

**ADDIS ABABA UNIVERSITY, COLLEGE OF BUSINESS AND ECONOMICS**

**SCHOOL OF COMMERCE**

**MA IN PROJECT MANAGEMENT**



**The effect of Organizational Culture on Project Management  
performance: The case of Ethio Telecom**

By  
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A Thesis work submitted in partial fulfillment of the requirement for the award of  
MA degree in Project Management

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Addis Ababa

## Statement of Declaration

I hereby, declare that this research work entitled “**The effect of Organizational Culture on Project Management performance: The case of Ethio Telecom**” is original work of my own, and has not been presented by anyone for any degree in any other university. And all the sources of materials used for the thesis have been duly acknowledged.

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

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## Acronyms and Abbreviations

2G :	Second Generation wireless telephone technology
3G :	Third Generation mobile communications
4G :	Fourth Generation mobile communications
ANOVA:	Analysis of variance
CDMA:	Content Division Multiple Access
CXO:	Chief Executive Officer
ETC:	Ethiopian Telecommunication Corporation
GSM:	Global System for Mobile Communications
GTP:	Growth and Transformation Plan
HQ:	Head Quarter
HR:	Human Resource
IT:	Information Technology
KPI:	Key Performance Indicator
LAN:	Local Area Network
LTE:	Long Term Evolution
MCIT:	Ministry of Communication and Information Technology
PMI:	Project Management Institute
PMgt:	Project Management
TEP:	Telecom Expansion Program
VAS:	Value Added Service
VIF:	Variance Inflation Factors
VPN:	Virtual Private Network

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## **Abstract**

*Ethio Telecom had been embarking on programs worth of Billions of dollars in the past 10 years, and becomes mind taking to pay attention of what unique culture might be drawn of Ethio Telecom and how that very culture affected the project management performance of programs or the projects with in the programs. Accordingly, the primary objective of the study was to assess organizational culture of Ethio Telecom and reflection of these culture on Project Management Performance. Clan, Adhocracy, Hierarchy, and Market were taken as main elements of organizational culture to study the reflection of these cultures on Project Management Performance. The methodology to conduct the research was based on interview and questionnaires' for the primary data, and documents from Ethio Telecom and research papers for the secondary data. The study uses Exploratory Sequential Mixed Method (QUAL - > quan ) design in determining relationship between the different types of Organizational Culture and Project Management Performance. Data collected from interview were used as a guideline to develop questionnaire instrument and data from questionnaire response were analyzed with the help of descriptive method of data analysis using statistical software (SPSS)V20. Results shows that Ethio Telecom owns elements of organizational cultures that belongs to all the four main categories of organizational culture (Clan, Adhocracy, Hierarchy and Market) and determined to have relation to the organizations' project management performance KPIs. The outcome of this work will serve Ethio Telecom to evaluate its current organizational culture and make possible move towards its improvement. Since the mean average of all forms of cultures were slightly above average, recommendations are drawn to strengthen the currently available organizational culture through the establishment of responsible work unit for the better of the organizations' project management performance.*

**Key words: Organizational Culture, Project Management performance, Ethio Telecom**

# **CHAPTER ONE**

## **INTRODUCTION**

This chapter consists of background of the study, statement of the problem, research questions, research objectives, significance of the study, scope of the study, and definitions of terms.

### **1.1 Background of the study**

Organizational culture also known as corporate culture refers to the beliefs, attitudes, and values that the organization's members share and the behaviors consistent with them (which they give rise to). Corporate culture sets one organization apart from another and dictates how members of other organization will see you, interact with you, and sometimes judge you. Often, projects too have a specific culture, work norms, and social conventions (Adrienne 2014). Corporate culture is based in part on employees' shared values, and is in part defined by management, company history, employees' professional culture, etc ( Martine 2017). Studies shows that project management practices and success are directly related to organizational culture.

As described in the PMI Guide to the Project Management Body of Knowledge, the culture of an organization is created by the experiences of its members. Most organizations have developed their own unique cultures through years of practice and common usage.”

Projects considered to be aligned with organizational culture may have smoother implementations and higher success rates than projects that challenge these cultural norms. Also, understanding the organizational culture and its relationship to project management can help companies figure out which projects to pursue and which to put aside.

Once the corporate culture has been identified, members should try to adapt to the frequency, formality, and type of communication customary in that culture. This adaptation will strongly affect project members' productivity and satisfaction internally, as well as with the client organization (Adrienne 2014).

Though projects success or failures are attributed to many reasons such as political, economic, technological, project management practice maturity and some more reasons; project environment along with organizations culture in firms contributes remarkable role for smooth rollout of projects.

Researches indicates that organizational agility in terms of established organizational cultures contributes to the success or failure of project management and its deliverables. In general systems theory, the environment of a system is defined as everything outside the system that receives system outputs from it or delivers inputs to it. A culture's institutions are a part of the environment for every project (Jack & Samuel 2009). Companies rely on independent project teams because the dominant culture of the organization would not support the innovation and support necessary for success (Gray & Larson 2000).

(Tim 2014) indicates that culture and leadership are two sides of the same coin. When organizations start or when groups start, there is always a leader who has a preferred way of doing things, and those preferences are going to be imposed on the group members.

According to Rosenbloom & Markus (2010), project managers and project sponsor don't address the friction points between the objectives of the project and the culture of the organization until after trouble appears and success is in jeopardy. But, like any other project risk, the potential conflict between the organization's culture and the project should be managed proactively. Project leaders should assess both the culture and the stakeholders so they can adopt the right change management strategies to head-off a potential clash before resistance impedes success.

The topic of this research proposal is considered as worth time and effort to review the impact of organizational culture of Ethio Telecom in its project's management performance and the overall outcome of projects.

## **1.2 Background of the Industry**

Ethio Telecom established in the year 2010 inherited from its subsidiary Ethiopian Telecommunications Corporation. It is the only telecom service provider in the nation with the intention of to be a world-class telecommunications service provider with the following Vision and Mission, according to Ethio Telecom's official website "www.ethiotelecom.et".

### **Vision**

To be a world-class provider of telecom services.

### **Mission**

To provide world-class, modern and high-quality telecom services for all citizens equitably so as to transform the multifaceted development of the country to the highest level.

Currently, Ethio Telecom is providing variety of telecom services : Fixed line telecom service ( PSTN ) to support voice and data, Broadband service, Mobile telecom ( 2G,3G,4G /LTE , CDMA) VPN , VAS ,Call Center, Web Hosting , domain name are widely used .

The advancement of IT and the increasing demand of consumers; are the very driving forces for the deployment of state of the art and cutting-edge telecom infrastructures, products and services in the nation. Ethio Telecom has been engaged in the first phase of TEP (Telecom Expansion Program) to establish and expand telecom infrastructure in twelve telecom circles of the nation. Service wise, the expansion was meant for 3G and 4G (LTE ) service in the capital and 3G service in the rest of the nation .

## **1.3 Statement of the Problem**

Apparently, it would be a challenging task to fully account for all components of a company's culture, the dominant attributes can generally be identified. Realizing this, (Robert Quinn and John Rohrbaugh 1983) reviewed the results of many studies on this topic and combines all dimensions, creating a 2x2 matrix with four clusters (Bruce M. Thar. 2009), as Clan, Adhocracy, Hierarchy, and Market.

Ethio Telecom; inherited from its predecessors and acquiring a life span of 125 years of service is striving to meet its vision. The company has built organizational culture which distinguishes it from other organizations. This organizational culture encompasses history and

milestones, behavioral rules, incentives, teamwork, and caring. Reference to Ethio Telecoms' organizational culture survey (Work culture Survey Analysis ,2019), the behavior of dominant cultures of Ethio Telecom are identified to fall under all the four main organizational culture categories. Table 1 shows a simple comparison of the four culture groups to Ethio Telecoms' dominant cultures.

However, what is said to be dominant cultures of Ethio Telecom, are being challenged over time. Just to cite as an example; unexpected corporate reform programs, frequent management and staff turnover contributes to the loss of what the long history would provide in building more meaningful and unique organizational cultures.

On the other hand, although telecom service, particularly mobile penetration showed unprecedented growth, Ethio Telecom is still lagging African average in advanced services. ( Dr. Lishan Adam 2012) explained that Ethiopia has moved one step forward in expanding access to communication services through vendor credit from the Export-Import Bank of China, the scheme has brought the country two steps backwards in terms of innovation and competitiveness (dynamics which have been the hallmark of ICT sector growth in neighboring Kenya). The lack of competitiveness and innovation is evident in the absence of skills in planning, designing, implementation, and maintenance of communication networks, mobile applications, distributed databases, and IT-enabled services.

Table 1: Culture mapping (adopted from Work culture Survey Analysis 2019 ) & ( Marcella Bremer 2016).

<b>Generic Cultures</b>	<b>Identified Ethio Telecoms' Dominant Cultures</b>
<p><b>Collaborate Culture (Clan Culture)</b>  <i>a. build teams, do things together</i>  <i>b. commitment, empowerment</i>  <i>c. human development</i>  <i>d. cohesion, engagement</i>  <i>e. collective wisdom, long-lasting partnerships, and relationships</i>  <i>f. roles like a mentor and a coach</i>  <i>g. wary of conflict</i></p>	
<p><b>Create Culture (Adhocracy Culture)</b>  <i>A. create, innovate, envision the future</i>  <i>B. handle discontinuity, change, and risk</i>  <i>C. freedom of thought and action, rule-breaking</i>  <i>D. thoughtful experimentation, learning from mistakes, failing fast</i>  <i>E. roles like entrepreneurs and visionaries</i>  <i>F. visionaries inclined toward risk, not afraid of uncertainty</i></p>	<p><i>Achievement and Winning aligned with ( i.ii.iii.viii.ix ) of Control Culture.</i></p> <p><i>Compassion and Tolerance aligned with (A,C,D,F) of Create Culture</i></p>
<p><b>Control Culture (Hierarchy Culture)</b>  <i>© . better, cheaper, surer</i>  <i>ii. eliminate errors</i>  <i>iii. increase consistency and reliability</i>  <i>iv. better processes and efficiency</i>  <i>v. routines</i>  <i>vi. roles like organizers and administrators</i>  <i>vii. attention to details, careful decisions, precise analyses</i>  <i>viii. conservative, cautious, logical problem solvers</i>  <i>ix . technical experts that are well-informed</i></p>	<p><i>Strength and Boldness aligned with (a) of Collaborate Culture &amp; (8,9) of Compete culture</i></p> <p><i>Collaboration and Mutual Trust aligned with (a,b,d,e)of Collaborate Culture</i></p>
<p><b>Compete Culture (Market Culture)</b>  <i>1. compete, move fast, play to win</i>  <i>2. monitor signals from the market and customers</i>  <i>3. deliver shareholder value</i>  <i>4. speed: results-right-now</i>  <i>5. getting things done, achieving goals</i>  <i>6. acquiring other firms, outsourcing selected processes,</i>  <i>7. investing in customer satisfaction, attacking the market position of competitors</i>  <i>8. delivering results, making fast decisions, driving through barriers to achieve results</i>  <i>9. leaders are hard-driving, directive, commanding, demanding</i></p>	

Source: Ethio Telecom Work culture Survey Analysis

Delayed project deliverables and poor project closure exercises are found to be common practices in Ethio Telecom ( Ethio Telecoms' TEP1 closure report 2016 and Ethio Telecoms' 9 months Report 2019). Project costs are reported to be within TCO (Total Cost of Ownership) as per the reports. Quality of project outcomes are not however explicitly explained in any of the reports and hence the study resorted to use customer satisfaction survey (CSS) of the company (10th round national CSS, 2018). According to the survey, network related quality of services is below average.

With a huge investment in place; subscribers' reflection on quality, reliability and sustainability of telecom products and service has been in question. Moreover, the company could not meet its ambition to become a world class telecom service provider which is depicted in its vision statement, that is shown in section 1.2 of this study proposal.

From the outset, we may conclude that project exhibit problem in planning, execution and commissioning, but the question is, it that incidental or normative? This question is because there is no conclusive evidence not to believe that it is not normative. If it is normative, does it have anything to do with corporate culture? (Andersen 2009) said that it is well recognized that the culture in the company has an impact on the performance of project. The main purpose of this study proposal is to address effects of organizational culture on project management performance in Ethio Telecom. The study attempts to examine the current organizational culture, impact of those current cultures on its project management performance, and the challenges of organizational cultures.

Though there are studies showing relationship of organizational cultures to project management performance, no empirical studies are found on the topic of the study specific to Ethio Telecom. The study showed relationship between organizational culture and project management performance of Ethio Telecom as a new contribution to the knowledge area in filling the gap and pin point limitation of Ethio Telecoms corporate cultures that adversely affect project management performance and help Ethio Telecom adopt suitable culture in line with its vision and mission .

Studying Ethio Telecom organizational cultures and its effect on project management performance to explore the bond between the functional and project structures of the organization was found to worth time and efforts. Identifying the relationship between these permanent and temporary structures is believed to contribute to the healthy sustainability of the company in the upcoming and expected competitive environment. Thus, the study was conducted to address the following basic research questions.

#### **1.4 Research questions**

The following research questions were formulated for the study.

- i. What are the currently known Organizational cultures in Ethio Telecom?
- ii. What is the effect of organizational culture on project management performance of Ethio Telecom?

#### **1.5 Objectives of the study**

The objective of this study was to concretize the relationship of organizational culture and project culture in Ethio Telecom at institutional level. This study was also intended to investigate if a well formulated organizational culture exists in Ethio Telecom with reference to best practices and literatures written in the subject line.

Culture is a characteristic of the organization, not of individuals, but it is manifested in and measured from the verbal and/or non-verbal behavior of individuals – aggregated to the level of their organizational unit. People who hold a common conception of what the organization should be and how work should be organized will tend to create an organization that realizes that conception. Moreover, an individual who joins that organization will tend to become socialized to that conception and come to perceive the way work is conducted as appropriate and natural (Deal & Kennedy 1982).

### **1.5.1 General Objective of the study**

The study has aimed to assess organizational culture of Ethio Telecom and reflection of these culture on Project Management Performance. Lessons from the study are targeted as improvement areas for the better of the company.

### **1.5.2 Specific Objectives of the study**

The specific objectives of the study were:

- i. To examine the current Organizational Cultures in Ethio Telecom.
- ii. To explore the effect of organizational culture on the Project Management Performance of Ethio Telecom.

## **1.6 Significance of the study**

It is hoped that this study will give insights on one of the challenges of Ethio Telecom. The study is considered to be worthwhile and timely since Ethio Telecom is expected to face a new change in the sector as it has been announced in all medias. Apart from that, its outcome may serve as a start up to other researchers who are interested to further explore untouched or improvement seeking areas of the study.

## **1.7 Delimitation/Scope of the study**

The scope of the study has mainly focused in Addis Ababa where the HQ of Ethio Telecom and other central offices are existing. HR department and Program Management Offices of different departments are residing in different branches of the corporation in Addis Ababa. It was assumed that information's to be collected from the central office will represent the rest of regional offices. However, selected regional project managers were included in the survey. The time frame of the study is delineated to nearly ten years' time, as of the establishment Ethio telecom, which is in year 2010.

The study uses email communication for responses from regional offices respondents. Opinions and regulatory views from the local telecom regulatory office has been taken as part of the study.

### **1.8 Organization of the paper**

This report consists of five chapters in which the first chapter illustrates background of the study, background of the industry, statement of the problem, basic research questions, objectives of the study, significance of the study, delimitation/scope of the study and definition of terms. The second chapter deals with review of literatures to support the proposal. The third chapter describes research approach, research design/type, sampling design, sources of data, data collection instrument, validity and reliability including research ethics. How data will be analyzed, presented and interpreted based on the results and findings of the study are shown in the fourth chapter and finally; the last chapter comprise of conclusion and recommendations.

### **1.9 Definition of Terms**

**Communication:** Derived from the Latin word communication, the social process of information exchange, covers the human need for direct contact and mutual understanding (Anton A. 2003).

**Competitive Advantage:** A competitive advantage is what makes an entity's goods or services superior to all of a customer's other choices. The term is commonly used for businesses. The strategies work for any organization, country, or individual in a competitive environment (Kimberly Amadeo 2019).

**Incumbent Operator:** The established telecommunications network operator(s) in a country. Normally the entity that operates all or most of the infrastructure in a country. In many countries this was the Posts, Telephone and Tele-graph (PTT) administration of the national government. In some countries it was or now is a private sector operator. In both cases, incumbent generally operated as monopolies (Hank Intven 2000).

**Network:** A public and/or private communications transmission system that provides interconnectivity among a number of local or remote devices (e.g. telephones, exchanges, computers, television sets) ( Hank Intven 2000).

**Operational Excellence:** A philosophy of the workplace where problem-solving, teamwork, and leadership results in the ongoing improvement in an organization. The process involves focusing on the customers' needs, keeping the employees positive and empowered, and continually improving the current activities in the workplace according to Business Dictionary.

**Project Management:** Is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements ( Project Management Institute 2008).

**Project Team:** A project team is a group of people with complementary skills and knowledge who work together through ongoing communication, making joint decisions, accomplishing a set of tasks, and motivating each other to accomplish a particular goal. (AAU SOC 2015).

**Regulatory body/Regulator:** This term is used to refer to government agency, institution or official responsible for regulation of all or part of the telecommunications sector in a country. In some countries it is a National Regulatory Authority (NRA), an independent regulatory authority, or a Ministry of the Government ( Hank Intven 2000).

**Strategic plan:** A strategic plan is a document used to communicate with the organization the organizations goals, the actions needed to achieve those goals and all the other critical elements developed during the planning exercise (BSI).

**Telecom Infrastructure:** is briefly explained as existing facilities and capital equipment (Project Management Institute 2008).

**Telecommunication:** The International Telecommunication Union (ITU) officially recognized the term telecommunications in 1932 and defined it as : “ any telegraph or telephone communication of signs, writings, images and sound of any nature by wire radio, or other system or process of electric or visual( semaphore) signaling .”Currently, the ITU defines Telecommunications as “ any transmission, emission, or reception of signs, signals, writings ,images , and sounds ;or intelligence of any nature by wire ,radio, visual, or other electromagnetic systems” ( Anton A. 2003).

**Turnkey Contract:** A turnkey Contract is one under which the contractor is responsible for both the design and construction of a facility. The basic concept is that in a Turnkey Contract the contractor shall provide the works ready for use at the agreed price and by a fixed date (Global Negotiator 2019).

**World-class:** Ranking among the foremost in the world; of an international standard of excellence; of the highest order. Webster's Collegiate Dictionary defines the phrase world-class as "being of the highest caliber in the world" (Webster's 1995).

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter pays attention to reviews of literature that supports and are related to the research problem identified in this study. The review focuses on literatures supporting the importance and influence of organizational cultures on project management performance.

#### **2.2 Theoretical Review**

The ever increasing needs and wants of the global society for advanced telecommunication services and in turn a very significant return on investment (ROI) for telecom service providers are the driving forces for radical moves in the telecom sector.

In today's telecommunication industry, physical network elements are continually evolving, and products are merging. Telecommunications will provide much better user experience and makes further convergence and innovation possible in terms of terminals, wireless network and services. Telecommunication network will leverage the excellent features of LAN and cellular networks; it will become smarter and friendlier and serve a broader range of purposes. It will penetrate all aspects of life and coexist with other successful technologies (Mengistu 2016).

Research findings reveals that organizational culture has a definite influence on the success of projects. Organizational culture is reflected in the way that people perform tasks, set objectives and administer the necessary resources to achieve objectives (Barthorpe et al.2000). Culture is potent. It can block an organization's (or project) strategy or catalyze it (Suda 2007). Project leaders who lack cultural awareness can become restricted and handicapped by the values and beliefs of the base organization's culture.

Organizational culture improves performance; brings about success; fosters internal integration and coordination and enhances commitment. It is considered as the social glue that holds the organization to ensure that every employee in the organization is on the same track

(Robbins 1996). Organizations have personalities, which are referred to as “cultures” (Ruhulla 2015).

Due to the ever-changing technological advancement and the increasing demands of users, telecom service providers are engaged in optimization and deployment of network infrastructures. The outcomes of deployment activities or projects are highly dependent on the success of project management.

Success of projects are also dependent on the culture of the project management team at individual and group levels. Cultures in projects are inherited from cultures in an organization. It is noted that independent project team might not be highly affected by the organizational cultures of sponsoring companies.

According to (Ruhulla 2015), culture helps to create concept of organizational culture and its roots and implications for effective project management. A culture can powerfully affect the way departments within an organization view the process of project management. The culture also influences the way employees commit themselves to the goals of their projects as opposed to other, potentially competing goals.

Culture in a project management context is complex because a project involves a number of experts from various fields , backgrounds and professions, who typically have their own cultures and ways of working , which are not necessarily in harmony with one another or with prevailing culture of the entire project .These cultural differences can either be a source of creativity and broad perspectives on organizational issues or they can be a source of difficulty and miscommunication (Wiewiora , Trigunarsyah , Murphy & Coffey 2012). Ajmal and Koskinen (2008) emphasized the importance of organizational culture awareness in the creation, sharing and utilization of knowledge in project management.

In most organization-oriented projects, project managers are usually assigned from existing functional managers. Organizational leadership culture exercised in the functional work environment are usually reflected in the project environment.

According to Riaz (2018), the culture of the organization exerts an influence on the leader and shapes the actions and competencies of the leader with the passage of time. For last few

decades, project management has extensively been involved in management of projects but still projects are not guaranteed to be successful in various organizational environments. There are certain factors affecting management of projects in different situations where the competence of project leadership is one of the key factors.

Project culture is therefore one of the most influential factors of successful project implementation in enterprises and is part of the overall organizational. Most projects do not operate in isolation; they must operate within a business environment that should be complementary to the requirements of good project management.

Based on the literatures reviewed here above, it can be reasoned and theorized that organizations that have cultures with higher level of institutional collectivism will have higher project performance which may be beneficial from a project performance perspective.

### **2.2.1 Organizational Culture**

A study focused on the relationship between an organization's cultural orientation and project success, focusing on four types of cultural orientation.

- **Clan** – premium placed on participation, commitment and shared values
- **Adhocracy** – initiative and innovation seen as supporting creativity and entrepreneurship
- **Hierarchical** – formal structure focuses on control and efficiency
- **Market** – focus on results and production in a consumer-driven environment

Project success was defined as whether schedule and budget goals were met, and the level of satisfaction among project team members. A study found that the Clan orientation culture, with its focus on shared values and cohesion, had the strongest association with effective and efficient projects, as well as with organizational success (“importance of organizational culture to project management, 2012”). In order to foster an effective organizational culture, it is necessary first to examine and define the current culture. At that point, a strategy can be developed for closing the gap between the existing and desired cultures, which can include changes to systems, practices and objectives.

Table 2: Strong and weak cultural Differences (Bakhri et.al., 2018 as cited in Dinarjo Darmanto, Tjiptogoro & Husin, Albert. 2019)

<b>Strong Culture</b>	<b>Weak Culture</b>
Value widely accepted	Values are embraced by only a handful of people within the organization, usually top management
Culture provides consistent messages of what is important	Culture provides conflicting messages about what matters
Employees can tell the history and heroes of the organization	Employees have little knowledge of the history and heroes of the organization
Employees are strongly identified with the culture	Employees have little concern for their organizational cultural identity
A strong relationship between shared values and behavior among members of an organization	A weak relationship between shared values and behavior among members of an organization

### **2.2.2 Dominant and Sub-dominant cultures**

As a company culture containing potentially numerous subcultures adds to the complexity of this approach, one other important issue must also be considered. The Competing Values Framework and its inclusion of the four organizational culture types offers a simple means of categorization and understanding; however, it is possible for a company or department to have subdominant elements. This means that an accounting department that is a Control (hierarchy) may still have substantial Compete (market) traits (Bruce 2009).

The four organizational culture types offer a simple means of categorization and understanding; however, it is possible for a company or department to have subdominant elements. This means that an accounting department that is a Control (hierarchy) may still have substantial Compete (market) traits.

In fact, pure Control (hierarchy), Compete (market), Collaborate (clan), or Create (adhocracy) are extremely rare. Most of the company cultures that have been diagnosed using Cameron and Quinn's Organizational Culture Assessment Instrument indeed have a strong secondary component. This is also the case at the department/group level. Their research has additionally shown that it is rare to have companies that share equal traits of all four culture types—with no dominant or barely dominant type (Bruce 2009).

### **2.2.3. Project Culture**

The principles and methodology of project management are defined by the Project management Body of Knowledge, but the application of project management tools does not guarantee a successful project. Organizations should ensure that project teams embrace strong corporate culture for their projects to be successful. In the presence of good communication, reward and recognition, well trained staff, and teamwork among project teams then project goals are likely to be achieved and hence project success.

M. Xaba (2011) concluded that project managers must design and facilitate a culture that brings out the best in project stake holders, to the benefit of the project.

Kotter & Heskett (1992) also found a relationship between culture and economic performance of projects undertaken by those organizations. One of the main causes of project failure is that the organizational culture in which projects have to be delivered is not supportive of projects (Gray & Larson 2003).

The creation of a supportive organizational culture is critical for the success of any project and ultimately the growth of the business. According to Andersen (2003), in many organizations the project culture is often at odds with the organizational culture. Andersen further differentiates between the organizational culture of the parent organization, their sub-

cultures, and the culture within the project to meet its objectives. Andersen justified that, project management should not be in place until the leaders of the organization are committed to its use and are willing to prepare a suitable culture for project management to germinate and grow.

#### **2.2.4 Organizational Culture Vs Project Culture**

According to Adrienne Watt (2014), organizational culture is defined as the **beliefs, attitudes, and values** that the organization's members share and the behaviors consistent with them. Often, projects too have a specific culture, work norms, and social conventions.

According to Anusuya (2017), others also defined organizational culture as "Culture viewed as the norms, values shared within organization among employees" ( Hill 2007), " a set of broadly tacitly understood rules and procedure that inform organizational members on what and how to do under variety undefined situation" (Cameron & Quinn 1999), (Macondo & Ferrell 2003) ,"the set of values, norms ,belief shared by member of the organization", (Hofstede 1998) "collective programming of the mind which distinguish the member of one organization from another". A *project culture* represents the **shared norms, beliefs, values, and assumptions** of the project team (Amado & Ashton 2012).

When working with internal and external customers on a project, it is essential to pay close attention to relationships, context, history, and the corporate culture. Wang (2001) reflects that project management should also have a professional culture, where professional culture refers to the culture shared by members of a profession.

Discussions shows that organizational cultures owned by an organization are directly reflected on projects that will result in project cultures. In most cases, constitution of project team members and project managers are sought to be from the same organization in which projects are deployed. Poor practice as part of organizational culture is therefore going to affect project management cultures and the performance of projects would be the reflection of the functional organizational culture.

In general systems theory, the environment of a system is defined as everything outside the system that receives system outputs from it or delivers inputs to it. A culture's institutions are a part of the environment for every project (Jack R. & Samuel J. 2009).

Organizations can successfully manage projects within the traditional functional organization, if the culture encourages cross-functional integration. It has also been noted that companies with matrix structures that theoretically supports projects, break down because the culture of the organization does not support the division of authority between project managers and functional managers. They have also observed that companies rely on independent project teams because the dominant culture of the organization would not support the innovation and support necessary for success (Gray & Larson 2000).

Hoole & DuPlessis (2002) quoted that the relationship between organizational culture and successful projects by means of a riverboat metaphor where culture is the river and the project is the boat. If the culture of the organization is conducive for completing projects successfully it is like paddling downstream. In such an environment teamwork and cross-functional operation are the norm, conflict is recognized and dealt with and excellence is the driver. In an opposite environment where effective project management is inhibited, it is like paddling up stream. Everything requires more effort, more time, and more attention. In such an organization teamwork would be discouraged, conflict would be rife or ignored, risk is avoided, and projects would face several obstacles.

### **2.2.5 Project Management Performance**

Indicators are used to measure project performance and the most important indicators are seen as key project performance indicators (KPI). (Nguyen & Watanabe, 2017 as cited in Dinarjo , Tjiptogoro & Husin 2019).

Project performance obtained from a review shows that there are four indicators of project performance benchmarks namely: Cost performance (Budget KPI), Scheduling performance (Timeliness KPI), Quality performance (Quality KPI), and Stakeholder satisfaction (Effectiveness KPI). (Ahmed & Anantatmula 2017)

Cost Performance, according to Razmdoost & Mills (2016), can only reflect project efficiency but have a significant impact on project stakeholders. Sunindijo (2015), described that cost performance can be affected due to poor project planning, poor cost estimates, and inefficient cost control mechanisms that lead to revisions to the project budget.

Scheduling performance can significantly contribute to overall project management performance. Meng (2012) argues that scheduling is a key factor that influences project management performance because it requires collaboration among stakeholders throughout the project and this collaboration is also time-consuming.

Quality performance is about fulfilling the aesthetic, functional, and legal requirements of the project and project results. Quality performance, according to Mir and Pinnington (2014), is a critical dimension of project performance. To improve project performance, project managers must focus on the quality parameters needed by project activities and processes. The performance of a project depends on effective communication and coordination among all stakeholder projects. Project performance cannot be measured until project results are delivered and used by customers or clients, (Razmdoost & Mills 2016).

### **2.2.6 Effects of organizational culture on projects**

An organization's culture can be related to the success rate of projects in several areas, including processes, management style, time management and training. Organizational culture has been defined as comprising the values and behaviors of a company's employees. According to industry sources such as the Project Management Body of Knowledge guide, these factors can include:

- Overall tone of the shared employee experience
- Shared visions, mission statements and expectations
- Motivation and reward systems
- Views on leadership and authority relationships
- Work ethic
- Codes of conduct

- Environmental factors
- Social norms
- Risk tolerance

Such characteristics play an important role in determining whether project objectives are achieved as noted in the PMBOK Guide.

How employees view their role in a project – and their function in the company as a whole – can be considered a foundational aspect of organizational culture. In turn, a company's structure and projects can be shaped by organizational culture. Projects that are seen as aligning with organizational culture may have smoother implementation and higher success rates compared to projects that conflict with those cultural norms.

Understanding organizational culture and its relationship with project management can help businesses determine which projects are worth pursuing. By “embedding the project management mindset in organizational culture” firms may generate long-term benefits in a competitive environment, according to a 2015 study by the Project Management Institute titled *Pulse of the Profession: Capturing the Value of Project Management*.

The study identified several keys to creating a culture that embraces project management, among them: comprehending the value that project management provides; engaging project sponsors at the executive level; and aligning projects with organizational strategy. Organizations with such attributes are more likely to have higher levels of performance in project management, the *Pulse of the Profession* study found.

### **2.2.7 Project Success**

Project success has four dimensions: (1) project efficiency, (2) impact on the customer, (3) the business impact on the organization, and (4) opening new opportunities for the future (Jack & Samuel 2009). Mainly, the human dimension is a depriving factor on top of other issues. Leadership takes the lion share of this.

Tim Kuppler (2014) indicates that culture and leadership are two sides of the same coin. When organizations start or when groups start, there is always a leader who has a preferred way of doing things, and those preferences are going to be imposed on the group members.

### **2.3 Empirical Review**

This proposal is based on the existing telecommunication product and services quality which are the outcome of telecom projects conducted by Ethio Telecom. Product and service quality are related to organizational culture and the organization's commitment to supportive environment, constraint free environment, encouragement to research and development, strategic direction, technically sound team and adequate funding (Kenny and Reedy 2007).

The relation between the need for achievement & creativity is moderated by innovative culture, whereas, relation between the need for power and creativity is moderated by traditional culture. The relation between the need for affiliation and creativity is moderated by cooperative culture (Hon and Leung 2011). The argument about the relationship between the culture of organization and IT project performance also occurred. Akgun (2011) stated that a positive condition of work plays important role in ensuring the success of IT project. Comparative studies between US IT hires and Chinese that institutional socialism had a substantial impact on the IT hires insight and their ultimate performance when working on IT projects (King and Bu 2005).

Furthermore, it is claimed that great performance of IT project comes from good leadership team (Thamhain 2004). Therefore, there is a direct impact of organizational culture towards IT project performance which applies to telecom industry, and for this specific study on Ethio Telecom.

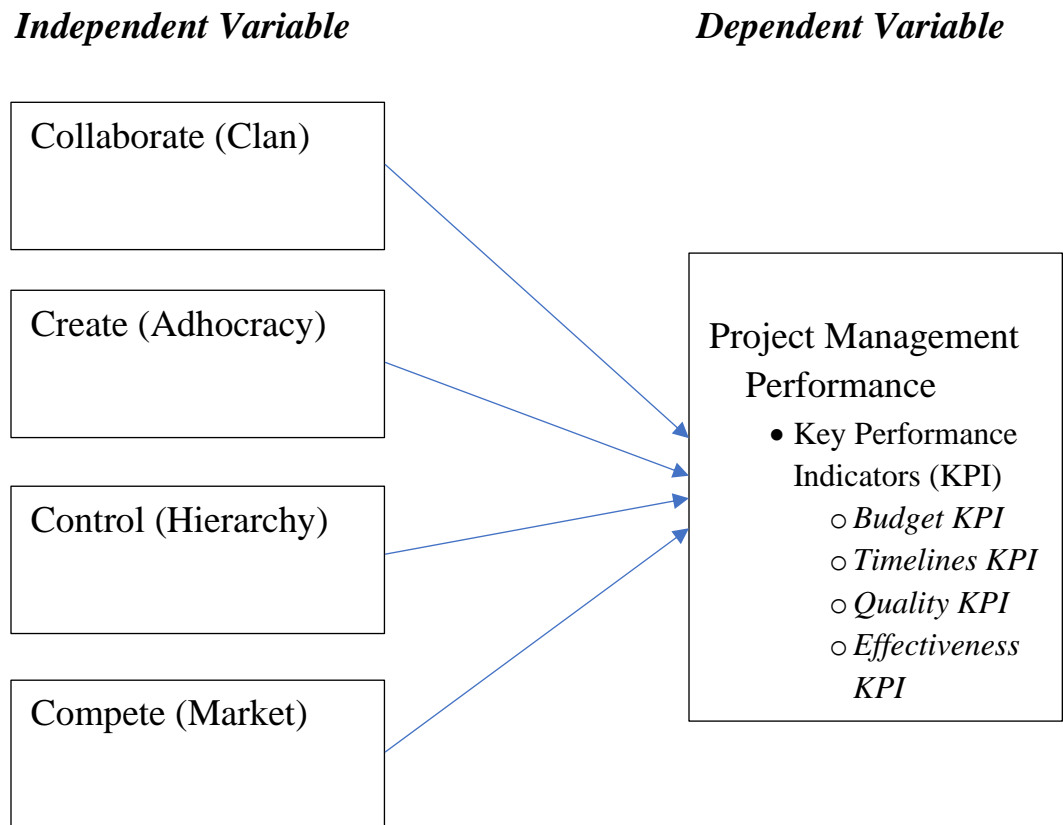
### **2.4 Conceptual Framework**

The conceptual framework of the study is as shown in figure 1. The model shows the three dimensions of organizational cultures; the focus of this proposal; along with other cultures as an independent variables.

KARURU & OKOLA (2015) defined conceptual framework as a hypothesized model identifying the concepts under the study and their relationships. It is a diagrammatic

presentation showing the relationship between independent and dependent variable. Accordingly the dependent variable is taken as Project Management Performance, whereas Organizational cultures as independent variables.

Figure 1: Research Framework



*Source: Adopted from; Literature Review on Organization Culture and Its Influence ,Ms.V.Kalaiarasi, Dr.S.Sethuram, 2017 )*

### **Collaborate (Clan) Culture**

An open and friendly place to work where people share a lot of themselves. It is like an extended family. Leaders are considered to be mentors or even parental figures. Group loyalty and sense of tradition are strong. There is an emphasis on the long-term benefits of human resources development and great importance is given to group cohesion. There is a strong concern for people. The organization places a premium on teamwork, participation, and consensus (Bruce M. Thar. 2009).

### **Create (Adhocracy) Culture**

A dynamic, entrepreneurial, and creative place to work. Innovation and risk-taking are embraced by employees and leaders. A commitment to experimentation and thinking differently are what unify the organization. They strive to be on the leading edge. The long-term emphasis is on growth and acquiring new resources. Success means gaining unique and new products or services. Being an industry leader is important. Individual initiative and freedom are encouraged (Bruce M. Thar. 2009).

### **Control (Hierarchy) Culture**

A highly structured and formal place to work. Rules and procedures govern behavior. Leaders strive to be good coordinators and organizers who are efficiency minded. Maintaining a smooth-running organization is most critical. Formal policies are what hold the group together. Stability, performance, and efficient operations are the long-term goals. Success means dependable delivery, smooth scheduling, and low cost. Management wants security and predictability (Bruce M. Thar. 2009).

### **Compete (Market) Culture**

A results-driven organization focused on job completion. People are competitive and goal oriented. Leaders are demanding, hard-driving, and productive. The emphasis on winning unifies the organization. Reputation and success are common concerns. Long-term focus is on competitive action and achievement of measurable goals and targets. © means market share and penetration. Competitive pricing and market leadership are important (Bruce M. Thar. 2009).

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.1 Introduction**

This chapter addresses the research methodology implemented so as to meet the objective of the study.

Polit and Hungler (1999:155) describe the research design as a blueprint, or outline, for conducting the study in such a way that maximum control will be exercised over factors that could interfere with the validity of the research results. The research design is the researcher's overall plan for obtaining answers to the research questions guiding the study. Burns and Grove (2001:223) state that designing a study helps researchers to plan and implement the study in a way that will help them obtain the intended results, thus increasing the chances of obtaining information that could be associated with the real situation.

#### **3.2 Research approach**

To achieve the purpose of the thesis, case study has been used as research strategy and the methods to conduct the research were based on interview and questionnaires' for the primary data, and documents from Ethio Telecom and research papers for the secondary data.

#### **3.3 Research design**

Research design can be thought of as the logic or master plan of a research that throws light on how the study is to be conducted. The approach used in this paper is both quantitative and qualitative research (a mixed approach) to collect data. The study has used Exploratory Sequential Mixed Method ( QUAL - > quan ) design in determining relationship between the different types of Organizational Culture and Project Management Performance .

According to Creswell (2014), an Exploratory sequential mixed method is a design in which the researcher first begins by exploring with qualitative data and analysis and then uses the

findings in a second quantitative phase . The second database builds on the results of the initial database. The intent of the strategy is to develop better measurements with specific samples of populations and to see if the data from a few individuals ( in qualitative phase) can be generalized to a large sample of a population (in quantitative phase ).The qualitative data analysis can be used to develop an instrument with good psychometric properties ( i.e. Validity, reliability).

Different literatures are sought to be sources to gain insights and background information about the effect of organizational culture on Project Management Performance. The information from this will also help in designing questionnaire and to better understand the problem of the study.

According to Mouton (1996, p. 175) the research design serves to “plan, structure and execute” the research to maximize the “validity of the findings”. It gives directions from the underlying philosophical assumptions to research design, and data collection. Yin (2003) adds further that “colloquially a research design is an action plan for getting from here to there, where ‘here’ may be defined as the initial set of questions to be answered and ‘there’ is some set of (conclusions) answers”.

### **3.4 Sampling Design**

A sample design is a definite plan for obtaining sample from a given population. It refers to technique or the procedure the researcher would adopt in selecting items for the sample (Research Methods, AAU SOC, 2014).

When random sampling is used, each element in the population has an equal chance of being selected (simple random sampling) or a known probability of being selected (stratified random sampling). The sample is referred to as representative because the characteristics of a properly drawn sample represent the parent population in all ways.

Since the objective of qualitative research is to understand and give meaning to a social process, rather than quantify and generalize to a wider population, it is inappropriate to use random sampling or apply statistical tests. Sample sizes used in qualitative research are usually very small and the application of statistical tests would be neither appropriate nor

feasible. The study used stratified random sampling for quantitative approach and non-probability, quota sampling for that of qualitative approach.

### **3.4.1 Target Population**

The target populations that have been considered for this study are staffs and managers at all levels from Project Management Offices, Operations Division, Marketing Division, Human Resource Division, Finance Division, Information System Division, Information security Division, Internal Audit, Sales offices in Addis Ababa and also management team from the regulatory body.

While executives and project management office assume responsibility for project success, the others are users who do have great concern about project fates. The target population mainly focuses on those divisions who had major share to contribute professionals and managers for the organization of project teams, and also those who are near to the customers. These segments of the population account to 60% of employees of Ethio Telecom country wide and is heterogeneous population. When limited to Addis Ababa, the population size is aggregated to be **1764**.

### **3.4.2 Sampling Frame**

The sampling frame defines the portion of the population from which the sample is selected (John Willey & Sons, Ltd, 2005). The target population is sampled using a sampling frame. Often the units in the population can be identified by existing information; for example, pay-rolls, company lists, government registers etc.

The first step in good sample design is to ensure that the specification of the target population is as clear and complete as possible to ensure that all elements within the population are represented. Polit and Hungler (1999:43, 232) define a population as the totality of all subjects that conform to a set of specifications, comprising the entire group of persons that is of interest to the researcher and to whom the research results can be generalized.

Table 3: Sample frames

No.	Target Population (Addis Ababa)	Size in Number	Size (%)
01	Customer Experience and quality management	74	4
02	Human Resource Division	77	4
03	Information Security Division	59	3
04	Information System Division	57	3
05	Internal Audit	45	3
06	Marketing Division	72	4
07	Network Division	881	49
08	Sales Offices (10 Zones in Addis Ababa – Managers)	66	4
09	Strategic Planning and Program management	64	4
10	Program/Project offices (Program Managers, managers, coordinators and staffs)	335	18
11	Finance Division	18	2
12	Regulatory office (employees at management level)	16	2
	Total Population	1764	

Source : Ethio Telecoms' HR survey ,2018

This study has defined and delaminate the sample frame based on the target population segregated into a specific function of Ethio Telecom and the regulatory body. The samples frame was set to proportion of staff members in respective domain to the total number of target population. Table 3 depicts the sample frames and their respective size of the population.

### 3.4.3 Sample size

Questions about sample size are ubiquitous in research. Too small a sample will yield scant information; but ethics, economics, time and other constraints require that a sample size not be too large. No estimate taken from a sample is expected to be exact, inference to the population will have an attached margin of error. The better the design, the less the margin of error and the tighter the precision but in most cases the larger the sample size (NAO ,1999).

The following simplified “ Cochran Formula” (Yamane, Taro , 1967) were used to calculate the sample size.

$$N_r = N / [1 + N * ( e )^2]$$

Where :

$n_r$  = size of sample

N= size of population

e = acceptable error (the precision), assumed to be  $\pm 5\%$

Following the result from the formula shown above a Finite Population Correction factor were applied (Susan Rose, Nigel Spinks & Ana Isabel Canhoto 2015) if the sample represents more than 5 % proportion of the population . This has reduced the sample size required.

The formula for this is:  $n_a = n_r / \{1 + [(n_r - 1) / N ]\}$

Where  $n_a$  = the adjusted sample size,

$n_r$  = the original required sample size and

N=population size.

Hence, the sample size of the study was determined as

$$\begin{aligned}n_r &= N / [1 + N * (e)^2] \\ &= 1764 / [1 + 1764 * (0.05)^2] \\ &= \mathbf{326}\end{aligned}$$

$$\begin{aligned}n_a &= n_r / \{1 + [(n_r - 1) / N]\} \\ &= 326 / \{1 + [325 / 1764]\} \\ &= \mathbf{275}\end{aligned}$$

**Therefore, sample size was determined to be 275.**

Because the sample population is heterogeneous, the study uses the above sampling frame to redistribute the samples to delimited Ethio Telecom functions. Accordingly, the study had the following sample size distribution per stratum

Table 4: Sample size per stratum

No.	Target Population (Addis Ababa)	Population	Sample Size
01	Customer Experience and quality management	74	13
02	Human Resource Division	77	12
03	Information Security Division	59	9
04	Information System Division	57	8
05	Internal Audit	45	8
06	Marketing Division	72	12
07	Network Division	881	130
08	Sales Offices (10 Zones in Addis Ababa – Managers)	66	12
09	Strategic Planning and Program management	64	11
10	Program/Project offices (Program Managers, managers, coordinators and staffs)	335	48
11	Finance Division	18	7
12	Regulatory office (employees at management level)	16	5
Total Population		1764	275

*Source: Own Computation*

#### **3.4.4 Sampling technique**

Amin (2005:237) described that a sampling is the process of extracting a portion of the population from which generalization of the findings can be made. Sampling is useful because it is more practical and economical. There are two main categories of sampling methods, namely, probability and non-probability sampling (Saunders, Lewis & Thornbill 2003 cited in Chew 2007).

In this study proposal, **probability sampling** technique were used. Because the sampling frame delaminates the population by corporate function, **stratified random sampling** method has been employed.

### **3.5 Sources of Data**

Sources of data for the study were primary and secondary data sources. The main data collection techniques used in this research study are questionnaires, interviews, participant observation, literature reviews, documentations and personal observation.

Interviews are methods of gathering information through oral quiz using a set of preplanned core questions. According to Shneiderman & Plaisant (2005), interviews can be very productive since the interviewer can pursue specific issues of concern that may lead to focused and constructive suggestions. Depending on the need and design, interviews can be unstructured, structured, and semi-structured with individuals, or may be focus-group interviews.

#### **3.5.1 Primary Data Source**

The study have used questionnaires and unstructured open-ended questions to collect primary data. The Primary data is said to be first-hand information retrieved directly from Ethio Telecom employees and telecom regulatory office. Primary data were collected regarding existing organizational culture , project management performance ,and challenges to organizational culture.

### **3.5.2 Secondary Data Source**

The secondary data is mainly data gathered from scientific journals, project management reports, technical reports, web sites and databases. According to Denscombe (2007) documents can be alternative to interviews, or observations as a source of data.

However, there would be limitations in the use of secondary data. According to Denscombe (2007), secondary data heavily rely on something which has been produced for other purposes and not for the specific objective of the investigation in question. It is also dependent on the willingness of information holders to some extent.

Secondary data collected to realize this research proposal include, PIPs (Project Implementation Plans ), ,Ethio Telecom's organizational culture assessment study, project closure report,and Customer satisfaction survey report .

### **3.6 Research Instruments**

Questions were prepared based on analysis of literature review. Data collection instruments refer to devices used to collect data such as questionnaires, tests, structured interview schedules and checklists (Seaman 1991:42).

The study has used structured questionnaires for quantitative data collection and unstructured open-ended questions to collect data for qualitative analysis. Interview guidelines were prepared and used for conducting interviews during qualitative data collection.

The writer of this proposal has performed own analysis as an input to be used as part of information's that would be gathered from past experience in the company while carrying out his responsibility as project manager. Exposures to be part of a team to prepare corporate strategy has also gave this proposal writer an insight on the global picture of the company.

### **3.7 Validity and reliability of Data**

#### **3.7.1 Validity**

Credibility in research is defined as the extent to which the data and data analysis are believable and trustworthy. Credibility is analogous to internal validity, that is, how research findings match reality (Smith and Ragan 2005).

In this research what was intended to measure or explore, content wise; is the relationship and effects of Organizational Culture of Ethio Telecom on its Project management performance. Collected data through interview and questionnaire were deemed to be credible considering the fact that most of the data have been collected from primary sources (interviewee) that are expected to have rational personality. Prior to data collection for the full study, a pilot study test were conducted to assess and construct validity and reliability and check the tendency of the instrument to obtain the same result if the measurement is repeated by using the same subject under the same conditions. Commonly used indicator of internal consistency is Cronbachs coefficient alpha and ideally this coefficient should be above 0.7 (Pallant 2005).

#### **3.7.2 Reliability**

Reliability refers to the degree of consistency or accuracy with which an instrument measures the attribute it is designed to measure (Polit & Hungler 1997). If a study and its results are reliable, it means that the same results would be obtained if the study were to be replicated by other researchers using the same method. Reliability also refers to the stability of the research in maintaining consistent measurements.

This study was intended to explore both primary data and secondary data in addressing the research objectives as well in answering the overall research question and grounded on a numerous literature. The data collected were supported by personal observations and triangulated with secondary data. In this regard, data collected is deemed to be consistent and reliable. Kirk and Miller (1986) claimed the degree to which a given measurement repeatedly remains the same as reality.

### 3.8 Research Ethics

This being a mixed study, the researcher must interact deeply with the participants thus entering their personal domains of values, weaknesses, individual learning disabilities and the like to collect data. Silverman (2000, p. 201) reminds researchers that they should always remember that while they are doing their research, they are in actual fact entering the private spaces of their participants. Understandably, this raises several ethical issues that should be addressed during, and after the research had been conducted.

Miles and Huberman (1994) list several issues that researchers should consider when analyzing data. They caution researchers to be aware of these and other issues before, during, and after the research had been conducted. Some of the issues involve the following:

**Informed consent** (Do participants have full knowledge of what is involved?) Harm and risk (Can the study hurt participants?)

**Honesty and trust** (Is the researcher being truthful in presenting data?)

**Privacy, confidentiality, and anonymity** (Will the study intrude too much into group behaviors?)

**Intervention and advocacy** (What should researchers do if participants display harmful or illegal behavior?)

One of the unexpected concerns relating to ethical issues is the cultural sensitivity. Silverman (2000) argues that the relationship between the researcher and the subject during an interview needs to be considered in terms of the values of the researcher and cultural aspects.

In this research proposal study, the following research ethics will be implemented and will be taken into considerations.

i) **Informed consent:** The Researcher will inform the participants of the purpose, nature, data collection methods, and extent of the research prior to commencement. Further, the researcher will explain their typical roles. In line with this, the researcher will try to obtain their informed consent in writing.

ii) **Harm and Risk:** In this research study the researcher will guarantee that no participants will be put in a situation where they might be harmed as a result of their participation, physical or psychological as stated by Trochim (2000a).

iii) **Honesty and Trust:** Adhering strictly to all the ethical guidelines serves as standards about the honesty and trustworthiness of the data collected and the accompanying data analysis.

iv) **Privacy, confidentiality, and anonymity:** The researcher will assure the confidentiality and anonymity of the participants would be maintained. The Researcher will make clear that that the participants' names would not be used for any other purposes, nor will information be shared that reveals their identity in any way.

v) **Voluntary participation:** It will be declared to the participants that the research is only for academic purpose and their participation in it is absolutely voluntary.

## CHAPTER FOUR

### DATA ANALYSIS AND PRESENTATION

#### 4.1 Introduction

The study undergone through both qualitative and quantitative (mixed approach) to collect primary data. Qualitative data was collected through interview and the input from the interview has been used to develop research instrument. This section will present response rate and analysis of data followed by presentations about findings of the study.

#### 4.2 Response rate

The sample size of this study is shown to be **275** in section 3.4.4 of this study. The research instrument (Questionnaire) consisting of 62 questions has been distributed in two phases. In the first phase, a test questionnaire has been distributed to 21 (twenty-one) respondents to test the reliability of the instrument before applying the instrument at full scale. David Hale (2010) explained that it is very important to have a pretest for a questionnaire. Pretesting can help you determine the strengths and weaknesses of your survey or questionnaire. By making your main concern for your pretest to have a reliable question format and also a good wording and order. By establishing a correct pretest, your questionnaire will yield better results.

Out of the 21 questionnaires distributed, 18 of the respondents have replied. Accordingly, a reliability test has been in order using SPSS V.20 and the value of overall Cronbach's Alpha was determined to be 0.95. Subsequently, the second phase followed with the distribution of the instrument to the remaining 254 respondents. From the second phase distribution, 219 of the respondents has replied.

From the total of **275** questionnaires administered, **237** were fully completed representing **86.2 %** response rate. **13.8 %** of the questionnaires ( i.e **38** in number) were not collected despite repetitive trials to get responses from respondents.

Response rate refers to the number of subjects sampled in a study who respond to the research instruments. A response rate of 50% was deemed adequate for analysis and reporting, response rate of 60% was good and a response rate of 70% and over was considered very good

(Mugenda & Mugenda 2003). Based on this assertion; a response rate of 86.2% is considered as adequate for analysis and reporting.

### **4.3 Outputs and application of interview questions**

The study uses Exploratory Sequential Mixed Method (QUAL -> quan) design in determining relationship between the different types of Organizational Culture and Project Management Performance. According to Creswell (2014), an Exploratory sequential mixed method is a design in which the researcher first begins by exploring with qualitative data and analysis and then uses the findings in a second quantitative phase. The second database builds on the results of the initial database. Hence the intent of conducting interview questions was to get data from interviewees so that the questionnaire instrument will be developed based on feedbacks from interviewees.

Accordingly unstructured open interview were conducted to 18 (eighteen) interviewees independently based on interview guidelines consisting of 21 (twenty one) interview questions ( Appendix A) . The questions were oriented in such a way the content may address requests associated to company Strategic plans, Project management practice, Organizational culture, Project management performance index, and challenges associated to the company organizational culture if any.

The results from interview questions shows the deep rooted concern of interviewees on questions related to Organizational Culture, Project Organization, Impact of organizational culture sub elements ( factors) on projects, relationship of the current telecom service quality to projects performance ,challenges to Ethio Telecoms' organizational culture ,strategic planning and alignment to projects, PM management performance KPIs and responses are summarized as shown in Appendix A.

The results were indicative that the instrument of the study ( questionnaire) has to by enlarge focus on leadership, reward Systems, employee attitude, existence and/or maturity of organizational culture, external factors, project management team set up , projects schedule slippage , project management expertise levels, vendor dependency, sense of ownership and

belongingness, swift decision making , workplace diversity, and the challenges to establishing or maintaining strong organizational cultures.

This study has accordingly uses the data from interview to develop numerous questions ( 78 closed questions) in a questionnaire instrument consisting of three parts ( Appendix B) ; Questions about Ethio Telecom s' Organizational culture, Questions about Ethio Telecom s' Project Management Performance ,and Questions about Challenges on Ethio Telecoms' Organizational Culture followed by two open ended questions with regard to the effects of Ethio Telecom organizational culture on its project management performance and personal opinion on challenges to Ethio Telecom organizational cultures.

#### **4.4 Data Analysis**

##### **4.4.1 Descriptive Analysis**

This section will discuss the descriptive information of respondents' demography, Instrument reliability, descriptive analysis of Organizational Cultures (Clan, Adhocracy, Hierarchy, and Market Cultures), descriptive analysis of Project Management Performance KPIs (Cost, Schedule, Quality, and Effectiveness) and descriptive analysis of Challenges of Ethio Telecom organizational culture.

##### **4.4.1.1 Biographic Information**

This section summarizes demographic information of respondents gender, age group, highest level of education, work experience, and current working position. Description of demographic information is intended to show the composition of the respondent sample group. The following table summarizes demographic information of respondents

Table 5: Biographic Information Summary

<b>Gender</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Age Group</b>	<b>Frequency</b>	<b>Percentage</b>
Male	187	78.9	< 30	50	21.1
Female	50	21.1	30-39	107	45.1
Total	237	100	40-49	54	22.8
<b>Education</b>	<b>Frequency</b>	<b>Percentage</b>	>=50	26	11.0
Certificate/Diploma	1	0.4	Total	237	100
First Degree	174	73.5	<b>Position</b>	<b>Frequency</b>	<b>Percentage</b>
Postgraduate	61	25.7	Program Manager	2	0.8
Tertiary	0	0	CXO/Director	5	2.1
Other	1	0.4	Project Manager	6	2.5
Total	137	100	Section Manager	25	10.5
<b>Experience</b>	<b>Frequency</b>	<b>Percentage</b>	Supervisor/Coordinator	44	18.6
0-5	32	13.5	Staff / Project team member	155	65.5
6-10	53	22.4	Total	237	100
11-15	66	27.8			
>15	86	36.3			
Total	237	100			

Source: Survey data analysis (2019)

As depicted in Table 5, 187 of the total respondents (78.9%) were male, and 50 of the total respondents (21.1%) were female. Distribution of respondents by age group indicated that 50 of the total respondents (21.1%) were less than thirty years old ; 107 of the total respondents (45.1 ) were between age 30 and 39 years; 54 of the total respondents (22.8%) were between the ages of 40-49; 26 of the total respondents (11.0%) were over 50 years old. Distribution of respondents by education level shows that 1(0.4%) diploma level;174(73.5%) first

degree;61(25.7) postgraduate; and 1(0.4%) other. Work experience of respondents indicates that 32 (13.5) have 0-5 years; 53(22.4) have 6-10 years; 66(27.8%) have 11-15; and 86(36.3) have more than 15 years of working experience. Current working position data of respondents shows that 2(0.8%) are program managers;5(2.1) are Directors;6(2.5%) are project managers;25(10.5) are section managers;44(18.6) are supervisors; and 155 (65.5%) are staffs /project team members.

#### 4.4.1.2 Instrument Reliability

A reliability analysis was carried out once the replies from all 237 respondents were collected. Cronbach’s alpha test results in reliability,  $\alpha = 0.973$ . A reliability analysis was also carried on replies for organizational Culture and Project Management performance questions responses independently and Cronbach’s alpha result shows alpha values of 0.947 and 0.915 respectively.

Cronbach’s alpha is a reliability coefficient that indicates how well the items in a set are positively correlated to one another. According to Sekaran and Bougie (2010). Commonly used indicator of internal consistency is Cronbach’s coefficient alpha and ideally this coefficient should be above 0.7 (Pallant 2005). The closer Cronbach’s alpha to 1, it indicates the higher internal consistency reliability and the greater the reliability of the instrument. Reliabilities that are less than 0.60 are considered poor, those in the 0.70 range are acceptable, and those more than 0.80 are excellent. Table 9 below summarizes Cronbach’s alpha results of reliability test.

Table 6: Cronbach’s  $\alpha$  Coefficients of reliability test

Variable	No. of questions (items)	Cronbach’s $\alpha$
Culture	41	0.947
Project Management Performance	19	0.915

Source: Survey data analysis (2019)

#### **4.4.1.3 Descriptive analysis of respondents Biography**

- 78.9% of respondents were male while 21.1% were Female .According to Ethio Telecom Current Report ,28% of the total employee are Female. Proportion of female respondents is somehow proportionate to the total.
- 45.1% of respondents are in the age range of 30-39, which took the first ranking; showing that most of respondents are in middle age group.
- Majority ( 73.5%) of respondents were first degree holders.
- 65.5 % of respondents were staffs/project team members.
- 36.3% of the respondents were with more than 15 years of experience ( Pre Ethio Telecom establishment employed and considered during the establishment of Ethio Telecom ).This group of respondents are important in a way that they could provide comparative responses with that of the situations prior to the establishment of Ethio Telecom .

#### **4.4.1.4 Descriptive analysis of Organizational Cultures (Clan, Adhocracy, Hierarchy, and Market Cultures)**

This section summarizes the perception of respondents and measures with the respective means and standard deviations. Mean indicates to what extent the sample group at an average agrees or does not agree with the different statements of the respective questionnaires. According to Marczak, DeMatteo and Festinger (2005) the lower the mean, the more the respondents disagree with the statements and the higher the mean, the more the respondents agree with the statement. Measure of Standard deviation shows the variability of an observed response. Table 7 shows mean, and standard deviation of each variable stated under Culture section (section I) of the questionnaire. Details of means and variance of each items under Clan, Adhocracy, Hierarchy, and Market cultures are shown as appendix C of this paper.

Table 7: Mean and standard deviation of cultures

Variable	Mean	Standard Deviation
Clan Culture	3.30	0.98
Adhocracy Culture	3.09	1.05
Hierarchy Culture	3.08	0.97
Market Culture	3.26	1.01

*Source: Survey data analysis (2019)*

#### 4.4.1.4 Descriptive analysis of Project Management Performance KPIs (Cost, Schedule, Quality, and Effectiveness)

Table 8 shows mean, and standard deviation of each variable stated under Project Management Performance section (Section II) of the questionnaire. Details of means and variance of each items under Cost KPI, Schedule KPI, Quality KPI, and Effectiveness KPI are shown as appendix C of this paper.

Table 8: Mean and standard deviation of Project Management Performance KPI's

Variable	Mean	Standard Deviation
Cost	2.99	1.00
Schedule	2.84	1.01
Quality	3.08	1.01
Effectiveness	3.33	0.97

*Source: Survey data analysis (2019)*

#### **4.4.2 Inferential Statistics Results Analysis**

One of the objectives of this study is to explore the effect of organizational culture on the Project Management Performance of Ethio Telecom. The study uses correlation and regression analysis by using SPSS V20 software and hence the results are shown in the following section. This section presents results of correlation analysis and regression analysis.

##### **4.4.2.1 Correlation Analysis**

A correlation is a relationship between two things. The results of correlational studies simply provide researchers with information regarding the relationship between two or more variables, which may serve as the basis for future studies. It is important, however, that researchers interpret this relationship cautiously. A positive correlation between two variables means that both variables change in the same direction (either both increase or both decrease). A negative correlation between two variables means that as one variable increases, the other variable decreases. In other words, the variables change in opposite directions (Geoffrey , DeMatteo and David 2005 ).

Marczyk , Dematteo and Festinger (2005) reveals that correlations of .01 to .30 are considered small, correlations of .30 to .70 are considered moderate, correlations of .70 to .90 are considered large, and correlations of .90 to 1.00 are considered very large. Pearson correlation coefficients shows magnitude and direction of relationships (either positive or negative) and the intensity of the relationship (-1.0 to +1.0). Correlations are perhaps the most basic and most useful measure of association between two or more variables (Marczyk, Dematteo & Festinger 2005). Correlation analysis of the case under this study comes out with Pearson correlation coefficients depicted in Table 9 below.

Table 9: Correlation Analysis

Pearson Correlation	Organizational Culture				Project Management Performance			
	Clan	Adhocracy	Hierarchy	Market	Cost	Schedule	Quality	Effectiveness
Clan	1	.702	.753	.661	.529**	.586**	.656**	.585**
Adhocracy		1	.705	.675	.509**	.572**	.663**	.586**
Hierarchy			1	.675	.570**	.618**	.702**	.629**
Market				1	.536**	.660**	.746**	.582**

\*\* Correlation is significant at the 0.01 level (2-tailed)

Source: Survey data analysis (2019)

- a. Clan Culture has positive correlation to all Project Management Performance KPIs (Cost, Schedule, Quality and Effectiveness). However, result shows that it has a relatively stronger relation to Quality.
- b. Adhocracy Culture has positive correlation to all Project Management Performance (Cost, Schedule, Quality and Effectiveness). However, it has a relatively stronger relation to Quality.
- c. Hierarchy Culture also has positive correlation to all Project Management Performance KPIs (Cost, Schedule, Quality and Effectiveness) with a relatively stronger relation to Quality.
- d. Market Culture also has positive correlation to all Project Management Performance KPIs (Cost, Schedule, Quality and Effectiveness) with a relatively stronger relation to Quality.

#### 4.4.2.2 Results of the correlation analysis

- Factors measuring organizational culture were determined to be positively related with all project management performance KPIs within the range of 0.509 to 0.746, and all were significant at  $p < 0.01$  level. Clan culture identified as a dominating culture in the descriptive analysis shows primarily high correlation with Quality followed by schedule and effectiveness that has nearly equal figure of relationships.
- Adhocracy, Hierarchy and Market cultures also have a higher correlation to Quality similar to Clan culture. All culture elements have relatively strong correlation to Quality. This result explains:
  - i. There is a relationship between organizational cultures and project management performance.
  - ii. There is a strong relationship between all the cultures and quality KPI .

**These result supports or answers the effects /relation of organizational cultures on project management performance of Ethio Telecom with a strong association to Quality KPI .** However, the remaining associations of Organizational culture to project management performance are also important results of considerations. Therefore, Ethio Telecom if having strong organizational culture will be benefited on its project management performance due to the relationship between all independent and dependent variables.

- Adaptability is the most contributing organizational culture traits in the prediction of employee commitment with beta value .386. The other three organizational culture traits, in their descending order of standardized coefficients, are mission (B=.227), involvement (B=.137) and consistency (B=.030).

#### 4.4.2.3 Multi-collinearity

Multicollinearity Test is used to determine existence of high correlation between variables in a multiple regression model. If there is a high correlation between the independent variables, then relation between them of the dependent variable will be disrupted. Variables may move together in systematic ways when the data are the result of

an uncontrolled experiment. Such variables are believed to have problems with collinearity or multi-collinearity when several variables are involved (Hair 1998).

When multi-collinearity rises, it will complicate the interpretation of the variables because it is more difficult to confirm the effect of any single variable, owing to their interrelationship. According to Hair et al., (1998) one has to observe carefully before including two variables with a bivariate correlation of 0.8 or more in the same analysis.

Review of the Pearson Correlation has shown that the correlations between the independent variables did not exceed 0.80 and hence all variables will be taken valid. On the other hand, there was a significant relationship between independent and dependent variables within the range of 0.509 to 0.746.

Multicollinearity testing can also be done by looking at value of Variance Inflation Factors (VIF) and Tolerance. VIF is a function of  $R^2$  between independent variables that can be written with formula below (Nachrowi, 2006) and can be analyzed once regression analysis is done .

$$\mathbf{VIF} = \mathbf{1 / (1 - R_j^2)}, \text{ where } \mathbf{R_j^2} \text{ is coefficient of determination variable.}$$

If  $R_j^2$  is close to one, then the variance inflation factor will be large.

Basis of decision: if  $VIF < 10$  and value of Tolerance  $> 0.10$ , then not multicollinearity. Conversely, if the value of  $VIF > 10$  and the value of Tolerance  $< 0.10$ , then there is multicollinearity. There is also a reference that says that if  $VIF > 5$ , then it must be careful (Nur, Albertus and Riantini 2016).

#### **4.4.2.4 Regression Analysis**

To examine contribution of each organizational culture variable on project management performance of the case under study, standard multiple regression analysis was employed. The regression model presents how the Project Management Performance, (the dependent variable) might be estimated given the value of one or more variables of Organizational Culture (the independent variables).

According to Geoffrey, DeMatteo and David (2005), linear regression is a method of estimating or predicting a value on some de-pendent variable given the values of one or more independent variables. Like correlations, statistical regression examines the association or relationship between variables. Unlike with correlations, however, the primary purpose of regression is prediction. There are two basic types of regression analysis: simple regression and multiple regression. In simple regression, we attempt to predict the dependent variable with a single independent variable. In multiple regression, we may use any number of independent variables to predict the dependent variable.

Table 10: Summary of Regression Analysis

Independent Variables	Dependent Variable															
	Cost				Schedule				Quality				Effectiveness			
	R	R <sup>2</sup>	Adj R <sup>2</sup>	e	R	R <sup>2</sup>	Adj R <sup>2</sup>	e	R	R <sup>2</sup>	Adj R <sup>2</sup>	e	R	R <sup>2</sup>	Adj R <sup>2</sup>	e
-Clan																
-Adhocracy																
-Hierarchy	.616 <sup>a</sup>	.379	.369	2.14993	.707 <sup>a</sup>	.500	.492	2.36454	.802 <sup>a</sup>	.643	.637	1.79546	.681 <sup>a</sup>	.463	.454	3.80124
-Market																
	F=35.454				F=58.114				F=104.336				F=50.095			

Source : Survey data analysis (2019)

#### 4.4.2.5 Results of the regression analysis

- Details of results showing the results of regression analysis are enclosed in the Appendix C of this report. As shown in Table 10 whereby Cost is dependent variable ;37.9 % variation in project management performance is explained by organizational cultures (where R square is .379 and adjusted R square is .369). Similarly whereby Schedule is dependent variable ;50 % variation in project management performance is explained by

organizational cultures (where R square is .500 and adjusted R square is .492). when Quality is dependent variable ;64.3 % variation in project management performance is explained by organizational cultures (where R square is .643 and adjusted R square is .637). In the case where, Effectiveness is dependent variable ;46.3% variation in project management performance is explained by organizational cultures (where R square is .463 and adjusted R square is .454).Regression models for different dependent variables of the study reveals the levels on how the variance in Project Management Performance is explained by the Organizational cultures.

- ANOVA (Analysis of Variance) tables shows the overall significance of the model from a statistical dimension. As the significance value of F statistics shows a value .000, which is much smaller than  $p < 0.05$ , it implies that the model is significant which indicates that the variation explained by the model is not due to chance and hence supports the model.
- No Multicollinearity that disrupts the relation between variables with VIF value greater than 10 and variable of tolerance less than 0.1.
- Sig.F change value for all cases is 0.000 which were significant at  $p < 0.05$  level
- When Cost was set as dependent variable:
  - An increase of 0.039 in the cost is expected for every unit increase in Clan with all variables in the model held constant and an increase 0.034,0.095, and 0.161 for every unit increase in Adhocracy, Hierarchy and Market respectively.
  - Market culture was the most contributing organizational culture with B value 0.161 in the prediction of cost followed by Hierarchy 0.095, Clan 0.039 and Adhocracy 0.034.
- When Schedule was set as dependent variable:
  - An increase of 0.043 in the Schedule is expected for every unit increase in Clan with all variables in the model held constant and an increase 0.040,0.093, and 0.361 for every unit increase in Adhocracy, Hierarchy and Market respectively.

- Market culture was the most contributing organizational culture with B value 0.361 in the prediction of Schedule followed by Hierarchy 0.093, Clan 0.043 and Adhocracy 0.040.
- When Quality was set as dependent variable:
  - An increase of 0.032 in the Quality is expected for every unit increase in Clan with all variables in the model held constant and an increase 0.064, 0.096, and 0.357 for every unit increase in Adhocracy, Hierarchy and Market respectively.
  - Market culture was the most contributing organizational culture with B value 0.357 in the prediction of Quality followed by Hierarchy 0.096, Adhocracy 0.064 and Clan 0.032.
- When Effectiveness was set as dependent variable:
  - An increase of 0.074 in the Effectiveness is expected for every unit increase in clan with all variables in the model held constant and an increase 0.136, 0.190, and 0.281 for every unit increase in Adhocracy, Hierarchy and Market respectively.
  - Market culture was the most contributing organizational culture with B value 0.281 in the prediction of Effectiveness followed by Hierarchy 0.190, Adhocracy 0.136 and Clan 0.074.

#### **4.4.2.6 Multicollinearity Testing using VIF**

As stated in section 4.4.2.2, VIF can be determined from the formula  $VIF = 1 / (1 - R_j^2)$ . Variable's tolerance is  $1 - R_j^2$ . A small tolerance value indicates that the variable under consideration is almost a perfect linear combination of the independent variables already in the equation and that it should not be added to the regression equation. All variables involved in the linear relationship will have a small tolerance. Some suggest that a tolerance value less than 0.1 should be investigated further. If a low tolerance value is accompanied by large standard errors and non-significance, multicollinearity may be an issue.

Accordingly, when cost is taken as dependent variable  $VIF = 1 / (1 - 0.379) = 1.61$  and Variable of tolerance = 0.621. When schedule is taken,  $VIF = 1.97$  and Variable of tolerance = 0.500 ;

When Quality is considered, VIF= 2.8 Variable of tolerance =0.357, when Effectiveness is taken VIF=1.86 Variable of tolerance =0.537.

This shows that there is no Multicollinearity that disrupts the relation between variables.

## **4.5 Presentation**

### **4.5.1 Findings of the Study**

This section of the report summarizes the **major** findings which were obtained from data analysis of survey questionnaire responses and review of responses for open ended questions. Data collected from focused group and individuals' interview has been used to develop survey questionnaire. It will discuss in line with the objectives of the study to answer research questions.

#### **i. Findings associated to Current Organizational Cultures in Ethio Telecom**

- Analysis of the means of all the four cultures results in mean value less than 4 and greater than 3 . Reference to the defined Likert scale values, means resides between Agree and Neither agree nor Disagree. This implies that Ethio Telecom has a current organizational culture in all the four culture dimensions but not that strong. Clan Culture is found to have the highest mean value of 3.3 followed by Market culture with mean value 3.26 , Adhocracy 3.09 ,and Hierarchy 3.08. Therefore, Clan culture is deemed to be the current dominating one in Ethio Telecom.

#### **ii. Findings associated to effects Organizational Cultures on Project Management Performance in Ethio Telecom**

- Pearson coefficients shows that all the four organizational culture elements are related with all project management performance KPIs within the range of .509 to .746, and all were significant at  $p < 0.01$  level.

- Correlation of Market and Hierarchy cultures shows relatively larger level of relationship to Quality with coefficients of .746 and .702 respectively. The remaining all correlations ( Market & Hierarchy to Cost, Schedule ,effectiveness ) and (Clan, Adhocracy, Hierarchy ,and Market) shows a “moderate” level of relation with the dependent variables of Project Management Performance (Cost, Schedule, Quality and Effectiveness) with coefficients ranging from .509 to .663.
- Though the level of positive relationship varies from relatively moderate to large, results shows that there is a relationship between all culture elements of organizational cultures in Ethio Telecom to its project management performance. This address and supports the main objective of this study, that was stated as exploring the effect of organizational culture on the Project Management Performance of Ethio Telecom.
- Multiple regression analysis results show that regression models for different dependent variables of the study reveals the levels on how the variance in Project Management Performance is explained by the Organizational cultures. Accordingly;
  - While **Quality** is taken as dependent variable, 64.3% variation in Project Management performance is explained by the independent organizational cultures
  - While **Schedule** is taken as dependent variable, 50 % variation in Project Management performance is explained by the independent organizational cultures
  - While **Effectiveness** is taken as dependent variable, 46.3% variation in Project Management performance is explained by the independent organizational cultures
  - While **Cost** is taken as dependent variable, 37.9 % variation in Project Management performance is explained by the independent organizational cultures

#### **4.5.2 Alignment of the major findings of the study results with similar previous studies**

##### **i. Current Organizational Cultures in Ethio Telecom**

In order to foster an effective organizational culture, it is necessary first to examine and define the current culture. At that point, a strategy can be developed for closing the gap between the existing and desired cultures, which can include changes to systems, practices and objectives (Riaz 2018).

This study identified that current cultures in Ethio Telecom are associated to all the four main culture (Clan, Adhocracy, Hierarchy and Market) categories. Clan culture is dominating followed by Market culture as a secondly dominating one. Though clan culture is identified to be the dominating one, it is not categorized as a strong culture to conclude that Ethio Telecom owns a dominant; strong and unique organizational culture. This study therefore signifies that findings are aligned with previous studies.

A study found that the Clan orientation culture, with its focus on shared values and cohesion, had the strongest association with effective and efficient projects, as well as with organizational success ( “importance of organizational culture to project management .”).

According to secondary data obtained from Ethio Telecoms’ organizational culture survey (Work culture Survey Analysis 2019), the behavior of dominant cultures of Ethio Telecom are identified to fall under all the four Cultures. This has been explained in section 1.3 of this study. Though the study explained the cultures in terms of subcultures or factors, they were mapped to the main four cultures category.

Most of a company cultures that have been diagnosed using Cameron and Quinn’s Organizational Culture Assessment Instrument have a strong secondary component. This is also the case at the department/group level. Their research has additionally shown that it is rare to have companies that share equal traits of all four culture types—with no dominant or barely dominant type (Bruce 2009).

## **ii. Effects of organizational culture on project management performance**

As mentioned in the literature review part of this report there are studies conducted with research findings that aligns with the findings of this study. Research findings reveals that organizational culture has a definite influence on the success of projects. Organizational culture is reflected in the way that people perform tasks, set objectives and administer the necessary resources to achieve objectives (Barthorpe 2000). Culture is potent. It can block an organization's (or project) strategy or catalyze it ( Suda 2007).

Organizational culture improves performance; brings about success; fosters internal integration and coordination and enhances commitment. It is considered as the social glue that holds the organization to ensure that every employee in the organization is on the same track (Robbins 1996). Organizations have personalities, which are referred to as "cultures" (Ruhulla 2015).

According to (Sadri and Lees 2001), the bad culture in the organization will give the bad performance as it can stop the company from adopting needed tactical or strategies changes. ( Belassi 2007) said that the organizational culture represents the method of how the members think and act in order to establish the competence of the firm.

Results of correlation analysis of this study has come up with positive correlations of all organizational culture elements to all elements of project management performance KPIs. Project team members are usually organized from functional team members. Any good or bad behaving's and adopted organizational culture practices are deemed to go along with the project team to the project environment. An organization that has built strong organizational culture will have competitive advantage in attain a better project management performance.

It is understood that organizational culture is not the only variable that contribute to the success of project management performance. However, the positive correlation identified between the independent and dependent variables shows that there is a relationship between the variables. The findings in this study supports earlier findings and may contribute to the knowledge area.

## CHAPTER FIVE

### CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to examine the current Organizational Cultures in Ethio Telecom and explore the effect of organizational culture on the Project Management Performance of Ethio Telecom. This section will therefore present conclusions and recommendations based on the findings of the study.

#### 5.1 Conclusions

The research questions were concerned with answering whether there were currently known organizational cultures in Ethio Telecom and whether there exists any relationship between organizational cultures and project management performance of Ethio Telecom. Descriptive analysis, Correlation analysis and Regression analysis were used to see if the outcome meets the objective of the study to answer research questions.

In respect of the findings of this study, the following conclusions are drawn in line with the objectives of the study.

##### 5.1.1 Conclusions and Discussions related to current organizational culture in Ethio Telecom

Findings of this study has indicated the existence of **Clan, Adhocracy, Hierarchy** and **Market** organizational cultures in Ethio Telecom. This study has also shown that the mean score of all forms of organizational cultures in ethio telecom didn't show significant variations. The mean score was shown as 3.3 for Clan, 3.26 for Market, 3.09 for Adhocracy, 3.09 for Hierarchy. This in turn would not lead to say that there is a dominant organizational culture. This addresses the first objective of the study.

According to secondary data from Ethio Telecoms' organizational culture survey (Work culture Survey Analysis 2019) which is shown in section 1.3, table 1 of this report; it is reported that there exists organizational culture in the organization. Culture elements depicted in the organizational culture survey result of the company (*Achievement and Winning,*

*Compassion and Tolerance Strength and Boldness, Collaboration and Mutual Trust*) are considered as subculture or factors and associated to the four main cultures; Clan, Adhocracy, Hierarchy and Market cultures

### **5.1.2 Conclusions and Discussions related to Effects of Organizational Culture on Project Management Performance**

The relationship of Ethio Telecoms' organizational culture to project management performance is shown through correlation and regression analysis. A relationship was identified between the four main cultures and Project management performance KPIs. Correlation of the four by four matrix of all the four culture elements to the performance KPIs has resulted in positive figures.

Correlation analysis has shown that there is a relatively strong relationship between the culture elements and the Quality aspect of performance KPIs. As quality is deemed to be one of the important elements of project deliverables, it will in turn bring effectiveness of projects.

Results of regression analysis has indicated that the Project Management Performance might be estimated given the value of one or more variables of Org Culture. Accordingly, a given percentage of variations in Project management performance KPIs were explained by Ethio Telecom's organizational culture.

- 37.9 % variation in Cost (PMgt KPI) were explained by the independent variable; organizational cultures. The remaining 62.1% shall be explained by other reasons
- 50 % variation in Schedule were explained by the independent variable; organizational cultures. The remaining 50 % variation is presumed to have other reasons.
- While Quality is taken as dependent variable, 64.3% variation in Project Management performance is explained by the independent organizational cultures. Remaining 35.7 % needs explanation.
- While Effectiveness is taken as dependent variable, 46.3% variation in Project Management performance were explained by the organizational cultures. Similarly, the remaining 57.3% should have a reason .

Correlation and regression results of the four organizational cultures to project management performance KPIs has shown that Ethio Telecoms organizational cultures have relation to its project management performance. This result explains and answer the second objective and research question of the study.

Hence, if Ethio Telecom owns strong organizational culture, its project management performance will be improved and vice versa if owns weak organizational cultures. Holding a relatively good organizational culture can play a portion of the role in attaining competitive advantage of the organization.

Product and services are outcomes of projects, be it small scale or large-scale project. Effectiveness and efficiency of projects is very much important for such organization running numerous projects in every budget year.

## **5.2 Recommendations**

This section is intended to provide recommendations on how to fill the gap based on research findings. As stated in section 1.3; problem statement part of the study, this paper is expected to put recommendation on how the gaps observed might be bridged. Accordingly, the following recommendations are presented.

- Though it is understood that acquisition of unique and matured organizational culture is a time taking learning process, Ethio Telecom shall have management team committed and determined to serve as a role model. Company mission and vision, code of conducts, rules of behaviors dissemination and awareness creation shall have owning entity in the functional structure and shall be of top priority.
- This study showed that there is a correlation between all the four main culture elements (Clan , Adhocracy, Hierarchy, and Market ) and Project management performance of Ethio Telecom . This shows that the business nature of Ethio Telecom demands the acquisition of all these four cultures. Therefore, the company has to be engaged in improving the maturity level of its organizational culture.

- Ethio Telecom to realize its vision as a world class telecom service provider; systematic capacity building , deployment of consistent and standard project management process , objective performance based recognition and rewarding ,employee empowerment ,rational thinking and swift decision making, sense of urgency and timeliness, proper resources utilization, quality orientation, more customer orientation, encouraging employee to think like a customer and establishing a learning organization are improvement areas that the company shall focus on and take part as lesson.

Project management performances are reflections of operational performance of organizations. According to Kerzner (2009), Project organizational culture is the directly influenced by the organizational culture, for example top and line management subsidiary/attitude, company policies, rules, and procedures. According to Charles M. (2003), the management needs to put in place a corporate culture that will support project success.

- Policies and procedures on working conditions should be reviewed in order to recognize employee quality improvement efforts for better project performance. There should also be fairness in training and ensure all employees get specific work-skills training. Sharing of skills, group focus and decision making through consensus should be encouraged in order to foster team spirit. There is no rosy road to any successful achievements. Hence, challenges shall be taken as a learning curve to the realization of sounding organizational culture in Ethio Telecom.

Ethio Telecom is expected to run in to a competitive environment in the very near future. According to Maggie Fick (2019) , Reuter journalist ; Ethiopia is aiming to award telco licenses to multinational mobile companies by the end of the year, ending a state monopoly and opening up one of the world's last major closed telecoms markets. Competitive environment is expected to be more challenging and is a question of survival. Apart from development of important innovations and development of unique strategic plans, the organization must equally invest on establishing conducive organizational culture.

- Ethio Telecoms' management team together with its valuable employees shall discuss transparently on all issues to clear out challenging situations. The work force has to work hand in hand irrespective of the hierarchical structures.

The real understanding of the effects of organizational culture on project management performance might be considered as one of the challenging issues but worth time and efforts for the good of the organization.

Further study is recommended in identifying other factors having relationship to project management performance. Studying the effect of financing system or vendor financing is presumed to serve as complementary study area to this paper.

### **5.3 Limitations of the study**

The study is not conclusive that organizational culture is the only factor that is linked to the performance of project management. There are obviously other factors having own contribution and relation for successful project management performance.

Results from regression analysis reveals that there are additional reasons apart from organizational culture that contribute to the Project Management Performance. As a reference, while Quality is taken as dependent variable, 64.3% variation in Project Management performance is explained by the independent organizational cultures. Remaining 35.7 % needs explanation. The study is limited only to the portion where organizational culture responsible for.

The study was also limited to employees residing in Addis Ababa. It was tried to get feedback from employees in regional offices , however responses were time taking and as well not responded at all.

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## APPENDICES

### Appendix A : Interview Questions

#### Interview Guidelines:

In this study , unstructured interview method were used to gather opinions, perception, attitudes, background information, expert knowledge, and facts. The following guidelines were used while conducting the unstructured interview.

1. How do you evaluate the strategic plans of Ethio Telecom?
2. Do the elements of organizational culture in Ethio Telecom have relationship and impact on ethio telecoms' project management performance?
3. Do you think that there is organizational culture in Ethio Telecom?
  - 2.1 If Yes, How do you evaluate organizational culture in Ethio Telecom ?
  - 2.2 If No, what cultures are missing?
4. What are the known organizational cultures in Ethio Telecom?
5. What is your opinion regarding the formation of project team? Project Oriented?
6. How do you evaluate project management performance in Ethio Telecom? Maturity?
7. Is the reliability of Ethio Telecom services the reflection of its project management performance?
8. How do you perceive Project Management skills in Ethio Telecom?
9. What does project management culture in Ethio Telecom looks like? Is there a matured system ?
10. Do you think there are improvement areas that Ethio Telecom need to see in project execution?
11. What are your observations about TEP?
12. What challenges you observe during the entire project life cycle of Ethio Telecoms' TEP?
13. How do you evaluate the benefit that Ethio Telecom and the country acquires from the overall phase one TEP and other projects in Ethio Telecom?
14. What element seems to be more productive for a flawless project execution?

15. Do you have any other observations in relation to challenges of Ethio Telecom organizational culture ?
16. Do you feel that there is seamless alignment of projects in Ethio Telecom to its strategic plan, mission and vision ?
17. What do you think is the challenge behind Ethio Telecom performance to the expectation of its customers?
18. Are projects in Ethio Telecom cost effective and get completed within the budget allocated?
19. Do you think that projects are completed timely?
20. Do projects meet the sponsor demand as per required quality and specifications?
21. Do projects meet their objective / are projects successful?

### Summary of Interview feedbacks

No.	Question	Summarized dominating response	Number of interviewees responding similar to the summarized response	Which objective the study does this contributes to (Current Culture =CC, PMgt Performance = PMPer)
01	Do you think that there is organizational culture in Ethio Telecom ? If Yes , How do you evaluate organizational culture in Ethio Telecom ? If No, What cultures are missing ?	Yes ,but deteriorating	14	CC

02	What are the known organizational cultures in Ethio Telecom ?	Communication, Caring	13	CC
03	What is your opinion regarding the formation of project team? Project Oriented?	Not transparent and lacks standardization	15	CC
04	How do you evaluate project management performance in Ethio Telecom? Maturity?	Trying its best but not sounding. Project delays are still issues	18	PMPe
05	Do the elements of organizational culture in Ethio Telecom have relationship and impact on ethio telecoms' project management performance?	Yes , Projects cultures are linked to functional operation performance e	18	PMPe, CC
06	Are the reliability of Ethio Telecom services the reflection of its project management performance?	Partly yes. But there are operational issue that will take the account	18	PMPe
07	How do you perceive Project Management skills in Ethio Telecom?	There are some individuals having good skill, but in general Ethio Telecom has to work a lot	17	CC,PMPe
08	What does project management culture in Ethio Telecom looks	Reflection of functional culture that needs lots of improvement	18	CC,PMPe

	like? Is there a matured system?			
09	Do you think there are improvement areas that Ethio Telecom need to see in project execution?	Yes. Planning, Timeliness, being resource efficient	16	PMPe
10	What are your observations about TEP?	Well done as it was vendors supported. However, delays and closing were issues	15	PMPe,CC
11	How do you evaluate the benefit that Ethio Telecom and the country acquires from the overall phase one TEP and other projects in Ethio Telecom?	Better revenue, better service coverage, better access to technology	18	PMPe
12	What element seems to be more productive for a flawless project execution?	Team work, leadership, sense of ownership, looking the big picture, being time oriented, understanding project environment	18	CC,PMPe
13	Do you feel that there is seamless alignment of projects in Ethio Telecom to its strategic plan , mission and vision ?	To some extent yes	15	CC

14	Are projects in Ethio Telecom cost effective and get completed within the budget allocated?	There are schedule slips which implies that cost over runs	13	PMPe
15	Do you think that projects are completed timely?	No	18	PMPe
16	Do projects meet the sponsor demand as per required quality and specifications?	Sponsor is usually the government providing direction and hence most of the time it is reported that it meets	14	PMPe
17	Do projects meet their objective / are projects successful?	The moment projects get completed yes but as time goes service quality issues are popping out here and there	16	PMPe

## Appendix B: Questionnaire ( Instrument )



**ADDIS ABABA UNIVERSITY, COLLEGE OF BUSINESS AND ECONOMICS**  
**SCHOOL OF COMMERCE**  
**Post graduate Program towards MA in Project Management**

### **Introduction**

Dear Respondent,

The purpose of this questionnaire is to solicit your confidential input on “**The effect of Organizational Culture on Project Management Performance in Ethio Telecom**”. The study is purely for academic purpose as part of partial fulfillment of the requirement for the award of MA degree in Project Management, and thus will not affect you in any case.

For this survey to be helpful and accurate, it is important that you answer each question as honestly as possible.

### **Confidentiality**

Your responses to this survey will be kept completely anonymous. Please do not sign your name.

### **Contact Address**

For any query, please do not hesitate to contact me on the following address at your convenience.

Cell Phone: +251(0)911255493

e-mail: [dawitgetachew963@gmail.com](mailto:dawitgetachew963@gmail.com)

*I thank you in advance for your precious time!*

**Part A**

**Biographical Information**

Please respond to the following questions by placing a check mark (√) in the answer box that corresponds to your response. Please answer all questions.

No.	Item	Options					
01	Please indicate your gender	Male				Female	
02	Please indicate your age group	< 30 years	30-39years	40-49 years	50 years and older		
03	Please indicate your highest level of education	Certificate /Diploma	First Degree	Postgraduate	Tertiary	Other	
04	Please indicate your Work Experience	0-5 years	6-10 years	11-15 years	Above 15 years		
05	Current Position	Program Manager	CXO/ Director	Project Manager	Section Manager	Supervisor/ Coordinator	Staff/Project Team member

## Part B

Questions related to **Organizational Culture, Project Management Performance and challenges of organizational culture in Ethio Telecom**

### **Directions:**

To explore the effect of organizational cultures on Project Management Performance in Ethio Telecom , this study incorporates the following questions . Please put (  $\surd$  ) mark on the appropriate space provided to indicate the extent to which you agree or disagree with each statement.

The items have five-point Likert type scales that have the following meaning

**1= Strongly Disagree**

**2= Disagree**

**3=Neither Agree or Disagree**

**4=Agree**

**5=Strongly Agree**

### **Definition:**

Organizational culture also known as corporate culture refers to the beliefs, attitudes, and values that the organization's members share and the behaviors consistent with them (which they give rise to). Corporate culture sets one organization apart from another and dictates how members of other organization will see you, interact with you, and sometimes judge you (Adrienne, 2014). Corporate culture is based in part on employees' shared values, and is in part defined by management, company history, employees' professional culture, etc ( Martine ,2017).

Dear Respondent,

With reference to your experience, direct engagement, and knowledge of Ethio Telecom, please respond to what extent you do agree with the following statements.

### I. Questions about Ethio Telecom s’ Organizational culture

a. Clan (Collaborate) Culture						
Item No	Item Description	Points				
		5	4	3	2	1
01	In Ethio Telecom, everyone working in a group put maximum effort to achieve common goal.					
02	Human development and knowledge acquisition is of high priority in Ethio Telecom.					
03	During conflict everybody tries to solve it quickly and Conflicts are managed properly.					
04	Employees are committed and have strong cohesion to the company mission .					
05	In Ethio Telecom, employees are more comfortable working in a group rather than individually to ensure better performance.					
06	In Ethio Telecom ,employees’ communication is effective in communicating things that are relevant to them so as to ensure better project performance.					
07	In Ethio Telecom ,capabilities of employees are viewed as an important source of competitive advantage.					
08	Resources are available for employees’ education and training within the company for projects to be successful.					
09	Training and development of employees is done fairly to ensure projects perform well.					
10	The way employee values themselves and the organization values employees are very similar.					
11	Ethio Telecom values the experience, knowledge, and skills of its professionals.					
12	Professionalism is a leading agenda in Ethio Telecom.					
13	Project cultures in Ethio Telecom are reflections of functional structure.					
14	There is a strong support from functional departments for the successful deployment of projects.					

<b>b. Create Culture (Adhocracy Culture)</b>						
Item No	Item Description	Points				
		5	4	3	2	1
01	Ethio Telecom owns unique organizational cultures.					
02	Innovation is encouraged in Ethio Telecom .					
03	Proper Risk management is a routine activity in Ethio Telecom.					
04	Projects are coordinated easily through all functional units.					
05	Employees are learning by doing and from their mistakes.					
06	Information is available for everyone. One can get any needed information.					
07	Reward and recognition system within the company rewards task accomplishments based on work quality to promote better project performance.					
08	Employee retention, reward system and employee handling is exemplary and attractive.					
09	Experience and skill of project team <b>will not</b> affect project performance.					
<b>c. Control Culture (Hierarchy Culture)</b>						
Item No	Item Description	Points				
		5	4	3	2	1
01	In Ethio Telecom, Instructions and regulations are needed to govern every process of work.					
02	There is a well-organized Project Support Office in Ethio Telecom to facilitate resource, training, and documentation.					
03	Assignments are on merit basis.					
04	Employees are empowered to take decisions.					
05	Ethio Telecom's management team is exemplar in project support.					
06	In this Organization, workplace decisions are made through consensus to ensure better project performance.					
07	Project team members selection is transparent and competency oriented.					
08	Project team members are aware of the difference between functional and project working environment.					
09	The principles of project management are applied uniformly irrespective of the size of the project.					

10	Pre-project Implementation trainings are provided to project team as a rule of internal process.					
11	Project managers have the necessary authority and power to control the execution of the project.					
12	A standard project development strategy is established in Ethio Telecom.					
13	There is a strong leadership practice and becoming a role model as a culture.					
<b>d. Compete Culture (Market Culture)</b>						
Item No	Item Description	Points				
		5	4	3	2	1
01	Customers' interests are never ignored in decision making.					
02	In Ethio Telecom, tasks are accomplished in the sense of urgency.					
03	Ethio Telecom constantly improve methods of work to gain competitive advantages.					
04	Ethio Telecom is a world class telecom service provider.					
05	There is a healthy competition among employees.					

## II. Questions about Ethio Telecom s' Project Management Performance

<b>a. Cost (Budget) KPI</b>						
Item No	Item Description	Points				
		5	4	3	2	1
01	There is a strong project appraisal practice in Ethio Telecom.					
02	Projects are completed within budget limits.					
03	Projects stay within budget limits.					
04	There are frequent scope changes in projects.					
<b>b. Schedule (Timeliness) KPI</b>						
Item No	Item Description	Points				
		5	4	3	2	1
01	Projects are completed as per PIP (Project Implementation plan) in the given time period and meet their schedule objectives.					
02	Project team members are found to be time sensitive					
03	Project team members are very well aware of Time to market and Time to use.					
04	Procurement decision makings process is quick and timely.					

<b>c. Quality KPI</b>						
Item No	Item Description	Points				
		5	4	3	2	1
01	Ethio Telecom is a world class telecom service provider.					
02	Most projects are designed to make things better.					
03	There is a good project closure practice.					
04	Most projects are completed as per the qualifications and desired quality.					
<b>d. Effectiveness (Stakeholder Satisfaction) KPI</b>						
Item No	Item Description	Points				
		5	4	3	2	1
01	For better project performance, there is proper utilization of resources					
02	Project deliverables usually satisfy the business requirements in the long term					
03	Project results meet their intended objectives, goals and customers/ users expectations					
04	Leaders in Ethio Telecom recognizes that projects are a means to achievements of its Business strategy and facilitate quick decision					
05	Ethio Telecoms' project performance is reflected on its service quality					
06	There is a good understanding on the difference between success of project Management and success of projects in Ethio Telecom					
07	Stakeholders are satisfied with project results					

*Source : CHARLES M. JUMBA (2013) , Author (2019)*

### **Part C**

**Open Questions : Please put your own opinion for the following questions**

**How do you explain the effect of Ethio Telecoms organizational culture on its project management performance?**

## Appendix C: SPSS Data Analysis Output

### 1. Descriptive Analysis Output

#### i. Clan Culture

**Descriptive Statistics**

	N	Sum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Std. Error	Statistic
In Ethio Telecom, everyone working in a group put maximum effort to achieve common goal.	237	800	3.38	.075	1.149
Human development and knowledge acquisition is of high priority in Ethio Telecom.	237	779	3.29	.067	1.026
During conflict everybody tries to solve it quickly and Conflicts are managed properly.	237	773	3.26	.059	.906
Employees are committed and have strong cohesion to the company mission .	237	849	3.58	.060	.924
In Ethio Telecom, employees are more comfortable working in a group rather than individually to ensure better performance.	237	851	3.59	.066	1.015
In Ethio Telecom ,employees' communication is effective in communicating things that are relevant to them so as to ensure better project performance.	237	875	3.69	.057	.884
In Ethio Telecom ,capabilities of employees are viewed as an important source of competitive advantage.	237	811	3.42	.066	1.016
Resources are available for employees' education and training within the company for projects to be successful.	237	773	3.26	.070	1.073
Training and development of employees is done fairly to ensure projects perform well.	237	724	3.05	.066	1.013
The way employee values themselves and the organization values employees are very similar.	237	689	2.91	.062	.961
Ethio Telecom values the experience, knowledge, and skills of its professionals.	237	744	3.14	.065	1.001
Professionalism is a leading agenda in Ethio Telecom.	237	694	2.93	.068	1.053
Project cultures in Ethio Telecom are reflections of functional structure.	237	795	3.35	.055	.839
There is a strong support from functional departments for the successful deployment of projects.	237	814	3.43	.063	.966
Valid N (listwise)	237				

## ii. Adhocracy Culture

Descriptive Statistics

	N	Sum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Std. Error	Statistic
Ethio Telecom owns unique organizational cultures.	237	781	3.30	.065	.999
Innovation is encouraged in Ethio Telecom .	237	795	3.35	.067	1.038
Proper Risk management is a routine activity in Ethio Telecom.	237	732	3.09	.066	1.011
Projects are coordinated easily through all functional units.	237	731	3.08	.061	.935
Employees are learning by doing and from their mistakes.	237	856	3.61	.065	1.001
Information is available for everyone. One can get any needed information.	237	770	3.25	.068	1.046
Reward and recognition system within the company rewards task accomplishments based on work quality to promote better project performance.	237	732	3.09	.071	1.088
Employee retention, reward system and employee handling is exemplary and attractive.	237	672	2.84	.071	1.090
Experience and skill of project team will not affect project performance.	237	523	2.21	.082	1.267
Valid N (listwise)	237				

## iii. Hierarchy Culture

Descriptive Statistics

	N	Sum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Std. Error	Statistic
In Ethio Telecom, Instructions and regulations are needed to govern every process of work.	237	944	3.98	.058	.892
There is a well-organized Project Support Office in Ethio Telecom to facilitate resource, training, and documentation.	237	757	3.19	.068	1.052
Assignments are on merit basis.	237	722	3.05	.061	.935
Employees are empowered to take decisions.	237	702	2.96	.063	.967
Ethio Telecom's management team is exemplar in project support.	237	735	3.10	.062	.947
In this Organization, workplace decisions are made through consensus to ensure better project performance.	237	748	3.16	.060	.919
Project team members selection is transparent and competency oriented.	237	630	2.66	.071	1.092
Project team members are aware of the difference between functional and project working environment.	237	743	3.14	.063	.965
The principles of project management are applied uniformly irrespective of the size of the project.	237	720	3.04	.060	.917
Pre-project Implementation trainings are provided to project team as a rule of internal process.	237	597	2.52	.070	1.084

Project managers have the necessary authority and power to control the execution of the project.	237	802	3.38	.062	.961
A standard project development strategy is established in Ethio Telecom.	237	724	3.05	.065	1.001
There is a strong leadership practice and becoming a role model as a culture	237	682	2.88	.062	.951
Valid N (listwise)	237				

**iv. Market Culture**

**Descriptive Statistics**

	N	Sum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Std. Error	Statistic
Customers' interests are never ignored in decision making.	237	853	3.60	.061	.945
In Ethio Telecom, tasks are accomplished in the sense of urgency.	237	842	3.55	.065	1.005
Ethio Telecom constantly improve methods of work to gain competitive advantages.	237	810	3.42	.061	.943
Ethio Telecom is a world class telecom service provider.	237	665	2.81	.074	1.144
There is a healthy competition among employees.	237	695	2.93	.068	1.043
Valid N (listwise)	237				

**v. Cost KPI**

**Descriptive Statistics**

	N	Sum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Std. Error	Statistic
There is a strong project appraisal practice in Ethio Telecom.	237	742	3.13	.063	.963
Projects are completed within budget limits.	237	642	2.71	.065	.998
Projects stay within budget limits.	237	665	2.81	.066	1.011
There are frequent scope changes in projects .	237	789	3.33	.067	1.030
Valid N (listwise)	237				

**vi. Schedule KPI**

**Descriptive Statistics**

	N	Sum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Std. Error	Statistic
Projects are completed as per PIP (Project Implementation Plan) in the given time period and meet their schedule objectives.	237	640	2.70	.066	1.020

Project team members are found to be time sensitive.	237	722	3.05	.066	1.022
Project team members are very well aware of Time to market and Time to use.	237	710	3.00	.064	.985
Procurement decision makings process is quick and timely.	237	621	2.62	.068	1.041
Valid N (listwise)	237				

**vii. Quality KPI**

**Descriptive Statistics**

	N	Sum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Std. Error	Statistic
Ethio Telecom is a world class telecom service provider.	237	651	2.75	.072	1.114
Most projects are designed to make things better.	237	871	3.68	.061	.934
There is a good project closure practice.	237	701	2.96	.068	1.049
Most projects are completed as per the qualifications and desired quality.	237	696	2.94	.062	.957
Valid N (listwise)	237				

**viii. Effectiveness KPI**

**Descriptive Statistics**

	N	Sum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Std. Error	Statistic
For better project performance, there is proper utilization of resources	237	769	3.24	.065	1.004
Project deliverables usually satisfy the business requirements in the long term	237	793	3.35	.062	.956
Project results meet their intended objectives, goals and customers/ users expectations	237	798	3.37	.065	.994
Leaders in Ethio Telecom recognizes that projects are a means to achievements of its Business strategy and facilitate quick decision	237	819	3.46	.063	.972
Ethio Telecom s' project performance is reflected on its service quality	237	885	3.73	.065	1.001
There is a good understanding on the difference between success of project Management and success of projects in Ethio Telecom	237	741	3.13	.062	.953
Stakeholders are satisfied with project results	237	728	3.07	.060	.925
Valid N (listwise)	237				

## 2. Inferential Statistics Output

### Correlations

**Descriptive Statistics**

	Mean	Std. Deviation	N
Clan	3.3065	.63567	237
Schedule	2.8407	.82928	237

**Correlations**

		Clan	Schedule
Clan	Pearson Correlation	1	.586**
	Sig. (2-tailed)		.000
	N	237	237
Schedule	Pearson Correlation	.586**	1
	Sig. (2-tailed)	.000	
	N	237	237

\*\* . Correlation is significant at the 0.01 level (2-tailed).

### Correlations

**Descriptive Statistics**

	Mean	Std. Deviation	N
Clan	3.3065	.63567	237
Quality	3.0791	.74455	237

**Correlations**

		Clan	Quality
Clan	Pearson Correlation	1	.656**
	Sig. (2-tailed)		.000
	N	237	237
Quality	Pearson Correlation	.656**	1
	Sig. (2-tailed)	.000	
	N	237	237

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Correlations

### Descriptive Statistics

	Mean	Std. Deviation	N
Clan	3.3065	.63567	237
Effectiveness	3.3351	.73503	237

### Correlations

		Clan	Effectiveness
Clan	Pearson Correlation	1	.585**
	Sig. (2-tailed)		.000
	N	237	237
Effectiveness	Pearson Correlation	.585**	1
	Sig. (2-tailed)	.000	
	N	237	237

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Correlations

### Descriptive Statistics

	Mean	Std. Deviation	N
Adhocracy	3.0905	.64893	237
Cost	2.9937	.67645	237

### Correlations

		Adhocracy	Cost
Adhocracy	Pearson Correlation	1	.509**
	Sig. (2-tailed)		.000
	N	237	237
Cost	Pearson Correlation	.509**	1
	Sig. (2-tailed)	.000	
	N	237	237

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Correlations

**Descriptive Statistics**

	Mean	Std. Deviation	N
Adhocracy	3.0905	.64893	237
Schedule	2.8407	.82928	237

**Correlations**

		Adhocracy	Schedule
Adhocracy	Pearson Correlation	1	.572**
	Sig. (2-tailed)		.000
	N	237	237
Schedule	Pearson Correlation	.572**	1
	Sig. (2-tailed)	.000	
	N	237	237

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Correlations

**Descriptive Statistics**

	Mean	Std. Deviation	N
Adhocracy	3.0905	.64893	237
Quality	3.0791	.74455	237

**Correlations**

		Adhocracy	Quality
Adhocracy	Pearson Correlation	1	.663**
	Sig. (2-tailed)		.000
	N	237	237
Quality	Pearson Correlation	.663**	1
	Sig. (2-tailed)	.000	
	N	237	237

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Correlations

**Descriptive Statistics**

	Mean	Std. Deviation	N
Adhocracy	3.0905	.64893	237
Effectiveness	3.3351	.73503	237

**Correlations**

		Adhocracy	Effectiveness
Adhocracy	Pearson Correlation	1	.586**
	Sig. (2-tailed)		.000
	N	237	237
Effectiveness	Pearson Correlation	.586**	1
	Sig. (2-tailed)	.000	
	N	237	237

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Correlations

**Descriptive Statistics**

	Mean	Std. Deviation	N
Hierarchy	3.0854	.61337	237
Cost	2.9937	.67645	237

**Correlations**

		Hierarchy	Cost
Hierarchy	Pearson Correlation	1	.570**
	Sig. (2-tailed)		.000
	N	237	237
Cost	Pearson Correlation	.570**	1
	Sig. (2-tailed)	.000	
	N	237	237

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Correlations

### Descriptive Statistics

	Mean	Std. Deviation	N
Hierarchy	3.0854	.61337	237
Schedule	2.8407	.82928	237

### Correlations

		Hierarchy	Schedule
Hierarchy	Pearson Correlation	1	.618**
	Sig. (2-tailed)		.000
	N	237	237
Schedule	Pearson Correlation	.618**	1
	Sig. (2-tailed)	.000	
	N	237	237

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Correlations

### Descriptive Statistics

	Mean	Std. Deviation	N
Hierarchy	3.0854	.61337	237
Quality	3.0791	.74455	237

### Correlations

		Hierarchy	Quality
Hierarchy	Pearson Correlation	1	.702**
	Sig. (2-tailed)		.000
	N	237	237
Quality	Pearson Correlation	.702**	1
	Sig. (2-tailed)	.000	
	N	237	237

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Correlations

**Descriptive Statistics**

	Mean	Std. Deviation	N
Hierarchy	3.0854	.61337	237
Effectiveness	3.3351	.73503	237

**Correlations**

		Hierarchy	Effectiveness
Hierarchy	Pearson Correlation	1	.629**
	Sig. (2-tailed)		.000
	N	237	237
Effectiveness	Pearson Correlation	.629**	1
	Sig. (2-tailed)	.000	
	N	237	237

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Correlations

**Descriptive Statistics**

	Mean	Std. Deviation	N
MarketCulture	3.2616	.70884	237
Cost	2.9937	.67645	237

**Correlations**

		MarketCulture	Cost
MarketCulture	Pearson Correlation	1	.536**
	Sig. (2-tailed)		.000
	N	237	237
Cost	Pearson Correlation	.536**	1
	Sig. (2-tailed)	.000	
	N	237	237

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Correlations

**Descriptive Statistics**

	Mean	Std. Deviation	N
MarketCulture	3.2616	.70884	237
Schedule	2.8407	.82928	237

**Correlations**

		MarketCulture	Schedule
MarketCulture	Pearson Correlation	1	.660**
	Sig. (2-tailed)		.000
	N	237	237
Schedule	Pearson Correlation	.660**	1
	Sig. (2-tailed)	.000	
	N	237	237

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Correlations

**Descriptive Statistics**

	Mean	Std. Deviation	N
MarketCulture	3.2616	.70884	237
Quality	3.0791	.74455	237

**Correlations**

		MarketCulture	Quality
MarketCulture	Pearson Correlation	1	.746**
	Sig. (2-tailed)		.000
	N	237	237
Quality	Pearson Correlation	.746**	1
	Sig. (2-tailed)	.000	
	N	237	237

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Correlations

**Descriptive Statistics**

	Mean	Std. Deviation	N
Market Culture	3.2616	.70884	237
Effectiveness	3.3351	.73503	237

**Correlations**

		MarketCulture	Effectiveness
Market Culture	Pearson Correlation	1	.582**
	Sig. (2-tailed)		.000
	N	237	237
Effectiveness	Pearson Correlation	.582**	1
	Sig. (2-tailed)	.000	
	N	237	237

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Regression

### i. Regression for Constant Market, Clan, Adhocracy, and Hierarchy cultures and dependent variable Cost

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.616 <sup>a</sup>	.379	.369	2.14993	.379	35.454	4	232	.000

a. Predictors: (Constant), Market Culture, Clan, Adhocracy, Hierarchy

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	655.495	4	163.874	35.454	.000 <sup>b</sup>
	Residual	1072.353	232	4.622		
	Total	1727.848	236			

a. Dependent Variable: Cost

b. Predictors: (Constant), Market Culture, Clan, Adhocracy, Hierarchy

**ii. Regression for Constant, Market , Clan, Adhocracy, and Hierarchy cultures and dependent variable Schedule**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.707 <sup>a</sup>	.500	.492	2.36454	.500	58.114	4	232	.000

a. Predictors: (Constant), Market Culture, Clan, Adhocracy, Hierarchy

**ANOVA<sup>a</sup>**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1299.669	4	324.917	58.114	.000 <sup>b</sup>
1 Residual	1297.124	232	5.591		
Total	2596.793	236			

a. Dependent Variable: Schedule

b. Predictors: (Constant), Market Culture, Clan, Adhocracy, Hierarchy

**iii. Regression for Constant, Market , Clan, Adhocracy, and Hierarchy cultures and dependent variable Quality**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.802 <sup>a</sup>	.643	.637	1.79546	.643	104.336	4	232	.000

a. Predictors: (Constant), Market Culture, Clan, Adhocracy, Hierarchy

**ANOVA<sup>a</sup>**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1345.375	4	336.344	104.336	.000 <sup>b</sup>
1 Residual	747.891	232	3.224		
Total	2093.266	236			

a. Dependent Variable: Quality

b. Predictors: (Constant), Market Culture, Clan, Adhocracy, Hierarchy

**iv. Regression for Constant, Market, Clan, Adhocracy, and Hierarchy cultures and dependent variable Effectiveness**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.681 <sup>a</sup>	.463	.454	3.80124	.463	50.095	4	232	.000

a. Predictors: (Constant), Market Culture, Clan, Adhocracy, Hierarchy

Table 11j: Model Summary for all culture variables constant and Effectiveness as independent variable

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2895.367	4	723.842	50.095	.000 <sup>b</sup>
	Residual	3352.262	232	14.449		
	Total	6247.629	236			

a. Dependent Variable: Effectiveness

b. Predictors: (Constant), Market Culture, Clan, Adhocracy, Hierarchy