



**ADDIS ABABA UNIVERSITY**  
**COLLEGE OF BUSINESS AND ECONOMICS**  
**GRADUATE STUDIES PROGRAM**  
**DEPARTMENT OF PROJECT MANAGEMENT**

**Challenges of Project Organization Structure in Telecom  
Projects: The case of ethio-telecom.**

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TELECOM PROJECTS: THE CASE OF ETHIO-TELECOM.**

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## **Statement of Declaration**

I, Emebet Fekade w/kidan, hereby declare that this research project work entitled “Challenges of project organization structure in Telecom Projects- The case of Ethio-Telecom” submitted by me for the award of the degree of Master in Project Management, Addis Ababa University at Addis Ababa, Ethiopia, is my original work and it has never been presented in any university. All sources and materials used for this thesis have been duly acknowledged.

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## **Statement of Certification**

This is to certify that Emebet Fekade W/kidan has carried out this research project work on the topic entitled “Challenges of project organization structure in Telecom Projects- The case of Ethio-Telecom” under my supervision. This work is original in nature and it is sufficient for submission for the partial fulfillment for the award of Degree of Masters of Art in Project Management.

Name: Solomon Markos, (Ph.D.)

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Addis Ababa, Ethiopia

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## **ABSTRACT**

*This study is conducted to assess the project organization structure practice and challenges in Ethio-telecom and also to suggest possible solutions to ease the challenges by identifying the knowledge gap of the project teams. The researcher has done preliminary interview and observed some challenges in each project organization structure related with managing people. As a result the researcher was interested to make deep investigation on their human resource management & leadership practice on the context of each project organization structure in order to understand their challenges and also to identify their knowledge gap by taking pure & matrix project organization structure. Descriptive research design and mixed research approach was applied for this research. The researcher has used hundred percent of the project managers and coordinators, and also used ten percent of the project staffs using simple random sampling for the assessment. The results of the study reveal that all the three (Matrix, Functional, and Pure) type of project organization structure mentioned in the literature are found in Ethio-telecom. The project team has their own selection criteria to select the appropriate project organization structure and they are happy with their choice in their practice. The study also reveals the challenges associated with each project organization structure like getting the right staff for the project, maintaining the staff throughout the life cycle of the project, not rewarding the staff based on their performance, authority and responsibility gap of the project managers on the project teams. The knowledge gap assessment in each project organization's structure shows that the project teams have poor HRM and leadership practice. As a result, the project teams couldn't able to ease the challenges exist in each project organization structure as expected. Based on the findings, therefore, recommendations for ethio-telecom project teams are provided so as to manage and lead the projects efficiently in each project organization structure.*

*Key words; project organization structure, Human resource management, Staffing, Performance Appraisal, Reward, leadership.*

# Table of Contents

Abbreviations and Acronyms .....	iv
CHAPTER ONE .....	1
INTRODUCTION .....	1
1.1. Background of the Study .....	1
1.2. Background of the organization.....	3
1.3. Statement of the Problem .....	5
1.4. Research Objective .....	6
1.4.1. General Objective .....	6
1.4.2. Specific Objectives.....	6
1.5. Research Questions .....	6
1.6. Significance of the study .....	7
1.7. Scope of the study.....	8
1.8. Limitation of the study .....	8
1.9. Operational Definition of Terms.....	9
1.10. Organization of the study .....	10
CHAPTER TWO .....	11
LITERATURE REVIEW .....	11
2.1. Project organization structure.....	11
2.1.1. Different type of Project organization structures .....	12
2.1.2. Comparison of Organization Structures .....	14
2.1.3. Criteria for the selection of the Most Appropriate Organization Structure .....	15
2.1.4. Challenges of using different project organization structure .....	17
2.2. Human Resource Management .....	19
2.2.1. Organization performance and HRM .....	20
2.2.2. HR functions .....	20
2.2.3. Selected HRM function .....	22
2.3. LEADERSHIP.....	33
2.3.1. Leadership style .....	33
2.3.2. Leadership on the Context of Project Organizational Structure .....	36
2.4. Conceptual frame work of the study .....	38

CHAPTER THREE.....	40
RESEARCH METHODOLOGY .....	40
3.1. Research Design and approach .....	40
3.2. Data Type and source.....	41
3.3.Target population and sample design.....	41
3.4. Data collection Methods .....	43
3.5. Data analysis and presentation .....	44
3.6. Ethical issues .....	44
3.7.Validity .....	44
3.8.Reliability .....	45
CHAPTER FOUR.....	46
RESULT AND DISCUSSION .....	46
4.1. Introduction .....	46
4.2. Analysis of the result and interpretation .....	48
4.2.1. Type of Project organization structure used in Ethio telecom .....	48
4.2.2. Project organization structure selection.....	50
4.2.3 Challenges related to project organization structure .....	52
4.2.4. HR Staffing.....	61
4.2.5. Performance Management & reward system.....	70
4.2.6 . Leadership .....	77
CHAPTER FIVE.....	83
SUMMARY, CONCLUSIONS AND RECOMMENDATION .....	83
5.1. Summary .....	83
5.2. Conclusion.....	86
5.2. Recommendations .....	91
REFERENCE.....	93

## Abbreviations and Acronyms

GTP	Growth and Transformation Plan
HRM	Human resource management
IFMIS	Integrated financial management system
MCIT	Ministry of Communications & Information Technology
MOFEC	Ministry of finance and economic commission
PM	Project management
PMO	Project management office
POS	Project organization structure
SD	Standard deviation
TEP	Telecom expansion project
VSAT	Very small aperture terminal

## List of Tables

Table 3.1: Pure Project Organization Structure (TEP) sampling.....	42
Table 3.2: Matrix Project Organization Structure (MOFEC IFMS & School net) sampling.....	42
Table 4.1: Respondent Profile for pure project organization structure /TEP .....	46
Table 4.2: Respondent Profile for Matrix project organization structure /MOFEC IFMS & school net project.....	47
Table 4.3: Respondent rate .....	48
Table 4.4: Type of Project organization structure used in Ethio telecom.....	48
Table 4.5: perception of project organization selection .....	50
Table 4.6: practical challenges assessment related to pure organization structure.....	52
Table 4.7: practical challenges assessment related to Matrix organization structure.....	57
Table 4.8: Staffing assessment in pure project organization structure.....	62
Table 4.9: Staffing assessment in Matrix project organization structure.....	66
Table 5: Performance management and reward assessment in pure project organization structure.....	70
Table 5.1: Performance management and reward assessment in Matrix project organization structure....	74
Table 5.2: leadership practice assessment in pure project organization structure.....	77
Table 5.3: leadership practice assessment in Matrix project organization structure.....	79

# CHAPTER ONE

## INTRODUCTION

In the introductory chapter Background of the Study, Statement of the Problem, Research Objective, Research questions of the study, Definition of terms, Significance, Scope, limitation and Organization of the study are discussed.

### 1.1. Background of the Study

According to Kerzner (2009) project organization is a structure that facilitates the coordination and implementation of project activities. Its main reason is to create an environment that fosters interactions among the team members with a minimum amount of disruptions, overlaps and conflict.

Projects have traditionally been managed through a classic functional hierarchical type organization structure but, with the increase in multi-discipline, multi-department, multi-company and multi-national projects, there has been a move towards management-by-projects, project teams and matrix organization structures (Burke & Barron, 2014).

Even though there is different type of project structures mentioned in the literature, it is usually dictated by different factors as project size, project length, project location, and experience with project management organization, philosophy and visibility of upper level management, available resource and unique aspect of the project. So there is no such thing as a good or bad organization structure; there are only appropriate or inappropriate ones. Therefore, it is essential that the project manager understands the characteristics and features of project organization structures in order to make appropriate decisions on the form of project organization structure that will be used for the project (Kerzner, 2009).

According to Itika (2011) Creation of the organizational structure should be followed by human resourcing, Personnel training and development, Managing performance appraisal, Compensation/Rewards management, Personnel relations and other routine personnel administration functions in order to realize the strategic objective of the company. The same is true for the project

organization structure; it is hard to realize the objective of the project without having proper Human resource management and appropriate leadership with the context of each project organization structure.

Armstrong (2006) define 'HRM as a 'strategic and coherent approach to the management of an organization's most valued assets- the people working there who individually and collectively contribute to the achievement of its objective '. It is concerned with all aspects of how people are employed and managed in organizations. It covers the activities of strategic HRM, human capital management, knowledge management, corporate social responsibility, organization development, resourcing (workforce planning, recruitment and selection and talent management), learning and development, performance and reward management, employee relations, employee well-being and the provision of employee services.

Huselid (1995) found that HRM practices such as employee recruitment and selection procedures, compensation and performance management systems, employee involvement, and employee training have a significant impact on employee turnover and productivity, and on short and long term corporate financial performance.

In addition of having effective human resource management in each project organizational structure, leadership also plays important role for the performance of the project in each organizational structure. So far the construct of leadership has been the topic of many studies in the general management literature and the consensus is that effective leadership is a success factor in organizations, and that an appropriate leadership style can lead to better performance (Turner & Müller, 2003).

Even though leadership plays a big role in the success of the project for each project structure, its importance becomes magnificent in matrix project structure (Burke & Barron, 2014). Feger, R.A & Thomas, A.G also noted that Organizational structure has a moderating impact on the relationship between project manager leadership behavior and project success. Therefore, project managers could identify which leadership behaviors they should employ depending on the organizational structure in which they are working on.

## 1.2. Background of the organization

Ethio telecom, previously known as the Ethiopian Telecommunications Corporation (ETC), is an integrated telecommunications solutions provider operating in Ethiopia. It currently provide telecom service in the entire country on voice, internet & data, channels, with comprehensive plans in place to meet the requirements set out by the Ministry of Communications & Information Technology (MCIT) and peoples of Ethiopia. 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-4" group of state owned corporations in Ethiopia, along with Ethiopian Airlines, the Commercial Bank of Ethiopia, and the Ethiopian Shipping Lines (<http://intranet.ethiotelecom.et>).

As a key player in the development of Ethiopia. Ethio telecom is born, on 29th November 2010, with the ambition of making a paradigm shift in the development of telecom sector to support the steady growth of our country, within the Growth and Transformation Plan (GTP), with ambitious objectives for the year 2015. The Ethiopian government has decided to transform the telecommunication infrastructure and services to world class standard (Ethio-telecom brusher).

As a company, whose vision is “To be a world-class telecom service provider”, there is always business strategy changes, goal shifts and compelling search to go along with worldwide technological advancement and competition. In order to achieve strategic objectives of the company and support development of the country, Ethio-telecom has continually implementing different type of projects with different project organization structure.

Those are some of the projects that have been executed by Ethio-telecom so far with different project organization structure.

- TEP (Telecom expansion project) is a project implemented by Ethio- telecom in order to provide better telecom services for the population by upgrading current telecom infrastructure and also by doing further telecom expansion work in the remote areas of the country. The estimated cost of the project for this Mobile network expansion project is 1.6 billion dollars. To accomplish the overall project, a total of 910 internal staffs has been part

of the project in addition to three international vendor's namely ZTE Corp, Huawei Technologies Co.Ltd and Ericsson engaged in delivering and installing the technology. Even though the project team had planned to complete the project within three years' time interval, the project has lasted for five years i.e. from 2013GC up to 2018GC. In spite of the time delay, this project helped the company to shift the number of mobile user from 24 million to 64 million. This project has used pure project organization structure.

- MOFEC IFMS (Ministry of finance and economic division's integrated financial management system) is a project owned by MOFEC and implemented by Ethio - telecom so as to ease financial transaction of the country. On the first phase, MOFEC had requested Ethio- telecom to interconnect 565 MOFEC Woreda's offices to their central server found in Addis using Woreda-net Back bone infrastructure. The estimated cost of the project is 50 million Ethiopian birr. To accomplish the overall project, a total of 140 internal staffs has been part of the project in addition to four external sub contractor's namely alta computec plc, kenera international trading plc, Roseant engineering technology plc and ANS plc engaged in LAN installation part of the project work. Even though the project team has planned to complete the overall work within one year time interval, the project has elapsed one and half year time period. This project has used Matrix project organization structure.
- School Net is a project owned by Ministry of education and implemented by Ethio- telecom to integrate national educational resources and help ensure the availability of education all over the country. From 2011 GC, the project has been continuously undergoing till now. So far, the project team could able to provide 1850 school net internet and 2570 school net broadcasting services using VSAT technology for government schools throughout the country. In order to accomplish the work, a total of 88 Ethio- telecom staffs have been engaged in the project. The project team has used Matrix project organization structure.

### 1.3. Statement of the Problem

Project organization structures include a number of special organization structures within the human resource knowledge area that enable the project manager to lead and manage multi-discipline projects. The three main types of project organization structure are functional organization structures, matrix organization structures and pure project organization structures (Burke & Barron, 2014).

After the project manager clearly specifies the objective of the project, he/she is expected to choose the appropriate project organization structure. Since each of the project organizational structure has its own advantage and disadvantage, the project manager should be able to optimize the benefit in the selection process by considering the basic factors that influence the selection of a project organizational form (Kerzener, 2009).

In addition to the selection of the appropriate project organization structure, the project manager should also be able to follow the appropriate way of staffing, managing and leading the human resource effectively to achieve the objective of the project (Itika, 2011). Organizations possess inherent ambiguities, uncertainties and interdependencies that make them highly complex (Kerzer, 2009). Based on the preliminary interview done by the researcher with the project managers on April, 2019 in Ethio- telecom, those are some of the challenges observed in their project management practice in each project organization structure.

- Not getting the right staff for the project.
- Inability of maintaining the assigned human resource throughout the life cycle of the project.
- Not having reward system based on the accomplishment

Based on the interview, the problem that has mentioned above seems worse in matrix project organization structure as compared to the pure one .Since there is a limited research done on the project organization structure and associated management challenge during implementation in the literature, the researcher is interested to make deep investigation on their human resource

management and leadership practice on the context of each project organization structure in order to understand their challenges presented during the interview and also to identify their knowledge gap by taking projects from each project organization structure. After doing in depth investigation, the researcher will try to provide appropriate recommendation for challenges associated with each project organization structure.

## **1.4. Research Objective**

The study sets the following general and specific objectives

### **1.4.1. General Objective**

The main objective of this research is to assess project organizational structure practice and challenges in Ethio-telecom.

### **1.4.2. Specific Objectives**

1. To identify the different types of project organization structures used to manage projects in ethio-telecom.
2. To identify selection criteria's the project managers are using in determining the type of project organization structure during project implementation.
3. To assess staffing and leadership practice in the selected project organization structures.
4. To assess how the human resource performance management practices look like in each of the project organization structure selected.
5. To examine knowledge gap the project teams have in each project organization structure.

## **1.5. Research Questions**

This study is an attempt to answer the following basic questions

- What are different types of project organization structures used to manage projects in Ethio-telecom?
- What are the selection criteria's used to select project organization structures?
- How staffing (identifying and recruiting) the human resource practice look like in each of the project organization structure?
- How the human resource performance management practice look like in each of the project organization structure?
- How the leadership awareness and practice of the project managers look like in each of the project organization structure?
- What are the knowledge gaps the project teams have in each project organization structure?

## **1.6. Significance of the study**

The study paper has the following significances

- I. This research tries to fill the gap of the limited research done on the implementation challenges of project organization structure with different project management context. The research will also proposes ways of improving the current implementation challenge of organization structure practice per each organization structure for better performance of the project. So this study can be used as a secondary data source for future studies.
- II. To help Ethio-telecom's project management to identify the strength and weakness & take corrective actions to enhance their practice on project organization structure selection, HR management and leadership practice on the context of each project organization structure to alleviate the challenge they are facing during implementation.
- III. The Study may also help other similar companies to learn from Ethio-telecom's organization structure challenges and proposed recommendation so as to have efficient project organization structure selection, human resource management & leadership practice if they are/were facing similar challenge on their project implementation

## 1.7. Scope of the study

This research has been done by taking the different type of project organization structures found in Ethio- telecom. It mainly focuses on the type of project organization structures, Selection of project organization Structure practice, human resource management & leadership practice of the project managers and associated challenge faced by the project team in each project organization structure.

For the study, the researcher chose pure and matrix organization structure based on the preliminary interview for the in-depth investigation of the challenge associated with project organization structure.

Although there are many project management context associated with each project organization structure, this research limits itself on some part of human resource management and leadership aspect in the assessment. It seems impossible to incorporate all function of HRM and leadership in the study because of the time provided for the study. As a result, this research limits itself on the three major HR functions namely: Staffing, performance management and reward.

## 1.8. Limitation of the study

This research work has been done as a part of MA program to fulfill the requirement of the university. Because of the time limitation provided for the research.

- The study couldn't able cover all challenges of project organization structure with different project management context.
- The study could not able to give the full picture of HRM functions and leadership in each project organization structure.

## 1.9. Operational Definition of Terms

At this place, technical terms and phrases with special meaning were given operational definition according to the context used in the study.

**Project organization:** is a structure that facilitates the coordination and implementation of project activities (Kerzner, 2009).

**HRM (Human resource management):** is a strategic and coherent approach to the management of an organization's most valued assets- the people working there who individually and collectively contribute to the achievement of its objective (Armstrong, 2006).

**Project leadership:** is a process by which a project manager can direct, guide and influence the behavior of the project team and participants towards accomplishing the project objectives (Burke & Barron, 2014).

**School Net:** is a project owned by Ministry of education and implemented by Ethio- telecom to integrate national educational resources and help ensure the availability of education all over the country.

**TEP (Telecom expansion project):** is a project implemented by Ethio- telecom in order to provide better telecom services for the population by upgrading current services and also by making telecom expansion work.

**MOFEC IFMS (Ministry of finance and economic division's integrated financial management system):** is a project owned by MOFEC and implemented by Ethio - telecom in order to ease financial transaction of the country.

**Growth and Transformation Plan (GTP):** is government plan set by the government nationally with in five year time interval with the ambition of transforming the country.

**Project management office (PMO):-** is an office which is responsible of providing support for the project teams.

**Standard deviation (SD):-** a quantity expressing by how much the members of a group differ from the mean value for the group.

## **1.10. Organization of the study**

This research paper is organized in five chapters. Chapter one deals with the introductory part which includes back ground of the study, statement of the problem, objective, research questions, significance of the study, scope and limitation of the study respectively.

Chapter two is devoted to review related literatures on project organization structures, Criteria for selection of appropriate organization Structure, Challenges of using different project organization structure, selected HRM functions to access the management of HRM in each project organization structure and the leadership aspects on the context of each project organization structure.

Chapter three covers the research design, source of data, sampling method, data collection procedure and methods of data analysis.

Chapter four on the other hand is devoted on presenting the findings, analysis and discussion of project organization structure practices and challenges.

The last chapter is the conclusion and recommendation. The findings and recommendations concerning on the challenges of project organization structure implementation's practice will be presented in this final chapter.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1. Project organization structure

According to Kerzener (2009) project organization is a structure that facilitates the coordination and implementation of project activities. Its main reason is to create an environment that fosters interactions among the team members with a minimum amount of disruptions, overlaps and conflict.

Projects have traditionally been managed through a classic functional hierarchical type organization structure .it is the most pervasive organization and hierarchical structure which have been handed down from the medieval kingdoms, the military and the church. The functional organization structure groups people by specialization (production, marketing, accounts, engineering, etc.). The principle behind the functional structure is that it is easier to manage specialists if they are grouped together and supervised by an individual with similar skills and experiences. This centralizes similar resources, gives an economy of scale, provides mutual support by physical proximity and clearly defines line and staff divisions of responsibility and authority (Burke & Barron, 2014).

According Kerzener (2009) the functional organization structure has survived for more than two centuries. However, recent business developments, such as the rapid rate of change in technology and increased stockholder demands, have created strains on existing organizational forms. Fifty years ago companies could survive with only one or two product lines. However, with the passing of time, companies found that survival depended on multiple product lines (i.e., diversification) and vigorous integration of technology into the existing organization. As organizations grew and matured, managers found that company activities were not being integrated effectively, and that new conflicts were arising in the well-established formal and informal channels. Managers began searching for more innovative organizational forms that would alleviate these problems. With the increase in multi-discipline, multi-department, multi-

company and multi-national projects, there has been a move towards management-by-projects, project teams and matrix organization structures.

### **2.1.1. Different type of Project organization structures**

According to Burke & Barron (2014) the most common form of project organization structures are as follows

- Functional organization structure.
- Matrix organization structure.
- Pure project organization structure.

#### **2.1.1.1. Functional organization structure**

The principle behind the functional structure is that it is easier to manage specialists if they are grouped together and supervised by an individual with similar skills and experiences. This centralizes similar resources, gives an economy of scale, provides mutual support by physical proximity and clearly defines line and staff divisions of responsibility and authority (Burke & Barron, 2014).

The functional managers maintain absolute control over the budget. They establish their own budgets, on approval from above, and specify requirements for additional personnel. Because the functional manager has manpower flexibility and a broad base from which to work, most projects are normally completed within cost. Both the formal and informal organizations are well established, and levels of authority and responsibility are clearly defined. Because each person reports to only one individual, communication channels are well structured (Kerzener, 2009).

#### **2.1.1.2. Matrix organization structure**

Most firms operating in multi-project environments have to share common resources in order to deliver superior quality outputs fast and cost-effectively. In order to cope with such situations, matrix management was developed in the early 1960s, and was first officially used in the U.S. aerospace industries (Kuprenas, J.A. 2003).

Turner, J.R. and Muller, R. (2003) defines a matrix structure as an overlap between a functional hierarchy and a project hierarchy. Larson and Gobeli also define a matrix structure as “a ‘mixed’ organizational form in which a normal hierarchy is overlaid by some form of lateral authority, influence, or communication”.

The first type of matrix organization is the functional matrix. In a functional matrix organization, team members involved in the project remain under the control of their functional manager, who in turn retains control over the functional resources. The project manager is formally designated to oversee the project across different functional areas. Therefore, the project manager has limited authority over the project team and primarily plans and coordinates the project (Larson & Gobeli, 1987).

The second type of matrix structure is the balanced matrix. In a balanced matrix, the functional manager and the project manager share the responsibility for the project resources. Under this structure, project managers are assigned to oversee the project and interact on an equal basis with functional managers. The project manager has low to moderate authority over the project team and they usually work full-time as a project manager. Functional managers and project managers jointly direct project work and approve technical and operational decisions (Larson & Gobeli, 1987).

Finally, the third matrix structure is the project matrix. In a project matrix, the project manager is fully responsible for oversight and completion of the project. The project manager has moderate to high authority over the team members. Functional managers only help assign resources and technical expertise on an as-needed basis. The project manager works full-time on projects and is given the title of Project Manager in this type of structure (Larson & Gobeli, 1987).

#### 2.1.1.3. Pure Project organization structure

In a projectized / pure project organization, team members are often collocated. Team members may be from different functional departments of the firm, but they all report directly to the project manager or provide support services to various projects. Thus, the project manager has a great deal of independence and authority in this structure as well as considerable input in the selection of team members. The project manager works full-time as a project manager and

moves sequentially through project assignments. In this type of structure, project managers generally have the title of Project Manager or Program Manager (PMBOK, 2008).

The pure project organization structure is similar in shape to the functional organization structure except that all the departments are dedicated to the project. The pure project organization structure has autonomy from the rest of the company as a self-contained unit with its own technical staff and administration (project office). The project manager has a high level of authority to manage and control the project's resources and constraints (Burke & Barron, 2014).

According to Kerzner (2009) the major advantage of this organizational flow is that one individual, the program manager, maintains complete line authority over the entire project. Not only does he assign work, but he also conducts merit reviews. Because each individual reports to only one person, strong communication channels develop that result in a very rapid reaction time.

### **2.1.2. Comparison of Organization Structures**

Mishra and Soota claim that functional organization is suitable only if operations are continuous and routine. In such cases the coordination is not so important and the specialists are grouped to perform just one function. However they lose the big picture of the project and their view is too narrow. The problems may also arise due to lack of addressed authority and accountability, which slows down the decision making process.

On the other hand in pure project organization structure that is primarily oriented on products, there are several specialists in various disciplines answerable to a manager. Such structure is more staff demanding and that is why it can be recommended for big projects. Multidisciplinary structure brings a broader perspective and clear accountability and authority speed up the whole process.

The matrix organizational structure is something like a compromise between functional and project organization. It is not so staff demanding as the totally projectized organization and project managers have also some authority.

All the characteristics of the project organization structures must be kept in mind while deciding, which of them is the most suitable and appropriate for a particular project. In addition to the characteristics of each project organization structure, there are also many other features and criteria's used for selection of an organizational form.

### **2.1.3. Criteria for the selection of the Most Appropriate Organization Structure**

Proper organizational structure is an indispensable condition of a successful project. Since every project is unique, it requires an individual approach and that is why it is not possible to say that one particular organizational structure is the most effective and efficient in general for all projects. It is important to choose and adjust the organizational structure to the project needs. There are several possibilities of organizational structures that differ in a size of a project manager authority, responsibility and accountability (Carroll and Burton, 2012; Scott, 2012).

Each project organization will attain a unique organizational structure, which—even if the same firms collaborate on future projects—will not rematerialize due to the particular contextual and project-specific factors that form part of its establishment. Organizational design changes depending on factors such as project goals, task characteristics, coordination methods, actors, resources, institutional logics and governance structures and project (Carroll and Burton, 2012; Scott, 2012) .

According to Kerzner (2009), the most important factors that have an influence on the selection of an organizational form are following:

- size of the project
- project duration
- earlier experience with project management organizational forms
- position and attitudes of upper-level management
- project setting
- obtainable resources
- unique features of a particular project

Another author, Shikra, identifies five principles of an appropriate organizational design. These are the characteristics of that should be considered in order to attain an effective organizational structure:

- Division of Labour – labour should be divided among departments to ensure specialization
- Unity of Command- it should be clear who the superior is with a well-established line of commands
- Authority and Responsibility- authority and power should correspond with responsibility
- Spans of Control- adequate centralization and decentralization and levels of control
- Contingency Factors- these factors include environment and technology, as well as task variability and problem analyzability

Very interesting and helpful approach has also Blažek. He claims that the organizational structure is always unique and a particular organizational structure that is highly effective in one organization might be completely useless in another organization. He also identifies five factors that must be taken into consideration while drafting the organizational structure.

- strategy- to determine the sector or the segment, in which the organization operates and to specify the portfolio of products or services
- technology- the process used to transform inputs into outputs
- territory- its influence is important with respect to the product features
- size- an organizational structure in a small organization tends to be rather informal while big organizations have complex and formal structures
- culture of an organization- it refers to the loyalty of workers and their commitment to the organization and its aims

The last approach to be mentioned considers these five components to be essential for an effective organizational form:

- leadership- it is important to have a vision and priorities and also a cohesive team

- decision making and structure- every member of a team must know what his obligations are and there must be clear accountabilities for decisions, as well as the organizational structure must support objectives
- people- good selection of personnel with adequate skills and talent; performance leading to objectives accomplishment
- work processes and system- programmatic work processes must be implemented with a priority; processes and systems should be effective and efficient as well
- culture- values and actions of a “high performance” and ability to change

#### **2.1.4. Challenges of using different project organization structure**

Organizations possess inherent ambiguities, uncertainties and interdependencies that make them highly complex. Some of the challenges associated with each project organization structure are as follows

##### **2.1.4.1. Functional organization structure**

Even though this structure has many advantages, there is almost always a corresponding disadvantage and the majority of these disadvantages are related to the absence of a strong central authority or individual responsible for the total project. As a result, integration of activities that cross functional lines becomes difficult, and top-level executives must get involved with the daily routine. Conflicts occur as each functional group struggles for power. Ideas may remain functionally oriented with very little regard for ongoing projects, and the decision-making process will be slow and tedious as a result project schedules often fall behind (Kerzner, 2009).

##### **2.1.4.2. Matrix organization structure**

Numerous studies have been conducted on the implementation of matrix management and the advantages and problems relating to this type of company structure. Ford and Randolph, (1992) suggested a number of paradoxes between the advantages and disadvantages of matrix structures. This essentially means that although this organizational structure has many advantages, the disadvantages seem to play off against the advantages, thus leading to ‘paradoxes’.

Davis and Lawrence, (1990) describe a matrix organization as one with a multiple command system that also includes support mechanisms, cultures, and behaviors that can support the structure. This multiple command system is arguably the cause of much of the confusion associated with matrix structures. In a typical organization, employees report to a single boss, whereas in a matrix structure, an employee will usually have two bosses (or more than two if the employee works on concurrent projects)

However, other studies indicate that matrix structures create ambiguity over roles and resources and that there tends to be conflict between project managers and functional managers (Larson, E.W. & Gobeli, D.H. 1987).

Such positive and negative characteristics of the matrix structure may affect the quality of communication, collaboration, and trust among team members in various ways, which may in turn have an effect on project success.

While any organizational structure is prone to inherent risks, Bannerman, (2010) refers to literature that indicates the following risks: dual reporting leads to the risks of loyalty conflicts and unclear accountabilities; and localized claims to authority (authority bias) and decisions and actions taken in isolation lead to the risk of poor decision-making. Overlaps in responsibility and authority can result in power struggles and conflict, leading to the risk of slow response time. Preoccupation with sectional interests and infighting can result in a tendency toward anarchy, leading to the risk of control problems. Dual reporting, role ambiguity and conflict, and competing objectives and priorities can lead to personnel issues, such as the risk of staff stress and turnover.

Five common problems with matrix structures were studied by Sy, T. (2005): misaligned goals, unclear roles and responsibilities, ambiguous authority, lack of a matrix guardian, and 'silo-focused' employees were the most cited problems. An interesting observation was the difference in the percentage of top-level and mid-level managers' perceived awareness of these problems unclear roles and responsibilities and 'silo-focused' employees seem to be more commonly experienced among mid-level managers, whereas the other three are more common among top-level managers. Unclear roles and responsibilities had the largest variance. On the problem of

multiple-command conflicts, Engwall and Kälqvist (2010) found that these conflicts are mostly due to the competition between projects and not between different departments.

#### 2.1.4.3. Pure Project organization structure

According to Kerzener (2009) the major disadvantage with the pure project form is the cost of maintaining the organization. There is no chance for sharing an individual with another project in order to reduce costs. Personnel are usually attached to these projects long after they are needed because once an employee is given up, the project manager might not be able to get him back. Motivating personnel becomes a problem. At project completion, functional personnel do not have a home” to return to. Many organizations place these individuals into an overhead labor pool from which selection can be made during new project development. People remaining in the labor pool may be laid off. As each project comes to a close, people become uneasy and often strive to prove their worth to the company by over achieving condition that is only temporary. It is very difficult for management to convince key functional personnel that they do, in fact, have career opportunities in this type of organization.

In the pure project structure, the fast reaction time keeps activities on schedule, but technology suffers because without strong functional groups, which maintain interactive technical communication, the company’s outlook for meeting the competition may be severely hampered. The engineering department for one project might not communicate with its counterpart on other projects, resulting in duplication of efforts.

## 2.2. Human Resource Management

Successful project management, regardless of the organizational structure, is only as good as the individuals and leaders who are managing the key functions. Project management is not a one-person operation; it requires a group of individuals dedicated to the achievement of a specific goal. Project management needs to have the right project team through effective HRM to accomplish the objective of the project (Kerzner, 2009).

Armstrong, (2006) define 'HRM as a 'strategic and coherent approach to the management of an organization’s most valued assets- the people working there who individually and collectively

contribute to the achievement of its objective '. It is concerned with all aspects of how people are employed and managed in organizations. It covers the activities of strategic HRM, human capital management, knowledge management, corporate social responsibility, organization development, resourcing (workforce planning, recruitment and selection and talent management), learning and development, performance and reward management, employee relations, employee well-being and the provision of employee services.

Turner, R., Huemann, M., & Keegan, A. (2008) explains HRM as a core process in all organizations affecting the way they acquire and use human resources, and how employees experience the employment relationship. HRM have strategic importance to all organizations, contributing to the success of the organization and helping to create competitive advantage (Huselid, 1995).

### **2.2.1. Organization performance and HRM**

Huselid (1995) found that HRM practices such as employee recruitment and selection procedures, compensation and performance management systems, employee involvement, and employee training have a significant impact on employee turnover and productivity, and on short and long term corporate financial performance. HRM practices affect organization performance greater when they are integrated and implemented together. Bakker (2005) found that employee-centered management practices can improve organizational performance. Huselid (1995) analyzed the firm level impact of HRM practices as a system, and found a strong relationship of high involvement HRM practices with organizational performance. Rondeau and Wagar (2001) as cited on Huselid 1995 also investigated the effect of HRM practices on performance in Canada.

### **2.2.2. HR functions**

Robert L and John J. 2011 describe HR management as seven interlinked functions taking place within organizations. Those functions can be grouped as follows:

1. **Strategic HR Management:** As part of maintaining organizational competitiveness, strategic planning for HR effectiveness can be increased through the use of HR metrics and HR

technology. Human resource planning (HRP) function determine the number and type of employees needed to accomplish organizational goals. HRP includes creating venture teams with a balanced skill-mix, recruiting the right people, and voluntary team assignment. This function analyzes and determines personnel needs in order to create effective innovation teams. The basic HRP strategies are staffing and employee development.

2. **Equal Employment Opportunity:** Compliance with equal employment opportunity (EEO) laws and regulations affects all other HR activities.
3. **Staffing:** The aim of staffing is to provide a sufficient supply of qualified individuals to fill jobs in an organization. Workers, job design, and job analysis lay the foundation for staffing by identifying what diverse people do in their jobs and how they are affected by them. Through HR planning, managers anticipate the future supply of and demand for employees and the nature of workforce issues, including the retention of employees. These factors are used when recruiting applicants for job openings. The selection process is concerned with choosing qualified individuals to fill those jobs.
4. **Talent Management and Development:** Beginning with the orientation of new employees, talent management and development includes different types of training. Training and Development programs provide useful means of assuring that the employees are capable of performing their jobs at acceptable levels and also more than that. Performance appraisal includes encouraging risk taking, demanding innovation, generating or adopting new tasks, peer evaluation, frequent evaluations and auditing innovation processes. This function monitors employee performance to ensure that it is at acceptable levels or not. This strategy appraises individual and team performance so that there is a link between individual innovativeness and company profitability. Which tasks should be appraised and who should assess employees' performance are also taken into account.
5. **Total Rewards:** Compensation in the form of pay, incentives and benefits are the rewards given to the employees for performing organizational work. Compensation management is the method for determining how much employees should be paid for performing certain jobs. Compensation affects staffing and in the matter of staffing people are generally attracted to organizations offering a higher level of pay in exchange of the work performed. This function uses rewards to motivate personnel to achieve an organization's goals of productivity, innovation and profitability.

6. **Risk Management and Worker Protection:** Employers must address various workplace risks to ensure protection of workers by meeting legal requirements and being more responsive to concerns for workplace health and safety. Also, workplace security has grown in importance along with disaster and recovery planning, and
7. **Employee and Labor Relations:** The relationship between managers and their employees must be handled legally and effectively. Employer and employee rights must be addressed. It is important to develop, communicate, and update HR policies and procedures so that managers and employees alike know what is expected. In some organizations, union/management relations must be addressed as well.

### **2.2.3. Selected HRM function**

For this study three major human resource management functions (staffing, performance management & total reward) have been selected and discussed below here in detail.

#### **2.2.3.1. Staffing**

Staffing includes human resources planning and forecasting, recruiting, and selecting employees. Human resources planning and forecasting is the process that a firm uses to ensure that it has the right amount and the right kind of people to deliver a particular level of output or services in the future. Recruiting is the process used to form a pool of job candidates for a particular job. Selection is the process of making a —hire or —no hire decision regarding each job applicant for a job (Itika, 2011). Recruitment involves attracting a pool of applicants upon which selection procedures will later be applied. Research suggests staffing effectiveness is both a function of the quality and quantity of the applicant pool. Roshen Joseph & Gautam Ghosh,(2000) stated that Recruitment is the entry step and if required care is not taken then the organization will have to face adverse consequences.

Ensuring that the right people are in the right place at the right time is a critical factor in gaining and maintaining competitive advantage. Recruitment and selection have always been crucial processes for organizations. They are integrated activities. Bratton and Gold (2007) refers recruitment as the process of generating a pool of capable people to apply to an organization for employment. Selection is the process by which managers and other use specific instruments to

choose from a pool of applicants the person or persons most likely to succeed in the job(s), given management goals and legal requirements. Recruitment and selection represent the entry point activities. Hence, emphasis may be placed on admitting only those applicants who are likely to behave, acquire skills and show attitudinal commitment in line with the requirements of the organization's strategy (Bratton and Gold, 2007).

Manmohan Joshi (2013) defines the term —recruitment as the first stages in the process of filling of vacancies in an organization. These vacancies may arise on account of the following:

1. **Creation of a new position:** It may be necessary because of increase in the work load of existing employees or the general expansion of the organization. First, HR department will have to analyze whether it is not possible for the existing workers to share additional work.
2. **Resignation/termination of an existing employee:** First HR department will have to decide whether it is necessary to fill this vacancy. It may be possible to distribute the work of this employee among the existing ones. It may be an opportunity to re-design the work allotment to various existing employees.

Recruitment process may be initiated in several ways

### **I. Internal recruitment**

A vacancy may be filled by a person, who is already working in the organization in another position, section, or department. This may provide an opportunity for transfer or promotion to an existing employee who might be interested in this position. The advantages of such internal transfer or promotion are (Manmohan Joshi, 2013).

- Employees are aware that hard work may be rewarded through promotion. This leads to greater job satisfaction among the employees.
- The skills and potential of internal candidates are already known to the manager, and so it may be easy to transfer/promote such an employee without going through the whole process of recruitment.

- Employees who have already been promoted have a good knowledge about the work and the organization. Hence the induction and training period for such employees may be shorter than for new comers.

According to Manmohan Joshi (2013), there are some disadvantages of internal recruitment such as the organization will lose the opportunity of getting employees particularly at managerial level who might bring with them new ideas and innovations and other employees – who are not considered – may develop feelings of jealousy and resentment and may not cooperate with this employee. In order to overcome these disadvantages the management must ensure that.

- Details of vacancies are circulated to all;
- Selection is to be made in a fair and impartial way;
- Selection should be based on merit and performance.

## **II. External recruitment**

This involves the filling of a vacancy from a source outside the organization .Effective recruitment relies on the degree to which overall management philosophy supports and strengthens an approach to HRM that focuses on the deployment and development of new employees once they have gained entry to an organization. In doing this, there needs to be an intelligent uses of recruitment channel (Manmohan Joshi 2013).

An organization has two sources of labor supply-the internal and the external labor market. Internal recruitment involves words-of-mouth, recommendation or notice board advertisements. In contrast, recruitment in the external labor market involves different ways: advertising, job centers, employment agencies, walk-in and professional associations (Storey, 1989).

Stavrou-Costea, E. 2005 find out challenges in handling interview technique as a part of selection is discussed in this paper. Exterior simplicity of interview technique has become the encouraging factor for widespread use of the interview method for a variety of purposes. In order to use the interview method rightly and for right purposes, the practitioner should be conscious of the following challenges: Understanding and managing limitations of the interview method Understanding the background of interviewee Training of interviewers Formatting interview

Understanding purpose/context Interviewer to be honest and straight forward Interviewers keeping self in high pedestal Warming up Advance briefing to interviewee Trap of symbol and artifacts Making generalizations See-off candidate with a positive mind Michael A. Campion., A highly structured employment interviewing technique is proposed, which includes the following steps:

- Develop questions based on a job analysis,
- Ask the same questions of each candidate,
- Anchor the rating scales for scoring answers with examples and illustrations,
- Have an interview panel record and rate answers,
- Consistently administer the process to all candidates, and
- Give special attention to job relatedness, fairness, and documentation in accordance with testing guidelines.

Examination of psychometric properties for hiring entry-level production employees reveals high inter-rater reliability and predictive validity, as well as evidence for test fairness and utility. The levels of these properties are comparable to those of a comparison battery of typical employment tests, and correlations with the tests suggest that the interview has a strong cognitive aptitude component.

Selection is process of choosing qualified professionals who are available to fill positions in an organization. Interviews, reference and background checks, and application blanks are the most common used methods. Pre-employment tests are also effective to identify the candidates who will match the job requirements. The selection method should be practical to use, job related, legally acceptable, and provide sufficient utility. In projects the project management team may or may not have direct control over team member selection because of collective bargaining agreements, use of subcontractor personnel, matrix project environment, internal or external reporting relationships, or other various reasons. It is important that the following factors are considered during the process of acquiring the project team (Cascio, 1995).

The project manager or project management team should effectively negotiate and influence others who are in a position to provide the required human resources for the project. Failure to

acquire the necessary human resources for the project may affect project schedules, budgets, customer satisfaction, quality, and risks. Insufficient human resources or capabilities decrease the probability of success and, in a worst case scenario, could result in project cancellation. If the human resources are not available due to constraints, such as economic factors or previous assignments to other projects, the project manager or project team may be required to assign alternative resources, perhaps with lower competencies, provided there is no violation of legal, regulatory, mandatory, or other specific criteria. Induction is the process of welcoming, indoctrination and socialization of new employee to his job and organization. In words of Michael Armstrong, —Induction is the process of receiving and welcoming employee when he first joins a company and giving him basic information he needs to settle down quickly and happily and start work (Armstrong, 2002).

### **2.2.3.2. Performance Management**

Performance management is a process owned and driven by line management that aims at getting better results from the organization, teams, and individuals by understanding and managing performance within an agreed framework of planned goals, standards and competence requirements (Armstrong 2008).

According to Armstrong and Baron (1998) as cited in (Armstrong, 2001), Performance management is defined as a strategic and integrated approach to delivering sustained success to organizations by improving the performance of the people who work in them and by developing the capabilities of teams and individual contributors'. It is concerned with performance improvement, employee development, satisfying the needs and expectations of all the organization's stake holders-owners, management, employees, customers, suppliers and the community.

Itika (2011) suggest that it is very difficult to manage human capital without a system that measures performance and performance capability. Organizations need a performance management system that can identify the capabilities of its human capital so that they can effectively staff projects, implement strategic initiatives and manage development of their workforce. Measures of performance are also required to deal with performance problems and

motivate performance excellence. Effective performance management system is the building block of organizations human capital management system

It is a major player in accomplishing organizational strategy in that it involves measuring and improving the value of the workforce. PM includes incentive goals and the corresponding incentive values so that the relationship can be clearly understood and communicated. There is a close relationship between incentives and performance (David F, 2009).

Although every HR function contributes to performance management, training and performance appraisal play a more significant role. Whereas performance appraisal occurs at a specific time, performance management is a dynamic, ongoing, continuous process. Every person in the organization is a part of the PM system. Each part of the system, such as training, appraisal, and rewards, is integrated and linked for the purpose of continuous organizational effectiveness. With PM, the effort of each and every worker should be directed toward achieving strategic goals. If a worker's skills need to be improved, training is needed. With PM systems, training has a direct tie-in to achieving organizational effectiveness. In addition, pay and performance are directly related to achieving organizational goals.

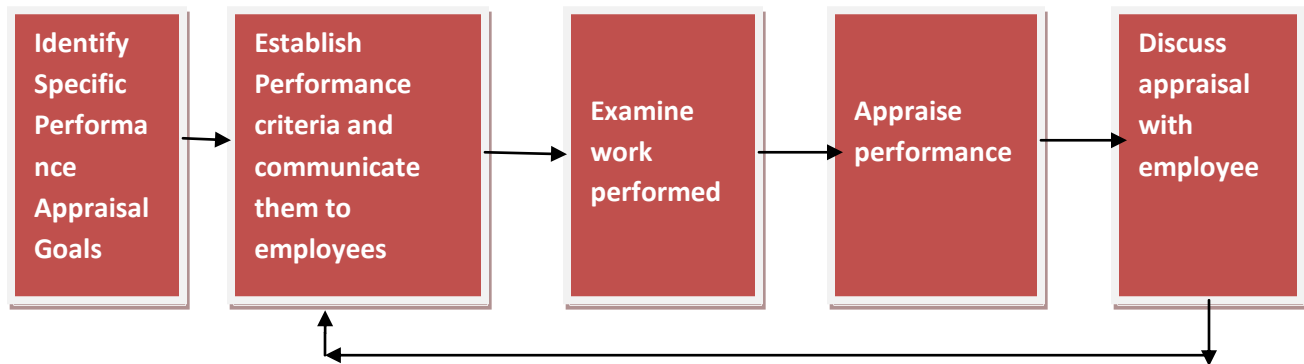
#### 2.2.3.2.1. Performance Appraisal

Performance appraisal (PA) is a formal system of review and evaluation of individual or team task performance. A critical point in the definition is the word formal, because in actuality, managers should be reviewing an individual's performance on a continuing basis (Jeffrey R & Linda R, 2010).

PA is especially critical to the success of performance management. Although performance appraisal is one component of performance management, it is vital, in that it directly reflects the organization's strategic plan. Although evaluation of team performance is critical when teams exist in an organization, the focus of PA in most firms remains on the individual employee. Regardless of the emphasis, an effective appraisal system evaluates accomplishments and initiates plans for development, goals, and objectives.

### 2.2.3.2.1. Performance Appraisal Process

The starting point for the PA process is identifying specific performance goals. An appraisal system probably cannot effectively serve every desired purpose, so management should select the specific goals it believes to be most important and realistically achievable.



The next step in this ongoing cycle continues with establishing performance criteria (standards) and communicating these performance expectations to those concerned. Then the work is performed and the supervisor appraises the performance. At the end of the appraisal period, the appraiser and the employee together review work performance and evaluate it against established performance standards. This review helps determine how well employees have met these standards, determines reasons for deficiencies, and develops a plan to correct the problems. At this meeting, goals are set for the next evaluation period, and the cycle repeats (Jeffrey R & Linda R, 2010).

### 2.2.3.2.1. Performance Appraisal Methods

Managers may choose from among a number of appraisal methods. The type of performance appraisal system used depends on its purpose. If the major emphasis is on selecting people for promotion, training, and merit pay increases, a traditional method, such as rating scales, may be appropriate. Collaborative methods, including input from the employees themselves, may prove to be more suitable for developing employees.

## **1. 360-Degree Feedback Evaluation Method**

The 360-degree feedback evaluation method is a popular performance appraisal method that involves evaluation input from multiple levels within the firm as well as external sources. The 360-degree method is unlike traditional performance reviews, which provide employees with feedback only from supervisors Tracy, G (2008).

In this method, people all around the rated employee may provide ratings, including senior managers, the employee himself or herself, supervisors, subordinates, peers, team members, and internal or external customers Sean Drakes, (2008). *Tracy Maylette and Juan Riboldi 2007* Many companies use results from 360-degree programs not only for conventional applications but also for succession planning, training, and professional development.

Unlike traditional approaches, 360-degree feedback focuses on skills needed across organizational boundaries. Also, by shifting the responsibility for evaluation to more than one person, many of the common appraisal errors can be reduced or eliminated.

The 360-degree feedback method may provide a more objective measure of a person's performance. Including the perspective of multiple sources results in a broader view of the employee's performance and may minimize biases that result from limited views of behavior.

However, it is important for all parties to know the evaluation criteria, the methods for gathering and summarizing the feedback, and the use to which the feedback will be put. An appraisal system involving numerous evaluators will naturally take more time and, therefore, be more costly

## **2. Traditional performance reviews**

### **➤ Rating Scales Method**

The rating scales method is a performance appraisal method that rates employees according to defined factors. Using this approach, evaluators record their judgments about performance on a scale. The scale includes several categories; normally 5–7 in number, defined by adjectives such as outstanding, meets expectations, or needs improvement. Although systems often provide an overall rating, the method generally allows for the use of more than one performance criterion.

One reason for the popularity of the rating scales method is its simplicity, which permits quick evaluations of many employees (Armstrong, 2006).

➤ **Critical Incident Method**

The critical incident method is a performance appraisal method that requires keeping written records of highly favorable and unfavorable employee work actions. When such an action, a “critical incident,” affects the department’s effectiveness significantly, either positively or negatively, the manager writes it down. At the end of the appraisal period, the rater uses these records along with other data to evaluate employee performance. With this method, the appraisal is more likely to cover the entire evaluation period and not focus on the past few weeks or months (Armstrong, 2006).

➤ **Essay Method**

The essay method is a performance appraisal method in which the rater writes a brief narrative describing the employee’s performance. This method tends to focus on extreme behavior in the employee’s work rather than on routine day-to-day performance. Ratings of this type depend heavily on the evaluator’s writing ability. Supervisors with excellent writing skills, if so inclined, can make a marginal worker sound like a top performer. Comparing essay evaluations might be difficult because no common criteria exist. However, some managers believe that the essay method is not only the most simple but also an acceptable approach to employee evaluation (Armstrong, 2006).

➤ **Work Standards Method**

The work standards method is a performance appraisal method that compares each employee’s performance to a predetermined standard or expected level of output. Standards reflect the normal output of an average worker operating at a normal pace. Firms may apply work standards to virtually all types of jobs, but production jobs generally receive the most attention. An obvious advantage of using standards as appraisal criteria is objectivity. However, in order for employees to perceive that the standards are objective, they should understand clearly how the standards were set. Management must also explain the rationale for any changes to the standards (Armstrong, 2006).

### ➤ **Ranking Method**

The ranking method is a performance appraisal method in which the rater ranks all employees from a group in order of overall performance. A difficulty occurs when all individuals have performed at comparable levels (as perceived by the evaluator). Paired comparison is a variation of the ranking method in which the performance of each employee is compared with that of every other employee in the group. A single criterion, such as overall performance, is often the basis for this comparison. The employee who receives the greatest number of favorable comparisons receives the highest ranking. Some professionals in the field argue for using a comparative approach, such as ranking, whenever management must make human resource decisions. They believe that employees are promoted or receive the highest pay increases not because they achieve their objectives, but rather because they achieve them better than others in their work group (Armstrong, 2006).

### ➤ **Forced Distribution Method**

The forced distribution method of performance appraisal requires the rater to assign individuals in a work group to a limited number of categories, similar to a normal frequency distribution. The purpose of forced distribution is to keep managers from being excessively lenient and having a disproportionate number of employees in the “superior” category D.G (2008).

The forced distribution systems tend to be based on three levels. In GE’s system, the best performers are placed in the top 20 percent, the next group in the middle 70 percent, and the poorest performing group winds up in the bottom 10 percent (Armstrong, 2006).

### ➤ **Behaviorally Anchored Rating Scale Method**

The behaviorally anchored rating scale (BARS) method is a performance appraisal method that combines elements of the traditional rating scales and critical incident methods; various performance levels are shown along a scale with each described in terms of an employee’s specific job behavior.

A BARS system differs from rating scales because, instead of using terms such as high, medium, and low at each scale point, it uses behavioral anchors related to the criterion being measured. This modification clarifies the meaning of each point on the scale and reduces rater bias and

error by anchoring the rating with specific behavioral examples based on job analysis information (Armstrong, 2006).

### ➤ **Results-Based System**

The manager and subordinate jointly agree on objectives for the next appraisal period in a results-based system, in the past a form of management by objectives. In such a system, one objective might be, for example, to cut waste by 10 percent. At the end of the appraisal period, an evaluation focuses on how well the employee achieved this objective (Armstrong, 2006).

### **2.2.3.2. Reward**

In the context of managing people, the reward system underlines a core feature of the employment relationship. According to Bratton and Gold (2007), Reward refers to all the financial, non- financial and psychological payments that an organization gives for its employees in exchange for the work they perform. 'Reward practices engendering debate among academics and organizational leaders on the role that it plays in achieving substantive employee behaviors like task performance, flexibility, quality and commitment. It is also argued that the design and management of reward systems holds one of the most difficult HRM tasks for general managers. Regardless of any other rewards it gives to its employees, an organization must make three main decisions about monetary reward: how much to pay, for whom to pay (individual or group) and how much emphasis should be placed on monetary reward as part of the total employment relationship.

Since rewards mean additional costs to the organization, the overall aim is providing “value for money” and contributing to organizational success. In the case of project management, it was concluded that rewards shall provide value for money to the project and contribute to project success (Armstrong 2002).

Rewards cannot directly affect success. The direct effect of rewards is on employees’ motivation. Two types of motivation exist: Intrinsic and extrinsic motivation. Intrinsic motivation is “self-generated” and means employees are motivated to work because of the work. Extrinsic motivation is generated by external stimulus such as rewards. Employees’ motivation

directly affects their performance. The higher the employees' performance, the more likely is project or organizational success (Armstrong 2002).

## **2.3. LEADERSHIP**

Project leadership is a process by which a project manager can direct, guide and influence the behavior of the project team and participants towards accomplishing the project objectives. Leadership plays a significant role within organizations in order to cope with challenges (Burke & Barron, 2014).

Yukl (2012) states that "Leadership is the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individuals and collective efforts to accomplish shared objectives." Furthermore, Manning and Robertson (2011) state 'leadership is a process of transformative change both individually and as a team'.

The construct of leadership has been the topic of many studies in the general management literature. The consensus is that effective leadership is a success factor in organizations, and that an appropriate leadership style can lead to better performance (Turner & Müller, 2003).

### **2.3.1. Leadership style**

Even though there is no specific leadership style that works for every scenario, the most common type of leadership style mentioned in the literature are as follows

#### **2.3.1.1. Transformational leadership style**

Transformational leadership styles emphasize on team-building, motivation, and cooperation with other employees to accomplish the overall goal of the organization. Transformational leaders define goals and incentives to raise the performance of other employees to higher levels and provide opportunities for growth for each one. Burns is the first researcher who put this leadership style on the primacy of leadership research (Bass and Avolio, 2004). Later, Bass (1985) began developing this style to produce first formal theoretical presentation through his book "leadership and performance beyond the expectation." Bass's research recognizes both

leaders and followers, and the way they worked together to lift the level of motivation towards organizational goal. In defining transformational leadership, Burns define transforming leadership as “a leader appeals to the moral values of followers in an attempt to raise their consciousness about ethical issues and to mobilize their energy and resources to reform institutions”(Yukl, 2012, p. 263). Bass’s definition is “The process by which leaders appeal to followers' values and emotions is a central feature in current theories of transformational and visionary leadership in organizations”(Bass 1985 cited by (Yukl, 2012, p. 264).

### 2.3.1.2. Transactional leadership style

Transactional leadership style is involved in maintaining the normal flow of activities. It can be described as “keeping the ship afloat.” Transactional leaders use disciplinary power and an array of incentives to induce employees to achieve their best. In other words, the transactional aspect refers to leaders who inherently motivates others by exchanging rewards for performance. A transactional leader is often concerned with making sure everything flows smoothly today, instead of looking ahead to long-run strategy.

Burns (1978) was the first one who sheds light on this type of leadership (Bass & Avolio, 2004). His view is based on making a mutually beneficial arrangement with others. Bass (1985) contrasts transformational leaders with transactional leaders. He defines the transactional leaders as allocating punishments and rewards as central of any admirations. Bass (1985) and Burns (1978) indicate that the transactional leader is the one who works within an existing structure or system, and he/she does not try to change the policies.

### 2.3.1.3. Laissez-faire leadership style

Not organized, inefficient, avoid the critical decision making, and frustrate subordinates all are the characteristics of Laissez-faire leadership style (Goleman, 2000). This leader usually cannot take the responsibility to lead his team in order to achieve the goals, objectives, and vision of the company or organization This type of leadership can result in employees getting little or no training, employees act according to their own will, and poor organizational performance (Bass et al., 1990). Bass and Avolio (2004) describe this style as “the absence of leadership, the

avoidance of intervention or both. Decisions are often delayed, feedback, rewards, and involvement are absent, and there is no attempt to motivate followers or to recognize and satisfy their needs.”

To sum up, leaders are hands-off and allow others to make the decisions. Furthermore, Laissez faire leadership style leads to the lowest productivity among group members.

#### 2.3.1.4. Mixed leadership style

Bass et al. (1990) argue that the same leader could apply different styles depending on the circumstances. Thus it does not necessarily mean that the transactional and transformational are unrelated (Hartog et al., 1997). Although Burns (1978) think that the two styles are entirely contrasting, Bass (1985) suggests that the best leaders are those who show both styles. The presence of transformational leadership does not necessarily ban the presence of transactional leadership. Bass and Avolio (1990) explain this relationship: “The transformational leader may provide a new strategy or vision to structure the way to tackle a problem. Dixon (1998) believes that when the transactional leadership is enhanced by transformational leadership, can result in most effective leadership. According to Bass & Avolio (2004), both leadership styles build trust, respect, and a desire to work collaboratively and collectively for a common goal. These two styles of leadership form a basis for organizational success (McGuire and Kennerly, 2006).

#### 2.3.1.5. Autocratic leadership style

Autocratic leadership focuses on power more than the people. Van Vugt et al. (2004) describe the autocratic leadership style or the authoritarian leadership as the one who is characterized by individual control over all decisions and little input from group members The leader practices all decision-making authority including determining policies, procedures, tasks, reward, and punishment (Van Vugt et al. 2004). The autocratic leader assumes that all employees are lazy, untrustworthy. Furthermore, he/she supposes leaving the functions of planning, organizing, and controlling to employees may lead to fruitless results. Therefore such functions should be done by the leader without any involvement (Fiaz et al., 2017). Authority, power, control, and manipulation are all the tools that autocratic leader uses in order to get the job done (Puni et al., 2014).

### 2.3.1.6. Changing leadership style

Leadership plays a significant role within organizations in order to cope with modern challenges. However, it is difficult to find studies related to project and functional managers and the changing of their leadership styles over time. Researchers of leadership have differing opinions about the efficacy of changing leadership styles. Some researchers think that a leading style is inherent while others believe a leadership style changes through the influence of many outside factors. The employees from different cultures are mixed in the workplace, creating more culturally diverse. In today's work environment, with the added pressures of economic uncertainty, one style of leadership cannot fit all situations. Leaders learn to adapt their leadership styles to meet the needs of various conditions (“The changing face of leadership,” 2010).

Rosenbach et al. (2012) recognized that no single style is best for all situations. For instance, the medical doctors change their styles depending on the situation. They adopt a directive leadership style when dealing critically ill patients, and empowering leadership style when the dealing with less acute situations. Accordingly, the project and functional managers may not adopt one style (transformational, transactional, laissez-faire, and autocratic), instead they may shift from one to another based on the circumstance of the situation.

### **2.3.2. Leadership on the Context of Project Organizational Structure**

The organization’s established patterns of relationships and communication affect the process of selection of the project team as well as the level and type of authority of the project manager over the individual team members (PMBOK, 2008).

A project manager must work within the constraints of the organizational structure. Hence, the individual’s leadership style may be suited to some structures better than others. Cooke-Davies et al (2009) suggest that the success of project management (and by extension, the success of the individual project managers) depends on the level of —fit between the organization’s strategy and their organizational context..

The Project Management literature identifies five common organizational structures: functional, weak matrix, balanced matrix, strong matrix, and projectized (Larson & Gobeli, 1987; Kuprenas, 2003). Each of these structures has a different impact on the authority of the project manager, the nature of the project manager's role, and the team selection process.

Feger, R.A & Thomas, A.G states that Organizational structure has a moderating impact on the relationship between project manager leadership behavior and project success. Therefore, project managers could identify which leadership behaviors they should employ depending on the organizational structure they are working on.

### **2.3.2.1. Leadership in Matrix organization structure**

In the traditional functional organization structure the project manager's position gave the project manager 'position authority' to make decisions, place orders, issue instructions and acquire resources (from within the department) to achieve the project's objectives. This approach worked well for projects within a functional department, but as companies changed to managing multidiscipline projects through a matrix organization structure, so the project manager's position authority diminished. The project manager's position within the matrix structure enables the project manager to coordinate the project work between departments and between contractors and suppliers. But, at the same time, the matrix structure removes the formal line authority the project manager had over the resources in a functional department. This is because, within the matrix structure, the project manager has to borrow resources from the functional managers. This means the project manager does not have access to the resources as a matter of right and might have to negotiate with the functional managers for the use of their resources (Burke & Barron, 2014).

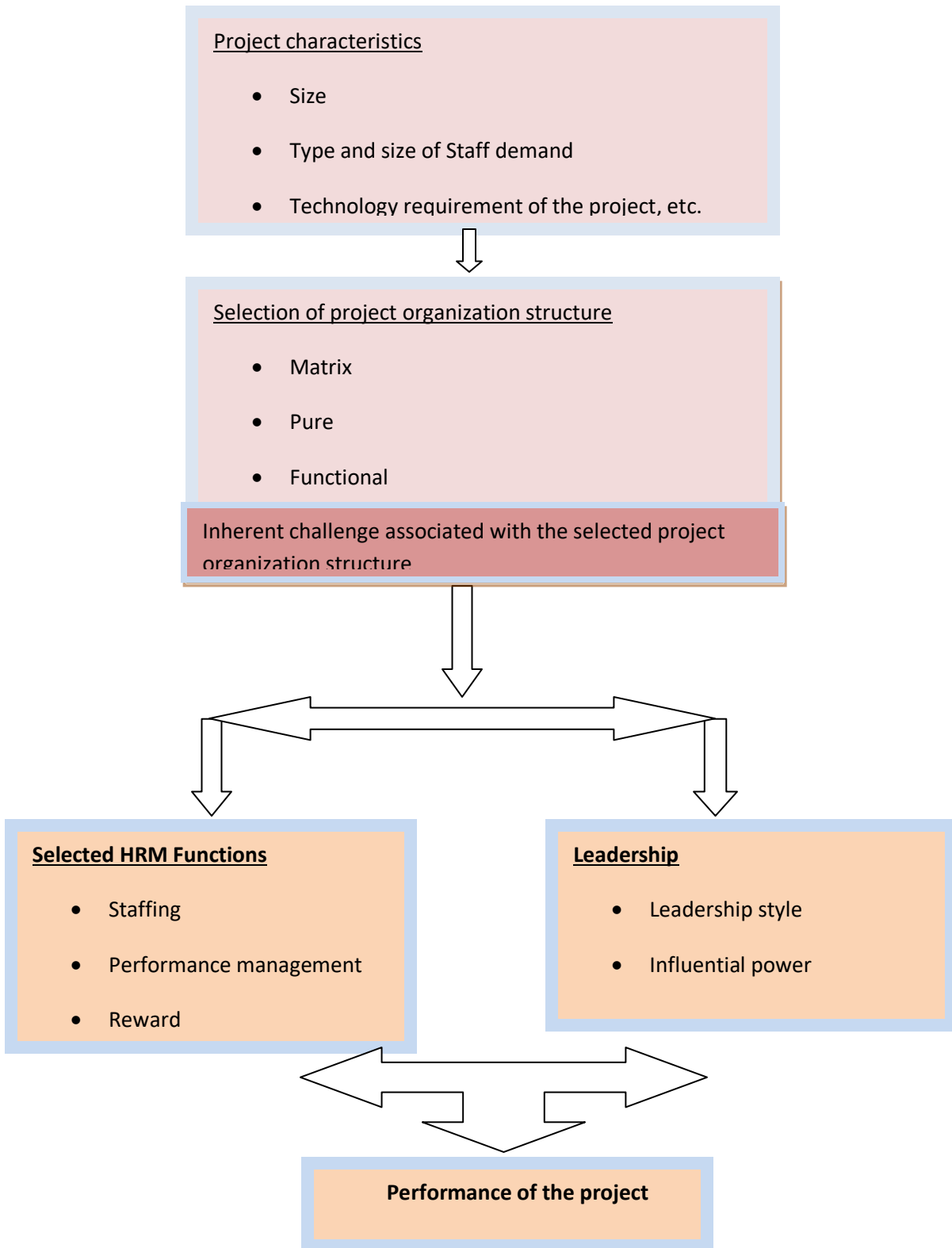
Since appropriate use of influential power is important determinant of success when exercising leadership, PM's in Matrix structure should be able to identify and exercise different mix of power that are appropriate based on the situation.

According to Burke & Barron (2014), Six Areas of Leadership Power to Influence are as follows

- **Legitimate Power** Legitimate power is automatically conferred on the project manager with the appointment to the position, and this gives the project manager the right to issue instructions and use company resources.
- **Coercive Power** Coercive power is a power that is based on fear. A project leader using coercive power can make life very difficult for the team members if they do not follow as the leader demands. Team members working under a coercive leader are unlikely to be committed, and more likely to resist the leader.
- **Reward Power** Reward power is the opposite of coercive power. Reward power is the project leader's ability to encourage the team to perform based on the distribution of rewards that the team members view as valuable.
- **Expert Power** Expert power is based on the project leader's project-specific skills, knowledge and ability to solve problems. The project leader's project-related competency earns respect from the team members.
- **Referent Power** Referent power is based on the project leader's desirable personal and interpersonal traits. The project leader's natural charisma, powers of persuasion, rapport and humor encourage the team members to follow.
- **Communication Power** Communication power is based on the project manager's ability to control the project's lines of communication.

## 2.4. Conceptual frame work of the study

The concept expressed in the conceptual framework is based on the literature reviewed by the researcher. Source: Burke & Barron (2014), Cooke-Davies et al (2009), Itika (2011), Kerzner (2009), Larson & Gobeli (1987), Huselid (1995), Robert & John (2011), Armstrong (2002), Armstrong (2006).



# **CHAPTER THREE**

## **RESEARCH METHODOLOGY**

In this chapter Research design and approach, Data type and source, Target population and sample design, Data collection methods, Data analysis & presentation and Ethical issues are discussed.

### **3.1. Research Design and approach**

In order to address the research questions and also achieve the research objective, the researcher has determined the suitable research design. A research design is an arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with time and money in consideration. In fact, a research design is the conceptual structure within which research is conducted; it constitutes the blue print for the collection, measurement and analysis of data (Kothari 2004).

This research has a descriptive nature describing the existing phenomenon as it exists. According to Kothari (2004), descriptive research includes surveys and fact-finding enquiries of different kinds. The major purpose of descriptive research is description of the state of affairs as it exists at present. In a very real sense, description is fundamental to all research.

The research has used mixed research approach. The researcher will use a convergent design to compare findings from qualitative and quantitative data sources. It involves collecting both types of data at roughly the same time; assessing information using parallel constructs for both types of data; separately analyzing both types of data; and comparing results through procedures such as a side-by-side comparison in a discussion, transforming the qualitative data set into quantitative scores, or jointly displaying both forms of data.

### 3.2. Data Type and source

**Data type:** - The researcher has used both primary and secondary data types to present a reliable and valid picture of the result.

#### **Primary Data source**

The first primary data has been collected from the survey done on the project managers, Coordinators and projects staffs in each project organization structure using questionnaires. The second source of primary was from oral interview from the selected project managers found in addis ababa in each project organization structure.

#### **Secondary Data Source**

The researcher has got secondary data from the selected project's document in each project organization structure and also from ethio- telecom intranet website regarding the company's profile ([www.ethiotelecom.intranet.et](http://www.ethiotelecom.intranet.et)).

### 3.3. Target population and sample design

Since two project i.e. MOFEC IFMS (Ministry of finance and economic commission's integrated financial management system) and School net project from Matrix project structure and one project (TEP (Telecom expansion project)) from pure project structure has been selected for this study based on the preliminary interview of the researcher, the total population of the study from pure and matrix organizational structure would be listed as follows.

- Pure project organization structure /TEP (Telecom expansion project):- 13 project managers that have been involved in 13 sectors of the project, 39 Project coordinators and 858 project staffs.
- Matrix project organization structure /MOFEC IFMS & School net project: - 10 "Project manager/ project management specialist" and 13 Project coordinators and 117 project staffs.

The researcher has taken the project managers and coordinators 100 % in each project organization structure and takes 10 % of the project staffs using simple random sampling. As stated in Richard M. Jacobs, OSA, Ph.D. (2003) for survey research, it is common to sample 10 % to 20 % of the population. Based on simple random sampling method, 858 (10%) of TEP and 117(10 %) of (MOFEC & School net) staffs were taken as a sample size of the study from the total target groups. The reason for using 10% is due to time constraint.

Table 3.1: Pure Project Organization Structure (TEP) sampling

No	Respondent	Population and Sample size		
		Population size	Sample size	%
1	Project managers	13	13	100
2	Coordinators	39	39	100
3	Project Staff	858	86	10
	Total	910	138	15

Table 3.2: Matrix Project Organization Structure (MOFEC IFMS & School net) sampling

No	Respondent	Population and Sample size		
		Population size	Sample size	%
1	Project managers	10	10	100
2	Coordinators	13	13	100
3	Project Staff	117	12	10
	Total	140	35	25

Two project managers that are found in Addis has been interviewed from each project organization structure to clarify things be in more elaborated way and also to triangulate the data

collected using questionnaires. Selection of the Project managers for the interview is based on their permanent working location and their availability for the interview.

### 3.4. Data collection Methods

For the purpose of the study some data gathering techniques has been used to collect data from the study area. Questionnaires, interviews and document analysis have been used to collect the data required for the study and both primary and secondary data were used in order to get a complete view on Challenges of project organization structure in Telecom Projects.

**Questionnaire:** For primary data collection, questionnaire has been 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.
- It is one of the most important tools to guide the respondent since it gives clear choices to check.

Open and close ended types of questionnaires have been designed in English language and distributed to the respondent from both project organization structures. The questionnaire has three parts: the general information part, Close ended question part and open ended one. The closed questions part has been scaled from 1 to 5 using likert scale.

**Interview:** Two project managers that are located in Addis has been interviewed from each project organization group as a means of getting additional information and also to triangulate the data collected using questionnaires. Selection of the Project managers for the interview is based on their permanent working location and their availability for the interview.

**Document:** - Related hard & soft copy document regarding the specified projects has been used for this research.

### **3.5. Data analysis and presentation**

The collected data from closed end questions has been analyzed by simple statistical techniques such as frequency & percentage as well as mean & Standard deviation using Microsoft Excel spread sheet & SPSS. The researcher has also used descriptive analysis technique to analyze and interpret the organized data.

The researcher has also used the data obtained from the open end questions & interview to compare & triangulate with Quantitative findings obtained from Microsoft Excel spread sheet & SPSS. Open end questions & interview has also helped the researcher to elaborate the findings in a descriptive way.

### **3.6. Ethical issues**

Ethical considerations are expected to be involved in any kind of research study. This paper therefore takes into consideration of those ethical issues on access and use of data, analysis and report of the findings in a moral and responsible way. Participants were assured that the source of data collected would remain confidential and that anonymity will be maintained. Also oral consensus with all respondents was reached.

### **3.7. Validity**

The content validity assessed. It refers to the representativeness of the items in the questionnaire. All constructs and their associated items in this study were designed according to the relevant literature. Therefore, the content validity requirement is fulfilled. Moreover, face validity of the instruments were checked by the researcher's advisor, in order to make respondents comfortable in understanding the essence of the questionnaire. The researcher's advisor checked the questionnaires according to item clarity, wording, and format and determines if the statements were valid or not valid. Based on the feedback from the advisor, valuable improvements were made and irrelevant items were rejected.

### **3.8. Reliability**

The instrument for challenges of project organization structure in telecom project's questionnaire was adopted from the similar paper done previously on human resource management practice assessment. The questionnaire was also pilot tested for reliability to ensure internal consistency. Cronbach's alpha was found to be 0.74 which exceeds the recommended cut-off value (0.7). According to Hair and others (1992) an alpha of 0.70 or greater is deemed acceptable.

## CHAPTER FOUR

### RESULT AND DISCUSSION

#### 4.1. Introduction

In this chapter, result and discussion are presented. The quantitative data collected from closed end questions were analyzed using Microsoft excels &SPSS and the result have been compared with qualitative data in order to validate the finding. The results are presented by tables followed by discussions.

Table 4.1: Respondent Profile for pure project organization structure /TEP

Job Position /Description	Sex		Number of respondent	Level of education			Year of experience		
	M	F		Diploma & Advanced Diploma	Degree	MA & Above	<2	<5	>5
Project managers	10	1	11	1	8	2	0	3	8
Coordinators	31	0	31	7	19	5	3	9	19
Project staffs	41	26	67	35	30	2	5	16	46
Total	82	27	109	43	57	9	8	28	73

Source: own survey (2019).

Table 4.2: Respondent Profile for Matrix project organization structure /MOFEC IFMS & school net project.

Job Position /Description	Sex		Number of respondent	Level of education			Year of experience		
	M	F		Diploma & Advanced Diploma	Degree	MA & Above	<2	<5	>5
Project managers	7	3	10	0	8	2	1	2	7
Coordinators	11	1	12	5	7	0	0	3	9
Project staffs	6	3	9	2	7	0	1	4	4
Total	24	7	31	7	22	2	2	9	20

Source: own survey (2019).

As it can be observed from the above two tables, female respondents are 33% & 22.5% whereas male respondents constitute 67% & 77.5% of the total respondents in each of the project organization structures respectively. Most of the respondents have been working in the project area for more than five years. Therefore the majority of the respondents are found to be relevant to the topic under study as they have been working in the project area for long time and can able to observe the HRM and leadership practices; and challenges in each project organization structure using selected projects.

Table 4.3: Response rate

	Project organization structure	Distributed questionnaires'	Number of response	% of response
1	Pure project organization structure	138	109	78.98
2	Matrix project organization structure	35	31	88.5

Source: own survey (2019).

As it can be observed from table 4.3, the numbers of respondents are 78.98% & 88.5% which is enough to analyze and make a conclusion from the respondent's data.

## 4.2. Analysis of the result and interpretation

The response of the participants was summarized in tabular form and detail analysis and conclusions derived are described in the subsequent stages.

### 4.2.1. Type of Project organization structure used in Ethio telecom

According to Burke R & Barron S, 2014, (2009) there are three types of project organization structures namely Matrix, Functional and Pure Project organization structure.

Table 4.4: Type of Project organization structure used in Ethio telecom

No	Question Items	Total number of respondent	(Frequency & percentage ) Strongly Disagree (1), Disagree (2), Neither Agree nor Disagree/Neutral (3), Agree (4), and Strongly Agree (5).										Mean	SD
			1		2		3		4		5			
	TYPE OF PROJECT ORGANIZATION STRUCTURE USED IN ETHIO-TELECOM.		F	%	F	%	F	%	F	%	F	%		

1	All the three (Matrix, Functional, and Pure) type of project organization structure are used in Ethio-Telecom.	140	0	0	0	0	0	0	31	22	109	78	4.78	0.42
2	Matrix & Pure project organization structure are only used in Ethio-Telecom.	140	74	52.86	45	32	1	0.7	4	2.86	16	11.43	1.88	1.29
3	I believe that the two (Matrix & Pure) project organization structure are frequently used in Ethio- Telecom for new projects.	140	0	0	4	3	7	5	73	52	56	40	4.29	0.69

Source: own survey (2019).

The above table 4.4 shows the respondent’s opinion using likert scale concerning the type of project organization structure found Ethio- telecom.

As it can be observed from table 4.4 , 78% of the respondents strongly agree on the presence the three (Matrix, Functional, and Pure) type of project structure in Ethio-telecom while the other 22 % of the respondent just agree on “All the three (Matrix, Functional, and Pure) type of project organization structure are used in Ethio-Telecom”.

The second question i.e. “Matrix & Pure project organization structures are only used in Ethio-Telecom” are also help to cross check the type of project organization found in Ethio-telecom. Based on the respondents, 84.86 % of the respondent falls on the “strongly disagree” and “disagree” part on the likert scale. So the disagreement of 84.86 % on “Matrix & Pure project organization structure are only used in Ethio-Telecom” strengths the assessment result in Question no 1 i.e. presence of the three (Matrix, Functional, and Pure) type of project organization structure in Ethio-Telecom. The interview and the result from the open ended questions also confirm that all the three type of project organization structure are found in Ethio-telecom. As a result, ethio-telecom is using all the project organization structures specified in the literature and project teams have alternatives to choose the best for their project from the alternative provided.

The third question in the above table 4.4 i.e. “I believe that the two (Matrix & Pure) project organization structure are frequently used in Ethio- Telecom for new projects” determine the type of project organization structure that are frequently used in Ethio- telecom for new projects .

Based on the opinion of the respondent, 92% of the respondent falls on agree & strongly agree part on the likert scale and the researcher has also confirm that Matrix & Pure project organization structure are frequently used in Ethio- Telecom for new projects. According to the interview, Functional project organizations are usually used for system upgrade projects, which is the less frequently implemented type of project in the organization and “pure and Matrix “type of organization structure are usually used for new project implementation.

#### 4.2.2. Project organization structure selection

According to Kerzner (2010), there are different factors that have an influence on the selection of an organizational form and the organization’s practice in choosing the project organization structure based on different factor depend on their perspective.

Table 4.5: perception of project organization selection

No	Question Items	Total number of respondent	(Frequency & percentage ) Strongly Disagree (1), Disagree (2), Neither Agree nor Disagree/Neutral (3), Agree (4), and Strongly Agree (5).										Mean	SD
			1		2		3		4		5			
			F	%	F	%	F	%	F	%	F	%		
	<b>PROJECT ORGANIZATION STRUCTURE SELECTION</b>													
1	Selection of the project organization structure is based on the type of project i.e system upgrade /New project.	140	4	2.86	20	14.29	7	5	4	35.9	60	43	4.01	1.15
2	Selection of the project organization structure is based on the staff demand and technology requirement of the project.	140	1	0.7	1	0.7	1	0.7	7	50.7	66	47	4.43	0.62
3	Selection of the project organization structure is based on the authority the project manager need for the project	140	5	3.57	17	12	4	2.86	5	38.57	60	42.86	4.05	1.13
4	Selection is based on the engagement of external contractor/vendor.	140	7	5	22	15.7	18	12.86	5	37.3	40	28.57	3.69	1.19
5	I believe that Ethio-telecom has been successful in choosing the right type of project	140	1	0.71	1	0.71	39	27.86	4	30.3	56	40	4.08	0.88

organization structure.																			
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Source: own survey (2019).

The above table 4.5 shows the respondent’s opinion using likert scale concerning on the project organization structure selection.

As it can be observed from table 4.5, for all the above five question, the greatest percentage falls on the right of the median on the likert scale. Since 3(Neutral) is the median on the likert scale, the right of the likert scale is the agreeable part and the left is the disagreeable part. For the first question i. e “Selection of the project organization structure is based on the type of project i.e. system upgrade /New project.” 78% of the respondent falls on the right of the mode, means, most of the respondent agreed on this selection criterion. The second, the third, the fourth, the fifth question also have bigger percentage of respondents on the right side of the spectrum on the likert scale i.e. 97.7(%), 81.43(%), 66.43(%) and 70.71% respectively.

Since most of the percentage in all of the above five questions in the tables falls on the right side on the likert scale, the researcher can easily conclude that all of the criteria’s mentioned in the above table are used in Ethio-telecom to select project organization structure for a project and the project teams are happy with their choice of project organizational structure so far in their practice.

Based on the interview and the result from the open ended question, the researcher has also find out those information

- The project teams usually use functional project organization structure for a system upgrade project. The project teams needed for the project are selected from that functional division because of their technical experience they had on the system going to be upgraded.
- The project manager prefer to use the separate / pure project organization structure for big and high capital projects because of the requirement of a large number of human resource and the project manager with high authority on the project structures.
- Most projects that fall on the Matrix project organizational structure are the type of project that should be done on the continuous basis, the project type that need multiple disciplines

but doesn't take urgency and doesn't have external involvement of external contractors and vendors.

So, it is clear that ethio-telecom is using type of the project, staff demand of the project, authority the project should have, engagement of external contractor/vendor as criteria in choosing the appropriate type of project organization structure for their project and the project teams are happy with their choice in their practice.

#### 4.2.3 Challenges related to project organization structure

Project organizations possess inherent ambiguities, uncertainties and interdependencies that make them highly complex. According to different literature, different project organization structures have their own challenges that come with the organization itself. The researcher included the challenges captured during the preliminary interview in the closed ended questions and also allowed the respondent to write the unmentioned challenge with the open ended one. The result of the finding has been analyzed as follows.

##### 4.2.3.1. Challenges related to pure organization structure / TEP Result & Interpretation

Table 4.6 practical challenges assessment related to pure organization structure

No	Question	Total number of respondent		(Frequency & percentage )										Mean	SD
				Strongly Disagree (1), Disagree (2), Neither Agree nor Disagree/Neutral (3), Agree (4), and Strongly Agree (5).											
				1		2		3		4		5			
CHALLENGES				F	%	F	%	F	%	F	%	F	%		
1	The right staff has not been assigned for the project. N:B please mark 'Int'	109	I	1	1	1	1	82	75.23	7	6.4	18	16.5	3.37	0.80

	for internal and 'ext' for external staff respectively		E	6	5.5	12	11	58	53.2	20	18.35	13	11.93	3.20	0.98
2	There was a problem in maintaining the assigned staff throughout the life cycle of the project. N:B please mark 'Int' for internal and 'ext' for external staff respectively	109	I	7	6.42	82	75.23	17	15.6	2	1.8	1	0.92	2.15	0.59
			E	9	8.26	10	9.17	14	12.84	35	32.11	41	37.61	3.82	1.26
3	The reward was not based on the performance of the staff.	109		32	29.36	41	37.61	29	26.6	5	4.59	2	1.83	2.12	0.95

Source: own survey (2019).

The above table 4.6 shows the respondent's opinion using likert scale concerning the practical challenge associated with pure project organization structure.

### 1. Getting the right staff

#### A) Internal staff

As it can be observed from table 4.6, 22.9% of the respondents agree & strongly agree on "The right staff has not been assigned for the project", 75.23% of the respondents neither agree nor disagree on "The right staff has not been assigned for the project and the rest 2% of respondents strongly disagree & disagree on "The right staff has not been assigned for the project".

Even though 22.9% (agreeable spectrum) is greater than 2% (Disagreeable one), it was hard to conclude that there is a problem on the staff assignment without observing the case more from the other data collection tools. So the researcher had to access this condition from the interview and also from the result of the open ended question.

Based on the result from the second alternative data collection tool i.e. interview and open ended question one, most projects teams agrees that the right staff hasn't been assigned for the project as required but it have not made a big negative impact on the project as a consequence of two reason

- Most of the critical work was covered by the external staff.
- The internal staff was flexible to learn during the project work as a culture.

So, from the two arguments, the researcher concludes that there was a challenge in getting the right internal staff for the project as required.

## **B. External staff**

As it can be observed from table 4.6, 30.28 % of the respondents agree & strongly agree on “The right staff has not been assigned for the project“, 53.2% of the respondents neither agree nor disagree on “The right staff has not been assigned for the project. And the rest 16.5% of respondents strongly disagree & disagree on “The right staff has not been assigned for the project”.

Even though 30.28% (agreeable spectrum) is greater than 16.5 % ( Disagreeable one), it was hard to conclude that there is a problem on the staff assignment without observing the case more from the other data collection tools. So the researcher had to access this condition from the interview and also from the result of the open ended question.

Based on the result from the interview, most projects teams agrees that the right staff hasn't been assigned for the project as required but it is also hard to say that all the external staffs are not the right staff for the project . Because of the financial situation of the country, the procurement department has forced to compromise the performance of the external staff / subcontractors / vendors with some extent. The company was giving priority for the vendor who provide loan in providing the desired technology. As a result, it was hard to say that the desired staff has been assigned for the project 100 percent and was also hard to say that all the staffs are not right for the project. Things were 50, 50 in this scenario.

So, the researcher concludes that getting the right external staff for the project as required was a challenge and it was one of the factors that causes time delay of the overall project .one of the external staffs that had been chosen with a compromised scenario had interrupted the work on the middle of the project and ethio-telecom had been forced to replace them with other external staff/vendor.

## **2. Problem in maintaining the assigned staff throughout the life cycle of the project.**

### **A. Internal staff**

As it can be observed from table 4.6, 2.72 % of the respondents agree & strongly agree on “There was a problem in maintaining the assigned staff throughout the life cycle of the project. “, 15.6 % of the respondents neither agree nor disagree on “There was a problem in maintaining the assigned staff throughout the life cycle of the project” And the rest 81.65 % of respondents strongly disagree & disagree on “There was a problem in maintaining the assigned staff throughout the life cycle of the project”. The information from the interview and the open ended question also strength the above statistical result that there was no as such visible problem in maintaining the assigned internal staff throughout the life cycle. So there was no challenge in maintaining the internal staff throughout the life cycle of the project.

### **B. External staff**

As it can be observed from table 4.6, 69.72 % of the respondents agree & strongly agree on “There was a problem in maintaining the assigned staff throughout the life cycle of the project. “, 12.84 % of the respondents neither agree nor disagree on “There was a problem in maintaining the assigned staff throughout the life cycle of the project” And the rest 17.43 % of respondents strongly disagree & disagree on “There was a problem in maintaining the assigned staff throughout the life cycle of the project”.

The information from the interview and the open ended question also strength the above statistical result that there was a problem in maintaining some vendors/external staffs throughout the life cycle of the project.one of the external staffs that had been chosen with a compromised

scenario had interrupted the work in the middle of the project and ethio telecom had been forced to replace them with other external staff/vendor. it was one of the factors that cause time delay of the overall project.

So, the researcher concludes that there was a challenge in maintaining some external staffs throughout the project life cycle.

### **3. The reward was not based on the performance of the staff.**

As it can be observed from table 4.6, 66.97 % of the respondents agree & strongly agree on “The reward was not based on the performance of the staff. “, 26.6% of the respondents neither agree nor disagree on “The reward was not based on the performance of the staff” and the rest 6.42 % of respondents strongly disagree & disagree on “The reward was not based on the performance of the staff”.

The result from the open ended question and also from the interview states that the reward in this project was not highly dependent on the performance of the staffs. Of course there was a reward given for the project teams during the completion of the project. But the reward was not highly correlated with the performance of the staff. The project staffs were getting the same kind of rewards in spite of their performance measure based on the level they have. Even though such kind of reward method does not disappoint the big mass of the projects staffs, it cannot motivate the performing staffs more to exert their effort for the project success.

#### **4.2.3.2. Challenges related to Matrix organization structure / MOFEC IFMS & School net Project Result & Interpretation**

In order to assess the challenge related with the Matrix project organization structure, the researcher chose the project matrix organization structure found in Operation and Maintenance division. The structure found in this division executed two projects so far i.e. MOFEC IFMS & School net project. Since the project specialist group found in a special project management section was responsible for leading those projects, the researcher has distributed questioners and found the following result as shown in the following analysis.

Table 4.7 practical challenges assessment related to Matrix organization structure

No	Question Items	No of respondent		(Frequency & percentage )										Mean	SD
				Strongly Disagree (1), Disagree (2), Neither Agree nor Disagree/Neutral (3), Agree (4), and Strongly Agree (5).											
				1		2		3		4		5			
CHALLENGES		F	%	F	%	F	%	F	%	F	%				
1	The right staff has not been assigned for the project. N:B please mark 'Int' for internal and 'ext' for external staff respectively	31	I	1	3.23	2	6.45	6	19.35	15	48.39	7	22.58	3.81	0.98
				E	9	29.03	13	41.94	7	22.58	1	3.23	1		
2	There was a problem in maintaining the assigned staff throughout the life cycle of the project. N:B please mark 'Int' for internal and 'ext' for external staff respectively	31	I	1	3.23	2	6.45	7	22.58	13	41.94	8	25.8	3.81	1.01
				E	6	19.35	13	41.94	9	29.03	2	6.45	1		
3	The reward was not based on the performance of the staff	31		1	3.22	1	3.22	5	16.13	13	41.94	11	35.48	4.03	0.98
4	There was Authority and responsibility gap during project implementation	31		1	3.23	2	6.45	3	9.68	14	45.16	11	35.48	4.032	1.02

Source: own survey (2019).

The above table 4.7 shows the respondents 'opinion using likert scale concerning the practical challenge associated with Matrix project organization structure .

### 1. Getting the right staff

#### A) Internal staff

As it can be observed from table 4.7, 70.97 % of the respondents agree & strongly agree on “The right staff has not been assigned for the project“, 19.35 % of the respondents neither agree nor disagree on “The right staff has not been assigned for the project. And the rest 9.68 % of respondents strongly disagree & disagree on “The right staff has not been assigned for the project”. The result from the interviews and the open ended question also depicts that the right staff has not been assigned as required because of different reason. The main reason was that the functional manager’s willingness and cooperation: the functional manager usually has a tendency of providing the low performer staff for the project as if they fulfill the requirement need of the project. So from the statistical result and the information from the interview, the researcher can easily conclude that getting the right staff for the project in the matrix structure is a function of the willingness & cooperativeness of the functional manager. So there was a challenge in getting the right staff for the project and the performance of the project has been affected due to the learning curve of the project staffs.

## **B) External staff**

As it can be observed from table 4.7, 6.46 % of the respondents agree & strongly agree on “The right staff has not been assigned for the project“, 22.58% of the respondents neither agree nor disagree on “The right staff has not been assigned for the project. And the rest 70.97 % of respondents strongly disagree & disagree on “The right staff has not been assigned for the project”.

The result from the interviews also depicts that there was no problem in assigning the right staff for the project for external staff. The procurement department usually use open bid to able to attract all the possible candidate of the staff / subcontractors of the project and also could able to choose the right one so far. Since most of the project that fall on the Matrix structures is medium type of project, the company / country doesn’t have financial shortage for local subcontractors as a result there was no need of performance compromization because of the shortage of finance required for the project. So the researcher concludes that was no challenge in getting the right external staff for the project.

## **2. Problem in maintaining the assigned staff throughout the life cycle of the project.**

### **A) Internal staff**

As it can be observed from table 4.7, 67.74 % of the respondents agree & strongly agree on “There was a problem in maintaining the assigned staff throughout the life cycle of the project. “, 22.58 % of the respondents neither agree nor disagree on “There was a problem in maintaining the assigned staff throughout the life cycle of the project” And the rest 9.68 % of respondents strongly disagree & disagree on “There was a problem in maintaining the assigned staff throughout the life cycle of the project”. The information from the interview and the open ended question also strength the above statistical result that there is a big possibility of losing the project team in the middle of the project. Since the staffs in the matrix project structure have two duties at a time, the functional manager may force them to do the operation work if the functional manager feels overloaded with the work without the permission of the project manager. As a result, the project manager suddenly losses their staff on the middle of the project and start to find alternative for the problem as firefighting mechanism.

The other problem that the project team mentioned on the interview and the open ended question is that the team in the project matrix structure sometimes feels bored and less motivated with the multiple commands they receive from the two bosses as a result they sometimes act as a body present scenario. So there is obvious challenge in maintaining the assigned internal staff throughout the life cycle of the project physically as well as emotionally.

### **B) External staff**

As it can be observed from table 4.7, 9.68 % of the respondents agree & strongly agree on “There was a problem in maintaining the assigned staff throughout the life cycle of the project. “, 29.03 % of the respondents neither agree nor disagree on “There was a problem in maintaining the assigned staff throughout the life cycle of the project” And the rest 61.29 % of respondents strongly disagree & disagree on “There was a problem in maintaining the assigned staff throughout the life cycle of the project”. The information from the interview and the open ended

question also strength the above statistical result that there was no as such big challenge in maintaining the external staff throughout the life cycle of the project.

### **3. The reward was not based on the performance of the staff**

As it can be observed from table 4.7, 77.42 % of the respondents agree & strongly agree on “The reward was not based on the performance of the staff. “, 16.13 % of the respondents neither agree nor disagree on “The reward was not based on the performance of the staff” and the rest 6.44 % of respondents strongly disagree & disagree on “The reward was not based on the performance of the staff. The information from the interview and the open ended question also strength the above statistical result that the reward was not based on the performance of the staffs. Most of the project teams believe that most of the project managers in this structure are not aware of the importance of the reward based on the performance as a result they do not usually incorporate it as a package in the project plan. They usually focused on the work done by any means than taking care of the staffs so as to achieve their goal better through motivation. Even though MOFEC IFMS project manager has used overtime as a reward mechanism, it is hard to say that there is well organized reward system based on the performance of the staff in this project organization structure. So there was a challenge in having reward based on the performance of the staff and the project teams were less motivated in some project like School net project.

### **4. There was Authority and responsibility gap during project implementation N:B (For Matrix structure’s project manager only )**

As we can observe from table 4.7, 80.64 % of the respondents agree & strongly agree on “There was Authority and responsibility gap during project implementation “, 9.68 % of the respondents neither agrees nor disagrees on “There was Authority and responsibility gap during project implementation” And the rest 9.68 % of respondents strongly disagree & disagree on “There was Authority and responsibility gap during project implementation. Information from Interview and the open ended question also strength the above statistical result that there was a challenge related with authority and responsibility gap the project manager is facing in this project

organizational structure implementation as a result the project managers and coordinators could not able to have full control over the projects staffs .

#### **4.2.4. HR Staffing**

##### **4.2.4.1. Staffing in pure organization structure / TEP Program**

TEP uses two types of employees namely permanent staffs selected from the functional department of the company in full time basis and contractual staffs directly hired for the project using open bid. The permanent government staffs are transferred to the project through internal recruitment for their special skills and experience related to the project's objectives (own survey, 2019).

Ethio- telecom human resource management & development office and human resource department of the project was working cooperatively for recruiting staffs to the specific units of the project. The contract staffs are hired by using open bid with the cooperation of sourcing and facility department. Those staffs are hired to deploy the desired technology and also transfer knowledge to the project teams through the process of installing technology. All contract staffs have a short term contractual agreement with a time of two years with a potential of renewal (own survey, 2019).

Table 4.8 Staffing assessment in pure project organization structure

No	Question Items	Total number of respondent	(Frequency & percentage ) Strongly Disagree (1), Disagree (2), Neither Agree nor Disagree/Neutral (3), Agree (4), and Strongly Agree (5).										Mean	SD	
			1		2		3		4		5				
			F	%	F	%	F	%	F	%	F	%			
1	Competencies and skills required for the different job positions are well defined and Job description and specification has been formulated. N:B please mark for internal and external requirement respectively	109	I	0	0	9	8.26	22	20.18	48	44.04	30	27.52	3.91	0.89
			E	0	0	0	0	13	11.93	52	47.73	44	40.37	4.28	0.67
2	The project is able to attract suitable applicants to fill vacancies	109	I	28	25.69	42	38.53	27	24.77	7	7.63	5	4.59	2.26	1.06
			E	0	0	0	0	2	1.8	64	58.71	43	39.45	4.38	0.52
3	Job description and specification are used in selection process and the selection has been done based on merit and skills only. N:B please mark for internal and external requirement respectively	109	I	23	21.1	42	38.53	32	29.36	6	5.5	6	5.5	2.36	1.05
			E	31	28.44	22	20.18	0	0	29	26.60	27	24.77	2.99	1.62
4	Placement of new entrants is done as per the project needs/demand N:B please mark for internal and external requirement respectively	10	I	0	0	0	0	6	5.5	5	5.5	54	54.54	4.35	0.58

		9	E	0	0	0	0	8	7.	6	56.	39	3	4.28	0.
									34	2	88		5		59
													7		
													7		

Source: own survey (2019).

The above table 4.8 shows the respondents ‘opinion using likert scale concerning the availability of well-defined recruitment process for the different job positions in TEP .

#### 4.2.4.1.1. Internal recruitment Result & Interpretation

As it can be observed from table 4.8, 71.56% of the respondents agree and strongly agree on “Competencies and skills required for the different job positions are well defined and Job description and specification has been formulated “, 20.18% of the respondents neither agree nor disagreed on “Competencies and skills required for the different job positions are well defined and Job description and specification has been formulated “and the rest 8.26 % of respondents strongly disagree & disagree on “Competencies and skills required for the different job positions are well defined and Job description and specification has been formulated”. The result from the interviews and open ended question also depicts that there was detail competencies and skill description defined was defined for each position for the project during the internal recruitment. When the researcher see the second question, 12.22 % of the respondents agree and strongly agree on “The project is able to attract suitable applicants to fill vacancies”, 64.22% of the respondents strongly disagree & disagree on” The project is able to attract suitable applicants to fill vacancies and the rest 24.77 % of the respondents neither agree nor disagreed on” The project is able to attract suitable applicants to fill vacancies”. Based on the assessment result from the open ended question and from the interviews, the project teams believes that there was not enough advertisement done to attract applicants in the formal way. There was a misconception that the staffs can able to hear the news since they are working in the same company. But on the ground, things weren’t as planned to be. So the researcher conclude that the project could not able to attract suitable applicants to fill vacancies as required in spite of having detail

competencies and skill description defined for each position. Staffs that couldn't able to hear the news informally had a big probability not to apply.

When the researcher see the selection process using question no 3, 11 % of the respondents agree and strongly agree on “Job description and specification are used in selection process and the selection has been done based on merit and skills only”, 59.63% of the respondents strongly disagree & disagree on “Job description and specification are used in selection process and the selection has been done based on merit and skills only” and the rest 29.36 % respondents fall on the middle of agreement and disagreement. Based on the interviews, the project managers believe that Job description and specification in the selection process for selecting appropriate recruits for the project has been used with some extent but big value was given for manager's recommendation on the selection process. That has created some subjectivity or bias on the selection process.

In Q no 4 , 94.5 % of the respondents agree and strongly agree on the Placement of new entrants as per the project needs/demand and the rest 5.5% of the respondents strongly disagree & disagree on the Placement of new entrants as per the project needs/demand . The interview and open ended question result also confirm the above statistical result. So the researcher conclude that detail competencies and skill description was well defined for each position and the Placement of new entrants was done as per the project needs/demand but On the negative side, the project could not able to attract suitable applicants to fill vacancies as required and the selection process wasn't fully based on merit and skills.

#### 4.2.4.1.2. External recruitment Result & Interpretation

As it can be observed from table4.8, 88.07 % of the respondents agree and strongly agree “Competencies and skills required for the different job positions are well defined and Job description and specification has been formulated “, and the rest 11.93% of the respondents neither agree nor disagreed on “Competencies and skills required for the different job positions are well defined and Job description and specification has been formulated “. The result from

the interviews also depicts that the detail requirement Ethio-telecom expect from the subcontractor has been well formulated and defined by the technical committee before the bid had been posted during the external recruitment.

From Q no 2, 98.16% of the respondents agree and strongly agree on “The project is able to attract suitable applicants to fill vacancies” and the rest 1.8 % of the respondents neither agree nor disagreed on” The project is able to attract suitable applicants to fill vacancies. From the above statistical result and from the interviews, most of the project teams believe that there was enough advertisement done to attract possible applicants in the formal way with the cooperation of sourcing and facility division. So the project team has followed this recruitment step successfully and there was no knowledge gap here.

As it can observed from table 4.8, 51.37% of the respondents agree and strongly agree on “Job description and specification are used in selection process and the selection has been done based on merit and skills only” and 48.62 % of the respondents strongly disagree & disagree on “Job description and specification are used in selection process. The respondent in the open ended question has also mentioned country financial capability as a problem. Based on the interviews, the project managers believe that the company has compromised the performance of the vendor/subcontractor with some extent in order to close the country’s financial problem with loan provided by the vendor/subcontractor.

When the researcher see the respondent on the placement , 92.66 % of the respondents agree and strongly agree on the Placement of new entrants as per the project needs/demand and the rest 7.34% of the respondents neither agree nor disagreed on the Placement of new entrants as per the project needs/demand . Based on the interviews of the project managers to have more information on the subject matter, the PM believes that they have made the placement of new entrance based on the project demand.

#### 4.2.4.2. Staffing in Matrix organization structure /MOFEC and School Net

MOFEC IFMS uses two types of employees namely permanent staffs selected from the functional department on the part time basis and contractual staffs directly hired for the project using open bid.

The permanent staffs are recruitment from the functional department for their special skills and experience related to the project's objectives with the willingness of the functional manager. Unlike pure project's project team, the staff on Matrix structure is subjected to two bosses and two parallel tasks. On their primary duty, they accomplish their day to day operation work while executing the project work in parallel ways. The contract staffs are hired by using open bid with the cooperation of sourcing and facility department. Those staffs are hired to deploy the desired technology and also transfer knowledge to the project teams through the process of installing technology. All contract staffs have a short term contractual agreement with a time of one year with a potential of renewal.

Unlike MOFEC IFMS Project, school net project has been executed by internal staff only. But those two projects use the same internal teams with the same structure to accomplish the work. So the staffing assessment analysis is presented as shown below using tabular form.

Table 4.9 Staffing assessment in Matrix project organization structure

No	Question Items	Total number of respondent		(Frequency & percentage ) Strongly Disagree (1), Disagree (2), Neither Agree nor Disagree/Neutral (3), Agree (4), and Strongly Agree (5).										Mean	SD
				1		2		3		4		5			
				F	%	F	%	F	%	F	%	F	%		
	<b>STAFFING</b>														
1	Competencies and skills required for the different job positions are well defined and Job description		I	0	0	0	0	3	9.68	16	51.6	12	38.7	4.29	0.64

	and specification has been formulated. N:B please mark for internal and external requirement respectively	3 1	E	0	0	0	0	2	6.45	16	51. 61	1 3	41 .9 4	4.35	0.61
2	The project is able to attract suitable applicants to fill vacancies	3 1	I	0	0	0	0	5	16.1 3	15	48. 39	1 1	35 .4 8	4.19	0.70
			E	0	0	0	0	1	3.23	19	61. 29	1 1	35 .4 8	4.32	0.54
3	Job description and specification are used in selection process and the selection has been done based on merit and skills only. N:B please mark for internal and external requirement respectively	3 1	I	7	2 2 .5 8	9	29	0	0	8	25. 80	7	22 .5 8	2.97	1.56
			E	0	0	0	0	0	0	22	70. 97	9	29 .0 3	4.29	0.46
4	Placement of new entrants is done as per the project needs/demand N:B please mark for internal and external requirement respectively	3 1	I	0	0	0	0	2	6.46	22	70. 97	7	22 .5 8	4.16	0.52
			E	0	0	0	0	3	9.68	18	58. 06	1 0	32 .2 6	4.23	0.62

Source: own survey (2019).

The above table 4.9 shows the respondents' opinion using likert scale concerning the availability of well-defined and used recruitment process for the competencies and skills required for the different job positions in MOFEC IFMS & School net project.

#### 4.2.4.2.1. Internal recruitment Result & Interpretation

As it can be observed from table 4.9, 90.3% of the respondents agree and strongly agree on "Competencies and skills required for the different job positions are well defined and Job description and specification has been formulated", and 9.68 % of the respondents neither agree nor disagreed on "Competencies and skills required for the different job positions are well defined and Job description and specification has been formulated. The result from the

interviews also depicts that the project manager usually set competency and skill requirement of each position according to the project requirement.

In Question number 2, 83.87 % of the respondents agree and strongly agree on “The project is able to attract suitable applicants to fill vacancies” and 16.13% of the respondents neither agree nor disagreed on” The project is able to attract suitable applicants to fill vacancies. Based on the interviews, the project managers believe that a suitable functional department would be selected in order to get suitable staff related to the project requirement and the Project manager usually announce the requirement of the project staffs for functional managers on time. So the researcher concludes that the project could able to attract suitable applicants to fill the project vacant position.

As it can be observed from table 4.9, 48.38 % of the respondents agree and strongly agree on “Job description and specification are used in selection process and the selection has been done based on merit and skills only” and 51.58 % of the respondents strongly disagree & disagree on “Job description and specification are used in selection process and the selection has been done based on merit and skills only. Based on the statistical result, the use of Job description and specification in the selection process seems 50; 50. So the researcher has observed the open ended question result and the interview to solve the controversy of the issue. So based on the second alternative of data collection, the researcher has found out that the Project manager doesn't have control in the selection process. The cooperation of the functional manager plays a big role in the process of choosing the staffs based on the job description specified. But the functional manager usually don't want to give up the most expertise staffs for the project as a result low performing staffs would be assigned for the projects as if they would fulfill the requirements set by the project manager . From the above analysis, the researcher has concluded that selection based on job description is as a function of the willingness and cooperation of the functional manager in the project.

When the researcher see the respondent on the placement from table, 93.55 % of the respondents agree and strongly agree on the Placement of new entrants as per the project needs/demand and the rest 6.46 % of the respondents neither agree nor disagree on the Placement of new entrants as per the project needs/demand.

The interview and open ended result also confirm the above statistical result. So the researcher has concluded that the placement of new entrance is based on the project demand.

#### 4.2.4.2.2.External recruitment Result & Interpretation

As we can observe from table 4.9, 93.55% of the respondents agree and strongly agree on “Competencies and skills required for the different job positions are well defined and Job description and specification has been formulated “; and 6.45% of the respondents neither agree nor disagreed on “Competencies and skills required for the different job positions are well defined and Job description and specification has been formulated. The result from the interviews also depicts that the project manager with the help of technical committee set the requirement specification needed from each subcontractor with high caution and provide for the procurement department.

In Question number 2, 96.77 % of the respondents agree and strongly agree on “The project is able to attract suitable applicants to fill vacancies” and 3.23% of the respondents neither agrees nor disagreed on” The project is able to attract suitable applicants to fill vacancies. Based on the interviews, most of the project managers believe the project can able to attract all the possible bidders through national bid announced in the newspaper as well as the company’s website .

As it can be observed from table 4.9, 100 % of the respondents agree and strongly agree on “Job description and specification are used in selection process and the selection has been done based on merit and skills only”. Based on the result and the interview, the project has able to choose the external staff based on Job description and specification with the help of procurement department.

When we see the respondent on the placement from table, 90.32 % of the respondents agree and strongly agree on the Placement of new entrants as per the project needs/demand. Based on the interviews, most of the PM believes that they have made the placement of new entrance based on the project demand.

#### 4.2.5. Performance Management & reward system

Performance management is a process owned and driven by line management that aims at getting better results from the organization, teams, and individuals by understanding and managing performance within an agreed framework of planned goals, standards and competence requirements (Armstrong 2008).

According to Jeffrey R & Linda R, (2010), PA is especially critical to the success of performance management. Although performance appraisal is one component of performance management, it is vital, in that it directly reflects the organization’s strategic plan. Although evaluation of team performance is critical when teams exist in an organization, the focus of PA in most firms remains on the individual employee. Regardless of the emphasis, an effective appraisal system evaluates accomplishments and initiates plans for development, goals, and objectives

##### 4.2.5.1 Performance management and reward in pure organization structure / TEP Result & Interpretation

Table 5 Performance management and reward assessment in pure project organization structure

No	Question Items	Total number of respondent	(Frequency & percentage ) Strongly Disagree (1), Disagree (2), Neither Agree nor Disagree/Neutral (3), Agree (4), and Strongly Agree (5).										Mean	SD
			1		2		3		4		5			
			F	%	F	%	F	%	F	%	F	%		
	<b>HR PERFORMANCE</b>													
1	The project has used 360-degree evaluation as a performance appraisal method.	109	75	68.8	25	22.9	8	7.34	1	0.92	0	0	1.40	0.67
2	The project has used traditional performance review technique.	109	1	0.92	2	1.83	4	3.67	37	31.2	65	59.6	4.49	0.7

														4
3	the current performance appraisal system is capable of encouraging the good performers vis-a- vis non-performers	109	34	31.2	37	33.95	18	16.5	12	11	8	7.34	2.29	1.23
4	There is transparency & continuous follow up when evaluating Employees	109	46	42.2	36	33	15	13.76	10	9.17	2	1.83	1.95	1.05
5	The evaluators have been evaluating the performance of the staffs fairly.	109	11	10%	16	14.68	53	48.6	13	11.92	16	14.68	3.06	1.12
6	There is a strong link between performance & reward in the project.	109	21	19.27	46	42.20	20	18.35	17	15.6	5	4.59	2.44	1.11
7	I believe that the reward system could able to motivate employees to perform more.	109	27	24.77	22	20.18	25	22.94	19	17.43	16	14.68	2.77	1.38

Source: own survey (2019).

Table 5 Analysis of performance appraisal and reward for TEP project

To see the type of performance evaluation method the company use, the researcher has set no Q no 1 & 2 as shown above in the table. According to the assessment result, 91.7% of respondents disagree & strongly disagree on” The project has used 360-degree evaluation as a performance appraisal method” and 90.8% of the respondents agree & strongly agree on” The project has used traditional performance review technique”. So from this statistical result, the researcher easily

concludes that Ethio-telecom is using traditional type of evaluation in their performance appraisal in pure organization structure for the specified project. The interview and the result from the open ended question have also confirmed the above conclusion that ethio-telecom is using the simplest type of evaluation method/traditional one from the options specified on the literature.

Using question no 3 up to 5, the researcher have tried to access the process of performance evaluation and their opinion on the ability of the performance appraisal on encouraging the good performer versus the non-performer. Based on the assessment finding as shown in the above table, 11% of the respondents agree & strongly agree on “There is transparency & continuous follow up when evaluating Employees “, 13.76 % of the respondents neither agree nor disagree on “There is transparency & continuous follow up when evaluating Employees “And the rest 75.2% of respondents strongly disagree & disagree on “There is transparency & continuous follow up when evaluating Employees”. According to the statistical result, it is clear that there is no transparency & continuous follow up when evaluating Employees. Just to get more information on the scenario, the researcher has also had deep interview why the respondent feels like there is no transparency & continuous follow up in the evaluation process. According to the interview and also the result from the open ended question, the project team agrees that there is no continues follow up in the evaluation process. The evaluation is usually done two times per year as a result, it usually reflect the performance of the staff during that evaluation period. There is also no clear evaluation metrics set to evaluate staffs and the evaluation is usually subjected to bias of the evaluators.

On question no 5, 26.6 % of the respondents agree & strongly agree on “The evaluators have been evaluating the performance of the staffs fairly. “, 48.6% of the respondents neither agree nor disagree on “The evaluators have been evaluating the performance of the staffs fairly “And the rest 24.68 % of respondents strongly disagree & disagree on “The evaluators have been evaluating the performance of the staffs fairly.” Based on the statistic result, there is more reservation to answer the question and also there is approximately equal number of respondent on the left and right side from the median on likert scale. As a result of this, the researcher has tried to get more information from the open ended question and interview to close this controversial statistical result. The result from the interview and the open ended question reveals

that the evaluators usually give similar evaluation result for most of the staff not to affect the morale of the team. Even though this kind of evaluation doesn't make the high performing staff happy as they expected, the average staff doesn't complain a lot with the result of the evaluation.

When the researcher see the result of Q no 3, 65.15 % strongly disagree & disagree on "the current performance appraisal system is capable of encouraging the good performers vis-a- vis non-performers". Even though most of the team members doesn't complain on the evaluation result, they doesn't believe that such kind of evaluation technique encourage a good performer to exert their effort a lot on the work .

According to Armstrong (2002) even though rewards mean additional costs to the organization, the overall aim is providing "value for money" and contributing to organizational success. Rewards can indirectly affect success. The direct effect of rewards is on employee's extrinsic motivation since extrinsic motivation is generated by external stimulus such as rewards.

As indicated above in table, 20.19% of the respondents agree & strongly agree on "There is a strong link between performance & reward in the project ", 18.35 % of the respondents neither agree nor disagree on "There is a strong link between performance & reward in the project "And the rest 61.47 % of respondents strongly disagree & disagree on "There is a strong link between performance & reward in the project." Based on the information obtained from the interview, the researcher found out that there is a reward for the staffs of the project based on their status on the completion of the project. But it is highly uncorrelated with the performance of the staffs during the execution of the project. Since their evaluation system is not as such critical to separate the performing staff from the non-performer, their reward is on done in similar manner.

When the researcher came to see how the reward is affecting the employee with regard to the extrinsic motivation, As indicated above in table, 32.11% of the respondents agree & strongly agree on "I believe that the reward system could able to motivate employees to perform more ", 22.94% of the respondents neither agree nor disagree on "I believe that the reward system could able to motivate employees to perform more. "And the rest 44.95 % of respondents strongly disagree & disagree on "I believe that the reward system could able to motivate employees to perform more. From the above statistical result, the researcher concludes that the reward system could not able to motivate more to perform. Because as the researcher mentioned above, the

reward is done on the global basis without seeing the performance of the staffs critically. This kind of reward neither disappoints the overall staff nor motivates the high performing staff to exert their effort on the optimum level as well.

#### 4.2.5.2. Performance management and reward in Matrix organization structure / MOFEC & school net Project Result and Interpretation

Table 5.1 Performance management and reward assessment in Matrix project organization structure

No	Question Items	Total number of respondent	(Frequency & percentage )										Mean	SD		
			Strongly Disagree (1), Disagree (2), Neither Agree nor Disagree/Neutral (3), Agree (4), and Strongly Agree (5).		1		2		3		4				5	
			F	%	F	%	F	%	F	%	F	%			F	%
<b>HR PERFORMANCE</b>																
1	The project has used 360-degree evaluation as a performance appraisal method.	31	22	71	5	16.13	2	6.45	1	3.23	1	3.23	1.52	0.99		
2	The project has used traditional performance review technique.	31	1	3.22	1	3.22	5	16.13	7	22.58	17	54.84	4.23	1.05		
3	the current performance appraisal system is capable of encouraging the good performers vis-a- vis non-performers	31	2	6.45	4	12.90	21	67.74	2	6.45	2	6.45	2.93	0.85		
4	There is transparency & continuous follow up when evaluating Employees	31	3	9.68	4	12.90	6	19.35	12	38.71	6	19.35	3.45	1.23		
5	The evaluators have been evaluating the performance of the staffs fairly.	31	3	9.68	4	12.90	4	12.90	11	35.48	9	29.03	3.61	1.31		
6	There is a strong link between performance & reward in the project.	31	6	19.35	13	41.94	6	19.35	5	16.13	1	3.23	2.42	1.08		
7	I believe that the reward system	31	13	41.9	9	29.0	3	9.68	3	9.6	3	9.6	2.9	1.1		

could able to motivate employees to perform more.			4		3				8		68	16	34
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Source: own survey (2019).

Table 5.1 Analysis of performance appraisal and evaluation and benefit for Matrix project organization structure.

To see the type of performance evaluation method the company use in the matrix project organization structure, the researcher has used number 1 & 2 question as shown above in the table 5.1. According to the assessment result, 87.13% of respondents disagree & strongly disagree on” The project has used 360-degree evaluation as a performance appraisal method” and 77.42 % of the respondents agree & strongly agree on” The project has used traditional performance review technique”. From the statistical result, the researcher easily concludes that Ethio-telecom is using traditional type of evaluation in their performance assessment in Matrix project organization structure. The interview and the result from the open ended question have also confirmed the above statistical result that ethio-telecom is using the simplest type of evaluation method/traditional one from the options specified on the literature.

When the researcher see the performance appraisal system and how it is undergoing, For question from Question no 4 & 5, the big number of respondent fall on the right side of the likert scale i.e. 58.06 %, 64.51 % respectively. From the above statistical result, it is easy to say that there is transparency & continuous follow up when evaluating Employees and also the evaluators have been evaluating the performance of the staffs fairly. The researcher has also tried to assess the result of the open ended question and the interview. According to the assessment, the researcher has found out that there is performance appraisal system there. There is a weekly KPI set per each team to track their performance on the ground. As a result there wouldn’t be evaluator bias on the evaluation means the evaluators have been evaluating the performance of the staffs fairly. There is also transparency & continuous follow up when evaluating Employees because the measurement of the performance evaluation is clear for all the project teams and there is also a weekly basis follow up of the team performance.

When the researcher come to see the overall appraisal system capability on encouraging the good performers vis-a- vis non-performers, 67.74% % of the respondent fall on the middle of the likert scale. Even though 19.35 % of disagreeable respondent is greater than the 12.9% agreeable respondent on the argument, the researcher has preferred to assess the result of the open ended question and the interview. According to the assessment, the researcher has found out that the current performance appraisal system is not capable of encouraging the good performers vis-a- vis non-performers. In spite of the appraisal system they had, it wasn't accompanied with good reward associated with the performance.

When the researcher came to see how the reward is affecting the employee with regard to the extrinsic motivation using Q no 6 & 7, the higher percentage of the respondent fall on the left side of the mode on the likert scale i.e. 61.29 % & 70.97 % respectively .From the above statistical result, the researcher easily concludes that the reward system could not able to motivate more to perform and there is no a strong link between performance & reward in the project. Using the open ended question and the interview, the researcher has also found out that there is no organized reward system done on the project. Even though there was a clear performance evaluation measure as mentioned in the above paragraph, the project manager did not incorporate reward system on their project. Of course some project manager try to use overtime work as a reward system in some projects like MOFED, but a lot should be done on this area to motivate the employees. Because of the structural limitation of the project, the project teams are susceptible to low motivation and demoralization in the work area as a result of being engaged with two bosses. This reward system is a key to uplift their sprite in spite of the work load comes from dual managers.

## 4.2.6 . Leadership

### 4.2.6.1. Leadership related to pure organization structure / TEP Result & Interpretation

Table 5.2 leadership practice assessment in pure project organization structure

No	Question Items	Total number of respondent	(Frequency & percentage ) Strongly Disagree (1), Disagree (2), Neither Agree nor Disagree/Neutral (3), Agree (4), and Strongly Agree (5).										Mean	SD
			1		2		3		4		5			
			F	%	F	%	F	%	F	%	F	%		
	<b>LEADERSHIP</b>													
1	I believe I take enough leadership training so far	42	5	11.9	7	16.67	19	45.24	7	16.67	4	9.52	2.95	1.10
2	I have enough leadership Knowledge and skill to lead project in any project organization structure.	42	14	33.33	17	40.48	5	11.91	3	7.14	3	7.14	2.14	1.18
3	I have good awareness in the effect of project organization structure on the choice of leadership style for the project	42	11	26.19	11	26.19	12	28.57	6	14.29	2	4.76	2.45	1.17
4	I chose the right type of leadership style for the project I engaged with so far based on	42	2	4.76	2	4.76	23	54.76	8	19.05	7	16.67	3.38	0.99

the type of project organization structure and I have been also successful for my action.													
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Source: own survey (2019).

The above table 5.2 shows the respondents ‘opinion using likert scale concerning leadership related to pure project organization structure.

As indicated above in table 5.2, For Question no 1, 45.2 % of the respondents neither agree nor disagree on” I believe I take enough leadership training so far”, 26.19% of the respondents agree & strongly agree on “I believe I take enough leadership training so far” and the rest 28.57 % respondents disagree & disagree on “I believe I take enough leadership training so far”. From the statistical result, it is obvious that most of the respondents try to stand on the neural side of the opinion while the disagreeable part i.e. 28.57 % respondents and 26.19 % of the respondents are creating some controversial result. In order to make a conclusion on the above statistical result, the researcher has chosen to see the interview and open ended result. According to the second alternative of data collection mechanism, the researcher has found out that Ethio-telecom has started to give basic leadership training so far in a continuous manner for all employees. But it is hard to say that the project teams had taken enough leadership training so far.

Even when the researchers see the second question’s statistical result, 73.81 % respondents strongly disagree & disagree on “I have enough leadership Knowledge and skill to lead project in any project organization structure”. Based on the interview, the researcher has also found out that the leadership competency of the project teams are highly dependent on their effort/moral to work on themselves and it is difficult to say that the project teams had got enough training as well as skill in leadership as expected to have. So the researcher has concluded that the project teams are not getting enough leadership training and skill for the project.

To assess the awareness of the project teams on the effect of organization structure on the choice of leadership type and their implantation practice, the researcher has used Question no 3 & 4. As it can observed from table , 28.57 % of the respondents neither agree nor disagree on” I have good awareness in the effect of project organization structure on the choice of leadership style for the project”, 19.05 % of the respondents agree & strongly agree on “I have good awareness

in the effect of project organization structure on the choice of leadership style for the project” and the rest 52.38 % respondents disagree & disagree on “I have good awareness in the effect of project organization structure on the choice of leadership style for the project”. From the above statistical result, the researcher concludes that the project teams are not aware of the project organization structure effect on the choice of leadership style for the project. To see their implementation practice using Question no 4, 54.7 % of the respondents neither agree nor disagree on” I chose the right type of leadership style for the project I engaged with so far based on the type of project organization structure and I have been also successful for my action.”, 35.72 % of the respondents agree & strongly agree on “I chose the right type of leadership style for the project I engaged with so far based on the type of project organization structure and I have been also successful for my action.” and the rest 9.52 % respondents disagree & disagree on “I chose the right type of leadership style for the project I engaged with so far based on the type of project organization structure and I have been also successful for my action.” Since there is more number of reservations from the above statistical result, the researcher has seen the result from the interview and the open ended question to clarify things more on the subject matter. From the second data collection technique, the researcher has found out that the project teams have used their common sense approach and exert their optimum effort while they are leading the project but they are not sure whether they were using the right type of leadership in their project execution.

#### 4.2.6.1. Leadership related to Matrix organization structure / MOFEC & School net Result & Interpretation

Table 5.3 leadership practice assessment in Matrix project organization structure

No	Question Items	Total number of respondent	(Frequency & percentage )										Mean	SD		
			Strongly Disagree (1), Disagree (2), Neither Agree nor Disagree/Neutral (3), Agree (4), and Strongly Agree (5).													
			1		2		3		4		5					
		F	%	F	%	F	%	F	%	F	%					
	<b>LEADERSHIP</b>															
1	I believe I take enough	22	3	13.63	8	36.36	9	40.90	1	4.55	1	4.55	2.5	0		

	leadership training so far														9 6
2	I have enough leadership Knowledge and skill to lead project in any project organization structure.	22	6	27.27	7	31.8 2	6	27.27	2	9.09	1	4.5 5	2.32	1 .1 3	
3	I have good awareness in the effect of project organization structure on the choice of leadership style for the project	22	5	22.73	5	22.7 3	10	45.45	2	9.09	0	0	2.41	0 .9 6	
4	I have used the right type of leadership style and influential power while I am dealing with the functional manager N:B (For Matrix structure's project manager only )	22	2	9.09	4	18.1 8	12	54.45	2	9.09	2	9.0 9	2.91	1 .0 2	
5	I have been working with the functional manager in cooperative manner. N:B (For Matrix structure's project manager only )	22	1	4.55	1	4.55	6	27.27	9	40.9 1	5	22. 73	3.73	1 .0 6	

Source: own survey (2019).

The above table 5.3 shows the respondents 'opinion using likert scale concerning the leadership in Matrix project organization structure.

As it can be observed from table 5.3, 40.90 % of the respondents neither agree nor disagree on "I believe I take enough leadership training so far", 9% of the respondents agree & strongly agree on "I believe I take enough leadership training so far" and the rest 50 % respondents disagree & disagree on "I believe I take enough leadership training so far". From the statistical result, it is obvious that most of the respondents believe that they are not getting enough training so far .In order to make a conclusion on the assessment result, the researcher has also see the interview and open ended result. According to the second alternative of data collection mechanism, the researcher has found out that Ethio-telecom has started to give basic leadership

training so far in a continuous manner for all employees. But it is too far to say that the project managers had taken enough leadership training so far as expected.

When the researcher sees the second question assessment result, we can see that 59.09 % respondents disagree & strongly disagree on “I have enough leadership Knowledge and skill to lead project in any project organization structure”. Based on the interview, the researcher has also found out that the competency of the project managers are highly dependent on their effort/moral to work on themselves and it is too far to say that the project teams had got enough training as well as skills in leadership as expected to have.

To assess the awareness of the project teams on the effect of organization structure on the choice of leadership type and their implantation practice, the researcher has used Question no 3, 4& 5. As it can be observed from table 5.3 , 45.45 % of the respondents neither agree nor disagree on” I have good awareness in the effect of project organization structure on the choice of leadership style for the project”, 9.09 % of the respondents agree & strongly agree on “I have good awareness in the effect of project organization structure on the choice of leadership style for the project” and the rest 45.46 % respondents disagree & disagree on “I have good awareness in the effect of project organization structure on the choice of leadership style for the project”. From the above statistical result, the researcher concludes that the project teams are not aware of the of project organization structure on the choice of leadership style for the project.

As it can be observed from table 5.3 , 54.45 % of the respondents neither agree nor disagree on” I have used the right type of leadership style and influential power while I am dealing with the functional manager as well as the functional teams ”, 27.27% of the respondents disagree & strongly disagree on “I have used the right type of leadership style and influential power while I am dealing with the functional manager as well as the functional teams.” and the rest 18.18 % respondents agree & strongly agree on “I have used the right type of leadership style and influential power while I am dealing with the functional manager as well as the functional teams”. Even though the disagreeable part of the spectrum is greater than the agreeable one, there is more reservation on the above statistical result. To clarify things more, the researcher has assessed the result of open ended question and also from the interview. Based on the second alternative of the result, the researcher has found out that the project manager and the coordinator have done all they can do while dealing with the functional manager as well as the project teams.

But they do not exactly know what kind of leadership they use. They have used their natural given talent in dealing with people.

When the researcher sees Question No 5, most of the respondents believe that they have been working with the functional manager in cooperative manner. As it can be observed from table 5.3, 27.27% of the respondents neither agree nor disagree on "I have been working with the functional manager in cooperative manner." 63.64% of the respondents agree & strongly agree on "I have been working with the functional manager in cooperative manner." and the rest 9.1 % respondents disagree & disagree on "I have been working with the functional manager in cooperative manner". Even though the project managers and the coordinators believe that they are working with the functional manager in cooperative manner, the assessment result in getting the right staff in the project and maintaining the staff throughout the life cycle of the project doesn't show their effectiveness in working with the functional manager.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATION

In this chapter summary of the study, conclusion and recommendation of the study are presented.

#### 5.1. Summary

The study was conducted to assess the project organization structure practice and challenges in Ethio-telecom and also to suggest possible solutions to ease the challenges by identifying the knowledge gap of the project teams. The research has tried to answer the following questions: What are different types of project organization structures used to manage projects in Ethio-telecom? What are the selection criteria's used to select project organization structures? How staffing (identifying and recruiting) the human resource practice looks like in each of the project organization structure? How the human resource performance management practice looks like in each of the project organization structure? How the leadership awareness and practice of the project managers looks like in each of the project organization structure? What are the knowledge gaps the project teams have? Both secondary and primary data sources were used. Secondary data was collected from project documents and also from Ethio- telecom intranet website. Primary data is collected in questioner and interview forms. First-hand full investigation was undertaken through questionnaires and interviews guides. This method was used as a major data collection method and supplemented by secondary source data. It is clear from the preceding discussions that all the three (Matrix, Functional, and Pure) type of project organization structure are found in Ethio-telecom. From the list of project organization structure found in the company, Functional project organizations are usually used for system upgrade projects and the other two (Matrix & Pure) project organization structure are frequently used for new projects. The project managers prefer to use the pure project organization structure for big and high capital projects because of the requirement of a large number of human resources and the need of high authority on the project teams. On the other hand, most projects that fall on the Matrix project organizational structure are the type of project that should be done on the

continuous basis, the project type that need multiple disciplines but doesn't take urgency or the project that doesn't require external contractors and vendor's involvement.

Ethio-telecom also considers different factors in the selection of appropriate project organization structure for their project. Some of the factors are: the type of project, staff demands & technology requirement of the project, the authority requirement the project manager should have and the engagement of external contractor/vendor. The project teams are also happy with their choice of project organizational structure so far in their practice. Most of the challenges associated with each project organization structure are related with the people management like getting the right staff for the project, maintaining the staff throughout the life cycle of the project, not rewarding the staff based on their performance, authority & responsibility gap of the project managers on the project teams.

In pure project organizations structure's internal staffing process, the project team was reluctant to follow all the recruitment stages strictly and recommendation has been playing big role on the selection process as a result there was subjectivity and bias on the selection process. Unlike the internal one, all recruitment stages have been strictly followed in the external staffing process. But in the selection process, the company has compromised the performance of the vendor/subcontractor with some extent in order to close the country's financial problem with loan provided by the vendor/subcontractor. In their performance & reward management practice, the project teams didn't have efficient performance and reward management system. Evaluator wasn't evaluating the staffs critically according to the predefined metrics value. There was no clear evaluation metrics set to evaluate staffs and the evaluators have been evaluating the performance of staffs in similar manner. The reward was also highly uncorrelated with the performance of the staffs during the execution of the project. Since their evaluation system was not as such critical in separate the performing staff from the non-performer, their reward was done in similar manner on the global basis. Project managers and coordinators were not also getting enough leadership training and skill so far in the project and their awareness was very poor.

In Matrix project organization structure, the project managers & coordinators didn't not have enough leadership Knowledge and skill to lead project in any project organization structure so as to ease the challenges. Unlike pure project organization structure, the project teams in the matrix project organization structure have good appraisal system but it wasn't accompanied with reward associated with performance. The project managers in this project organization structure weren't aware of the importance of reward for this project organization structure and did not incorporate it in their project plan. In staffing process, even though the project manager has strictly followed the recruitment step, the matrix project organization structure had big influence in getting the right staff. The functional manager had a big role in providing the right staff based on the requirement. Since the Project managers and coordinators didn't have awareness on the importance of leadership on the project matrix structure, they couldn't able to fill the gap in getting the right staff for the project as well as maintaining the staff throughout the project life cycle.

## 5.2. Conclusion

Ethio-telecom uses all the three (Matrix, Functional, and Pure) type of project organization structure mentioned in the literature. The project teams also have their own selection criteria in choosing the appropriate project organization structure for their project. The different factors ethio-telecom uses in the selection process are: the type of project, staff demands & technology requirement of the project, the authority requirement the project manager should have and the engagement of external contractor/vendor. The project teams are also happy with their choice of project organizational structure in their practice. From the three type of project organization structure found in the company, Functional project organizations are usually used for system upgrade projects and the other two (Matrix & Pure) project organization structure are frequently used for new projects. The project managers prefer to use the pure project organization structure for big and high capital projects because of the requirement of a large number of human resources and the need of high authority on the project teams. On the other hand, most projects that fall on the Matrix project organizational structure are the type of project that should be done on the continuous basis, the project type that need multiple disciplines but doesn't take urgency or the project that doesn't require external contractors and vendor's involvement.

There are challenges the project teams are facing in each project organization structure. The challenges are related with the inherent limitation of the project organization structure selected as well as the mismanagement of people inside that organization. In Pure Project organization structure, there was a challenge in getting the right internal staff for the project as required, in getting the right external staff for the project as required, in maintaining external staff / vendors throughout the life cycle and there was also a problem in rewarding the project based on the performance of the staffs. In Matrix Project organization structure, there was a challenge in getting the right internal staff for the project as required, in maintaining the assigned internal staff throughout the life cycle of the project, in rewarding project staff based on their performance and lastly there was a clear authority and responsibility gap the project manager was facing during project implementation.

In the Staffing of pure organization structure/TEP, there was detail competencies & skill description was defined for each position and placement of new entrants was done as per the project needs/demand for the project during the internal recruitments but there was not enough

advertisement done to attract applicants in the formal way. In addition to the above limitation on applicant attraction, the selection process had also some setbacks. Even though Job description and specification has been used with some extent for selecting appropriate recruits for the project, recommendation has been playing big role on the selection process. As a result there was subjectivity and bias on the selection process. In the external recruitment, the detail requirement of Ethio-telecom has been well formulated & defined by the technical committee before the bid had been posted and placement of new entrants was done as per the project needs/demand. Unlike the internal one, there was enough advertisement done to attract possible applicants in the formal way with the cooperation of sourcing and facility division. But in the selection process, the company has compromised the performance of the vendor/subcontractor with some extent in order to close the country's financial problem with loan provided by the vendor/subcontractor. That was the company's limitation and one of the contributing factors for the delay of the project. In the Leadership related to pure organization structure / TEP, the project managers and coordinators were not getting enough leadership training and skill for the project and they did not have enough leadership Knowledge to lead project in any project organization structure. In spite of their knowledge gap, the project managers and coordinators have been using their common sense approach and exert their optimum effort while they are leading the project but they were not sure whether they were using the right type of leadership in their project execution or not.

In the staffing of Matrix project organization structure / MOFEC IFMIS and school net project, during the internal recruitment, detail competencies & skill description was defined for each position and the placement of new entrants is done as per the project needs/demand. The project manager set competency and skill requirement for each position according to project requirement and inform the functional manager to go ahead. The project managers also selected a suitable functional department in order to get suitable staff related to the project requirement and announced the requirement of the project staffs for functional managers on time. So the project managers could able to attract suitable applicants to fill the project vacant position. But in the selection phase, the use of Job description & specification was 50 50. Project manager didn't have control in the selection process. The functional manager's cooperation plays a big role in the process of choosing the staffs based on the job description specified. But the functional

manager usually don't want to give up the most expertise staffs for the project as a result low performing staffs would be assigned for the projects as if they would fulfill the requirements set by the project manager . Having selection based on job description & specification was a function of the willingness and cooperation of the functional manager in the project and the project team did not succeed in working with the functional manager effectively in getting the right staff for the project . In the external recruitment, the project team could able to follow the four steps of recruitment process strictly and successfully. Since most of the projects that fall on the matrix structure are the medium size project and the external staff/subcontractors are the local one, the company did not compromise the performance of the subcontractor. In the Leadership related to Matrix organization structure / MOFEC IFMS & School net Project, even though Ethio-telecom has started to give basic leadership training so far in a continuous manner for all employees, project teams in this project structure have not got enough training & skills in leadership as expected. As a result, the project managers and coordinators didn't have awareness in the effect of project organization structure on the choice of leadership style for the project. But the project manager and the coordinator have done all they can do in dealing with the functional manager as well as the project teams but they do not exactly know what kind of leadership they used. They have used their natural given talent in dealing with people during the project execution time.

In pure project organization structure human resource performance management practices, the company was using traditional type of evaluation in their performance appraisal and in their appraisal process; there was no transparency & continuous follow up when evaluating employees. The evaluation was performed two times per year as a result, it usually reflect the performance of the staff during that evaluation period. There was also no clear evaluation metrics defined to evaluate staffs and the evaluation was subjected to bias of the evaluators. Evaluators were giving similar evaluation result for most of the staff not to affect the sprite of the team. Even though most of the project team members don't complain on the evaluation result, such kind of evaluation technique cannot encourage good performers to exert their effort a lot on their work. In their reward system, it was done based on their level on the project and it was highly uncorrelated with the performance of the staffs during the execution of the project. Since there evaluation system was not as such critical in separate the performing staff from the non-

performer, their reward was done in similar manner on the global basis according to their level. As a result, this kind of reward neither disappoints the overall staff nor motivates the high performing staff to exert their effort on the optimum level as well.

In the performance management and reward in Matrix project organization structure/MOFEC IFMS and school net projects, Ethio-telecom was also using traditional type of evaluation in their performance appraisal. Weekly KPI (key performance indicator) has been formulated per each team to track their performance on the ground. As a result there wouldn't be evaluator bias on the evaluation and the evaluators have been evaluating the performance of the staffs fairly based on the predefined KPI. There was also transparency & continuous follow up on the weekly basis when evaluating Employees because the measurement of the performance evaluation was clear for all project teams. In spite of the good appraisal system they had, it wasn't accompanied with good reward associated with the performance. There was no a strong link between performance & reward in the project. The project managers in this project organization structure did not usually incorporate reward on their project. As a result, their appraisal system is not capable of encouraging the good performers vis-a- vis non-performers and a lot should be done on this project organization structure regarding reward to motivate employees more in spite of the work pressure the team have.

In identifying the knowledge gap Ethio telecom's project teams have, the researcher has tried to point out the area in which project team's knowledge gap become visible in their human resource management and leadership practice in each project organization structure . In pure project organization structure/TEP Project, the project team has been reluctant to follow all the recruitment stages. They did not use formal announcement to attract all the possible candidates to apply for the project. There was awareness issue on the importance of following recruitment process. During the selection process, the project team did not proactively predict the susceptibility of recommendation for abuse and they did not decrease the percentage of recommendation in the selection process. They allowed the recommendation to override the Job description and specification in the selection process. During performance appraisal process, even though evaluation metrics plays a very important role to evaluate the staffs fairly and with less subjectivity. Evaluators did not evaluate the staffs critically according to the predefined metrics value. There was no clear evaluation metrics set to evaluate staffs and the evaluators

have been evaluating the performance of staffs in similar manner. In their reward system, there was reward for the staffs on the project based on the staff level on the project. But it was highly uncorrelated with the performance of the staffs during the execution of the project. Since their evaluation system was not as such critical to separate the performing staff from the non-performer, their reward was done in similar manner on the global basis. As a result, their reward system could not able to motivate the performing staff to perform more. The project managers and coordinators were not getting enough leadership training and skill so far in the project as a consequence the project team did not have enough leadership Knowledge and skill to lead project in any project organization structure and they were not aware of the project organization structure effect on the choice of leadership style for the project. As a result, they have been using their common sense approach and exert their optimum effort while they were leading the project but they were not sure whether they had been using the right type of leadership in their project execution or not.

In project matrix structure /MOFEC & School net project, there was a knowledge gaps the project teams had. Project managers and coordinators didn't have awareness on the importance of leadership on the project matrix organization structure. They were leading the project based on their natural given talent of leadership. They also didn't have awareness in the effect of project organization structure on the choice of leadership style for the project but they have been doing all they can do in dealing with the functional manager as well as the project teams but they do not exactly know what kind of leadership they used. They have used their natural given talent in dealing with people during the project execution time. Not having appropriate leadership in this project organization structure had affect the chance of getting the right staff for the project, sustaining the staff throughout the life cycle of the project and the performance of the staffs in the project. In spite of the good appraisal system the project team had, it wasn't accompanied with good reward associated with the performance. There was no a strong link between performance & reward in the project. The project managers in this project organization structure weren't incorporating reward on their project. The project manager did not understand the susceptibility of the project team for less motivation and demoralization in the work area as a result of being engaged with two bosses and the importance of reward based on performance to increase team motivation and uplift their sprite.

## 5.2. Recommendations

This part of the study gives some possible resolutions measures to be taken by Ethio- Telecom project teams in each project organization structure to alleviate the challenges in each project organization structure. The suggested recommendations are based on the identified knowledge gap the project team have in each of project organization structure using selected telecom projects. As shown in the summary part, the observed challenges are related with the project organization structure as well as human resource and leadership practices of the project teams in each project organization structure. So the researcher has recommended the following practices as a remedy.

### Pure Project organization structure

To solve the internal recruitment issue, the project team should follow all the recruitment stages and they should able to use formal announcement to attract all the possible candidates to apply for the project. In the selection process, recommendation ought to have some value in choosing the right type of the staff for the project in addition to Job description and specification. But the project team should able to know the susceptibility of recommendation for abuse and they should able decrease the percentage of recommendation in the selection outcome. Recommendation should not override the Job description and specification in the selection process. The researcher also recommends the company to give awareness training on the importance of HRM for the project teams. In the external recruitment case, the project team has done great so there wouldn't be recommendation in this regard. But Ethio-Telecom should able to work on increasing the financial capability of the company with the government so as to close the financial gap the company had in the process of choosing the right staff in the past.

The project teams can also minimize the problem of maintaining external staff / vendors throughout the life cycle of the project by having a right leadership strategy while the project teams are dealing with the external project staffs and also by filling the financial gap the company have that causes the wrong selection of the external staff in the first place . For that, the company should able to continue the leadership training they are giving in intensive manner to fill the competency gap the project teams have on the ground. As Armstrong (2002) described,

since reward plays a big role to increase the performance of the staffs, it should be highly correlated with the performance of the staffs and the project teams should be able to improve their performance appraisal system and be able to reward the staffs based on their performance.

## Matrix Project organization structure

Project managers and coordinators should increase their awareness on the importance of leadership on the project matrix structure and also know the effect of project organization structure on the choice of leadership style for the project. Since the main inherent problem associated with this project organization structure is authority and responsibility gap, the project managers and coordinators should be able to improve his/her leadership knowledge and skill in order to efficiently lead the project. The company's PMO section should also help the project teams by identifying their competency gap and helping them to have enough leadership training and skills required for the project organization structure.

The project teams should also keep their good appraisal system they had and accompany with good reward system associated with performance. Because of the project organization structure's inherent limitation on the project, the project teams are susceptible to low motivation and demoralization in the work area as a result of being engaged with two bosses. So the project managers/coordinators should be able to understand the importance of reward system to uplift project team spirit in spite of the work load comes from dual managers. Even though the project managers and the coordinators believe that they are working with the functional manager in cooperative manner, they should be able to increase their effectiveness to close the problem on getting the right staff in the project, maintaining the staff throughout the life cycle of the project by using appropriate leadership and influential power.

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# Appendixes

## Appendix 1: Questionnaire

Addis Ababa University

School of commerce graduate studies program:

Department of Project Management

A Study on The Challenges of project organization structure in Telecom Projects- The case of Ethio-Telecom.

The questionnaire is prepared by Emebet Fekade. I am currently a postgraduate student at the Addis Ababa University Department of Project Management. The objective of the questionnaire is to collect data regarding the Challenges of project organization structure in Telecom Projects- The case of Ethio-Telecom which will be used to prepare Project Work required for my MA degree. The aim of this research is to contribute to a better understanding on the challenges of project organization structure with the context of human resource management & leadership practice of the project managers in different project organization structure in Ethio-telecom. So you are kindly requested to read the questions thoroughly and respond accordingly. The result of this survey will be treated with utmost confidentiality and will be strictly used for academic purpose only. I thank you in advance for your cooperation.

### Instructions:

- You are not required to write your name on this questionnaire.
- Please answer question by circling.

#### **A) General Questions**

1. Gender a) Male                      b) Female
2. Education Status
  - a) Diploma                              c) Degree
  - b) Advance Diploma                  d) MA & above
3. Job position in your organization.....
4. For how many years have you been working as a project manager/ project management specialist/ project coordinator? .....

**B) Close ended Questions**

No	Questions	Strongly Disagree (1), Disagree (2), Neither Agree nor Disagree/Neutral (3), Agree (4), and Strongly Agree (5).				
		1	2	3	4	5
	<b>TYPE OF PROJECT ORGANIZATION STRUCTURE USED IN ETHIO-TELECOM.</b>					
5	All the three (Matrix, Functional, and Pure) type of project organization structure are used in Ethio-Telecom.					
6	Matrix & Pure project organization structure are only used in Ethio-Telecom.					
7	I believe that the two (Matrix & Pure) project organization structure are frequently used in Ethio- Telecom for new projects.					
	<b>PROJECT ORGANIZATION STRUCTURE SELECTION</b>					
8	Selection of the project organization structure is based on the type of project i.e system upgrade /New project.					
9	Selection of the project organization structure is based on the staff demand and technology requirement of the project.					
10	Selection of the project organization structure is based on the authority the project manager need for the project					
11	Selection is based on the engagement of external contractor/vendor.					
12	I believe that Ethio-telecom has been successful in choosing the right type of project organization structure.					
	<b>HR STAFFING</b> <b>N:B please mark 'Int' for internal and 'ext' for external recruitment respectively</b>					
13	Competencies and skills required for the different job positions are well defined / Job description and specification has been formulated.					
14	The project is able to attract suitable applicants to fill vacancies.					
15	Job description and specification are used in selection process and the selection has been done based on merit and skills only.					
16	Placement of new entrants is done as per the project needs					
	<b>HR PERFORMANCE</b>					
17	The project has used 360-degree evaluation as a performance appraisal method.					
18	The project has used traditional performance review technique.					
19	the current performance appraisal system is capable of encouraging the good performers vis-a- vis non-performers					
20	There is transparency & continuous follow up when evaluating Employees					
21	The evaluators have been evaluating the performance of the staffs					

	fairly.					
22	There is a strong link between performance & reward in the project.					
23	I believe that the reward system could able to motivate employees to perform more.					
	<b>LEADERSHIP</b>					
24	I believe I take enough leadership training so far					
25	I have enough leadership Knowledge and skill to lead project in any project organization structure.					
26	I have good awareness in the effect of project organization structure on the choice of leadership style for the project					
27	I chose the right type of leadership style for the project I engaged with so far based on the type of project organization structure and I have been also successful for my action.					
28	I have used the right type of leadership style and influential power while I am dealing with the functional manager N:B (For Matrix structure's project manager only )					
29	I have been working with the functional manager in cooperative manner. N:B (For Matrix structure's project manager only )					
	<b>CHALLENGES RELATED TO PROJECT ORGANIZATION STRUCTURE</b>					
30	The right staff has not been assigned for the project. N:B please mark 'Int' for internal and 'ext' for external staff respectively					
31	There was a problem in maintaining the assigned staff throughout the life cycle of the project. N:B please mark 'Int' for internal and 'ext' for external staff respectively					
32	The reward was not based on the performance of the staff.					
33	There was Authority and responsibility gap during project implementation N:B (For Matrix structure's project manager only )					

**C. Open ended Questions**

34. What are the selection criteria's frequently used in Ethio-telecom to select project organization structure for a project?  
.....

- .....
35. Are you happy with the outcome of the project organization structure selection after project implementation during your past experience? Yes /No
36. If your answer on Question no 35 is No, what was the perspective of the project that hasn't been considered during the selection of project organization structure? .....
- .....
37. If the project organization you were using is a Matrix one, please mention the type of Matrix structure (Project Matrix, Balanced Matrix, and Functional Matrix)? .....
- .....
- .....
38. If you believe you had bad performance management during project management implementation in the project organization structure you were/are working on , please mention some of the problems you observed ?.....
- .....
39. If you believe that there is a problem in maintaining the staff throughout the life cycle of the project, please mention the problems you observed.....
- .....
40. If you believe that the right staff has not been assigned as required for the project, please mention the problems you observed. ....
- .....
41. Please mention other challenge you were facing in the implementation of project organization structure you were working on?
- .....
- .....
42. Please mention the type of performance appraisal method the project used.....
- .....
- ...