

ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

SCHOOL OF COMMERCE

GRADUATE PROGRAME MA IN PROJECT MANAGEMENT

ASSESSMENT OF THE EFFECT OF ORGANIZATIONAL CULTURE ON PROJECT PERFORMANCE: IN CASE OF ASER CONSTRUCTION PLC.

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A Project Work Submitted to Addis Ababa University College of Business and Economics School of Commerce in Partial Fulfillment of the Requirements for the Award Masters of Arts Degree in Project Management

Advisor: KONJIT HAILU (PHD)

June, 2021

ADDIS ABABA, ETHIOPIA

ASSESSMENT OF THE EFFECT OF ORGANIZATIONAL CULTURE ON PROJECT PERFORMANCE: IN CASE OF ASER CONSTRUCTION PLC.

DECLARATION

I hereby declare that the study which is being presented in this research entitled "***Assessment of the Effect of organizational culture on project performance***" ***In case of ASER Construction P.L.C"*** is my original work and I have conducted the study with the guidance and comments of the research advisor. It has not been submitted for any educational qualification at this University or any other and in any projects by any means.

By: Fenan W/gebriel

Signature: _____

Date: _____

CERTIFICATION

This is to certify that Fenan Woldegebriel has carried out this research work on the topic entitled "***Assessment of the effect of organizational culture on project performance: in case of ASER construction plc"*** under my supervision.

This work is an original work and suitable for presentation in partial fulfillment of the requirement for obtaining the master's degree in project management and the student has my permission to submit it for evaluation.

Advisor: Konjit Hailu (PHD)

Signature: _____

Date: _____

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By: Fenan Woldegebriel Beyene

Approved by:

Advisor	Signature	Date
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ACRONYMS

PLC	Private Limited Company
SPSS	Statistical Package for Social Sciences
PMO	project management office
OC	Organizational culture

Abstract

The purpose of this study is to assess the impact of organizational culture on project performance in ASER construction plc. The research attempts to fill the gap of literature related to this topic by studying the situation of ASER construction and provide more empirical evidence on the impact of organizational culture on project performance by investigating and measuring the possible relationships between the variables. In order to achieve the above objectives, the research was based on questionnaires and interview for the primary data, and documents from research papers for the secondary data. The gathered data was analyzed using descriptive and inferential statistics. Pearson Correlation and regression analysis were conducted to determine the relationship and the effect of two variables by using SPSS. The result shows that there is a positive relationship between organizational culture and project performance practice in ASER construction. The statistical analysis reveal that Clan, hierarchy, market and adhocracy culture have small to moderate correlation to project performance practice in ASER construction. The study concludes that organizational culture influences the project performance practices. The study recommended that in order for ASER construction to realize its vision of becoming an effective leading contractor, the organization must not only focus on developing major innovations and formulating unique strategic plans but also invest in establishment of a favorable organizational culture for better project performance. Also, there should be further study on the effects of organizational culture on project performance in other construction firms found in Ethiopia.

Key words: *Organizational Culture, project Performance*

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Construction industry is one of the most used examples of project-based industries (Didenko and Konovets, 2008) characterized as a complex, risky, dynamic, multi-disciplinary, heterogeneous, capital intensive, highly influenced by unpredictable variables, time-consuming and intricate project-based industry sector. It involves substantial financial and human resources and plays a vital role in the national economy. It is among the main economic activities in social, political, and economical welfare of the society. Major building activities represent for roughly 80% of total capital assets in many emerging nations, particularly in Africa Lioyd (1987) as cited in (Meti, 2019) article. For these countries, the industry provides high employment opportunities, probably only second to agriculture Ofori (2006) cited by (Meti, 2019). Similarly, in Ethiopia, public construction projects shared an average annual rate of 58.2% of the capital budget between years 1997/98 and 2001/02 (Wubshet, 2004) cited in (Meti, 2019). Moreover, construction industry accounted for 4%- 7.6% of the total GDP of the country between years 2010/11- 2013/14 (MoFED, 2014). This shows that the construction industry has a key role in Ethiopian economic development.

Despite its considerable contribution to the economies of emerging countries and the vital role it plays in their development, the construction industry's performance is still largely poor (Chan and Chan, 2004). As (Idoko, 2008) noted, the construction projects in developing countries is associated with poor performance such as missing timeliness, over budget, poor quality, unsafe construction and client dissatisfaction. It is critical to identify the factors that influence the success or failure of construction in order to enhance project performance. So far studies undertaken to enhance the project performance focused mainly on the influence of factors such as procurement routes, management systems and techniques, and construction methods (Larson, 1997; Proverbs *et al.*, 1999). Beyond these, it has been suggested, mainly on the basis of anecdotal evidence, organizational culture also have a significant effect on performance by the influence they have on the way participants approach work.

Among the factors organizational culture is the least-studied area in the construction management literature and the attention given to the issue by the construction industry can at

best be described as marginal, and most of the discussion has been discursive as a result systematic research into organizational culture has been limited (Proverbs, 2004; Dainty *et al.*, 2007). Most of the researches done on the success and failure of construction projects are mostly focused on the technical aspects of the project while little focus is given to non-technical factors of the project i.e. people and it is known that successful project delivery relies on the concerted effort of all those involved.

A study conducted by the Project Management Institute (PMI) reported that the value of project management is dependent on organizational culture when implementing projects (Thomas & Mullaly, 2009). To enhance success in their projects, organizations need to develop a project-centered culture (Christenson & Walker, 2004). The essential factors that affect the efficiency and productivity of a business have been identified together in organizational culture (Alas et al. 2009). It was strongly advocated that the efficiency of companies and the construction industry can be improved by cultivating and maintaining a culture that is conducive to boosting performance (Gordon, DiTomaso 1992). Positive organizational culture is taken into consideration to be catalytic to performance enhancement. Organizational culture is defined like a set of basic assumptions invented, discovered or developed by a group to address their external and internal integration problems, which have been sufficiently working well to be considered valid and thus to be taught to new members as to how to perceive, think, and feel these problems correctly (Schein 1985). Organizational culture has several important functions. First, it conveys a way of identity for organization members. Second, it makes it easier to develop a sense of devotion to something bigger than oneself. Third, it improves systems stability, and fourthly it serves to guide and shape the behavior of members(Peters, Waterman 1982; Hofstede 2001; Alas et al. 2009). According to the mentioned importance, positive and enduring OC therefore can have a positive effect on individual and organizational performance (Denison 1990).

Construction project is operated by multiple individuals with a diversity of backgrounds, causing different human behavior and different expectations for a project. Difference may arise from members from different objectives, from a different approach to work and the different understanding of the relationships with business associates. Hence, those involved individuals who come with diversity of background significantly influence the success of project (Rameezdeen, Gunarathna, 2003). These differences often lead to problems in communication among members of these two groups as a result decline capacity of construction project to

achieve project objectives (Tijhuis, 2011). It could therefore be argued that culture plays a significant role on the performance of a project. Thus, in practice of project management, culture should be treated as a significant aspect in controlling conflicts, improving quality outcomes, and encouraging innovation (Luong.H and Tsunemi.W, 2017)

As Ankrah and Proverbs (2004) stated, organizational culture become more critical in construction due to the nature of contracting, internationalization of procurement, joint venturing, and partnering in this industry. The increase in strategic alliances in construction, like in other industries, increases the significance of cultural differences due to the interaction of people from different cultures. (Shore and Cross 2005).The advantages of managing cultural differences successfully have been addressed by many researchers (Fatehi 1996). It can improve organizational effectiveness and provide a significant competitive advantage. Failure to address cultural differences can, on the other side, generate grave difficulties including construction delays and reduced production. Therefore, understanding and managing cultural differences in this industry is becoming an increasingly important topic especially in construction projects which involve participants from different cultural backgrounds.

1.2 Statement of the problem

The construction project can be defined as a project oriented industry, which can be said to be the pattern of interrelationships, authority, and responsibility that is established between the contributors (i.e., client, consultant, and contractor) to achieve the construction client's objectives (Walker,2015). It is known that successful project delivery relies on the concerted of all those involved yet the way to handle individuals and the way of doing a job has not been addressed at construction project level. Some project management authors acknowledge that organizational culture can have an impact on the success of project management (Brown, 1999 Cicmil, 1997 Elmes & Wilemon, 1988, Gray & Larson, 2000; Gray, 2001; Johns, 1999 and Kerzner, 2001) but studies conducted in this field so far have focused mainly on the influence of such factors as procurement routes, management systems and techniques, and construction methods (Larson, 1997; Proverbs et al., 1999). There is rare evidence of systematic studies of organizational culture from a project management perspective or of empirical findings to shed light on project performance (Ankrah and Proverbs, 2004; Dainty *et al.*, 2007). The notice given to the issue of organizational culture by the construction industry has been disparate and inadequate. The questions of what organizational culture is and the nature of the connection

between culture and performance at the project level clearly remain unanswered within the context of the construction projects and deserve further investigation (Phua and Rowlinson, 2004).

The research based the study on ASER construction PLC. ASER Construction is registered as Grade 1 General Contractor (GC 1) the company is engaged in various construction services like construction buildings, roads, special factory foundations, bridges and various types of civil engineering structures contributing to the development of the construction industry. From its history the construction firm has been involved in major and minor construction activities in Ethiopia in collaboration with various companies to name a few: Construction of 40/60 Condominium Road Project Senga Terra Site in which Aser construction was involved as contractor with IFH engineering and client and consultant for the project was Addis Ababa City Roads Authority (AACRA) and Engineers Plc, Bole International Airport Expansion Project, Client CRBC Addis Engineering PLC, types of work done by ASER Aircraft stand, Taxi way and approach Excavation of Soil and Soft Rock Borrow and Sub base fill and many more. The ability of these construction projects to deliver a project successfully rests in the ability of participants to work together as a team towards a common objective. Within Those involved individuals difference may arise from members from different objectives, from a different approach to work and the different understanding of the relationships with business associates resulting in a shift in human behavior and expectations for a project. These differences often lead to problems in communication among members as a result decline capacity of construction project to achieve project objectives (Tijhuis, 2011). It could therefore be argued that culture plays a significant role on the performance of a project. With this in mind the research aims to study the impact of organizational culture on project performance on ASER construction PLC.

As mentioned in the above section the study of organizational culture on project performance remains blurred and deserve further investigation. Therefore, this study also aims to fill this research gap.

1.3 Research Objectives

1.3.1 General Objective

The general objective of this study is to assess the effect of organization culture on the performance of construction projects.

1.3.2 Specific Objective

- ✓ Analyze the existing organizational culture
- ✓ Determine the relationship between organizational culture and project performance
- ✓ To explore the effect of organizational culture on project performance

1.4 Research Question

The study intended to answer the following basic questions.

- ✓ What are the existing organizational cultures in ASER construction?
- ✓ What is the relationship between organizational culture and performance management practice in ASER construction?
- ✓ Does organizational culture have any effect on project performance?

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1.5 Significance of the Study

The findings of this study may assist construction professionals in implementing practices that can contribute to the sustainability and success of construction projects. In addition it may serve as a secondary data, as a source for other scholars and researchers who are interested in conducting research on the impact of culture on project performance.

1.6 Scope of the Study

The scope of the study is limited and only confined to the impact of organization culture on construction project performance. The study focused mainly on selected organizational culture dimensions focusing on Clan, Market, Hierarchy, and adhocracy and their effect on selected project performance indicator(KPI) such as cost, time, quality and effectiveness .

1.7 Limitation of the Study

The researcher faced some limitations during the process of conducting the study. Some of the respondents were busy, making it difficult to complete the surveys on time. However, the researcher made several visits and phone calls to remind them to fill the questionnaire.

The study is limited to assessing the impact of organizational culture on performance of construction: in case of ASER construction PLC, focus has been made on one Construction company which might make it hard to generalize the findings to the entire construction industry.

1.8 Organization of the Study

This study consists of five chapters; the first chapter covers the background information, statement of the problem, research questions, objective of the study, and scope of the study, significance of the study, limitation and organization of the study. Chapter two comprise of literature review of different books, articles, journals and concept papers. Chapter three discusses the research method and methodology of the study. The forth chapter discuss the analysis and interpretation of the data collected. The last chapter covers the conclusion and recommendation.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The following literature review provides a foundation for the study on organizational culture and project performance. It focuses in detail on the organizational culture and the determinants of success or failure of a project followed by the empirical review. In the empirical review an insight into previous studies on project performance and organizational culture is given. Finally, a conceptual framework of the dependent and independent variable closes this review.

2.2 Theoretical Framework

The theoretical review of related literature of the study is focusing on the major issues of organizational culture and project performance. First overview of organizational culture, importance and characteristics of organizational culture and the four dimension of organizational culture discussed.

2.2.1 Organizational Culture

Organizational culture is a set of shared values and norms that everyone in an organization adheres to. Furthermore, it is the manner in which they communicate and interact with members of the organization as well as stakeholders outside the organization black (2003). The values are ideas and beliefs about the types of goals/objectives that people should pursue. The values and norms can be considered as a guide on how work is done.

According to Schein (1985), it is a kind of basic assumption that is shared between the members of the company and their way of thinking about adapting new things in order to overcome the problems in the organization and thus to be transferred to the new members joining the organization. This system of shared basic assumption is actually a set of key characteristics that the organization values. The characteristic of the organizational culture becomes a composite picture that also becomes the fundamental shared understanding among the team members in the organization. This includes how they believe the work is completed and the attitude that the company expects from them (Robbins and Sanghi, 2007). He also said that when organizational culture is defined as a common philosophy and understanding, employees from different backgrounds have the same understanding of organizational culture.

Organizational culture is defined by the experiences that each employee brings to the company. Due to their roles in making company decisions, the director, executives, and managerial staff in the company play important roles in the creation of culture. According to Donovan (2006), organizational culture is represented by a group of symbols, language, decision making, stories, and routine work activities. The interaction of the employees in the meetings, the company newsletters and the cooperation method of the people show the volume of the culture in the organization. Cultural expressions are largely invisible or easily visible to employee.

The intangible aspects comprise values, beliefs and underlying assumptions (Schein, 1985, Hofstede,2001). Whereas the tangible aspects encompass artifacts, creations and behavior norms(Schein,1985) which are referred to as "practices" by (Hofstede et el.,2010). Values and practices together are considered two aspects of culture. According to (Hofstede et el., 2010) values are defined as the individual's personal preferences in work and life-related issues whereas practices are defined as the employee's descriptive perceptions of aspects of the work environment or actual work situation. It has been argued that values can be measured from work practices because significant aspects of values are often apparent from organizational practice (Hofstede et el.,2010,Van den Berg and Wilderom, 2004). This viewpoint was also supported by agreement that the conventional view of culture, which focused on notions of shared values and beliefs, was inadequate; instead, organizational culture should be considered from a strongly operational perspective (Smith, 2000).

These operational aspects define culture in action and are more credible reflections of the organization's culture than statements of values and beliefs, which may be out of sync with culture as it is implemented. (Smith, 2000).Taken together, these arguments reinforce the notion that consistent and practices are reflections of organizational culture (Christensen and Gordon, 1999). It is useful for approaching culture from an institutional practice perspective because practices are easier to monitor and measure and are therefore comparable across organizations, which can be directly linked to individual and organizational performance (Christensen and Gordon, 1999)

From the perspective of work practices, (Kostova, **1999**) defines organizational culture as "particular ways of conducting organizational functions that evolved over time and these practices reflect the shared knowledge and competence of the organization". (Van den Berg and

Wilderom 2004) define organizational culture as a common perception of organization's working practices that differ from other Organization. From this perspective of cultural identification, the behavior of project participants is the most important factor in determining culture within project organizations. Assuming that cultural differences lead to different behaviors of participants, this may lead to misunderstandings among participants, which in turn may lead to conflicts and dissatisfaction among construction project participants**.** As a result, it may be argued that culture has a significant impact on project management success or failure.

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

Clan culture: The clan culture bolsters flexibility and individual difference, openness, participation, and dialog. The organization is committed to the members and their morale and aims to get everyone involved in decision-making and activities (Rameezdeen& Gunarathna, 2003). Shared values and common goals are common features and make an environment of collectivity and mutual help (Yu & Wu, 2009: 38). Members put the advancement of the organization before themselves. Cameron & Quinn (2011) define the clan culture as a family-type organization. They operate through teamwork, programs to get employees involved, and corporate commitment to employees. They treat their work colleagues as family and clients as partners. Teamwork and information-sharing are the keys in an organization of predominantly the clan culture. Rewards are based on organizational or group performance (Rameezdeen & Gunarathna, 2003). Berrio (2003) describes the clan culture together that focuses on internal maintenance, is flexible, is customer sensitive, and focuses on employees' needs. These organizations are often viewed as friendly workplaces where people share of themselves. Tradition and loyalty hold these organizations together and their success is defined in terms of their concern for people (Hooijberg & Petrock, 1993). The clan culture has a high moral and collegial decision-making technique (Smart & Hamm, 1993).

Adhocracy culture: Cameron & Quinn (2011) view adhocracy culture in a corporation as creative and dynamic. The main goal is to attain creativity, flexibility, and adaptableness during a constantly changing environment. The firm centers on external positioning, with innovativeness as the key to its success. Entrepreneurial activity, creativity, and acquiring resources are important features within the organization, which is additionally known for its commitment to risk, innovation, and development (Rameezdeen & Gunarathna, 2003). The

leaders are risk-takers and trendsetters (innovators), and employees share a commitment to experimentation. Their goal emphasizes adaptability, flexibility and being ahead of the most recent developments. Within the future, they aim for growth and the possession of latest resources (Hooijberg & Petrock, 1993). Yu & Wu (2009) associate this culture with temporary institutions, which are established for the aim of performing a selected task and disintegrates once the task is completed. Berrio (2003) describes the adhocracy culture as the center on external positioning and permitting employees to be adaptable and center on individuality.

Market culture: These organizations mainly focus on external maintenance and transactions (Berrio, 2003; Yu & Wu, 2009). It's rational and goal-oriented, emphasizing maximum output, being decisive, and providing direction. It prides itself on accomplishment, productivity, and making a profit or having an impression. Order, rational production, external interaction, and goal accomplishment are the foremost significant factors of the market culture. Members have clear instruction and are rewarded financially for his or her accomplishment (Rameezdeen & Gunarathna, 2003). This culture features a competitive orientation that specializes in the achievement of goals (Yu & Wu, 2009). Its success is characterized by its market share and penetration (Hooijberg & Petrock, 1993). The market culture centers on the relationship between suppliers, clients, and regulators and is more externally oriented (Cameron & Quinn, 2011). Berrio (2003) describes this type of organization together that functions with a high degree of stability and control, and attentively on external maintenance; it's proactive in adopting strong market initiatives (Smart & Hamm, 1993).

Hierarchy culture: Also known as the bureaucratic culture, hierarchy culture strives towards equilibrium and consolidation and is defined by internal bureaucracy (Rameezdeen & Gunarathna, 2003). A clear organizational structure and standardized rules and methods give well-defined responsibilities (Yu & Wu, 2009). Leaders are often good coordinators and organizers (Hooijberg & Petrock, 1993). Stability, control, and continuity are achieved through measurement, documentation, and information management. The internal system is highly regarded and kept up, and individuals (members) are anticipated to follow the rules and strategies that administer their activities in well-defined roles (Rameezdeen & Gunarathna, 2003). The hierarchy culture is visible during a structured and formalized workplace. Their long-

term objectives are predictable and their work environment is stable and effective (Cameron & Quinn, 2011).

Table 2-1 Attributes of Clan, Adhocracy, Hierarchy, and Market cultures.

Clan	**Adhocracy**
➢ Mentoring ➢ Extended family, nurturing ➢ Participation ➢ Teamwork ➢ Employee Involvement ➢ Corporate commitment to employees ➢ Rewards based on teams not individuals ➢ Participation ➢ Commitment, loyalty ➢ Informality ➢ Job rotation	➢ Dynamic ➢ Entrepreneurial ➢ Risk-taking ➢ Values innovation ➢ Temporary structure ➢ Innovative product ➢ Rapid change ➢ Power is not centralized ➢ Creativity, innovation
Hierarchy	**Market**
➢ Structure ➢ Control ➢ Coordination ➢ Efficiency ➢ Stability ➢ Procedures govern what people do ➢ Stability ➢ Formal rules and policies	➢ Result oriented ➢ Gets job done ➢ Values competition and achievement ➢ Focus on transaction with external ➢ suppliers, customers, contractors ➢ Productivity ➢ Tough and demanding leaders ➢ Emphasis on winning ➢ Success is defined in terms of market share

2.2.2 Dominant and Sub Organizational Cultures

According to Robbins and Judge, (2008) a dominant culture convey the center values that are shared by a larger part of the organizations members. It is the macro view of culture that gives a company its distinctive characteristics. On the other hand, sub cultures develop to create in large organizations to reflect common issues, circumstances, or encounter that member's confront.

These subcultures will most likely be outlined by department designations and geographical separation. Subculture will include the core values of the dominant culture, plus additional values unique to members of a given department similarly an office or unit of the organization that is physically separated from the organizations main operations may combat a special personality. The core values are basically retained, but they are adjusted to reflect the separated unit's distinct circumstances. Organizations are seldom characterized by a single cultural type; they tend to develop a dominant culture over time as they adapt and respond to the challenges and changes in the surrounding environment (Cameron & Quinn, 2005).

The Competing Values Framework and its incorporation of the four organizational culture types offer a straightforward means of categorization and understanding; however, it is practicable for a company or office to have subdominant components. This means that finance department that is a Control (hierarchy) may still have substantial Compete (market) traits (Bruce 2009). Most of the corporate societies that are analyzed utilizing Cameron and Quinn's Organizational Culture Evaluation Instrument in fact have a vigorous secondary component. This is also the case at the department level. Their research has additionally shown that it is uncommon to have companies that share equal traits of all four culture types—with no dominant or barely dominant type (Bruce 2009).

2.2.3 Organizational culture versus project culture

According to Gareis and Huemann (2000) project culture was identified as an objective of the project management process, together with the scope of work, the project schedule, the project budget, the project organization and the project context. Korzilius (1988) stresses that it's very crucial to set up a unified, strong project culture for the attainment of success in project, as a lack of a unified culture may be damaging to the attainment of the overall project objectives.

M. Xaba (2011) concluded that project managers should design and facilitate a culture that brings out the best in project stakeholders, to the benefit of the project. Whilst operating with internal and external customers on a project, it's essential to concentrate to relationships, context, records, and also the corporate culture. Wang (2001) displays that project management need to also have a professional culture, where professional culture refers to the culture shared by members of a profession

The development of a supportive organizational culture is critical to the success of any project and, ultimately, the expansion of the business. Construction project team is formed with different participants from different organizations, mainly; consultants, contractors and other stakeholders; many difficulties seem to arise due to the conflicts of different business objectives and lack of sensitivity and tolerance of difference between participants which highlight the importance of understanding of organizational culture for successful project management (Fellow *et al.*, 2007).

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.

When an organization's culture does not support project management, project management tends to be viewed as an added burden and disruption to day-to-day work. Projects will operate differently from one project to the next and from one department to the next if there is no effective project management office (PMO) and no standard processes, procedures, measurement, and organizational culture across projects. The project culture within an organization can essentially determine or destroy the projects carried out by that organization (Sunil Raikhanghar, 2010). Projects that are thought to be aligned with organizational culture may have a smoother implementation and a higher success rate than projects that challenge these cultural norms. Furthermore, understanding organizational culture and its relationship to project management can assist businesses in determining which projects to pursue and which to set aside (2021, www.adviso.ca) . Culture is anchored in all aspects of an organization and influences the dynamics of people's performance, relationships, and the perception of the organization's impact on their lives (Suda, L. V. 2007)

2.2.4 The importance of organizational culture

Organizational culture is now regarded as one of the most important determinants of an organization's strategic development. From the managerial context, its most important function is in increasing individual and organizational success.

- Directs the decisions and behavior of management and employees,
- Main instrument of strategy implementation,

- Allows the vision of organizational development to become transparent and common to all members of the organization,
- Determines the image of the organization,
- Integrates the various subsystems of the organization.

Employees' perceptions of their role in a project – and their role in the company as a whole – can be regarded as a foundational aspect of organizational culture. Organizational culture, in turn, can shape a company's structure and projects. Projects that are perceived to be aligning with organizational culture may have smoother execution and higher success rates than projects that are perceived to be at odds with those cultural norms."How organizational culture affects project management," 2021).According to a 2015 study by the Project Management Institute titled Pulse of the Profession: Understanding organizational culture and its relationship with project management can assist businesses in determining which projects are worth pursuing. Firms may generate long-term benefits in a competitive environment by "embedding the project management mindset in organizational culture."

2.2.5 Project performance

Project performance can be used to assess success of construction project. However, the concept of project performance has not been clearly defined in the construction industry (Ingle and Mahesh, 2016). In construction project, Performance is understood as the quality of the operation of a construction site, and also how successful the site's operation is (Salminen, 2005). However, the concept of project performance is being developed in many ways as criteria for evaluating the success of a project (Arazi et al., 2011). But, there is no single uniform measure for project success and the success criteria vary from project to project (Kylindri et al, 2012).

Construction projects are always measured at least by comparing achievements to project objectives, determined by budget and schedule. Certain key indicators Such as cubic meters of concrete poured or quantity of installed elements have been used to indicate the state of the project (Juha, 2005). However, Project performance can be evaluated from numerous stakeholder viewpoints, emphasizing discrete measures of performance. Collectively, the results highlight project strengths and weaknesses within a pragmatic performance measurement framework (Tennant, and Langford,2008). Project performance is measured for many reasons such as

benchmarking, rewarding and monitoring whether the organization's strategy is working well at all levels of the organization (Sezer, 2016).

2.2.6 Project Performance measurement

Despite extensive research on performance measurement, its definition is still widely debated. Performance measurement is a collection of a measurement system that measures the effectiveness and efficiency of action (Neely et al., 2000). Performance measurement, according to Moullin (2003), is the assessment of how well businesses are managed and the value they provide to consumers and stakeholders. Amaratunga and Baldry (2002) wrote Measurement provides the foundation for an organization to assess how well it is progressing toward its predetermined objectives, assists in identifying areas of strength and weakness, and decides on future initiatives to improve organizational performance. This definition implies both the role and process of performance measurement clearly from a different perspective. The regular collection and reporting of information concerning the inputs, efficiency, and effectiveness of building projects are known as performance measurements in construction. It uses to judge project performances, both in terms of the financial and non-financial aspects, and to compare and contrast the performance with others, to improve Project efficiency and effectiveness in organizations (Takim et al, 2003). It is widely agreed that, at the very least, project performance measures are based on time, cost, and quality. (Barkley and Saylor 1994). Atkinson (1999) noted that these three components of project performance as the 'iron triangle'. 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). The research uses four variables that have been identified for measuring project performance. They are cost, time, quality, and clients 'satisfaction (effectiveness)

Cost Performance

The extent to which general conditions encourage the completion of a project within the estimated budget is described as cost (Bubshait and Almohawis, 1994). Based on Salter and Torbett (2003), the most common method for assessing design performance is cost variance. It includes not only the tender value, but also the total cost of the project from the start to finish, including costs incurred due to changes, modifications made during construction, and costs and arbitration due to legal claims (such as litigation). . It can be measured by unit cost, net variance

in final cost, etc. (Chen and Tan, 2000). Cost variation is a key indicator for evaluating project performance because it indicates whether the project is within the budget.

Scheduling performance

Completing construction projects on time is crucial, because clients, users, stakeholders, and the public generally evaluate project success from a macro perspective, and time to completion appears to be the main criteria for project success (Lim and Mohamed, 2000). According to Salter and Torbett (2003) and Odeh and Battaineh (2002), time variance is one of the strategies to analyze project performance in construction projects. Timing issues can remind the project manager that the project is not progressing as planned. Furthermore, the Latham (1994) report noted that ensuring the timely delivery of projects is one of the important needs of clients in the construction industry. The construction time can be considered as the time elapsed from the start of the project on the site until the completion of the construction and delivery to the clients.

Quality performance

Quality in the construction business is described by the sum of the attributes required for a product or service to meet a particular demand or purpose (Parfitt and Sanvido, 1993). In short, the focus of quality in the construction industry is on the ability to meet existing requirements. A requirement is an established characteristic of a product, process, or service specified in the contract and the characteristic defines the type of these product, process, or service, and is a specification that is first determined by the customer. In order for the completed project to meet the owner's quality expectations, all parties on the project must understand these expectations, integrate them maximally into contract and other contract documents, and sincerely commit to achieve them (Ganaway, 2006). The outcome of the project depends on effective communication and coordination with all project stakeholders. Project performance cannot be measured until the project results are delivered and used by the client or client (Razmdoost & Mills 2016).

Clients' satisfaction

Satisfaction is seen as a function of the comparison between individuals' perceptions of outcomes and their expectations of outcomes (Locke, 1970). In the construction industry, customer satisfaction has been a difficult and challenging topic for a long time. There can be many reasons for general customer dissatisfaction in the construction industry, but they are mainly due to high project costs, delays in completion, poor quality, and incompetent service providers such as contractors and consultants (Contract Journal, 2004). According to (BSRIA 2003) the cost of

developing new construction clients is 5 times higher than that of keeping existing clients, and the company can increase its profits by almost 100% while retaining only 5 % of the customers. Therefore, customer satisfaction is a key issue for construction participants. If they want to survive in the global market, they must constantly seek to improve their performance. In the construction industry, the measurement of customer satisfaction is usually related to the evaluation of the performance and quality of the product or service received by the customer (Parasuraman, 1988; Soetanto and Proverbs, 2004)

2.3 Empirical Review

This section summarizes the findings of various researchers on the topic "The impact of Organizational Culture on Project Performance: In the Case of Construction Organization."

Abeysekera (2002) defines culture within construction as “the characteristics of the industry, approaches to construction, skills of the craftsmen and people who work in the industry, and the goals, values and strategies of the organizations in which they work. ". In construction, culture is more critical because of the nature of contracting, internationalization of procurement, joint venturing, and the transfer and implementation of innovative practices, Supply Chain Management (Riley and Clare-Brown, 2001). Oney-Yazi et al. (2006) stated that, due to the fragmented nature of the construction industry, sensitivity to the cultural differences of the participants must be shown. All companies in this industry need to establish and understand their own organizational culture, which will allow them to adjust their methods and traditions when doing business with other companies, and give them a competitive advantage (Oney-Yazi, Arditi and Uwakweh, 2006). Maloney and Federle (1990) pointed out that the organization is the main determinant of performance within the organization. It has also been found to have an impact on participation and openness, decision-making methods, communication quality, and work relationships (Hall, 1999; Low and Shi, 2001; Skitmore et al., 2004).

Stare (2011) investigated the influence of organizational culture on project performance in Slovenian enterprises. His model of organizational culture focuses more on the attitudes of top and line management in a wide range of business enterprises (i.e., IT, product development, and civil engineering). The most influential factors for project performance were the attitude of top management and the presence of clear priorities for project.

Zuo et al. (2005) adapt existing organizational dimensions to propose five dimensions for a project culture model: integrative, cooperative, goal-oriented, flexible, and people-oriented. Their model focuses on contract procurement relationships in the Chinese construction industry, and the results show that positive medium to large correlations exist between the five project dimensions, namely, satisfaction with project success, commercial success, future business chances, and satisfaction with relationships. The majority of these correlations are positive; the exceptions are goal orientation and flexibility, which exhibit negative correlations with most of the project performance indicators. The results show that culture helps improve project performance.

Anderson (2003) applied the organizational culture model and tools developed by Harrison (1972) and improved by Handy (1985) to measure culture at the project level. The results show that a strong task-oriented culture can improve project cost performance, while at the same time not having a direct impact on other project performance factors, such as schedule, participant satisfaction, and the role of the project manager.

Thomas et al. (2002) used the standard competitive value framework model, developed by Cameron and Quinn (1999) to assess the project culture of 13 Australian construction projects. The results show that clan-based culture (that is, family-style culture that focuses on mentoring," doing things together") is positively correlated with quality outcomes, while market culture (that is, cultural competence based on results, achievements) are related to construction. It is more common in projects and a negative correlation was found with quality results. Therefore, the author proposes to transform the culture of the construction project from the prevailing market culture to the clan culture Thomas et al. (2002). The author also believes that the design of the culture should align the goals and objectives of the organization with those of the individual participants. This design helps reduce conflict, strengthen communication and coordination, and increase the ease of achieving project objectives.

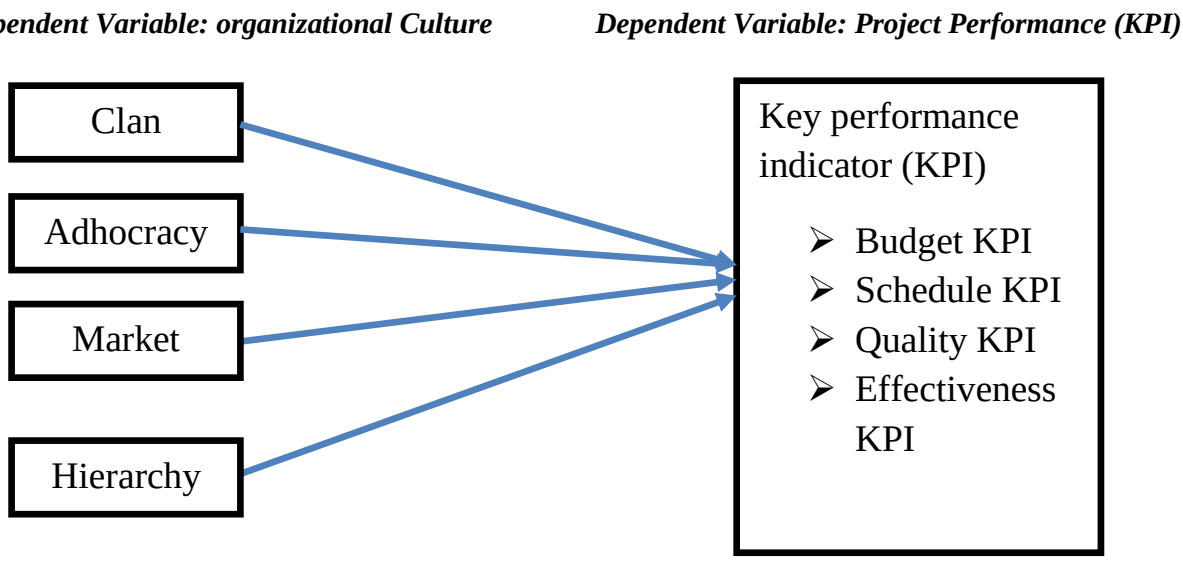
Gray (2001) conducted a study to examine the relationship between project performance and the social and management conditions under which these projects are implemented. Based on extensive field research involving project management professionals from leading organizations in the UK, there is evidence that as the level of personal and environmental threats perceived by project personnel increases, project success rates will decline. Other organizational

characteristics, such as free expression, questioning, participation in goal setting, innovation and the inner satisfaction of the work itself, are positively correlated with successful project results, while organizational changes and conflicts are negatively correlated with project success. The review shows that there is sufficient theoretical basis and empirical evidence to prove that the project performance is partly attributable to the culture in the construction project.

2.4 Conceptual Framework

A conceptual framework is a hypothetical model used to identify concepts and their relationships in the research of Karuru and Okola (2015). It is a diagram that shows the relationship between the independent variable and the dependent variable. The review showed that it is reasonable to assume that culture has an impact on performance. To systematically investigate the relationship between culture and performance, the researcher established a conceptual framework that brings together all the basic aspects to be investigated in a logical way. Therefore, the dependent variable is considered as project performance and organizational culture as the independent variable.

Figure 2. 1 Research Framework



CHAPTER THREE: METHODOLOGY

3.1 Introduction

This study focuses on the relationship between organizational culture and project performance, the chapter shows how the research is conducted to answer the basic questions. It includes the research design, sampling technique, the data collection tools and the specification of the research design and ethical considerations of the study.

3.2 Research design and approach

The goal of this research is to assess the impact of culture on project performance. In order to answer the research questions, a hypothesis about the relationship between organizational culture and project performance was developed. The independent and dependent variables analyzed are organizational culture and project performance respectively. in order to test the hypotheses, the quantitative analysis was carried out through a questionnaire survey. This study is descriptive study which accessed the finding of the objectives through a questioner and showed the findings using statistical methods (Cooper and Schindler, 2003).

Mixed Approach was used in the data collection and analysis process. Mixed methods research is the type of research in which researcher or team of researchers combines elements of qualitative and quantitative research approaches for the broad purposes of breadth and depth of understanding and corroboration.‖ (Johnson et al., 2007,).The combination of the qualitative and quantitative approaches is used for the analysis in order to provide richer conclusion and recommendations**.**

3.3 Research Population and Sampling

The population of the study comprises 63 employees of the company that are engaged in the building construction projects in two project site. Census (complete enumeration) is used for the target population. This method is used because of the small number of study population.

Purposive sampling was used for the interview; the interviewees were selected based on their extensive experience in the local industry, they were available at the time when the research was undertaken.

3.5 Data collection

Data was gathered through a questionnaire and interview. The questionnaire was adapted from earlier researches and studies undertaken by (Dawit, 2019). furthermore, it was designed to answer the questions of the study, meet the study‘s objectives and it was distributed to respondents .The questionnaire was composed of questions in Likert-style rating with a five-point rating scale and each respondent was asked how strongly he or she agreed or disagreed with a statement or series of statements. In this case, the researcher represented 1 as 'strongly disagree' and 5 represented as’ strongly agree'. The questionnaire was designed to consist of 3 sections and was developed in line with the research objectives and questions that are stated in chapter one, Part 1 – Personal Information, Part 2 – Identification of OC and Part 3 – Performance Assessment. Interview was conducted in order to fill the gap in the responses received from the questionnaires.

3.6 Data Analysis

The quantitative answer was sorted via the Statistical Package for Social Science (SPSS) version20 and analyzed using descriptive statistics, with mean, frequency, percentage and standard deviation after collection and sorting of all relevant data using data collection tools. Finally, conclusions were made based on the results/findings of the study and recommendations were forwarded based on the data analyzed.

3.7 Scale Reliability and Validity

To be reliable, any estimate must be free of bias and misrepresentation. The measurement of validity and reliability is necessary to ensure the applicability of research tools or measurement insturments, which in turn ensures the validity of research (Bhattacherjee, 2012; Kothari, 2004; Saunders et al., 2009)..

Validity is defined as the degree to which the measurement tool adequately covers the research topic (Kothari, 2004). It refers to the degree or accuracy of the instrumental measurement of what the researcher is trying to evaluate. In the context of this research, content validity is the degree to which research elements capture culture in a representative and comprehensive manner. The questions were used from formerly completed research studies which were subject to critics and the content validity was addressed in that all questions clearly represented all the

variables intended to measure for the desired objective of showing the impacts of the independent variables on the dependent variable.

Reliability concerns about measurement consistency. if the same result can be consistently obtained using the same methods under the same circumstances, the measurement is considered reliable. Cronbach's α is the most commonly used test to determine the internal consistency of a degree. The result of Cronbach's α ranges from 0 to 1, an acceptable reliability value is a value of 0.7 or higher (Heale et al., 2015). In order to avoid problems relating to the validity and reliability, the survey of questionnaires which directly and indirectly relate to organizational culture and project performance was carried out using previous literature from research and articles from relevant journals.

3.8 Ethical Considerations

The researcher ensures that the project work is quality and integrity. The participants sought consent with full knowledge of what it is. There is also a guarantee of the confidentiality and anonymity of volunteers. This self-reliant and impartial project work was not seen in any way to harm respondents. The researcher therefore takes all the ethical perspectives into optimum consideration.

CHAPTER FOUR: RESULT AND DISSCUSTION

4.1 Introduction

The study aimed at evaluating the impact of organizational culture on project performance in construction projects. This chapter contains the presentation and interpretation of the results.

4.2 General Information of Respondents

This section summarizes respondents' demographic information. The description of the demographic information is intended to show the composition of the sample group of respondents. As explained in the “Data Collection” section of the previous chapter, 63 of the 63 questionnaires distributed were returned with a response rate of 100%. The general information from these respondents is summarized in the table below.

Table 4-1 General Information of Respondents

		Frequency	Percent
Gender	Female	19	30.2
	Male	44	69.8
Age group	< 30 years	25	39.7
	30-39 years	24	38.1
	40-49 years	14	22.2
level of education	certificate/diploma	6	9.5
	First degree	43	68.3
	Postgraduate	14	22.2
current position	Project manager	4	6.4
	Project implementation team member	38	60.3
	Project supporting team	16	25.4
	Other	5	7.9
Work experience	0-5 years	22	34.9
	6-10 years	23	36.5
	11-15 years	15	23.8
	Above 15 years	3	4.8
Total		63	100

(Source: Field Survey, 2021)

A majority of the participants (60.3%) were composed of project implementation team member. (6.4%) of the participants account for project managers; 25.4% project supporting team and. The

remaining (7.9%) included other supportive members. Regarding gender composition, (30.2%) of the respondents were females, while the 69.8% were males. Out of the 63 respondents, (34.9%) had a work experience of 0-5years, whereas, a relatively larger percentage of them (36.5%) worked for 6-10years. (23.8%) of the respondents had a work experience of 11-15 years while a minority of (4.8%) were senior employees who worked for above 15 years. Regarding educational level, employees with a bachelor degree predominantly participated in this research as a majority of (68.3%) of the participants had a bachelor degree,(22.2%) were at master's degree educational level, While the remaining (9.5%)were diploma level.

4.3 Descriptive Analysis

4.3.1 Descriptive Analysis of organizational culture

In order to understand the organizational culture, employees are required to express their degree of agreement with the statement in four dimensions, and then the employee scores are analyzed on the five-point Likert scale, and descriptive statistics of the mean and standard deviation are used. The scale used to evaluate the indicators, 1 point "strongly disagree", 2 points-"disagree", 3 points-"neutral/undecided", 4 points-"agree", 5 points-" strongly Agree". According to Marczak, DeMatteo, and Festinger (2005), the lower the mean, the more the respondents disagree with these statements, and the higher the mean, the more the respondents agree with these statements. The measure of the variability of the observed response is represented by the standard deviation. The table shows the average and standard deviation of each variable listed in the "Culture" section (Part 2) of the questionnaire.

Details of means and variance of each item under Clan, Adhocracy, Hierarchy, and Market cultures are shown as appendix C of this paper. Table shows mean, and standard deviation of each variable stated under Culture section (section 2) of the questionnaire.

Table 4-2 Means and Standard Deviations for the Components of Organizational Culture

Variable	Mean	Std. Deviation
Clan Culture	3.96	1.02
Adhocracy Culture	3.66	1.03
Hierarchy Culture	3.75	1.02
Market Culture	3.67	0.95

Source: Questionnaire and SPSS output (2021)

Clan Culture is found to have the highest mean value of 3.96 followed by hierarchy culture with mean value 3.75, market 3.67, and adhocracy 3.66. Therefore, Clan culture is deemed to be the current dominating in ASER construction, practices such as Teamwork and employee involvement are the common practices included in clan culture.

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

Table 4-3 shows mean, and standard deviation of each variable stated under Project Performance section (Section 3) of the questionnaire. Details of means and variance of each item under Cost KPI, Schedule KPI, Quality KPI, and Effectiveness KPI are shown as Appendix C of this paper.

Table 4-3 Mean and standard deviation of Project Performance KPI's

Variable	Mean	Std. Deviation
Cost	3.30	1.02
Time	3.28	1.16
Quantity	3.41	0.95
Stakeholder satisfaction	3.70	1.04

Source : Questionnaire and SPSS output (2021)

4.4 Instrument Reliability

A reliability analysis was carried on replies for organizational Culture and Project performance questions responses independently and Cronbach's alpha result shows alpha values of 0.947 and 0.915 respectively. 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 4-4 Cronbach's α Coefficient of reliability test

Reliability Statistics		
Variables	**Cronbach's Alpha**	**N of Items**
Culture	.936	34
Project Performance	.945	18

Source: Questionnaire and SPSS output (2021)

4.5 Inferential Statistics Results Analysis

One of the goals of the study is to investigate the effects of organizational culture on project performances. The study uses SPSS V20 software to analyze correlation and regression and therefore the results are displayed in the following part.

4.5.1 Correlation Analysis

Correlation is the relationship between two things. The results of correlation analysis can only provide researchers with information about the relationship between two or more variables, which can be used as the basis for future research. However, it is important for researchers to interpret this association carefully. A positive correlation between two variables means that both variables are changing in the same direction (either both increase or decrease). A negative correlation between two variables means that as one variable increases, the other variable decreases. The purpose of this research is to determine whether there is a significant link between company culture and project performance. According to Marczyk, Dematteo, and Festinger (2005) the correlation between 0.01 and 0.30 is considered low, while the correlation between 0.30 and 0.70 is considered medium. 0.70 to 0.90 is considered large, while a

correlation of 0.90 to 1.00 is considered very large. Correlation analysis of the case under this study comes out with Pearson correlation coefficients depicted in Table 4-5 below

Table 4-5 Correlation Analysis

Correlations								
Pearson Correlation	**Organizational Culture**				**Project Performance**			
	Clan	**Adhocracy**	**Hierarchy**	**Market**	**Cost**	**Time**	**Quality**	**Satisfaction**
Clan	1	.680**	.707**	.558**	.569**	.221	.154	.201
Adhocracy		1	.840**	.612**	.573**	.546**	.350**	.440**
Hierarchy			1	.697**	.619**	.464**	.277*	.504**
Market				1	.629**	.501**	.432**	.570**
****. Correlation is significant at the 0.01 level (2-tailed).**								
***. Correlation is significant at the 0.05 level (2-tailed).**								

Source: Survey data analysis (2021)

- Correlation of clan culture shows relatively moderate level of relationship to cost with coefficients of .569 and small level relationship to time, quality and stalk holder satisfaction with coefficients of .221, .154 and .201 respectively.
- Correlation of adhocracy culture shows moderate level of relationship with all the dependant variables(cost, schedule, quality and effectiveness) with coefficients ranging from .350 to .573
- Correlation of hierarchy culture shows moderate level of relationship to cost, time and satisfaction with coefficients of .619, .504 and .464 respectively and small relationship with quality with coefficients of .271

- Correlation of Market culture shows moderate level of relationship with all the dependant variables(cost, schedule, quality and effectiveness) with coefficients ranging from .629 to .432

4.5.1.1 Results of Correlation Analysis

Factors measuring organizational culture were determined to be positively related with all project management performance KPIs within the range of 0.154 to 0.629, and all were significant at $p<0.01$ level. As a result it can be concluded that there is a positive significant relationship between organizational culture traits and project performance management.

These result answers the relation of organizational cultures on project performance of ASER construction. Therefore, ASER construction if having strong organizational culture will be benefited on its project performance due to the relationship between all independent and dependent variables.

4.5.2 Multicolliniarity

In this section, explain the correlation between the variables; clan culture, adhocracy culture, market culture, hierarchy culture. The correlation matrix is used to ensure the correlation between explanatory variables. According to the recommendation of Lewis Beck (1999) to find the problem of multicolliniarity, the bi-variate correlation between the independent variables should be checked, and the existence of a correlation of about 0.8 or more indicates that there is a multicolliniarity problem. 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.

The results in the correlation matrix Table 4-5 shows that the highest correlation of 0.840 which is between adhocracy and hierarchy culture. Since there is no correlation above 0.8 in this study according to Cooper and Schendlar (2009), it can be concluded in this study that there is no problem of multicolliniarity, thus enhanced the reliability for regression analysis. Therefore, it can be concluded that there is no problem of multicolliniarity or the results showed that the problem of multicolliniarity did not exist between variables.

4.5.3 Regression Analysis

To examine contribution of each organizational culture variable on project 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).

Table 4-6 Summary of Regression Analysis

Independent Variables	Dependent Variable															
	Cost				Schedule				Quality				Effectiveness			
-Clan -Adhocracy -Hierarchy -Market	R	R^2	Adj R^2	e	R	R^2	Adj R^2	e	R	R^2	Adj R^2	e	R	R^2	Adj R^2	e
	.696[a]	.484	.449	.45761	.643[a]	.414	.374	.81961	.498[a]	.248	.196	.71920	.647[a]	.419	.379	.69883
	F=13.622				F=10.242				F=4.773				F=10.492			

Source: Survey data analysis (2021)

4.5.3.1 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 4-6 whereby Cost is dependent variable; 48.4 % variation in project performance is explained by organizational cultures (where R square is .484 and adjusted R square is .449). Similarly whereby Schedule is dependent variable; 41.4% variation in project performance is explained by organizational cultures (where R square is .414 and adjusted R square is .374). When Quality is dependent variable; 24.8 % variation in project performance is explained by organizational cultures (where R square is .248 and adjusted R square is .197). In the case where, Effectiveness is dependent variable ;41.9% variation in project performance is explained by organizational cultures (where R square is .419 and adjusted R square is .379).Regression

models for different dependent variables of the study reveals the levels on how the variance in Project Performance is explained by the Organizational cultures.

- ANOVA (Analysis of Variance) tables show the overall significance of the model from a statistical dimension. As the significance value of F statistics shows a value .000 and .002 for quality, which is much smaller than $p<0.05$, which means that there is statistically significant effect of independent variables (organizational culture) on the dependent variable (project performance); indicates that organization culture have contribution to improve project performance.

4.6 Qualitative Assessment

Interviews are used as an appropriate method to collect the qualitative data required at this stage in order to understand cultural phenomena on projects. According to the records, interviews are the most widely used qualitative method in organizational research (King, 1994). The purpose is to give a qualitative and empathetic description of the culture in the construction project.

The main thrust of the interviews was to draw out those issues that were considered important on construction projects and the main challenges faced by project organizations. Participants had an average of 5-10 years working experience. The interviewees were selected based on their extensive experience in the local industry, their availability at the time when the research was undertaken.

Key findings are summarized below.

When asked "What does organizational culture mean to ?" The interviewee expressed a series of opinions. According to the interviewee;

"It's all about people and the way they do their job."

"*A set of values, behavior and goals that are characteristic of the organization and gives guidance to the members of the organization on how work is done"*. It can be seen from the above quotations that the interviewees who are participants in the construction project have the same cultural concepts in theory.

From interviewees the cultures they have experienced and observed in ASER construction include innovation and creativity, team work, communication, experience, reward, skillful execution and family. Many of these dimensions of culture are consistent with the dimensions of culture already identified in the literature in Tables 2.1 (refer Chapters 2)

Most project members are not aware of the culture they are not presented to them directly they just follow how the employees do their job, follow the values and norms according to day to day work environment in time without knowing it they are practicing the culture. These arguments reinforce the notion that consistent and practices are reflections of organizational culture (Christensen and Gordon, 1999).

Regarding the impact of culture on the work environment all interviewees agreed that the features of organizational culture helped to foster a collaborative relationship among project participants and in turn achieved positive project outcomes. Points were mentioned by interviewees to positive outcomes as a result of the culture mentioned above. There were references to delivery within budget and on schedule, client/customer satisfaction, and several repeat clients. Indeed within the construction industry, performance of a project is often evaluated in these very terms (Maloney, 2002; Soetanto *et al.*, 2002). This provides evidence that there is a link between culture and project performance.

4.7 Discussion

In this section, the results were discussed in line with the objective of the study and the existing literature on the relationship between the study variables.

The outcome was guided by three research objectives:

1. Analyze of the existing organizational culture traits

2. Determine the relationship between organizational culture and performance management practice

3. Assess the effect of organizational culture on performance management practice

1. Analyze of the existing organizational culture traits and performance management practices

From the descriptive analysis of the means of all the four cultures results in mean value less than 4 and greater than 3.This implies that ASER construction has a current organizational culture in all the four culture dimensions. Clan Culture is found to have the highest mean value of 3.96 followed by hierarchy culture with mean value 3.75, market 3.67, and adhocracy 3.66. Therefore,

Clan culture is deemed to be the current dominating one in ASER construction. The dominance of clan culture supports Thomas et al.'s (2002) observation that an employee-focused internal orientation (team work and employee involvement) is commonly predominant in the construction industry which is typical characteristics of clan culture. the result also supports

2. Determine the relationship between organizational culture and project performance practice in ASER construction

Pearson coefficients shows that all the four organizational culture elements are related with all project performance KPIs within the range of .201 to .629, and all were significant at $p<0.01$ level.

Based on the correlation analysis the level of positive relationship varies from small to moderate, results shows that there is a relationship between all culture elements of organizational cultures in ASER construction to its project performance.

3. Assess the effect of organizational culture on project performance practice

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;

- When **Cost** is taken as dependent variable, 48.4 % variation in Project performance is explained by the independent organizational cultures
- When **Schedule** is taken as dependent variable, 41.4% variation in Project performance is explained by the independent organizational cultures
- When **Effectiveness** is taken as dependent variable, 41.9 % variation in Project performance is explained by the independent organizational cultures
- When **Quality** is taken as dependent variable, 24.8% variation in Project performance is explained by the independent organizational cultures

Results of correlation analysis of this study have come up with positive correlations of all organizational culture elements to all elements of project management performance KPIs. According to (Gordon, DiTomaso 1992) by cultivating and maintaining a culture that is conducive to stimulating performance improvement, the efficiency of firms and ultimately the

construction industry can be improved. If the organization has a strong organizational culture, its performance will improve and vice versa if it has a weak organizational culture.

According to regression analysis, it can be understood that organizational culture is not the only variable that contributes to the success of project management performance. However, the established positive correlation between the independent variable and the dependent variable indicates that there is a relationship between the variables. The results of this research support previous findings and may contribute to the field of knowledge.

CHAPTER FIVE: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This section of the report summarizes the major findings which were obtained from data analysis of survey questionnaire responses.

5.1 Summary

This section presents summary of key findings of the study. The main objective of this research was to investigate the relationship between organizational culture and project performance. A questionnaire and interview used as data collection method. Then data was analyzed using the descriptive and inferential statistics using SPSS and the findings are summarized below.

- Based on descriptive analysis Clan Culture is found to have the highest mean value of 3.96 followed by hierarchy culture with mean value 3.75, 3.67 market, and adhocracy 3.66. Therefore, Clan culture is deemed to be the current dominating one in ASER construction.
- Pearson coefficients shows that all the four organizational culture elements are related with all project management performance KPIs within the range of .201 to .629, and all were significant at $p<0.01$ level. Result shows that there is small to moderate relation between organizational culture and project performance.
- Correlation analysis has shown that there is a relatively small to moderate relationship between the culture and the budget aspect of project performance KPI.
- Based on the result of regression analysis, it was found that organizational culture has an effect on project performance.

5.2 Conclusion

In conclusion, the organizational culture can influence the performance of project based on its four types of culture which are hierarchy culture, market culture, clan culture and adhocracy culture. In the descriptive analysis, there is a ranking between the types of organizational culture. The ranking was aim to review the most practical dimension of organizational culture in construction industry. Hence, the clan and hierarchy culture were chosen as the most practical organizational culture in ASER construction. Based on the result of this research, there are positive relationship between organizational culture and project performance in the construction industry in ASER construction. All types of the organizational culture have small to moderate

positive relationship with the project performance Based on the result of regression analysis; it was found that organizational culture has an effect on project performance.

The correlation and regression results of the four organizational cultures and the project management performance KPIs show that the organizational culture is related to project performance. These results explain and answer the objectives and research questions of this study. Therefore, if ASER has a strong organizational culture, its performance will improve and vice versa if it has a weak organizational culture. Maintaining a relatively good organizational culture can help to gain an organization's competitive advantage.

5.3 Recommendation

- Based on the response on the questionnaire the researcher recommends that, training and development opportunities should be given fairly to project members as it will help them update their knowledge. A learning culture encourages project team members to improve their capabilities, as a result enhances project performance.

- Policies and procedures related to working conditions should be reviewed to recognize quality improvement efforts by project members to improve project performance. The availability of clear policies and procedure will help reduce bias in decision-making and also protecting members from acting in a manner that might endanger their employment.

Overall, ASER construction to realize its vision of becoming an effective leading contractor, the organization must invest in establishment of a favorable organizational culture in addition to developing major innovations and formulating unique strategic plans.

Recommendation for Further Study: This study has revealed substantial links between organizational culture and the project performance outcomes. To confirm and further validate these associations, future research in this genre must be collected data from a larger sample to raise the precision of the analysis and to allow solid conclusions to be reached.

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Appendix A : 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 opinions on "the effect of organizational culture on project performance." The research has a purely academic purpose as part of meeting the requirements to grant a master's degree in project management, so it will not affect you in any case. For this survey to be useful and accurate, you must answer each question as honestly as possible.

Confidentiality

Your responses to this survey will be kept completely anonymous.

Contact Address

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

Cell Phone: +251(0)968577050

E-mail: Fnan.woldegebriel@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	Project Manager	Project implementation team member	Project supporting team	Other	

.

Part B

Questions related to **Organizational Culture, Project Performance** in construction ASER construction PLC.

Directions:

To explore the effect of organizational cultures on Project Management Performance in ASER construction PLC, this study incorporates the following questions. Please put (√) 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 / Disagree

4=Agree

5=Strongly Agree

Definition:

Organizational culture refers to the beliefs, attitudes and values shared by the members of the organization and the behaviors consistent with them. Organizational culture distinguishes one organization from another, and determines how members of another organization will see you, interact with you, and sometimes even judge you (Adrienne, 2014). Organizational culture is partly based on the common values of employees, and partly defined by management, company history, and employee professional culture. (Martin, 2017).

Dear Respondent,

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

I. Questions about ASER construction' Organizational culture

a. Clan (Collaborate) Culture						
Item No	Item Description	Points				
		5	4	3	2	1
01	In ASER construction Everyone working in a group put maximum effort to achieve common goal.					
02	Human development and knowledge acquisition is of high priority.					
03	During conflict everybody tries to solve it quickly and Conflicts are managed properly.					
04	Employees are more comfortable working in a group rather than individually to ensure better performance.					
05	Employees' communication is effective in communicating things that are relevant to them so as to ensure better project performance.					
06	In ASER construction ,capabilities of employees are viewed as an important source of competitive advantage.					
07	Training and development of employees is done fairly to ensure projects perform well.					
08	ASER construction values the experience, knowledge, and skills of its professionals.					
09	Professionalism is a leading agenda in aser construction.					
10	There is a strong support from functional departments for the successful deployment of projects.					

b. Create Culture (Adhocracy Culture)						
Item No	Item Description	Points				
		5	4	3	2	1
01	ASER construction owns unique organizational cultures.					
02	Innovation is encouraged in ASER construction.					
03	Proper Risk management is a routine activity in ASER construction.					
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 will affect project performance.					

c. Control Culture (Hierarchy Culture)

Item No	Item Description	Points				
		5	4	3	2	1
01	In ASER construction, Instructions and regulations are needed to govern every process of work.					
02	There is a well-organized Project Support Office in ASER construction to facilitate resource, training, and documentation.					
03	Employees are empowered to take decisions.					
04	Management team is exemplary in project support.					
05	In this Organization, workplace decisions are made through consensus to ensure better project performance.					
06	Project team member's selection is transparent and competency oriented.					
07	Project team members are aware of the difference between functional and project working environment.					
08	Project managers have the necessary authority and power to control the execution of the project.					
09	The principles of project management are applied uniformly irrespective of the size of the project.					
10	A standard project development strategy is established in ASER construction PLC.					
11	There is a strong leadership practice and becoming a role model as a culture.					

d. Compete Culture (Market Culture)

Item No	Item Description	Points				
		5	4	3	2	1
01	Customers' interests are never ignored in decision making.					

02	In ASER construction, tasks are accomplished in the sense of urgency.					
03	ASER construction, constantly improve methods of work to gain competitive advantages.					
04	ASER construction always refer to the market condition and observe it					

II. Questions on Project Management Performance

a. Cost (Budget) KPI						
Item No	Item Description	Points				
		5	4	3	2	1
01	There is a strong project appraisal practice in Aser construction.					
02	Projects are completed within budget limits.					
03	Projects stay within budget limits.					
04	There are frequent scope changes in projects.					
b. Schedule (Timeliness) KPI						
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	Time management is done in every phase of the project					
03	All project delays been adequately accounted for, communicated to clients and adjustments made in overall project schedule?					
04	Procurement decision makings process is quick and timely.					

c. Quality KPI						
Item No	Item Description	Points				
		5	4	3	2	1
01	There is applied Quality assessment system in the projects					
02	Quality assurance training and follow up is being done periodically					

03	There is a good project closure practice.					
04	Most projects are completed as per the qualifications and desired quality.					

d. Effectiveness (Stakeholder Satisfaction) KPI

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 ASER construction recognizes that projects are a means to achievements of its Business strategy and facilitate quick decision					
05	ASER construction ,project performance is reflected on its service quality					
06	Stakeholders are satisfied with project results					

Thank You Very Much for Your Cooperation and Time!!!!

Appendix B: Interview Questions

Interview Guidelines:

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

1. What do you understand by the term “organizational culture”?
2. What are the known organizational cultures in ASER construction?
3. On a construction project site in what ways are this cultures manifested?
4. Do you think the organizational culture of ASER construction has an impact on project performance? How?
5. Do project members know the organizational culture?

Appendix C: SPSS Data Analysis Output

1. Descriptive Analysis Output

1. CLAN CULTURE

Descriptive Statistics

	N	Mean	Std. Deviation
Everyone working in a group put maximum effort to acheive common goal	63	4.37	.955
Human development and knowledge acquisition is of high priority	63	4.19	.965
During conflict everybody tries to solve it quickly and conflicts are managed properly	63	3.78	1.007
Employees are more comfortable working in a group rather than individually to ensure better performance.	63	4.06	1.014
Employees' communication is effective in communicating things that are relevant to them so as to ensure better project performance.	63	4.14	.820
construction ,capabilities of employees are viewed as an important source of competitive advantage.	63	4.05	1.099
Training and development of employees is done fairly to ensure projects perform well.	63	2.34	1.073
values the experience, knowledge, and skills of its professionals.	63	3.84	1.334
Professionalism is a leading agenda in aser construction.	63	4.08	.903
There is a strong support from functional departments for the successful deployment of projects.	63	3.87	1.024
Valid N (listwise)	63		

2. ADHOCRACY CULTURE

Descriptive Statistics

	N	Mean	Std. Deviation
owns unique organizational cultures.	63	3.90	.946
Innovation is encouraged	63	3.62	1.288
Proper Risk management is a routine activity	63	3.57	.995
Projects are coordinated easily through all functional units.	63	3.32	.964
Employees are learn by doing and from their mistakes.	63	3.97	.933
Information is available for everyone. One can get any needed information.	63	3.49	1.120
Reward and recognition system within the company rewards task accomplishments based on work quality to promote better project performance.	63	2.25	1.207
Employee retention, reward system and employee handling is exemplary and attractive.	63	3.24	1.011
Experience and skill of project team will affect project performance.	63	4.52	.820
Valid N (listwise)	63		

3. HIERARCHY CULTURE

Descriptive Statistics

	N	Mean	Std. Deviation
Instructions and regulations are needed to govern every process of work.	63	4.22	.812
There is a well-organized Project Support Office to facilitate resource, training, and documentation.	62	3.89	1.132
Employees are empowered to take decisions.	63	3.90	.911
Management team is exemplary in project support.	63	3.79	1.220
In this Organization, workplace decisions are made through consensus to ensure better project performance.	63	3.87	.959
Project team member's selection is transparent and competency oriented.	63	3.44	1.074
Project team members are aware of the difference between functional and project working environment.	63	3.67	.967
Project managers have the necessary authority and power to control the execution of the project.	63	4.10	1.073
The principles of project management are applied uniformly irrespective of the size of the project.	63	3.49	1.045
A standard project development strategy is established	63	3.35	1.095
There is a strong leadership practice and becoming a role model as a culture.	63	3.57	.979
Valid N (listwise)	62		

4. Market Culture

Descriptive Statistics

	N	Mean	Std. Deviation
Customers' interests are never ignored in decision making.	63	3.65	1.003
tasks are accomplished in the sense of urgency.	63	3.51	.965
constantly improve methods of work to gain competitive advantages.	63	3.71	.906
always refer to the market condition and observe it	63	3.83	.908
Valid N (listwise)	63		

Cost KPI

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
There is a strong project appraisal practice.	63	1	5	3.49	.914
Projects are completed within budget limits.	63	1	5	2.84	1.019
Projects stay within budget limits.	63	1	5	3.00	1.205
There are frequent scope changes in projects.	63	2	5	3.89	.952
Valid N (listwise)	63				

SCHEDULE KPI

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Projects are completed as per PIP (Project Implementation plan) in the given time period and meet their schedule objectives.	63	1	5	2.89	1.166
Time management is done in every phase of the project	63	1	5	3.16	1.247
All project delays been adequately accounted for, communicated to clients and adjustments made in overall project schedule?	63	1	5	3.89	1.166
Procurement decision makings process is quick and timely.	63	1	5	3.21	1.065
Valid N (listwise)	63				

QUALITY KPI

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
There is applied Quality assessment system in the projects	63	2	5	3.52	.780
Quality assurance training and follow up is being done periodically	63	1	5	3.29	.941
There is a good project closure practice.	63	1	5	3.49	1.030
Most projects are completed as per the qualifications and desired quality.	63	1	5	3.37	1.067
Valid N (listwise)	63				

STAKEHOLDER KPI

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
For better project performance, there is proper utilization of Resources	63	1	5	3.30	1.057
Project deliverables usually satisfy the business requirements in the long term	63	1	5	3.79	.919
Project results meet their intended objectives, goals and customers/ users expectations	63	1	5	3.78	1.142
Leaders recognizes that projects are a means to achievements of its	63	1	5	3.87	1.100
Business strategy and facilitate quick decision project performance is reflected on its service quality	63	2	5	4.00	.950
Stakeholders are satisfied with project results	63	1	5	3.49	1.076
Valid N (listwise)	63				

2. Inferential Statistics Output

Correlations

Correlations

		Clan	Adhocracy	Hierarchy	Market	Cost	Time	Quality	Satisfaction
Clan	Pearson Correlation	1	.680**	.707**	.558**	.569**	.221	.154	.201
	Sig. (2-tailed)		.000	.000	.000	.000	.082	.229	.113
	N	63	63	63	63	63	63	63	63
Adhocracy	Pearson Correlation	.680**	1	.840**	.612**	.573**	.546**	.350**	.440**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.005	.000
	N	63	63	63	63	63	63	63	63
Hierarchy	Pearson Correlation	.707**	.840**	1	.697**	.619**	.464**	.277*	.504**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.028	.000
	N	63	63	63	63	63	63	63	63
Market	Pearson Correlation	.558**	.612**	.697**	1	.629**	.501**	.432**	.570**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000
	N	63	63	63	63	63	63	63	63
Cost	Pearson Correlation	.569**	.573**	.619**	.629**	1	.674**	.638**	.671**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000
	N	63	63	63	63	63	63	63	63
Time	Pearson Correlation	.221	.546**	.464**	.501**	.674**	1	.799**	.747**
	Sig. (2-tailed)	.082	.000	.000	.000	.000		.000	.000
	N	63	63	63	63	63	63	63	63
Quality	Pearson Correlation	.154	.350**	.277*	.432**	.638**	.799**	1	.801**
	Sig. (2-tailed)	.229	.005	.028	.000	.000	.000		.000
	N	63	63	63	63	63	63	63	63
Satisfaction	Pearson Correlation	.201	.440**	.504**	.570**	.671**	.747**	.801**	1
	Sig. (2-tailed)	.113	.000	.000	.000	.000	.000	.000	
	N	63	63	63	63	63	63	63	63

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

*. Correlation is significant at the 0.05 level (2-tailed).

Regression

I. Regression for Constant organizational culture and dependent variable Cost

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.696[a]	.484	.449	.45761

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

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.410	4	2.853	13.622	.000[b]
	Residual	12.146	58	.209		
	Total	23.556	62			

a. Dependent Variable: Cost

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

II. Regression for Constant organizational culture and dependent variable Time

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.643[a]	.414	.374	.81961

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

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.520	4	6.880	10.242	.000[b]
	Residual	38.962	58	.672		
	Total	66.482	62			

a. Dependent Variable: Time

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

III. Regression for Constant organizational culture and dependent variable quality

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.498[a]	.248	.196	.71920

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

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.874	4	2.469	4.773	.002[b]
	Residual	30.001	58	.517		
	Total	39.875	62			

a. Dependent Variable: Quality

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

IV. Regression for Constant organizational culture and dependent variable stakeholder satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.647[a]	.419	.379	.69883

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

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20.436	4	5.109	10.462	.000[b]
	Residual	28.325	58	.488		
	Total	48.762	62			

a. Dependent Variable: Satisfaction

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