsmore (1999) and England, Graham, & Dinsmore (2003) into the following three (3) categories:

**Project Support Office (PSO):** in this category, the project management office main duty is to support the organization’s various projects by providing some of the project administration, controlling and monitoring services such as planning, scheduling, tracking, documentation, project auditing ...etc.

**Project Management Center of Excellence (PMCOE):** in this category, the project management office main duty is to seek the project management processes excellence in all over the organization’s projects by providing much more focused services related to methodologies and competences rather than providing management support to the projects. The PMCOE is concerned more to provide services such as project management training, standardization of the project management processes, project consultation, management skills enhancement, best practice identification, portfolio reporting, prioritizing the organization projects ...etc.

**Program Management Office (PMO):** in this category, the project management office is responsible for much higher and broader responsibilities, besides the responsibilities of the PMCOE it is assumed to allocate the projects resources, recruiting projects’ team, ensure the project alignment with business strategies, coordinating and managing the projects managers. The ‘Multi-project PMOs Entities’ were categorized by Crawford (2002) into two categories:

- ❖ Level 2: Business Unit Project Office, and
- ❖ Level 3: Strategic Project Office.

In Level 2 or the ‘Business Unit Project Office’, the project management office main task is to integrate between various projects, small and short-term to major and long-term projects, those running within a department (or a division) while still supporting single projects. it was

claimed that in this level “an organization can, for the first time, integrate resources effectively, because it’s at the organizational level that resource control begins to play a much higher-value role in the payback of a project management system” (Crawford 2002, p. 4). PMO in level 2 is the entity that facilitates an early determination of where and when the resources’ shortages may occur along the projects and how to overcome this shortage by hiring or outsourcing the required additional resources.

In Level 3 or the ‘Strategic Project Office’, the PMO main task is to apply the project management procedures, resources administration, projects ordering, and systems thinking through the whole organization. Crawford (2002) claimed that at this high level (the corporate level), the PMO may be considered as a source for the project management standards, processes, and methodologies that improve the performance of single projects in the whole organization while preventing the resources allocation conflict, giving tools to manage the organization projects as individual projects or related portfolios, and plying the role of a single source of giving the top management the whole picture of the projects status. Therefore, Crawford (2002) added that the project management office is the entity which is designed to integrate the project management within the organization more than be a group of persons. At this level, the organization capabilities of managing its projects can be promoted to a higher level and “given the appropriate governance, it can improve communication, establish an enterprise standard for project management and help reduce the disastrous effect of failed development projects on enterprise effectiveness and productivity” (Gartner Group 2000, cited in Crawford 2002, p. 5).

### **2.1.3. Project Management Office Models**

Many researchers agree that no one PMO model will satisfy the needs of all organizations, therefore the analysis for the needs and requirements of the PMO is so important (Dai & Wells 2004). Having the suitable PMO model is a key success factor for organization and the overall success for the PMO and its impact, therefore the PMO must be objective and should satisfy the organization needs and its objectives. Duggal (2007) has mentioned the following rules for selecting the suitable PMO based on the purposes:

- 1) If the purpose is focusing on project governance, control, and support decision making, then the suitable PMO is “Control Tower” PMO.
- 2) If the purpose is focusing on information and reporting, then the suitable PMO is having “Information Bureau” PMO.

- 3) While if the purpose is the coaching and mentoring, then the suitable PMO is having “Consulting and Supporting” PMO.

Many debates appear in the journals on the optimal model for the PMO required by organizations as some researchers have advocated that the PMO shall be a central entity within the organization and having all projects, portfolio and programs related knowledge and information, while others assert that with higher responsibilities for the PMO its control should be over the most important projects (Simon 2006).

Gartner Research Group (cited in Kendall & Rollins 2003) categorized the ‘Multi-project PMOs Entities’ into three (3) PMOs’ models:

- ❖ **Project Repository Model:** A responsibility of this PMO model is limited of being an information source on projects, and by being a repository of various projects standards, codes, methodologies, and reports. Kendall & Rollins (2003) described this model by the “low or no value model because it lacks accountability for bottom-line results” (p. 43)
- ❖ **Coach Model:** in this model the PMO responsibilities become bigger and wider by providing support, best practice documenting and sharing, consultation, and coordinating communication between projects and departments, and by providing training and mentoring for these projects’ staff. This PMO model often assists in project initiation and review the project performance and results after project completion.
- ❖ **Enterprise Model:** in this model responsibilities of the PMO become much larger, besides the above mentioned responsibilities of the mentioned two models, the ‘Enterprise Model’ may manage risks during the projects’ initiation and life cycle, and it may try to identifying and debottlenecking the multi-project management issues, it may have a role in building the enterprise project portfolio by gathering data about projects, and in some cases it may directly runs projects.

A fourth model of the PMO called ‘**Deliver Value Now Model**’ was added by Kendall & Rollins (2003), they claimed that in this PMO model “the emphasis is on delivering measurable value to the executive team within each 6-month period. At initial startup of this PMO, focus on accelerated project deliveries across all major projects” (p. 44). This model should be sponsored by the organization top management and its performance should be

directly tied to the senior managers' performance. In this model the organization's strategic objectives have the highest priority. The enhancement of the organization project management methodology shouldn't be the target; it should be a tool to enhance the overall organization performance. "It enables consistent motivation for the entire organization to seek out accelerated project deliveries, a stronger, more balanced project portfolio and better project performance" (Kendall & Rollins 2003, p. 287)

#### **2.1.4 Roles and functions of PMOs**

Crawford (2002) highlighted that there are six main functions of the project management office, and they become more complex as the project management office getting more strategic responsibilities. These six main functions are:

**2.4.1. Project Support:** by providing support to the projects managers in many items such as the project management documentation, change control process, being a project repository (by being a reference and providing all project plans, historical records and lesson learned), tracking & reporting, risk management, projects' resources repository, and cost tracking.

**2.4.2. Software Tools Support:** by identifying the needs of the project management software and supporting software, integrating between this software, maintaining and monitoring its performance, and playing the role of a professional expert helpdesk for this software to help these software's users of the project managers or projects' team members.

**2.4.3. Processes, Standards, and Methodologies:** by developing, applying and maintaining the project management standards, processes and methodologies and playing the role of a central source of these standards and the professional party in implementing it throughout the organization's projects, and regularly update these documents by applying the best practice and lesson learned.

**2.4.4. Training:** by participating with the organization training department and expert training centers in preparing various project management courses for the project managers and the other team members in order to enhance their capabilities and achieve their maximum performance.

**2.4.5. Consulting and Monitoring:** by providing consultation to other departments (such as IT) who might want to manage their internal project themselves, also by providing consultation to project managers in case of any project difficulties they may face, and by performing regular monitoring and auditing on projects and provide support to the project team by in case of over budget or being behind the schedule to enhance the project performance.

**2.4.6. Project Managers:** by evaluating, coaching, and developing project managers through the directions of the manager or the director of the project management office who is having and managing a database of the project manager's capabilities and skills. The PMO manager and the PMO are also the responsible party of assigning the project managers for their best matching new projects based on their database.

While the PMI (2013) stated that the function of the PMO depends on its organization requirements, and continued in identifying some primary functions of the PMOs by stating that:

A primary function of the PMO is to support project managers in a variety of ways which may include, but not limited to:

- ❖ Managing shared resources across all projects administrated by the PMO;
- ❖ Identifying and developing project management methodology, best practices, and standards;
- ❖ Coaching, monitoring, training, and oversight [of project managers];
- ❖ Monitoring Compliance with project management standards, policies, procedures, and templates via project audits;
- ❖ Developing and managing project policies, procedures, templates, and other shared documentation (organizational process assets); and
- ❖ Coordinate communication across projects. (p. 11).

**Artto et al. (2011)** also did an intensive literature review in order to trying to identify all the possible roles and functions of the PMO and the accountabilities that a PMO can implement to satisfy the requirements of the organization. In their review of several researchers work, Artto et al. (2011) categorized the PMO's roles and functions into five distinctive categories:

### **1. Managing Practices**

This PMO tasks' category is managing the development of the organization's project management procedures, tools, systems, forms ...etc. It integrates the incessant development of the project management processes in the organization.

### **2. Providing Administrative Support**

In this tasks' category, the PMO has the accountability of doing part of the project managers' duties to gain the advantage of the accumulated skills and saving or to decrease the load on the project managers by providing support in executing, facilitating, reporting, tracking, and coordinating some tasks that should be done by the project managers.

### **3. Monitoring and Controlling Projects**

Artto et al. considered this category tasks as vital tasks of the PMO as it includes collecting various reports, doing the projects' audits, performing the project evaluations when project closed or completed, and allocating the projects' resources.

### **4. Training and Consulting**

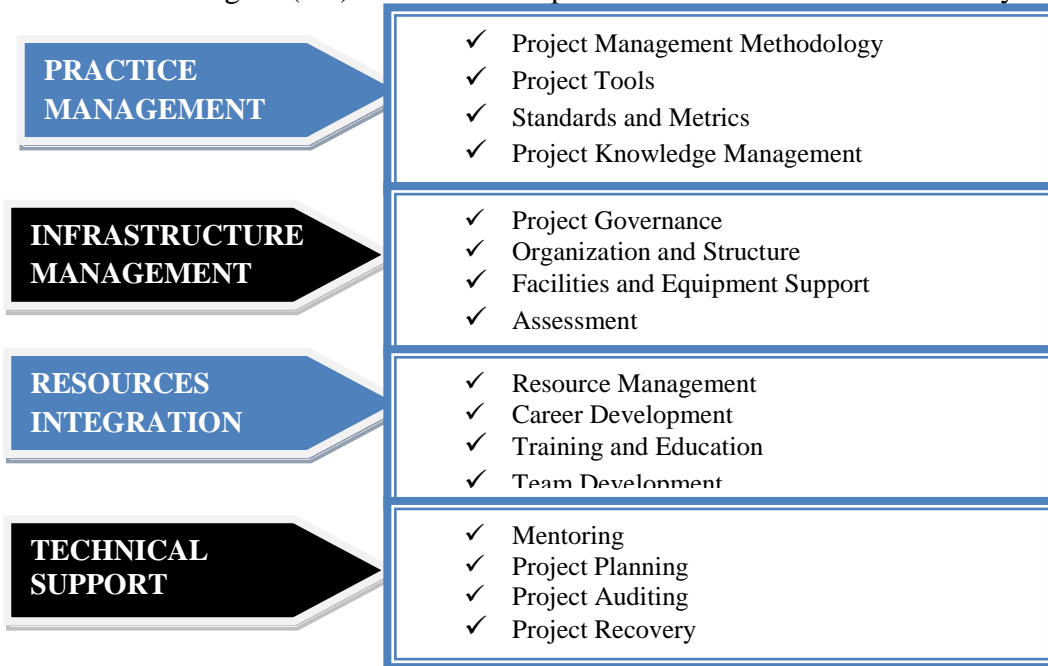
This category deals with improving the project management culture in the organization by providing advising, consultation, mentoring and training for the organization's teams who handle the project management.

### **5. Evaluating, Analyzing and Choosing Projects**

This category includes all of the portfolio management processes and methods.

On the other hand Meera Bin Hindi (2013) says "number of studies have covered the roles and functions of the PMO from all perspectives, none have covered it in the same detail that has been covered by Hill (2008) who illustrated it in a very precise manner that covered every relevant function." (P.10) Figure (2.2) is showing all roles and functions of the PMO covered by Hill (2008).

Figure (2.2): Roles and Responsibilities of the PMO covered by Hill



(Source: Hill 2008)

### ➤ **Project Management Methodology**

The PMI (2008) has defined the project management methodology as a group of procedures, processes, techniques, and rules that is used for managing projects in an enterprise, while other deemed that there are no universal definition for project management methodology (Letavec & Bollies 2011).

Each organization has its own different project management methodology and there is no fixed methodology that is applicable for all organizations as each organization has its unique project management methodology (Crawford 2011). Hill (2008) has stated that project management methodology role shall involve developing the methodology itself, training people on using this methodology, publishing it, monitor its implementation, and maintaining and updating the methodology on continuous basis.

The below are methodologies that are used in project management:

- BS 6079 – The British guidelines for project management
- PRINCE2 – A tool that is used for managing projects successfully
- PMBOK – The PMI book.
- ISO 10006 – The international guidelines for managing quality in project management.

➤ **Project Tools**

The project management tools are those tools that are used by the project professional to facilitate performing jobs and enhance the efficiency and effectiveness of their execution (Hill 2008). Those tools vary from paper tools, automated tools, web based tool, and mobile and PDA tools.

- Paper tools-including forms, templates, checklists, etc...
- Automated tools-automated software for managing projects
- Web based tools-are developed and utilized to help team in different area to easily contact and manage project.
- Mobile and PDA tools-due to technological development, new tools are been used.

Other researchers such as Desouza and Evaristo (2006) argued that PMOs' roles can be segregated into three levels:

1. **Strategic Level;** at which the PMO role is to ensure that the projects are aligned with:
  - The organizations' strategic objectives,
  - Strategic growth, and
  - The efficient and effective knowledge management.
2. **Tactical Level;** at which the role of the PMO is to ensure:
  - Close integration between project initiatives,
  - Consistent quality of products and services generated by projects, and
  - Knowledge sharing.
3. **Operational Level;** at which the PMO is responsible for:
  - Conducting project evaluation,
  - Integration of knowledge derived from projects,
  - Expert knowledge of project management, and
  - Constant monitor of customer satisfaction.

It is common to have an enterprise PMO that operates strategically, tactically, and operationally when it respectively provides service to top management, by supporting portfolio management (strategic), providing a common methodology for the organization (tactical), and also managing some important projects (operational).

Summary of all possible role and function of the PMO in the literature

Table (2.2): Project Management Office Tasks

<b>Task category</b>	<b>Specific tasks of PMO</b>	<b>References</b>
Managing practices	<p>Monitor and control performance of the PMO.                      Develop, implement and maintain project tools, standards and processes (methodology).                      Implement and operate a project information system.                      Manage project documentation archives.                      Manage customer interfaces.                      Provide a set of tools without efforts to standardize                      Implement and manage a database of lessons learned.                      Implement and manage a risk database.                      Develop and maintain a project scoreboard.                      Ensure mandated processes are followed.                      Project organizations and structure.                      Standardize report forms.                      Promote issue resolution.                      Maintain a project workbook or library.                      Improve accuracy and timeliness of timesheets.                      Standardize project reviews.                      Identify and document best practices.</p>	<p>Hill (2008),                      Hobbs and Aubry (2007),                      Letavec (2006),                      Marsh (2001),                      Pellegrinelli and Garagna (2009),                      Rad and Levin (2002).</p>
Providing administrative support	<p>Report project status to upper management.                      Provide advice to upper management.                      Execute specialized tasks for project managers.                      Conduct networking and environmental scanning.                      Recruit, select, evaluate and determine salaries for project managers.                      Leverage economies of scale and scope.                      Provide facilities and equipment support.                      Support project planning.                      Support customer relationship management.                      Coordinate vendor / contractor relationship management.                      Facilitate project kickoff meetings.                      Track and record changes made to project requirements.                      Support project closeouts.                      Assemble project assets from across the organization.</p>	<p>Hill (2008),                      Hobbs and Aubry (2007),                      Letavec (2006),                      Marsh (2001),                      Pellegrinelli and Garagna (2009),                      Rad and Levin (2002).</p>
Monitoring and controlling projects	<p>Monitor and control project performance.                      Manage benefits.                      Allocate resources to different projects.                      Conduct post-project reviews.                      Conduct project audits.                      Manage risks.                      Evaluate and develop a reward system.                      Measure and track customer satisfaction.</p>	<p>Hill (2008),                      Hobbs and Aubry (2007),                      Letavec (2006),                      Marsh (2001),                      Rad and Levin (2002).</p>
Training and consulting	<p>Develop competency in personnel, including training.                      Promote project management within organization.                      Provide mentoring for project managers.</p>	<p>Hobbs and Aubry (2007),                      Hill (2008),                      Letavec (2006),</p>

	Capture knowledge and enhance knowledge dissemination. Supply experience and knowledge. Facilitate re-use, Career development. Enhance team development. Facilitate communication. Provide consultations to troubled projects. Create a project management training material.	Marsh (2001), Pellegrinelli and Garagna (2009), Rad and Levin (2002).
Evaluating, analyzing and choosing projects	Coordinate between projects. Participate in strategic planning. Manage one or more portfolio. Identify, select and prioritize new projects. Manage one or more programs. Evaluate project definition and planning. Conduct cost/benefit analysis of projects. Supervise funding submissions. Assess competency, capability and maturity. Provide project start-up assistance.	Hobbs and Aubry (2007), Hill (2008), Letavec (2006), Marsh (2001), Pellegrinelli and Garagna (2009), Rad and Levin (2002).

(Source: Artto, et al., 2011, p. 412)

### 2.1.5 PMO Maturity

The degree of maturity of a PMO results from the extent to which it is capable of generating value for its customers and for the organization as a whole. In a first analysis, it might be possible to suppose that the maturity of a PMO might evolve in the sense of operating less operationally and more strategically. However, a more careful assessment may provide us with a different view of the process by which a PMO matures (PMI, 2010)

Hill (2008) has developed a maturity model for the PMO that consists of 5 levels starting from Project Office (PO) at level 1 till Center of Excellence at level 5 as is clear in Figure 2.5.1. The maturity level of PMO increases with the increasing roles and functions of the PMO. Hill (2008) integrated each level with the nature of its roles which are specified at the following five levels:

- 1) Project Oversight
- 2) Process Control
- 3) Process Support
- 4) Business Maturity
- 5) Strategic Alignment

Figure (2.3): PMO capabilities across PMO competency

STRATEGIC ALIGNMENT				
BUSINESS MATURITY				Stage 5 CENTER OF EXCELLENCE
PROCESS SUPPORT			Stage 4 ADVANCED PMO	Manage continuous improvement and cross department collaboration to achieve strategic business goals. - Multiple Programs - Vice President or Director of Project Management - Dedicated PMO technical staff. - Enterprise wide support staff
PROCESS CONTROL		Stage 3 STANDARD PMO	Apply an integrated and comprehensive project management capability to achieve business objectives. - Multiple projects - Multiple PMs - Program Managers - PMO Director - Dedicated PMO technical & support staff	
PROJECT OVERSIGHT	Stage 2 BASIC OFFICE	Establish capability and infrastructure support and govern a cohesive project environment. - Multiple projects - Multiple PMs - Program Managers - Director/ Senior Program Manager - Full time & part PMO office		
Stage 1: PROJECT OFFICE	Provide a standard & repeatable PM methodology for use across all projects. - Multiple projects - Multiple PMs - Program Manager - Part-time PMO support staff			
Achieve Project deliverables & objectives for cost, schedule & resources utilization. - 1 or more projects - 1 Project Manager				

(Source: Hill 2008)

Other researchers have defined 6 levels of maturity for the PMO starting from level 0 till level 5 according to the following (Boles & Sheeny 2008):

- Level 0 (Community of Practice): Nonexistent.
- Level 1 (Project Support Office): Initial/ reactive.
- Level 2 (Project Management Office): Developing Emerging Discipline.
- Level 3 (Portfolio Office): Defined with initial integration.
- Level 4 (Federal PMO, Program Office): Managed and increased integration.
- Level 5 (Enterprise Program Management Office): Optimized Enterprise Orientation.

### 2.1.6 PMO's Resources

According to Brewer, Jeffrey L., & Dittman, Kevin C (2013), the PMO may consist of many resources depending on the functions performed and the level of PMO created (whose title will vary between organizations):

- **Chief project officer:** - Owns project management for the enterprise, business unit, or department. Expert and mentor in all areas of project management.
- **Project manager:** - Directs and coordinates project activities.
- **Project planner:** - Handles consolidating and managing of project plans, including schedule development, budgeting and resources.
- **Project librarian:** - Maintains a repository of project knowledge (records, standards, methods and lessons learned).
- **Best practice expert:** - Develops and maintains project management methodology and processes.
- **Process improvement manager:** - Prepares and executes process quality assurance plans. Documents and maintains project process and standards.
- **Resource manager:** - Works with human resource in providing job descriptions, roles and responsibilities, and how to measure performance against those roles and responsibilities.
- **Communication controller:** - Handles external and internal communications related to projects within the PMO.
- **Change control expert:** - Is responsible for organizational change management, developing and maintaining issue resolution and change control processes.
- **Executive administration:** - Provides secretarial support and performs back-office tasks.
- **Technology service:** - Manages and coordinates technology issues, maintains central software configuration management for teams on all projects, and supports and maintains the PMO software, data base and all other technical needs.

## **2.2 Empirical evidences**

Some empirical studies have been conducted regarding to project management office importance and roles, out of the some are presented as follow.

Organizations nowadays are allocating resources to projects to ensure that projects are managed and controlled efficiently and successfully, however recent researches have shown that around 90% of the projects have a problem in satisfying cost, time, and quality limits (Standish Group 1995), while others have mentioned around 69% of projects failures are due to inappropriate implementation of project management methodologies (Santosus 2003). Such researches and others gave the PMO and its roles more focus as it became a vital business unit in organizations with variation in its maturity between organizations depending on many factors (Aubry et al 2010).

According to PM solution' bench mark study the number of organization implementing some type of PMO is growing rapidly (see [www.pmsolutions.com/research](http://www.pmsolutions.com/research)). On the "state of the PMO 2012," report PMOs decreased failed projects by 30%, delivered 25% of projects under budget and 19% ahead of schedule, and saved companies an average of \$411,000 per project. The survey consisted of 554 high-level project management personnel from all size organizations in various industries. Of the organizations surveyed, 85% have a PMO in place, demonstrating a steady growth from 48% in 2000, 77% in 2006, and 84% in 2010. The reasons for this growth are many, including improved success rates, improved return on investment (ROI), and new government-mandated reporting requirements (for example, those contained in the Sarbanes-Oxley Act, which requires companies to report investments, such as large information technology (IT) projects, that may affect an organization's performance, for example the implementation and deployment of an ERP software project) (Brewer, et al., 2013).

### **2.2.1 What difference do PMOs make?**

Earlier research into PMOs suggested that there was no correlation between having a PMO and project success, in terms of meeting time, cost and quality (TCQ) project estimates. But that research and ours shows that having a PMO increases the adoption of standard project management practices and methodologies (John 2013).

Our study of nearly 150 organisations, of which 70% had PMOs, showed that, overall, those organisations with PMOs did not have higher project success rates, but somewhat counter-intuitively, they had lower levels of management satisfaction with the level of project

performance and value delivered. This may be due to how long the PMO has been in place – it may be new and set up because of dissatisfaction with current project performance, or it may be that the management of organisations with PMOs have more information about poor project performance leading to decreased satisfaction. Other surveys also show that this may be the case, since there is greater satisfaction where the PMO has existed for a number of years (John 2013).

PMOs were involved in a wide range of activities in all the survey organisations, but in the most successful 25% they were involved in those that our research showed had the most effect on delivering the project benefits, whereas in the least successful 50% the PMOs were very rarely involved in these activities. These were in order of importance:

- ❖ Post-implementation review of success in changes made and benefits realised
- ❖ Change and benefits implementation planning

In more successful organisations involvement of PMOs in the above activities also led to greater satisfaction with the following activities

- ❖ Time, cost and quality reviews
- ❖ Transfer of lessons learned to future projects
- ❖ Identification of project benefits and the quality of business cases.

In the less successful organisations these activities were generally deemed to be done poorly, whether or not they had a PMO.

This suggests that PMOs contribute most to project success and management satisfaction when they are involved in the “downstream” project activities and the feedback or control loop following project completion. In this way the PMO plays a role in project governance by enabling the organisation to learn from its experiences and develop its “recipe for success”, in project selection and delivery. In the less successful organisations the PMOs are rarely involved in the activities and so make a more limited contribution (John 2013).

## **Chapter Three: Research methodology**

### **3.1 Introductions**

This section describes the research methodology that was used to answer the research questions and to achieve the research objectives. It starts by introducing a brief about the research design, what research approach was used, why this research approach was used, research strategy, research choice, and the research data collection technique; interview, questioner and sampling. In order to answer the research questions, a systematic research process should be followed to claim that the research questions were answered scientifically and the research added to or developed new knowledge.

### **3.2 Research Design**

The research design helps the researcher to describe or explain or predict the phenomenon under investigation. The type of the research design to be selected by the researcher depend on his/her intention in a way to address the phenomena. (Saunders, et al., 2009)

In order to find sufficient and relevant information about the topic and to identify any causal links between the factors or variables that pertain to the research problem, the researcher was use explanatory type of study. The researcher also used both primary and secondary data to get the necessary information.

### **3.3 Research approach**

According to Creswell (2009), there are three types of research approach: the first one is qualitative research (inductive reasoning) involves emerging questions and procedures, data typically collected in the participant's setting and its purpose is describing and understanding the phenomena. The second one is quantitative research (deductive reasoning); it is a means for testing objective theories by examining the relationship among variables (Creswell 2009). This approach has two strategies of inquiry. The first is survey design and the second type is experimental design. And the analysis is made based on, beginning with certain theory or hypotheses and drawing logical conclusions from it. The last one is mixed method research; it is an approach that combines both qualitative and quantitative forms (Creswell 2009). Researchers are given permission to use all of the tools of data collection available rather than being restricted to the types of data collection typically associated with qualitative research or quantitative research. According to Creswell, J. W. (2003) mixed methods research provides strengths that offset the weaknesses of both quantitative and qualitative research. In this dissertation the researcher was used a mixed approach between deductive

(quantitative) and inductive (qualitative) to use the advantages of both approach by combining for better finding.

### **3.4 Research Data Collection Techniques**

Primary and secondary data sources are used to collect data for the research. The study will use semi-structured interview and self-administered questionnaires to gather data which are used as primary data sources. The secondary data sources, specifically literature reviews and online resources, will be used to study about the project/program management office types, their different role and functions and maturity level. The company's documents (process, procedures and reports), research findings, articles, reports and other related publications on program/project management office will also be used as secondary data source.

#### **3.4.1 Interview**

It was explained by Kahn and Cannell (1957 cited in Saunders, et al., 2009) that the interview is considered as a decided conversation between two or more person. Researchers can use different interview types based on the degree of formality and the interview structure. Saunders, et al. (2009) listed the main interviews types into:

- ❖ Structured Interviews;
- ❖ Semi-structured Interviews;
- ❖ Unstructured or In-depth Interviews

Out of these interview types, the semi-structured interviews, in specific, withdrew the attention of researchers and broadly utilized by them due to the belief that the participants' (respondents) points of view are more expected to be articulated in an agreeably planned interview condition rather than in a standardized interview or questionnaire as explained by Flick (2009).

While Saunders, et al. (2009) argued that researchers who are using the semi-structure interviews in collecting their researches data are generally using it in their qualitative analysis. "These data are likely to be used not only to reveal and understand 'what' and the 'how' but also to place more emphasis on exploring the 'why' " (Saunders, et al., 2009, p. 321).

In this research, the researcher chose to use the semi-structured face-to-face interviews as most of the interviewees (participants or responders) are managers due to several reasons. The semi-structured interview also allow for more flexibility in alter, modify, rephrase, delete, add, or change the order of the interview questions depending on the progress and

flow of the interview conversation, without deviating from the interview target of getting the suitable answers that are related to the research questions.

The interview questions were used to examine the existence of the project management offices (PMOs) in ethio telecom and also used for studying these PMOs current status, their roles and functions, and to check to which extent are their contributions in aligning all projects to efficiently implementing the organization strategic objectives.

Four PMO heads and two senior managers in this company were interviewed to trying to get detailed answers on the interview questions to help in analyzing these data, and to get a comprehensive view of the PMOs context in these companies through investigating all the related factors to the research problem.

### **3.4.2 Survey design**

For primary data collection, Survey Questionnaire was taken as a preferable data-gathering tool for this research because of two reasons. It allows the researcher to collect information on facts and attitudes from a wide range of sources. Moreover, it is one of the most important tools to guide the respondent since it gives clear choices to check. Close ended types of questionnaires were designed. This type of questions are very popular in survey research since they provide a great uniformity response and because they are easy to process in this study. The researcher was prepared this questionnaire in English language and has been distributed to 86 samples and the questionnaires distributed were gathered and used in the analysis

### **3.5 Sample design**

Sample design deals with the sample frame/ population, sample size, sampling techniques. All the items under consideration in any field of inquiry constitute a 'universe' or 'population'. A complete enumeration of all the items in the 'population' is known as a census inquiry. This type of inquiry involves a great deal of time, money and energy. Not only this census inquires is not possible in practice under many circumstances. The researcher must decide the way of selecting a sample or what is popularly known as the sample design (Kothari 1990).

Samples can be either probability samples or non-probability samples. With probability samples each element has a known probability of being included in the sample but the non-probability samples do not allow the researcher to determine this probability. Probability

samples are those based on simple random sampling, systematic sampling, stratified sampling, cluster/area sampling (Kothari 1990).

The target population of the study were 109 in number and it includes all head office project management office staffs and concerned management bodies (13 strategic project/program management office (SPPMO) staffs and managers, 44 Network PMO staffs and managers, 15 IS PMO staffs and managers, 6 telecom expansion program office (TEP office) officers and 31 TEP contract team members and project managers). From this total population the researcher selected judgmentally 7 interview participants from top managers, program managers to specialists conduct the interview session. The choice of these interview participants (the seven interviewees) was based on their position and experience duration in ethio telecom, and also was based on their level of knowledge and participation in their organization project management. Since, it is difficult to cover the whole population to gather data by questioner; therefore sample size determination was important and three key terms needed to understand to calculate sample size. Population size: the total number of people in the group you are trying to study, Margin of error: a percentage that tells you how much you can expect your survey results to reflect the views of the overall population and Confidence level: the percentage of all possible samples that can be expected to include the true population parameter (Scott 2013).

$$n = \frac{N}{1+Ne^2} = \frac{109}{1+(109(0.05)^2)}=86$$

Where n = required sample size  
N = population size  
e = margin of error

Based on the above formula this research's sample size was 86 with 95% and 5% confidence level and acceptable margin of error respectively. The researcher also selected some employees and managements using simple random sampling technique. Using this sampling technique because in this case of random sampling each member of the population has the same chance of being included in the sample and each sample of a particular size has the same probability of being chosen.

### **3.6 Method of data analysis**

The data analysis of the paper devotes to analyze and interpret the collected data. The study was adopted mixed means to analyzing the gathered data. There is no standardized procedure to analyze qualitative data due to their diverse nature. But, usually 3 processes are applied: summarizing, categorization, and structuring of meanings. For the survey data analysis, quantitative methods were applied. The analysis was performed with SPSS ver.20. Data which gathered through the use of questionnaire were carefully coded and checked for consistency and entered into the SPSS spreadsheet. Mostly the quantitative data served for producing descriptive statistics and descriptive statistics was employed to analyse.

### **3.7 Validity and Reliability**

Validity and reliability issues are used for checking quality of instrument. These are the criterion for evaluating the research tools. Validity of the questionnaire was done through consultations with the advisor. This was to establish any built-in errors in the measurement of the questionnaire. The researcher also did Cronbach's alpha test to check reliability, of the questionnaire. The alpha coefficient for the items is 0.843 it is generally considered acceptable, suggesting that the items have relatively high internal consistency. Pilot test was done to check the tendency of the instrument obtains the same result if the measurement was repeated by using the same subject under the same conditions. The researcher also believes that this study is reliable since the respondents were selected based on their past experience on project management and their answers were expected to be credible. Furthermore, ambiguous terms were not used in interviews and questioners to avoid confusion.

### **3.8 Ethical Issues**

Ethics are standards of behavior that guide the moral choices about our behavior and our relationship with others. All parties in research should observe ethical behavior. Due consideration was given to obtain consent from each participant about their participation in the study. It was strictly conducted on voluntary basis. The researcher tried to respect Participants' right and privacy. The findings of the research were presented without any deviation from the outcome of the research. In addition, the researcher gave full acknowledgements to all the reference materials used in the study.

## **Chapter Four: Data Analysis and Discussion**

### **4.1 Introduction**

In this chapter the researcher analyzed and interpreted results of the interviews and questionnaires that had been done for this research and followed by a discussion of the research findings in a systematic manner as the next step of the research process. The research results were firstly presented analysis of qualitative data obtained from the individual semi-structured interviews and analysis of quantitative data that was recorded by the questionnaire followed and each of them organized based on the research objectives. Furthermore, it was important that the data from the qualitative and quantitative sections were connected with literature therefore the last portion of this chapter tries to discuss the results of these different sources of data by relating with literature.

### **4.2 Analysis of semi-structured interviews**

#### **Background information about participants in the semi-structured interview**

All top managers' of PMO, program managers, project manager and Specialists (work in the TEP) were willing and helpful to participate in the research, and all the interviews were conducted in a friendly, cooperative manner. Six of the respondents were male and one female; the one respondent was between 20 and 29 years old, four between 30 and 45 years and three between 46 and 50 years of age. Of the seven respondents, two obtained a master's degree of engineering, four had degree of electrical engineering (2.interviewee), computer science, and business administration and one had 2<sup>nd</sup> degree of management department. But apart from these educational states they were participated in different trainings and short term courses within the country and abroad. The work experience varied from 01 to 09 years (2); 10 to 20 years (3) and more than 20 years (2). Although the interviewees set aside time for the interview appointment, some interruptions did occur for them. All interviews were however completed in full. The presentation and discussion of the semi-structured interview data follow in the next sections.

#### **Objective 1:- To identify the PMO's structure and roles and functions in organization**

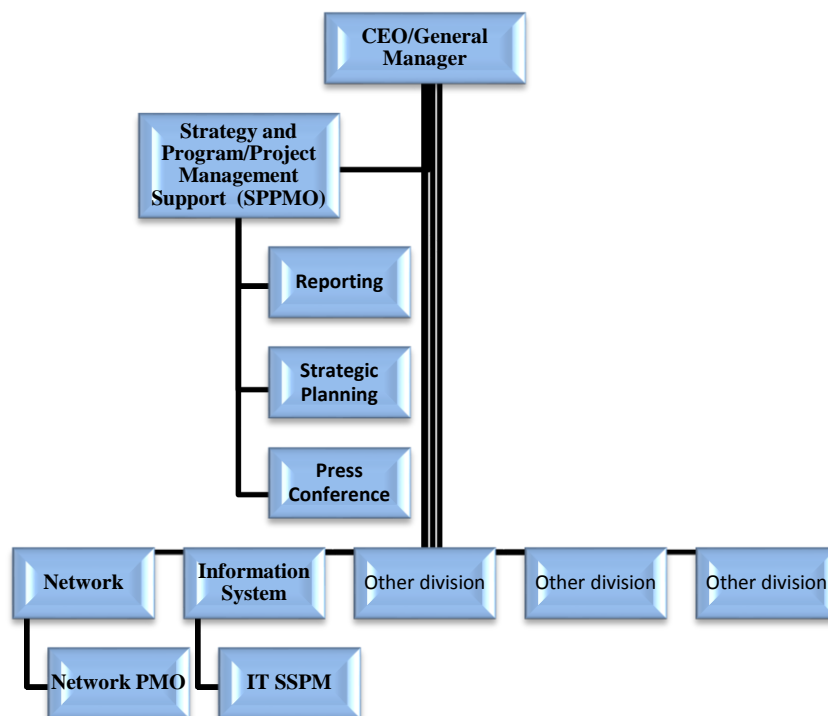
Before get back to the interview analysis the researcher gives some introductions for understanding where the PMO existed in the organizational structure and its role based on the organization's written documents.

Ethio telecom's project management office named as Strategy and Program/Project Management Support Office (SPPMO) and it structured under the CEO division as you see

from the figure(4.1) and this structured were developed by France Telecom at the time of the organization’s reform. Its mission is managing and pilot cross functional key activities of the company to report to CEO. The department has structured around three main functions strategic planning, reporting and press conference.

- ❖ **Reporting-** is in charge of managing and piloting the reporting to the board and regulatory bodies
- ❖ **Strategic Planning-** is in charge of the management of the strategic and enterprise plans as well as of the piloting of the business development. This does include follow up and analysis of the Balance Score Card of the Company.
- ❖ **Press Conference-** is responsible for the corporate image of Ethio Telecom. It supports this image by managing the relationship with the press and by mangling public relation events.

Figure (4.1): The Organization Structure of ethio telecom PMO



(Source: ethio telecom intranet)

Not only this department which working with related to programs/projects other divisions also has their own functional PMO department like network division and IS divisions. But they are not under the governance of SPPMO, they only accountable of the division heads.

### ***PMOs' Roles and Functions Questions' Set:***

As mentioned earlier qualitative data may vary from a simple question's answer to a quite long statements and description. Because of that, it is recommended to summarize the collected data in order to condense the very long statements into shorter statements that give same meanings and allow concentrating on testing the research proposition elements through these data. Summarizing the data also will allow for identifying the relationships between the data categories that will be used in the analysis and hence will help in draw the research conclusion

Q1. What is the definition of the project management office (PMO) in your organization? In your opinion what should be its roles and functions in your organization?

#### **Ans1 Summary:**

- ❖ *All the seven participants agreed on that their organizations had not a specific definition of the PMO. All project management staffs were agreed with the PMI's PMBoK for defining the PMO and understanding their roles. Five of participants are considering the mega projects' taskforces as PMOs because they are doing some the roles and functions of the PMO that mentioned in the PMBoK and two of the participants are considering their functional PMO based on its name rather than its activities.*

Q2. Would you elaborate the PMO direct role in managing, controlling and coordinating single and/or multi-projects? If there are many PMO, please elaborate what are the main differences between them?

#### **Ans2 Summary:**

- ❖ *In the organization there are more than a departments or teams who have a direct role in managing projects. These different departments or teams are managing, controlling and coordinating single and multi-projects. Besides these project management teams, there are supporting teams who provide engineering, planning and monitoring services to the project management teams under the network division. But the existing functional PMO under this division gives only the operational supports like resource management, budget management and procurement management apparel from the program/project management office support. Only Mega projects' taskforces in the organizations who are managing the projects and do the engineering, planning and monitoring services through their standalone taskforce staff.*

Q3. Are these PMO directly managing each project individually or are providing help, support, project management standards, and other services to these projects' managers?

**Ans3 Summary:**

- ❖ *The Organizations project management teams (project rollout office organized as department) are directly managing projects and other teams/departments are providing services (planning, monitoring, maintaining, recruitment, training...etc.). In this case PMO did not have any right to managing programs/projects the only task is giving operational support rather than project oriented support for these project management teams. Except mega projects' teams (TEP) who are totally standalone teams and doing all the project management and support through their dedicated staff. All the participants mentioned that the existing PMO totally different from the theoretical PMO duty and role in their organizations. Mega projects' taskforces (TEP) and project rollout office doing all the roles and functions of the PMO, and might be considered as the PMO.*

Q4. What is your role in these departments/teams?

**Ans4 Summary:**

- ❖ *The seven participants' roles in these departments varied from a specialist, project team leader or a department manager to a senior projects manager.*
- ❖ *They were senior to top managers with long and focused experiences in project management in ethio telecom.*

Q5. What look like your organizational structures with this department and how many numbers of employees in your organization and in these departments? How do these departments/teams members report to the organization management?

**Ans5 Summary:**

- ❖ *All participants agreed with the pmo head explanations. In the organizations, there is hierarchal organization structures*
- ❖ *In the organization, there are total number 14791 permanent employees distributed in all organization zonal and regional brunches without including contrite employees. Out of this total number, under network PMO there are 52 staffs, under TEP 3000 employees were organized for the program and strategic and under program/project support office staffs there are 13 employees including the department head.*

- ❖ *All staff members report to their direct supervisor and he report to the manager, who reports to the officer, who report for department manager (chief officer), in sequence, reports to the CEO.*

Q6. How many projects are these departments/teams managing? Please specify sizes (small, medium, and major projects)?

**Ans6 Summary:**

- ❖ *All participants rather than project management office head specifically did not mentioned the number of projects but they try to describe by generalizing. In ethio telecom many small size projects are managed by their departments and as the organization back bone network project rollout department mange many different medium size projects but mega projects are managed by special task force like TEP program.*
- ❖ *As PMO head explanation his department did not have the power to manage projects and also there were not sufficient staff number with the appropriate qualification the only interaction with the project were to collecting the project states report and report to CEO.*
- ❖ *Like organizational project management office network PMO also have this type of problem. They named as PMO but their work did not match with their activity. They clearly work operational activities for the network division and gives support to other network departments rather than project management and project support.*

Q7. Which department/team in your organization is responsible for?

- Practicing the projects management?
- Providing administrative support to the projects managers, projects teams and the organization upper management?
- Monitoring and controlling projects?
- Training and consulting of the projects managers and teams?
- Evaluating, analyzing, choosing, and coordinating between the simultaneously running projects?

**Ans7 Summary:**

- Divisional PM, network project rollout and taskforces (TEP).*
- Top management, functional departments and functional PMOs'*

- c) *For small and medium projects the management can control but for mega projects the organization design special task force and project team to monitor and control turnkey type of project.*
- d) *By their training institute and by foreigner consultant.*
- e) *This performed by engineering department and by tope project and functional management*

Q8. What functions are the PMO mandated with?

**Ans8 Summary:**

- ❖ *Strategic planning and annual planning process*
  - ✓ *SPPMS department will state the mission, vision, values, strategic themes and perspectives of the company and review objectives, measurements and targets, previous budget year's performance and define the planning budget year's focus area.*
  - ✓ *SPPMS department will review the strategic initiatives and compile annual (tactical) plan document.*
  - ✓ *SPPMS department ensure alignment of divisions' cascaded plan with corporate plan.*
- ❖ *Annual action plan performance monitoring*
  - ✓ *Distribute approval annual action plan document and receive the annual action plan document, discuss with concerned department and update progress status*
  - ✓ *Review, analyze and compile the annual action plan status updates and conduct meeting with divisions PMOs or representatives and make discussions*
  - ✓ *Escalate it to CXOs and amend the document as per the comment finally report the amended annual action plan status to every CXOs*

Q9. Which department/team in your organization is responsible for monitoring the implementation of the organization's strategic objectives through projects?

**Ans9 Summary:**

- ❖ *In the organization, strategic and program/project support office (SPPSM) in other word the organization pmo is responsible for setting, defining and monitoring the implementation of the organization's strategic objectives through projects, but the implementation of these strategic objectives is the responsibility of the divisional project management departments/teams and the TEP office.*

Q10. Which types of professions are existed in your organization's PMO?

- |                                |                             |
|--------------------------------|-----------------------------|
| a. Chief project officer       | g. Resource manager         |
| b. Project manager             | h. Communication controller |
| c. Project planner             | i. Change control expert    |
| d. Project librarian           | j. Executive administration |
| e. Best practice expert        | k. Technology service       |
| f. Process improvement manager |                             |

**Ans10 Summary:**

- ❖ *All participants mentioned three professionals chief project officer, project manager and resource manager (work under the functional pmo to the organizational).*

**Objective 2:- Discover the gap and limitation of ethio telecom PMO's**

***Major problem identification problems Questions'***

Q11. What major problems your organization faced to finished its first round TEP program?

**Ans11 Summary:**

- ❖ *Three participants mentioned two major problems this are*
  - ✓ *Accessibility of electricity and other infrastructures*
  - ✓ *Geographical position of sites*
- ❖ *Other two participants were give their emphasize on the project management gaps*
  - ✓ *The program were did not organized in proper way by Manage project documentation archives (the project documentation and approval were performed by other party who is out of the program even this party did not know the exact activity what it approves),*
  - ✓ *Project organizations and structure (to satisfy current customer need they organized program whit out considering the future because staffs in the program their previous work position were given to other person ,*
  - ✓ *Identifying and documentation of best practices,*
  - ✓ *Evaluation and develop a reward system.*
  - ✓ *Repetitive activates are assigned to one group/person (if you reject you considered as a resister to accomplishment of the activity).*

- ✓ *Top management were focused to accomplish the program by using foreigner vendors not to developed his domestic human resource and its organizational potential*
- ✓ *Government interest on the program (mainly before the projects accomplishment and closed they announce as they are completed)*
- ❖ *The idea of remaining two participants were mainly focused with the vendors problems*

Q12. What challenges your organization faced to establish or manage this department?

**Ans12 Summary:**

- ❖ *The organizations faced the following challenges during the establishment of these departments/teams:*
  - ✓ *People resistance to establishing the department because most of them are did not agreed on its importance*
  - ✓ *The organizational PMO were established at the time of management reform, by the time there were not many programs and projects so the reformer designed with limited number of staffs not more than 5. At the current time there are mega projects but there is no any reform under this department.*
  - ✓ *It established by other operational duties*
  - ✓ *Proper Staff number and qualifications*
  - ✓ *Lack of empowerment and mandate*
  - ✓ *The unspecified or conflicts in roles and functions of these department due to unclear organization hierarchy relationships to integrate organizational PMO, functional PMO and other program/project management department.*
- ❖ *While during managing this department the major challenge is the refusal of top managements or lack of awareness about the roles and functions of the department.*

Q13. What are the operational challenges these departments/teams in your organization?

**Ans13 Summary:**

- ❖ *Organizational PMOs operational challenges are*
  - ✓ *Two perform day today activity there is an insufficient number of staffs and there is not any structural amendment to upgrade the department by relating with the current organizational development.*
  - ✓ *Have low empowerment to work with relation to programs/projects*
- ❖ *Divisional PMOs operational challenges*

- ✓ *Most employees did not have sufficient knowledge about their work because the experienced staff members were want to transferred to another divisions/departments because this new staffs are transferred to these departments from the call center (without training)*
- ✓ *Lack of training*
- ✓ *Lack of work decentralization (there is higher burden on one person/group)*
- ✓ *There is responsibility and activity conflict*
- ✓ *Most of time all focused on reporting even if the activities are on progress*

Q14. What is your Assessment of these departments/teams success?

**Ans14 Summary:**

- ❖ *All the participants described their company's projects management office by unsuccessful teams with many problems.*

Q15. Based on your observation, in which level of the following is PMO maturity levels are these departments/teams:

- a. Level 1: Most PM Procedures are unplanned and / or unclear.
- b. Level 2: Most PM Procedures are clear, but not well followed or implemented.
- c. Level 3: Most PM Procedures are clear and continually followed or implemented.
- d. Level 4: Most PM Procedures are compatible with the business objectives, have performance measures and continually followed or implemented.
- e. Level 5: Most PM Procedures are continually improved, compatible with the strategic objectives, have performance measures and continually followed or implemented.

**Ans15 Summary:**

- ❖ *Most of the participants (6 out of 7) gave level-2 to 5 ranks to their PMO maturity level (only one participant gave it level-3).*
- ❖ *They claim that, in most of projects of their organizations, the project management procedures are clear to some extent but lack of continually improved, compatibility with the strategic objectives, performance measures and continually follow-up or implementation...etc.*

## **Results Categorizing**

As shown in the previous section, Results Summary section, the interview questions can be categorized as the following:

**Category I:** Questions number 1 to 10 can be gathered together under problem identification Questions'. It defines the problems and challenges of the project management office and the program (TEP) during its phases.

**Category III:** Questions number 11 to 15 can be gathered together under PMOs' roles and functions category which is trying to define the PMO's roles and functions in the studied company.

### **4.3 Survey result and analysis**

The questionnaire was distributed by selecting randomly to the organizational project management office (SPPMO) staffs , functional project management office staffs and other related concerned bodies and professionals (including program/ project managers, program/ project team members and other who gives supportive activities to SPPMO) in Ethio telecom head office. The questionnaire was physically distributed to 86 respondents (whose positions are related to PMO). Out of 86 questionnaires 61 were completed and collected. As the result the response rate was 70 percent.

Table 4.1 Survey response rate

Sample size	86
Completed and returned questionnaires	61
Response rate	71%

(Source: Own Survey, 2017)

The data was investigated by utilizing Statistical Package for the Social Sciences (SPSS) version 20 for factual examination. Once the finished overviews were checked, the researcher then coded the responses in every questionnaire. All information gathered was entered by the researcher. The demographic data were additionally coded and went into the SPSS framework. The sections that follow present profile of respondents' like gender, age, educational states, and their work experience related to projects and their current position in the organization.

### **Respondents' profile**

Participants were asked to indicate their profile by placing a tick next to the relevant option provided. Table 4.2 shows the results of frequency analysis for respondents' gender, 73.8 percent of survey respondents were males and the rest 26.2 percent were females (Table 5.2). The number of males is larger than number of females but the difference in number does not affect the reliability of the data.

Table 4.2 Respondents Gender description

<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>
<b>Male</b>	45	73.8
<b>Female</b>	16	26.2
<b>Total</b>	61	100.0

(Source: Own Survey, 2017)

The age of survey respondents revealed that 41 percent were between 20 and 30, majority of the respondents were between 31 and 40 while the minority 6.6 percent and 1.6 percent were between 41-50 and above 51 years old (Table 4.3). This might indicate the organization has significant maturity level in terms of age amongst its employees and this could help in implementing outlined objectives.

Table 4.3 Respondents' Age description

<b>Age</b>	<b>Frequency</b>	<b>Percent</b>
<b>20-30 Years</b>	25	41.0
<b>31-40 Years</b>	31	50.8
<b>41-50 Years</b>	4	6.6
<b>51 Years &amp; Above</b>	1	1.6
<b>Total</b>	61	100.0

(Source: Own Survey, 2017)

In terms of educational qualification, the first large number of respondents, 67.2 percent were the first degree graduates and the second larger number of respondents, 29.5 percent had Masters or 2nd Degree. The remaining 3.3 percent of survey respondents were PhD holder. This clearly shows that all respondents have first degree and above there is no diploma and below diploma level (Table 4.4). This shows that organization’s human resource ability to understand the roles and responsibilities to which they assigned (if they are assigned based on their qualification).

Table 4.4 Educational Qualification of respondents

<b>Educational Qualification</b>	<b>Frequency</b>	<b>Percent</b>
<b>PhD</b>	2	3.3
<b>Masters or 2nd Degree</b>	18	29.5
<b>First Degree</b>	41	67.2
<b>Total</b>	61	100.0

(Source: Own Survey, 2017)

In terms of experience, 45.9 percent survey respondents indicated that they had 0-3 years of experience related to project and project management and the other large group of the respondent 26.2 percent had 4-5 years. While 14.8 percent had 6- 10 years’ experience and 8.2 and 4.9 percent of the respondent’s had 11-15 and above 15 years work experience. It indicates that the majority of the respondents had minimum years’ experience in project and project management (Table 4.5).

Table 4.5 Work Experience (related to project management) of respondents

<b>Work Experience (related to project management)</b>	<b>Frequency</b>	<b>Percent</b>
<b>0-3 Years</b>	28	45.9
<b>4-5 Years</b>	16	26.2
<b>6-10 Years</b>	9	14.8
<b>11-15 Years</b>	5	8.2
<b>Above 15 Years</b>	3	4.9
<b>Total</b>	61	100.0

(Source: Own Survey, 2017)

As we have seen from table (4.6) the majority of the respondents, 80.3 percent had none managerial position whereas the remaining 19.7 percent of respondents had managerial position. This indicates in this survey most respondents are the bottom line staffs therefore they can clearly identify their work activity related to PMO because they are practitioners under this department.

Table 4.6 Current position of respondents

<b>Current Position</b>	<b>Frequency</b>	<b>Percent</b>
<b>Managerial (overall)</b>	12	19.7
<b>Non-Managerial</b>	49	80.3
<b>Total</b>	61	100.0

(Source: Own Survey, 2017)

### **PMOs' Roles and Functions Questions**

The study tried to assess the roles and functions of the existing PMO in Ethio Telecom. The study required respondents to show their agreement or disagreement to certain roles of PMO in their organization. The results of the study and respondents agreement or disagreement for the question 2 “What are the roles of PMO in your organization?” by relating to listed specific roles were compiled and displayed by table (4.7). The table gives frequency and central tendency statistics. As you seen from the bellows table it organized in 5 categories of program/project management office role and each category holds three up to six sub PMO roles.

Table 4.7 statistical description pmo role and function

PMOs' Roles and Functions			Frequency Statistics		Descriptive Statistics	
Major Category	sub Category	Likert scale	Frequency	Percent	Mean	Std. Deviation
Managing practices	Develop and implement a standard methodology	Disagree	32	52.4	1.80	0.910
		Neutral	9	14.8		
		Agree	20	32.8		
	Manage archives of project documentation	Disagree	31	50.9	1.89	0.950
		Neutral	6	9.8		
		Agree	24	39.3		
	Implement and manage database of lessons learned	Disagree	33	54.1	1.70	0.843
		Neutral	13	21.3		
		Agree	15	24.6		
	Implement and manage risk database	Disagree	31	50.8	1.84	0.916
		Neutral	9	14.8		
		Agree	21	34.4		
Providing administrative support	Report project status to upper management	Disagree	7	11.5	2.61	0.690
		Neutral	10	16.4		
		Agree	44	72.1		
	Conduct networking and environmental scanning	Disagree	28	45.9	1.85	0.872
		Neutral	14	23.0		
		Agree	19	31.1		
	Provide advice to upper management	Disagree	20	32.8	2.13	0.885
		Neutral	13	21.3		
		Agree	28	45.9		
	Recruit, select, evaluate and determine salaries of project managers	Disagree	27	44.3	1.80	0.813
		Neutral	19	31.1		
		Agree	15	24.6		
	Coordinate vendor/contractor relationship management	Disagree	27	44.3	1.95	0.921
		Neutral	10	16.4		
		Agree	24	39.3		

(Source: Own Survey, 2017)

As we seen in chapter two different authors divide the project management roles and function in five category. The first category were managing practice in this category there were 4 different roles which performed by PMO. For each of these sub roles majority of the respondent were disagreed 52.4%, 50.9%, 54.1% and 50.8%, in another word any managing roles of pmo did not performed by the existing company PMO. The moderate numbers of the respondents were agreed and the minor numbers of the respondents were neutral. The second category were providing administrative support under this there were five sub categories out these report project status to upper management and Provide advice to upper management gate the majority of

respondents agreement 72.1% and 45.9% respectively. These means only these roles were performed by PMO. And Conduct networking and environmental scanning, Recruit, select, evaluate and determine salaries of project managers and Coordinate vendor/ contractor relationship management were not the duties of ethio telecom’s PMO because majority of respondent gives their disagreement with these roles 45.9%, 44.3, 44.3 respectively.

Table 4.8 Statistical result of organizations pmo role and function

PMOs’ Roles and Functions			Frequency Statistics		Descriptive Statistics	
Major Category	sub Category	Likert scale	Frequency	Percent	Mean	Std. Deviation
Monitoring and controlling projects	Monitor and control project performance	Disagree	19	31.1	2.23	0.902
		Neutral	9	14.8		
		<b>Agree</b>	<b>33</b>	<b>54.1</b>		
	Manage benefits	Disagree	17	27.9	1.97	0.730
		<b>Neutral</b>	<b>29</b>	<b>47.5</b>		
		Agree	15	24.6		
	Allocate resources between projects	<b>Disagree</b>	<b>29</b>	<b>47.5</b>	1.79	0.839
		Neutral	16	26.2		
		Agree	16	26.2		
	Conduct post-project reviews	<b>Disagree</b>	<b>23</b>	<b>37.7</b>	1.95	0.845
		Neutral	18	29.5		
		Agree	20	32.8		
Conduct project audit	<b>Disagree</b>	<b>25</b>	<b>41.0</b>	1.85	0.813	
	Neutral	20	32.8			
	Agree	16	26.2			
Training and consulting	Develop competency in personnel, including training	Disagree	20	32.8	2.13	0.885
		Neutral	13	21.3		
		<b>Agree</b>	<b>28</b>	<b>45.9</b>		
	Provide mentoring for project managers	Disagree	17	27.9	2.16	0.840
		Neutral	17	27.9		
		<b>Agree</b>	<b>27</b>	<b>44.3</b>		
	Provide consultations to troubled projects	Disagree	17	27.9	2.21	0.859
		Neutral	14	23.0		
		<b>Agree</b>	<b>30</b>	<b>49.2</b>		

(Source: Own Survey, 2017)

The third category was Monitoring and controlling projects and it holds five sub categories as the above table (4.5) displayed. 54.1% respondents were agree with Monitor and control project performance roles. On the other hand 47.5% respondents view was nearly neutral on Manage benefits roles. And allocate resources between projects, Conduct post-project reviews and

Conduct project audit roles were gets 47.5%, 37.7% and 41% of respondent disagreement respectively. In general out five pmo's role only the first role was practiced in ethio telecom and the others were not applicable in the organization. The fourth category focus on Training and consulting and it have three sub categories Develop competency in personnel including training, Provide mentoring for project managers and Provide consultations to troubled projects. 45.9%, 44.3% and 49.2% majority respondents were agreed with these three pmo's role. This implies that all training and consulting roles were applicable by organization PMO.

Table 4.9 Statistical result of organizations pmo role and function

PMOs' Roles and Functions			Frequency Statistics		Descriptive Statistics	
Major Category	sub Category	Likert scale	Frequency	Percent	Mean	Std. Deviation
Evaluating, analyzing and choosing projects	Coordinate between projects	Disagree	16	26.2	2.25	0.850
		Neutral	14	23.0		
		<b>Agree</b>	<b>31</b>	<b>50.8</b>		
	Participate in strategic planning	Disagree	10	16.4	2.54	0.765
		Neutral	8	13.1		
		<b>Agree</b>	<b>43</b>	<b>70.5</b>		
	Manage one or more portfolio	Disagree	19	31.1	2.16	0.879
		Neutral	13	21.3		
		<b>Agree</b>	<b>29</b>	<b>47.5</b>		
	Identify, select and prioritize new projects	Disagree	17	27.9	2.20	0.891
		<b>Neutral</b>	<b>26</b>	<b>42.6</b>		
		Agree	18	29.5		
	Manage one or more programs	Disagree	20	32.8	2.18	0.904
		Neutral	10	16.4		
		<b>Agree</b>	<b>31</b>	<b>50.8</b>		
	Assess competency, capability and maturity	<b>Disagree</b>	<b>27</b>	<b>44.3</b>	1.98	0.940
		Neutral	8	13.1		
		Agree	26	42.6		

(Source: Own Survey, 2017)

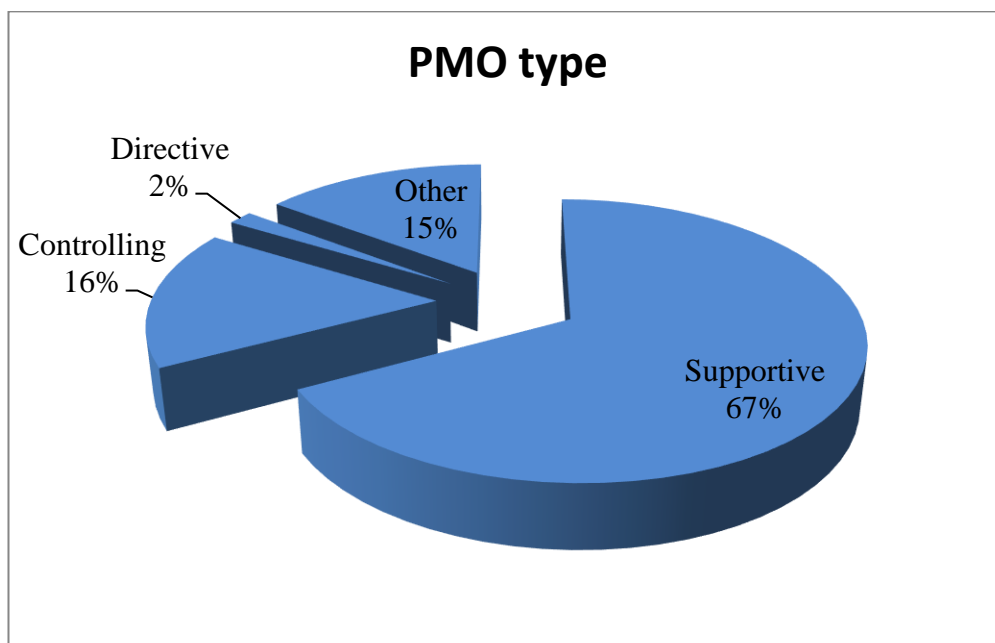
The fifth category were Evaluating, analyzing and choosing projects. Under this there were six sub categories out of them respondents gives their agreement only for Coordinate between projects 50.8%, Participate in strategic planning 70.5% , Manage one or more portfolio 47.5% and Manage one or more programs 50.8%. The other two roles were Identify, select and prioritize new projects and Assess competency, capability and maturity. About these two

cases 42.6% respondents were neutral for the first mentioned role and 44.3% respondents were disagreed with the second roles.

### **PMOs' Type Questions' Set**

In addition to the above, respondents were asked to identify the existing PMO type in ethio telecom. The responses in this regard are summarized and presented in the following figure and graph. PMO's type is defined by different authors based on different point of views. Project management institute classified based on the degree of control.

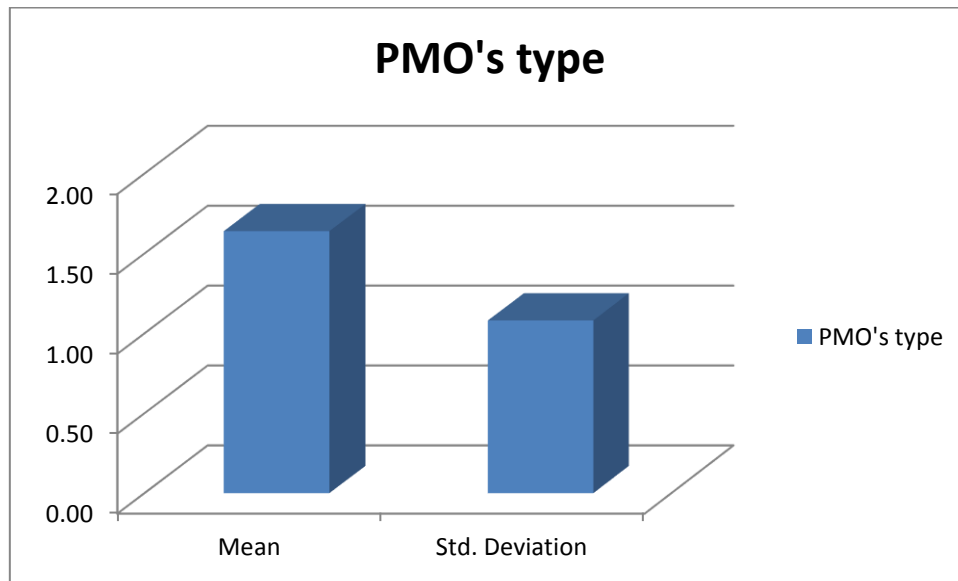
Figure (4.2): PMO's type according to Project Management Institute 2013



(Source: Own Survey, 2017)

The above figure (4.2) shows the respondents response for their organization PMO's type according to PMI. The dominant 67% of survey respondent categorized their pmo as a supportive type. These means ethio telecom's pmo were plays more supportive role. Minor number of respondent categorized as controlling, directive and other by giving 16%, 2% and 15% of their responses respectively. It implies that the degree of control provided by the pmo was low.

Graph (4.3): descriptive statistics for PMO's type



(Source: Own Survey, 2017)

Standard Deviation provides an indication of how far the individual responses to a question vary or "deviate" from the mean. Standard Deviation tells the researcher how spreads out the responses and are they concentrated around the mean, or scattered far & wide? Graph 4.3 shows the respondent responses about pmo type according to PMI. The standard Deviation was concentrated around the mean. It implies that many respondents opinion were relatively the same to the average mean.

### **PMOs' Maturity level Questions**

The success of a PMO involves from understand who its clients are, what their needs are, and how to meet those needs by creating clear and sufficient benefits and generating perceptible and measurable value. Its maturing process involves the skills to meet the new needs arising from the maturing process of the organization and from its clients, by offering new services, and providing response to the demands of its clients, such as the top executive level, project managers, team members, and functional managers. The level of maturity of a PMO results from the extent to which it is capable of generating value for its clients and for the organization as a whole. The next evaluation helps to understand the maturity level of the organization's Project Management Office.

Table 4.10 PMOs performance measures

NO.	<i>Performance of your PMO</i>		Frequency	Percent
1	Best practices are in place for each project	Always	15	24.6
		<b>Sometimes</b>	<b>21</b>	<b>34.4</b>
		Never	12	19.7
		Not Sure	13	21.3
2	Standard procedures are followed when a project goes through its phases	<b>Always</b>	<b>21</b>	<b>34.4</b>
		Sometimes	15	24.6
		Never	6	9.8
		Not Sure	19	31.1
3	There currently is a formal and consistent risk management approach to evaluate a project's risk profile through each of the project's phases	Always	15	24.6
		Sometimes	18	29.5
		Never	2	3.3
		<b>Not Sure</b>	<b>26</b>	<b>42.6</b>
4	Educational needs are defined for particular roles/tasks	Always	15	24.6
		<b>Sometimes</b>	<b>21</b>	<b>34.4</b>
		Never	19	31.1
		Not Sure	6	9.8
5	Tools are used to evaluate an individual project prior to beginning the project	Always	8	13.1
		Sometimes	19	31.1
		Never	11	18.0
		<b>Not Sure</b>	<b>23</b>	<b>37.7</b>
6	Historical data is collected and shared with the team to provide them with background knowledge for the project	Always	17	27.9
		<b>Sometimes</b>	<b>20</b>	<b>32.8</b>
		Never	10	16.4
		Not Sure	14	23.0
7	Mentoring and guidance is provided so that the project team is sufficiently prepared to begin and continue to work through the project most efficiently	Always	12	19.7
		<b>Sometimes</b>	<b>22</b>	<b>36.1</b>
		Never	7	11.5
		Not Sure	20	32.8

(Source: Survey outcome and own computation)

Table 4.10 shows responses performance assessment of their organizational pmo. When we see the first 7 performance measurement criteria majority respondents were rate sometimes and not sure choices. Out of eight performance measures only one performance measures were performed always. Which was a standard procedure are followed when a project goes through its phases by getting 34.4% respondent rate. Best practices were not always place for each project, educational needs were not defined always for particular roles, historical data was not collected and shared with the team to provide them with background knowledge for

the project and mentoring and guidance were not provided always to the project team because the majority respondents agreed on these activities as performed sometimes by getting 34.4%, 34.4%, 32.8% and 36.1% respectively. On the other hand 42.6% and 37.7% of the respondent were not sure about the formal and consistent risk management approach to evaluate a project's risk profile through each of the project's phases and whether tools were used to evaluate an individual project prior to beginning the project respectively. This implies that the project management office did not have consistency to the activities which must be done by them plus to this the organization project management office (SPPMO) did not disclose the department's duty to its staffs and concerned bodies because they were not sure about whether or not some activities performed by department.

Table 4.11 Statistical result of PMOs performance measures

NO.	<i>Performance of your PMO</i>		Frequency	Percent
8	Management's expectations for project update or status are met	Always	15	24.6
		<b>Sometimes</b>	<b>22</b>	<b>36.1</b>
		Never	10	16.4
		Not Sure	14	23.0
9	Project teams expectations for project update or status are met	Always	11	18.0
		<b>Sometimes</b>	<b>28</b>	<b>45.9</b>
		Never	10	16.4
		Not Sure	12	19.7
10	Able to manage the scope of projects	Always	22	36.1
		<b>Sometimes</b>	<b>25</b>	<b>41.0</b>
		Never	2	3.3
		Not Sure	12	19.7
11	Projects are reported upon on a routine / regular basis	<b>Always</b>	<b>33</b>	<b>54.1</b>
		Sometimes	14	23.0
		Never	3	4.9
		Not Sure	11	18.0
12	There is communication among the project team and project management to make all members aware of status and of issue/change requests	<b>Always</b>	<b>25</b>	<b>41.0</b>
		Sometimes	23	37.7
		Never	3	4.9
		Not Sure	10	16.4
13	Project risks are identified early	Always	15	24.6
		<b>Sometimes</b>	<b>19</b>	<b>31.1</b>
		Never	9	14.8
		Not Sure	18	29.5

(Source: Survey outcome and own computation)

Table 4.11 also shows the next six performance measures. Here out of six measurements only Projects are reported upon on a routine / regular basis and there is communication among the project team and project management were performed in repetitive bases with 54.1% and 41% of majority respondents' responses respectively. The other four measurements, management's expectations for project status are met, Project team's expectations for project status are met, able to manage the scope of projects and project risks are identified early were not performed at routine basis which had 36.1%, 45.9%, 41% and 31.1% of respondents response respectively. This result also shows that the inconsistency of project management activities.

#### **4.4. Discussion of the research result**

In this research, the researcher analysed the interviews' manually without using any of the new computer aided qualitative data analysis software and questionnaires' analysed by using SPSS software. Now by combining this two data the researcher could notice the following results.

The survey had a response rate of 71 percent. 73.8 percent of the study respondents were male while the remaining was females. 50.8 percent of respondents' age was between 31 and 40 years. 67.2 percent of the respondents had first Degree. 45.9 percent of the respondents had 0 up to 3 years of experience in related to project management. And 80.3 percent of the respondents had non-managerial position.

In a Likert scale measure average response indicated that respondents agreed on that the roles of PMO in their company were Report project status to upper management, Provide advice to upper management, Monitor and control project performance, Develop competency in personnel, including training Provide mentoring for project managers, Provide consultations to troubled projects, Coordinate between projects, Participate in strategic planning, Manage one or more portfolio and Manage one or more programs. Which was the most frequently mentioned company's PMO roles and functions out of 23 project management offices role and functions according to the literature. On the other hand the response on Develop and implement a standard methodology, Manage archives of project documentation, Implement and manage database of lessons learned, Implement and manage risk database, Conduct networking and environmental scanning, Recruit, select, evaluate and determine salaries of project managers, Coordinate vendor/ contractor relationship management, Allocate

resources between projects, Conduct post-project reviews and Conduct project audit indicated disagreement and about the remaining roles indicated neutral.

In response to the choose questions to what type of PMO is there in your organization? (According to Project Management Institute 2013) in view of survey participants, the result indicated that 67 percent of respondents were categorized as supportive type. As the interview result revealed their pmo's role did not fulfilled the exact supporting type pmos. And the last questions results showed that only three performance measure parameters (Standard procedures are followed when a project goes through its phases, Projects are reported upon on a routine/regular basis and there is communication among the project team and project management to make all members aware of status and of issue/change requests) were performed at routine basis, the majority of remaining performance measures were performed inconsistently and about the other two measures (There currently is a formal and consistent risk management approach to evaluate a project's risk profile through each of the project's phases and Tools are used to evaluate an individual project prior to beginning the project) respondents did not have a clear information.

From the collected data and through the summarizing process of the interview results, the researcher could notice the following patterns in the interviews' results

- ❖ From category 1 questions, the project management offices already existed in ethio telecom in different names, its name was strategic and program/project support office (at organizational level) like other departments. It structured as one of the organization entity. The PMO types varied from functional to organizational and were playing minimum level of roles and functions of the PMOs that were defined in the academic researches and studies and also the role and functions of the organizational PMO were contradicted when we look the data gathered from the interview.
- ❖ Projects managed by single project control office and up to the program management offices for the multi-projects entities. These program management offices are related to mega projects which are consisted of several related projects. In this situation the ultimate goal of the department were collecting status report of program/project and report to upper management.
- ❖ All the participants called their company's' mega projects teams as PMO teams, and all of them considered these taskforces as the only groups or teams in their companies who fully applying the PMO's roles and functions.

- ❖ Totally functional PMOs gives operational support to their division departments and they did not get any support from organizational PMO
- ❖ Out of the 11 important professionals for PMO Chief Project officer, project manager and resource managers were the only professionals under the organizational pmo and functional pmo.
- ❖ Frome Category 2 questions, the organizational PMO did not have appropriate number of staffs and professional. The existed professionals are not sufficient with their capacity and professional
- ❖ The department's major problem was as the majority of participants agreed the empowerment problem. This problem mainly affected by the top management limited awareness about the department.
- ❖ As we have seen before in the survey discussion part the maturity performance measures were performed inconsistently this supports interview maturity level assessments which shows level 2, most PM procedures are clear, but not well followed or implemented.

## **Chapter Five: Conclusion and recommendation**

### **5.1 Conclusion**

This study assesses the project management office role and type in ethio telecom. The research also tried to identify their types, structure, and their roles and functions in this organization. The aim of this research was to study the PMOs and the suitability of applying their principles in ethio telecom, and the main research questions of this research were:

- ❖ What are the problems of project management office which hinders to attain its goal and objective?
- ❖ Is the organization chooses the proper type and structure of project management office?
- ❖ What roles and functions is the PMO mandated with?

As shown in the previous chapter, results analysis and discussion, it might be concluded that the project management offices already existed in ethio telecom with different role and names. As engineering department, engineering and projects department, and program/project management department PMO structured as one of the organization entity.

The research proposition suggested that PMO were supportive types based on the role it gives. Its support were given for the top management (CEO) regarding to strategic planning and tactical planning rather than program/project oriented supports. And also its supportive activities were related to the organization strategic planning and tactical planning this categorized the pmo as corporate or strategic and in the department program states reports were organized and presented based on that it categorized as program management office.

Its roles did not match with the literatures their main focus were reporting, strategic and tactical planning and giving operational support. The real practical applications of the project management principles were different from the staff's opinion. In addition to this I would like to conclude that applying the project management offices' principles in the organization were so difficult because of the absence of top management awareness about the importance of the department and it also new phenomena to our country project management history.

The research also revealed that the government and the board had major interests about the programs/projects because which are capital intensive mega projects this leads to centralizing the program/project management process with some parties/groups, this creates some conflicts between the top management and the employee.

Regarding to the department maturity level it was poor because activities did not performed at routine basis and also there was the knowledge gap between staffs about their organizational or functional project management office roles.

## **5.2 Recommendations**

Based on the gathered data through the interviews and questionnaires and from the qualitative and quantitative analysis done in the previous chapter, the following recommendations may help in improving the performance and structure of ethio telecom project management office:

- ❖ The main recommendation that can be driven from this research is to give more freedom to the project management office and give empowerment these allow them to implement the suitable roles and functions that matches with their program/projects' sizes, types and criticality and not to follow the mother company's management procedures in these case fast decisions about program/project can be made this helps to mitigate risk and to protect from project failures.
- ❖ The organization should perform the need assessment about the department; it helps to understand the importance of the department. And also the organization should reorganize the department by relating with current company's development and new situation.
- ❖ Clear definitions of the project management office teams duties and job responsibilities, clear definition of organizational structure which defines the relationship of the organizational pmo and the functional pmo would improve the project management performance in the company and will avoid most of the common conflicts between the project management office and the operational teams who are considered as the clients of these projects teams.
- ❖ It is highly recommended that clearly define the PMO in the company, and define their roles, inputs, outputs and responsibilities to each concerned parties in different levels of the organization including the PMO's members. This will significantly improve the performance of these teams and will lead to reducing or avoiding conflicts which may causes projects' failures.
- ❖ Based on the previous recommendation, it might be helpful to identify the procedures, terms and conditions which govern the project management office. These allows for more project management office flexibility and performance enhancement.

- ❖ Defining and communicating the PMOs' roles and functions across the organization would allow for optimizing the knowledge sharing, resources sharing/reallocation, experiences transfer across the projects' teams, specialized training programs, ...etc.
- ❖ The results and impacts of the PMO will appear on the long term but immediately, therefore the PMO shall be given time and resources to build up its capability and resources. The organization should organized the PMO with skillful, qualified and experience man power.
- ❖ Due to the fact that establishing highly mature PMO will require a period of time, it is highly recommended to implement a step-by-step strategy and prioritization of roles are recommended to build a sustainable and mature PMO.

## References

- Artto, K., Kulvik, I., Poskela, J. & Turkulainen, V., 2011. The integrative role of the project management office in the front end of innovation. *International Journal of Project Management*, Volume 29, pp. 408-421.
- Aubry, M., Hobbs, B. & Thuillier, D., 2007. A new framework for understanding organisational project management through the PMO. *International Journal of Project Management*, Volume 25, pp. 328-336.
- Aubry, M., Hobbs, B. & Thuillier, D., 2008. Organisational project management: An historical approach to the study of PMOs. *International Journal of Project Management*, Volume 26, pp. 38-43.
- Aubry, M., Hobbs, B., Müller, R. & Blomquist, T., 2010. *Identifying The Forces Driving Frequent Change In PMOs*. 1st ed. Pennsylvania: Project Management Institute.
- Brewer, Jeffrey L., and Dittman, Kevin C. 2013. *Methods of IT Project Management (2)*. Ashland, US: Purdue University Press.
- Creswell, J. W. 2003. *Research design: Qualitative, quantitative, and mixed methods approaches* 2nd edition .Thousand Oaks, CA: Sage.
- Creswell, J. (2009). *Research design: Qualitative, Quantitative and Mixed Methods Approach*, 3rd ed., SAGE Publications, Inc.
- Crawford, J. K., 2002. *The Strategic Project Office - A Guid to Improve Organizational Performance*. 1st ed. New York. Basel: Marcel Dekker, Inc.
- Duggal J.S. (2007). *The Project, Programme or Portfolio Office*, 4th Edition. UK: Gower publishing
- Dai, C. X. & Wells, W. G., 2004. An exploration of project management office features and their relationship to project performance. *International Journal of Project Management*, Volume 22, pp. 523-532.
- Desouza, K. C. & Evaristo, J. R., 2006. Project management offices: A case of knowledge-based archetypes. *International Journal of Information Management*, Volume 26, pp. 414-423.
- Ethio Telecom (2013), *Ethio Telecom Company Profile Draft*, Addis Ababa
- Englund, R. L., Graham, R. J. & Dinsmore, P. C., 2003. *Creatin the Project Office: A Manager's Guide to Leading Organizational Change*. 1st ed. San Francisco: Jossey-Bass.

Flick, U., 2009. *An Introduction to Qualitative Research*. 4th ed. London: SAGE.

Gardiner, P. D., 2005. *Project Management: A Strategic Planning Approach*. 1st ed. New York: Palgrave Macmillan.

Hurt, M., & Thomas, J. L. (2009). Building value through sustainable project management offices. *Project Management Journal*, 40(1), 55–72.

Hill, G. M. (2008). *The Complete Project Management Office Handbook*, 2nd Edition, USA: Taylor and Francis Group.

Hobbs, B. & Aubry, M., 2010. *The Project Management Office (PMO): A Quest for Understanding*. 1st ed. Pennsylvania: Project Management Institute, Inc.

<https://en.oxforddictionaries.com>

Jennifer M. George & Gareth R. Jones, 2012, *Understanding and managing organizational behaviour* 6th edition, Pearson Education, Inc., publishing, as Prentice Hall, One Lake Street, Upper Saddle River, New Jersey

John P. (2013). *To have or not to have Project Management Office (PMO)* [online]. [Accessed 9 March 2013] Available at

<https://www.cranfield.ac.uk/.../to-have-or-not-to-have-a-pmo-pdf.ashxK>

Kerzner, H. (2009). *Project management, a system approach to planning, scheduling and controlling*, 10th ed., John Wiley and son Inc, New Jersey

Kendall, G. I., Rollins & C., S., 2003. *Advanced Project Portfolio Management and the PMO: Multiplying ROI at Warp Speed*. 1st ed. Florida: International Institute for Learning, Inc. and J. Ross Publishing, Inc.

Levine, H. A., 2005. *Project Portfolio Management: A Practical Guide to Selecting Projects, Managing Portfolios, and Maximizing Benefits*. 1st ed. San Francisco: Jossey-Bass.

Morris, P. & Jamieson, A. (2004). *Translating corporate strategy into project strategy: Realizing corporate strategy through project management*. Newton Square, PA: Project Management Institute, Inc.

Milosevic, D. & Srivannaboon, S. (2006). A two-way influence between business strategy and project management. *International Journal of Project Management*, 24, 493-505. Retrieved November 10, 2007, from Business Source Premier Database

PM Solutions Research (2012). *The State of the PMO 2012: APM Solutions Research Report*. USA, Wilmington Pike: PM Solutions

Pole to Pole Communications. *The Value of Project Management Office*. Survey conducted on behalf of CA.

Project Management Institute, 2013. *A Guide to the Project Management Body of Knowledge (PMBOK Guide)*. 5th ed. Pennsylvania: Project Management Institute, Inc

Project Management Institute. (2008). *PMBOK Guide – A Guide to the Project Management Body of Knowledge*, 4th edition, Newtown Square, PA: PMI, Inc.

Schumpeter, J., 1950. *Capitalism, Socialism, and Democracy*. 1st ed. New York: Harper & Row Publishers

Scott, S. (2013). Determining Sample Size: How to Ensure You Get the Correct Sample Size [online]. [Accessed 8 April 2013] Available at <https://www.qualtrics.com.uk/blog/determining-sample-size/>

Shamur, G. L. (2009). The Project Management's Thinker [online]. [Viewed at August 24 2013] Available at <http://giladlsh.wordpress.com/2009/08/24/pmo-centralized-or-not>

Saunders, M., Lewis, P. and Thornhill, A. (2009), *Research Methods for Business Students*, 5th ed., Pearson Professional Limited, Britain.

Simon, R. (2006). *Levers of Organisational Design: How Managers Use Accountability Systems for Greater Performance and Commitment*, UK: Harvard Business Press.

Santosus, M. (2003). *Why You Need a Project Management Office (PMO)* [online]. [Accessed 7 June 2013] Available at [http://www.cio.com/article/29887/Why\\_You\\_Need\\_a\\_Project\\_Management\\_Office\\_PMO\\_](http://www.cio.com/article/29887/Why_You_Need_a_Project_Management_Office_PMO_).

Taylor, P. (2011). *Leading Successful PMOs: How to Build the Best Project Management Office for your Business*. UK: Gower Publishing Limited.

Unger, B. N., Gemünden, H. G. & Aubry, M., 2012. The three roles of a project portfolio management office: Their impact on portfolio management execution and success. *Journal of Project Management*, Volume 30, pp. 608-620.

Weaver, P. (2005). Effective Project Governance: The Tools for Success. *Project Management Institute of New Zealand Annual Conference*. Auckland. 13th-14th October. Mosaic Project Services

## APPENDEX-A



**Addis Ababa University**

**School of Commerce**

Dear Respected project management office members and other concerned bodies:

I am a master's student in project management at Addis Ababa University School of Commerce conducting a research on the subject of project management office. The specific topic of my study is "An Assessment of project management office type, role and maturity level in Ethio Telecom".

As a concerned body and leaders in Ethio Telecom, you have unique and valuable experience and insight that can contribute to assess the existing PMO type, role and its maturity level. Project management office is one of the entities that will add value to large organizations in the long run. A successful project management office can enhance the productivity of the project teams and cause a lot of cost savings. In addition to that, it can make the organization a more matured and capable entity. Therefore, your response and participation in the questioners and interview will be extremely valuable in this research. Finally, confidentiality of your response is protected and used only for the purpose of this study. The names of participants will neither record nor published or provided to others. Thank you in advance for your voluntary participation. If you are interested in the final results of the study, contact me via E- mail and I will provide you with a complementary summary.

Kind Regards

Alem Birhane

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### **Semi-Structured Interview Questions**

The following semi-structured questions are used for the interviews with head of PMO, senior project managers, program managers (related to the PMO) in ethio telecom.

#### **Introduction Questions**

Can you tell me about your background?

- A. Job title \_\_\_\_\_
- B. Age range \_\_\_\_\_
- C. Educational background and \_\_\_\_\_
- D. Experience \_\_\_\_\_

#### **PMOs' Roles and Functions Questions' Set:**

1. What is the definition of the project management office (PMO) in your organization?  
In your opinion what should be its roles and functions in your organization?
2. Would you elaborate the PMO direct role in managing, controlling and coordinating single and/or multi-projects? If there are many PMO, please elaborate what are the main differences between them?
3. Are these PMO directly managing each project individually or are providing help, support, project management standards, and other services to these projects' managers?
4. What is your role in these departments/teams?
5. What look like your organizational structures with this department and how many numbers of employees in your organization and in these departments? How do these departments/teams members report to the organization management?
6. How many projects are these departments/teams managing? Please specify sizes (small, medium, and major projects)?
7. Which department/team in your organization is responsible for?
  - a) Practicing the projects management?
  - b) Providing administrative support to the projects managers, projects teams and the organization upper management?
  - c) Monitoring and controlling projects?
  - d) Training and consulting of the projects managers and teams?
  - e) Evaluating, analyzing, choosing, and coordinating between the simultaneously running projects?

8. What functions are the PMO mandated with?
9. Which department/team in your organization is responsible for monitoring the implementation of the organization's strategic objectives through projects?
10. Which types of professions are existed in your organization's PMO?
  - a) Chief project officer
  - b) Project manager
  - c) Project planner
  - d) Project librarian
  - e) Best practice expert
  - f) Process improvement manager
  - g) Resource manager
  - h) Communication controller
  - i) Change control expert
  - j) Executive administration
  - k) Technology service

**Major problem identification problems Questions'**

11. What major problems your organization faced to finished its first round TEP program?
12. What your department role was to addressed faced problems? If your department did not have any role which parties take an action to solve?
13. What challenges your organization faced to establish these departments/teams?
14. What are the operational challenges these departments/teams in your organization?
15. What is your Assessment of these departments/teams success?
16. Based on your observation, in which of the following PMO maturity levels are these departments/teams:
  - a) Level 1: Most PM Procedures are unplanned and / or unclear.
  - b) Level 2: Most PM Procedures are clear, but not well followed or implemented.
  - c) Level 3: Most PM Procedures are clear and continually followed or implemented.
  - d) Level 4: Most PM Procedures are compatible with the business objectives, have performance measures and continually followed or implemented.
  - e) Level 5: Most PM Procedures are continually improved, compatible with the strategic objectives, have performance measures and continually followed or implemented.

**Questionnaire**

**PART I: Background Information of Respondents**

<b>Q.1</b>	<b>Items</b>	<b>Option/dimension</b>	<b>Put (√)</b>
<b>1.1</b>	<b>Gender:</b>	Male	
		Female	
<b>1.2</b>	<b>Age:</b>	20-30 Years	
		31-40 Years	
		41-50 Years	
		51 Years & Above	
<b>1.3</b>	<b>Educational Qualification:</b>	PhD	
		Masters(2nd Degree)	
		First Degree	
		Diploma	
		Below Diploma	
<b>1.4</b>	<b>Work Experience (related to project management):</b>	0-3 Years	
		4-5 Years	
		6-10 Years	
		11-15 Years	
		Above 15 Years	
<b>1.5</b>	<b>Current Position:</b>	Managerial (overall)	
		Non-Managerial	

## Part II: PMOs' Roles and Functions Questions

**INSTRUCTION:** different type of project management office role and functions are given in the first column of following table and there are choices on next columns from disagree to agree. Please tick (√) in the box that best reflects your answer in relation to the question, “What is the role of PMO in your organization?”

**Q.2** What are the roles of PMO in your organization? (Tick if appropriate)

Q.No.	Role of PMO	Disagree	Neutral	Agree
2.1	<b>Develop and implement a standard methodology</b>			
2.2	<b>Manage archives of project documentation</b>			
2.3	<b>Implement and manage database of lessons learned</b>			
2.4	<b>Implement and manage risk database</b>			
2.5	Report project status to upper management			
2.6	Conduct networking and environmental scanning			
2.7	Provide advice to upper management			
2.8	Recruit, select, evaluate and determine salaries of project managers			
2.9	Coordinate vendor/ contractor relationship management.			
2.10	<b>Monitor and control project performance</b>			
2.11	<b>Manage benefits</b>			
2.12	<b>Allocate resources between projects</b>			
2.13	<b>Conduct post-project reviews</b>			
2.14	<b>Conduct project audit</b>			
2.15	Develop competency in personnel, including training			
2.16	Provide mentoring for project managers			
2.17	Provide consultations to troubled projects.			
2.18	<b>Coordinate between projects</b>			
2.19	<b>Participate in strategic planning</b>			
2.20	<b>Manage one or more portfolio</b>			
2.21	<b>Identify, select and prioritize new projects</b>			
2.22	<b>Manage one or more programs</b>			
2.23	<b>Assess competency, capability and maturity.</b>			

#### Part IV: PMOs' Maturity level Questions

**INSTRUCTION:** This evaluation will help to understand the maturity of your organization's Project Management Office. Please tick (√) in the box that best reflects your answer where.

<b>Q.6</b>	<b><i>Performance of your PMO</i></b>	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	<b>Not Sure</b>
6.1	Best practices are in place for each project*				
6.2	Standard procedures are followed when a project goes through its phases				
6.3	There is a formal and consistent risk management approach to evaluate a project's risk profile through each of the project's phases				
6.4	Educational needs are defined for particular roles/tasks				
6.5	Tools are used to evaluate an individual project prior to beginning the project				
6.6	Historical data is collected and shared with the team to provide them with background knowledge for the project				
6.7	Mentoring and guidance is provided so that the project team is sufficiently prepared to begin and continue to work through the project most efficiently				
6.8	Management's expectations for project update or status are met				
6.9	Project teams expectations for project update or status are met				
6.10	Able to manage the scope of projects				
6.11	Projects are reported upon on a routine / regular basis				
6.12	There is communication among the project team and project management to make all members aware of status and of issue/change requests				
6.13	Project risks are identified early				

### **Part III: PMOs' Type Questions**

**INSTRUCTION:** Here is one simple choices related to PMO type so please choose your appropriate answer only

**Q.3** What type of PMO is there in your organization? (According to **Project Management Institute 2013**)

- a) Supportive (support in the form of on demand expertise, templates, best practices, access to information and expertise on other projects)
- b) Controlling (control in the activities, processes, procedures, documentation - not only provides support but request that it be used)
- c) Directive (beyond simple control, and actually takes over the projects by providing the PM experience and resources to manage the projects)
- d) Other

**Thank you**

