



COLLEGE OF BUSINESS AND ECONOMICS
SCHOOL OF COMMERCE

**THE EFFECT OF PROJECT MONITORING AND CONTROL PRACTICE ON
PROJECT SUCCESS. A CASE OF GRADE ONE CONSULTANTS REGISTERED FOR
ARCHITECTURAL AND ENGINEERING SERVICE IN ADDIS ABABA**

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**A Research Project Work Submitted to School of Graduate Studies, Addis Ababa
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Management**

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Addis Ababa, Ethiopia

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Declaration

I certify that this research paper entitled “The Effect of Project Monitoring and Control Practice on Project Success. A Case of Grade One Consultants Registered for Architectural and Engineering service in Addis Ababa” has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree.

I also certify that the project paper has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

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Certification

This is to certify that Yemisrach Assefa has carried out her research project work entitled “The Effect of Project Monitoring and Control Practice on Project Success. A Case of Grade One Consultants Registered for Architectural and Engineering service in Addis Ababa” in partial fulfillment of the requirements for award of masters of art degree in project management at Addis Ababa University College of Business and Economics School of commerce. This paper is an original work and has not been submitted to any diploma or degree in any college or university.

Dr. Solomon Markos

June 2023

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Table of Contents

Declaration.....	i
Certification	ii
Acknowledgement	iii
List of Tables	vi
List of Figures	viii
Acronyms.....	ix
Abstract	x
CHAPTER ONE	1
INTRODUCTION	1
1.1Background of the Study	1
1.2 Background of the Organizations	3
1.3Problem Statement	4
1.4 Research Questions	6
1.5 Research Objective	6
1.6 Significance of the Study	7
1.7 Scope and Limitation of the Study.....	7
1.8 Organization of the Study	7
CHAPTER TWO	9
2. 1 Theoretical Review	9
2.1.1 Project	9
2.1.2 Project Lifecycle	10
2.1.3 Project Management	10
2.1.4 Project Monitoring and Control	12
2.2 Empirical Review.....	21
2.2.1 Project management and construction industry	21
2.3 Conceptual Framework.....	23
CHAPTER THREE	25
RESEARCH METHEDOLOGY	25
3.1 Research Design.....	25
3.2 Research Approach	25
3.3 Study Area and Target Population.....	26

3.5 Method of Data Collection.....	27
3.6 Reliability and Validity.....	28
3.7 Data Analysis and Model Specification.....	30
3.8 Ethical Consideration.....	31
CHAPTER FOUR.....	32
DATA PRESENTATION AND DISCUSSION	32
4.1 Introduction.....	32
4.2.1 Demographic data of respondents.....	32
4.2.2 Mean and Standard Deviation of Dependent and Independent variables	33
4.3 Correlation Analysis	41
4.4 Regression Analysis.....	43
CHAPTER FIVE	48
CONCLUSION AND RECOMENDATION	48
5.1. Summary of Findings.....	48
5.2. Conclusions.....	49
5.3 Recommendation	49
5.4 Direction for Future Research.....	50
REFERENCE.....	51
Annex.....	56

List of Tables

Table 1.1: The requirements to grade building consultants' categories.....	4
Table 1.2: List of level one consultants	63
Table 3.1: Reliability test for the summation of measuring instruments	30
Table 3.2: Reliability test for the Individual measuring instruments.....	30
Table 4.1: Background of Respondents	34
Table 4.2: Change Control.....	35
Table 4.3: Project Status Report.....	36
Table 4.4: Project Status Meeting.....	37
Table 4.5: Documentation.....	39
Table 4.6: Project Success.....	40
Table 4.7: Effective Monitoring and Control Practice.....	41
Table 4.8: Summary of Mean and Standard Deviation of Variables.....	42
Table 4.9: Pearson correlation between project monitoring and control practice measuring tools and project success	42
Table 4.10: Pearson correlation between project monitoring and control practice and project success	44
Table 4.11: Results of multiple regressions between project success and the combined effect	

of project monitoring and controlling process predictors.....	45
Table 4.12: Tests of normality.....	45
Table 4.13: Regression coefficients of the relationship between project success and the.....	46
Table 4.14: Analysis of variance results of the regression analysis between Project success and predictor variables.....	48

List of Figures

Figure 2.1: Monitoring and Control Project work	12
Figure 2.2 From Triple to Competing Constraints.....	19
Figure2.3Conceptual frame work.....	25
Figure 4.1 Normal P-P Plot of Regression Standardized Residual.....	44
Figure 4.2 Outlier Test.....	46
Figure 4.3 Scattered Plot.....	48

Acronyms

FDRE: Federal democratic Republic of Ethiopia

PM: Project Management

PMBOK: Project Management Body of Knowledge

PMI: Project Management Institution

PMM: Project Management Methodology

PMO: Project Management Office

SPSS: Statistical Package for Social Science

Abstract

Project monitoring and control is an important element in project management practice which should give real-time information to the stakeholders about the progress of the programs and/or the projects for decision making. The proper practice of project monitoring and control practice leads to project success. The main objective of the study was to identify the project monitoring and control practice in the organizations and to examine the effect of project monitoring and control practice on project success in the case of level one consultants registered for architectural and engineering service located in Addis Ababa. To achieve the objective of the study Explanatory and Descriptive research design were used. Quantitative research approach was used as a research method and five-point Likert scale-based questioner were distributed to 143 sampled and randomly selected organizations. Data was collected from 140 respondents and analyzed using SPSS version 26. The results of the analysis of the collected data shows that the monitoring and control practice and the degree of project success of grade one consultants registered for architectural and engineering service in Addis Ababa are at moderate good condition and the overall project monitoring and controlling process is found to have strong positive effect on the project success. The study recommends that organization need to focus on project monitoring and controlling practice especially on the project progress meeting and project change control area as they have significant impact on the project success. In order to reduce the project change request and to complete the projects as per the planned time limit, the organization need to have well defined and structured change control procedure in the beginning of each project and also it should be followed according to the structured procedures. To achieve an excellent project monitoring and control practice, the organization should have well documented meetings and progress report for future references.

Keywords: *Project Control, Project management, Project Monitoring, Project Success,*

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

As project management book of knowledge defines project (PMBOK, 2017) “A project is a temporary endeavor undertaken to create a unique product. A project can involve a single organizational unit or multiple organizational units from multiple organizations”. Define project management as “Project management is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements. Project management is accomplished through the appropriate application and integration of the project management processes identified for the project”. A Project Management Process Group is a logical grouping of project management processes to achieve specific project objectives. Project management processes are grouped into the following five Project Management Process Groups: Initiating Process Group, Planning Process Group, Executing Process Group, Monitoring and Controlling Process Group and Closing Process Group (PMBOK, 2017).

According to Thakkar (2022) “Project monitoring and control involves tracking the actual project performance with the planned project management activities. It can mainly be looked at as a control function at all stages of a project”. This process is executed by monitoring and controlling process group. “The monitoring and controlling process group controls the entire project effort .it does not monitor and control only the work being done within a process group. It enables to measure and analysis project performance at regular interval and can identify variance from the project management plan so can control change or recommended corrective or preventive actions by anticipating possible problems which can prevent the project from failure and effective project monitoring and controlling leads to project success” (Karangwa et.al2016).

Joslin and Muller (2015) study the relationship between the use of a project management methodology (PMM) and project success and The results of the study show that “the application of a PMM account for 22.3% of the variation in project success, and PMMs that are considered sufficiently comprehensive to manage the project lead to higher levels of project success than PMMs that need to be supplemented for use by the project manager”.

As (Kanesan et, al.2023) mentions “The growth of performance has become more critical to the success of engineering projects. Different companies follow different project management methodologies based on their experience and client requirements”. But understanding project

success correctly is importance for both practice and research. However, “there is still no consensus as to what success really means” (as cited in Shenhar and Holzmann, 2017, p. 33). Zwikael(2019) also stated “Although organizations regularly execute projects to improve their performance, there is still no agreement in the literature on how to evaluate their eventual success”.

“Construction industry is one of the most significant industries that contribute toward socio-economic growth especially to developing countries” (Ismail Abdul Rahman, Ahmad Abd Karim, Aftab Hameed Memon, 2013).and “Ethiopia is one of the developing countries found in African continent. Despite major various transformation projects in progress in Ethiopia, construction industry has been the major development sector of the Country” (African development bank group, 2011). As the intensive construction process of today becomes more and complex, in Ethiopia the demand for professional project management and real design services are increasing (Building Design Enterprise).

Architecture is a multidisciplinary, multiskilled, multidimensional, and multimedia practice. Designers need to know about many crafts, technologies, and theories and to have the ability to communicate with specialists in many fields. This is also true in the education process for the discipline (Nursena Bircek, 2022). Architects deliver projects passing through different phases throughout the design process, they will meet with you regularly to test concepts and get feedback. They will also update you on budgets and cost estimates. Through regular updates, you will have fewer surprises when the project goes up for bid” (Griffith, 2021)

As the architect’s diary (2021) stated “Projects in the field of construction can be incredibly complex, with multiple contractors working together and a range of timelines. The role of an architectural project manager is an important one that coordinates all of these activities whilst also setting schedules and working towards budget expectations amongst many other things”. And also “We must accept that a good project manager is a support for architects to produce better buildings which is also what architects want to do” (Architecture Community, 2020).

The architectural project manager is a crucial position in bringing a construction project from plan to completed building. To hold this position, you're required to have both formal education and relevant work experience (Indeed editorial team, 2022). And also “An architectural project manager is a mid- to senior-level position responsible for overseeing construction projects through from planning to completion. They may report to the principal architect or director of design and usually supervise other designers and architects” (Indeed editorial team, 2022)

“Compared to earlier years when Architects only dealt in design and creative aspects of a building project, architectural companies have now realized the importance of being involved in the delivery, cost control, and construction quality of a project as well. These are important factors for the client and user satisfaction that ultimately contribute to getting all the hard work paid off, monetarily and through pre citation. Project Management has now become an important add-on to the architectural repertoire” (Architecture Community, 2020).

This study is also looking at identifying the project management methodologies specifically project monitoring and control practice in the organizations in the case of building consultants in Addis Ababa and to examine the effect of project monitoring and control practice on organization’s project success.

1.2 Background of the Organizations

According to FDRE Proclamation No.691/2005 and Building Proclamation No. 624/2013 "Construction" is a combination of fixed assets, services and equipment, including Sub structure and Super structure engineering infrastructure; It is the development, expansion, assembly, repair, renovation, excavation, dismantling, demolition and consulting of buildings and other infrastructure works. Council of Ministers Building Regulation No. 648/2021" listed registration categories according to their employment preferences.

- Building Consultant
- Consultant Architects
- Engineering consultants are structural, highway and bridge, geotechnical engineering, electrical and electromechanical and sanitary engineering consulting firms.
- Construction Management Consultant
- Urban Planning Works Consultant
- Special consultants are Asset Valuation, Interior Design and Decoration, Landscaping, Construction Audit and the like.

All the above categories have their own grades, grade 1, 2, 3 and 4. This paper mainly focuses on the first category which is building consultants. Building consultants are expertise in the planning, development, design, construction supervision and contract administration of a wide range of architectural & civil engineering projects in both the private and the public sectors.

In Addition to consultancy services related to pre-construction stage of projects like paper design of projects; this companies have also taken part in the construction supervision; quality

control & contract administration works during construction stages of projects. Some of the projects done by building consultants are Apartment Complexes, Hotels, Mixed use, Commercial buildings, Hospitals, Factories, Production facilities, Storage warehouses, Residence, Interior designs.

Table 1.1 The requirements to grade building consultant's categories.

Grade	The type of project needed to submit	Professionals	
		Type	No
1	Architectural Design or Design Review work over the last 10 years and at least one design must 8 floors & above	Practicing Professional Architect/Engineer	1
		Professional Structural Engineer/Architect	1
		professional Electrical Engineer	1
		Professional Sanitary Engineer	1
		Professional Construction Management	1
		Graduate Engineer	1
		associate Engineer IV	1
2	Architectural Design or Design Review work over the last 10 years and at least one design must 6 floors & above	practicing Professional Architect/Engineer	1
		Professional Structural Engineer/Architect	1
		Professional Electrical Engineer	1
		Professional Sanitary Engineer 1	1
		Professional Construction Management	1
		Graduate Engineer	1
3	Building Design or Design Review or Supervision work over the last 10 years and at least one design must 4 floors & above	practicing Professional Architect/Engineer	1
		Graduate Professional Structural Engineer/Architect	1
		Professional Electrical/Sanitary/Engineer/construction Management Engineer	1
			1
4	Does not require practicing	practicing Professional Architect/Engineer	1

Source: FDRE Proclamation (2013)

1.3 Problem Statement

In Ethiopia even though the government and the people are deeply involved and have started reconstructing the country, the housing construction activities are limited. As such this sector

has not yet developed. General recommendations could however be proposed with respect to housing, design of building and management of construction. One of the priorities would be to develop public and private sector institutions that can contribute to this end. Institutional capacity needs to be strengthened through continuous training of the existing manpower and input of qualified professionals (Tesfahunegn, 2015).

The Ethiopian construction industry, like that in most developing countries, faces challenges that impede its development". In addition to that (Laedre, Hansen, 2017) also stated "The architectural, engineering, and construction industry is facing challenges related to increased productivity and improved quality. Most of these challenges need to be dealt with early in the design phase of the projects. This requires an effective design process and increases the need for effective building design management". Desalegn Girma Mengistu, G. Mahesh, (2020) also stated "To ensure continual improvement in the construction industry's performance, its challenges must be identified so that integrated solutions that suit the context can be provided

Poor project monitoring and controlling practice is the major cause of project failure. Monitoring and controlling are essential components of any project and are crucial to its success. If the monitoring and controlling process are well implemented throughout the project phases, it has stronger impacts to achieve the project goal and for project success (Iman & Siew, 2008). One of the aims of this study is trying to identify the current project monitoring and control practice of building consultants located in Addis Ababa so that it can add value in developing the knowledge area of the practice. Mir, Pinnington, (2014) also explained "The literature on Project Management (PM) shows that, in spite of advancement in PM processes, tools and systems, project success has not significantly improved. This problem raises questions about the value and effectiveness of PM and PM systems". Therefore, a lot should be studied around the idea of project monitoring and control.

(Douglas, 2009) "The growing number of independent project management firms and the fact that 30 percent of projects today are design-build confirm that clients are demanding higher levels of leadership and accountability than ever before for the success of their projects. Yet Architectural design firms are falling short of clients' expectations in the delivery and management of those projects. While few in the design professions went to school with the intention of being project managers, they often seek that route as a fast track to becoming principal." because of this, this study will give insight about the project management processes and the effect it creates on project success.

The researcher tries to assess studies on the effect of project monitoring and control on project success and there are some studies made on the case of airlines, African union, information network security agency and some other case study area but there is no research conducted on the area of building consultant especially on grade one building consultant. This indicates that there should be a researcher to conduct research on the effect of project monitoring and control practice on project success in building consultant context.

As per the preliminary review made on unpublished office document of some of the level one consultant there are gaps on the project scope management and there is no clear project monitoring and control practices. All the ideas we discussed above make this study important to conduct it and also the findings will also be useful for the knowledge area.

1.4 Research Questions

1. What is the monitoring and control practice of grade one consultants registered for architectural and engineering service in Addis Ababa?
2. What is the degree of project success of the organization?
3. How does project monitoring and control practice affect the organization's project success?

1.5 Research Objective

1.5.1 General objective

The main objective of the study is to identify the project monitoring and control practice in the organizations and to examine the effect of project monitoring and control practice on project success in the case of level one consultants registered for architectural and engineering service: Addis Ababa.

1.5.2 Specific objective

1. To assess the monitoring and control practice of grade one consultants registered for architectural and engineering service in Addis Ababa.
2. To determine the project success of the organization.
3. To determine the relationship between project monitoring and control and project success in the organization.

1.6 Significance of the Study

The significance of the study is to assess the current project monitoring and control practice of the organization and determine the project success of level one consultants registered for architectural and engineering service in Addis Ababa which will help the companies to recognize themselves and step forward. The correlation and regression result of the study will help to clearly see which project monitoring process have the highest significance value to support project success. This study will also be used as a reference for further studies related to this study area. The findings and the conclusions also can be used as a base for level two, three, and four building consultants.

1.7 Scope and Limitation of the Study

Due to time constraint, this research is limited to assessing the status of project monitoring and control practices, examining the degree of project success and determining the relationship between project monitoring and control and project success in the case of grade one consultants registered for architectural and engineering service in Addis Ababa.

The study population is limited only to grade one consultants registered for architectural and engineering service located in Addis Ababa. Because of proximity to the study the survey location is limited to Bole sub city. The sample frame for the study was limited and established from list of consultants which are operating in Addis Ababa from the valid registration of 2013 because of this reason other researchers can use this study as a reference and conduct a study on the updated registration of organizations.

The main Processes of Monitoring and Controlling Process Group are project performance tracking, project status reporting, change control and documentation (PMBOK, 2013). Among all the listed processes the study is limited to change control, project status reporting, project status meeting and documentation.

1.8 Organization of the Study

The research work had designed to have the structure of three bodies: the preface, main body, and appendixes/annexes. The main body of research work consists of five main parts/sections. It is arranged in a logical order: introduction under chapter one, then literature review, contextual review, and case study in chapter two, research methodology in chapter three, data presentation and analysis and presentation in chapter four, and conclusion, proposal, and recommendation in chapter five.

In Chapter I (introduction) of this main body, there is a general introduction which is about the background of the study and study area, problem statement, research questions, the objective of the study, scope, limitations, and significance of the study as well as the organization of the paper.

Chapter II is about the review of related literature. The major and central themes addressed in this chapter are theoretical and thematic reviews of project monitoring and control.

In chapter III this chapter author presented the research methodology: research method, technique (sampling, data collection, and analysis techniques), and approach as well as data collection tools are presented.

Chapter IV consists of data presentation, analysis, and discussion, Last chapter (V) consists of the research conclusion, recommendations. Finally, other research activities engaged in the development of the whole study like references and annexes are attached.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2. 1 Theoretical Review

2.1.1 Project

A project is a temporary endeavor undertaken to create a unique product, service, or result. Repetitive elements may be present in some project deliverables and activities. This repetition does not change the fundamental and unique characteristics of the project work. For example, office buildings can be constructed with the same or similar materials and by the same or different teams. However, each building project remains unique in key characteristics (PMBOK, 2017).

Projects are undertaken at all organizational levels. A project can involve a single individual or a group. A project can involve a single organizational unit or multiple organizational units from multiple organizations (PMBOK,2017).

Projects are said to be unique and temporary endeavors undertaken to create a unique product, service or result whilst considering the constraints of time, cost and quality in addition to meeting the concern of the environment and other stakeholders (Brown & Hyer 2010:2; Maley 2012:3; Steyn et al. 2013:3).

For projects to be conducted successfully, a compendium of PM skills, knowledge, tools and techniques must be applied to project activities. Therefore, PM is generally considered as the application of a set of skills, knowledge, tools and techniques for project activities in order to meet project requirements (Clements & Gido 2012:14; Kerzner 2013:4; Maley 2012:2; PMI 2008:6).

Progress on the project is required to be monitored and compared as the work proceeds in order to be able to identify and measure these differences. The measurements made are usually limited in number because of cost related to data collection. There are a number of systems that are traditionally used in construction to monitor and report on the progress of the work. Some of them rely on information related to activities while others are based on work types (Al-Jibouri, 2003). Although all of these systems are used to produce measures of project performance, financially or otherwise, the basis of measurement used and its interpretation of

work performance is different in each of them. For this reason, hence it is expected that, for particular real situation, some of these systems will produce measures that may call for control action while perhaps others may fail to do so (Al-Jibouri, 2003).

2.1.2 Project Lifecycle

The project management lifecycle consists of four key steps: initiating, planning, executing, and closing (PMBOK, 2017). Project initiation is about you understanding and defining the project. The project initiation process is the bedrock of every great project. It defines your team's mission and gives everyone involved a clear picture of what you will produce and how you will produce it. If the project's goals, outcomes, and deliverables are clearly defined, the project has a strong chance of success (PMBOK, 2017).

The planning phase of the project management lifecycle is really the beginning of the project delivery. In this stage, you'll determine how to accomplish the project objectives in given time frames and within available resources (people, money, skills). If the initiation stage covers the "who" of the project, this stage is all about the "how" (PMBOK, 2017).

Once you have completed the execution of the project plan, any further action is generally focused on closure. The closing phase of the project management lifecycle involves confirming performance requirements are met, documenting what you've accomplished, and completing or transferring remaining project responsibilities (Coursera, 2023)

2.1.3 Project Management

Program management is defined as the application of knowledge, skills, and principles to a program to achieve the program objectives and to obtain benefits and control not available by managing program components individually (PMBOK, 2017)

Project management is about getting projects completed on time, within budget, and most importantly meeting or exceeding your client's objectives. It is the discipline of strategically planning and leading a project from conception through its successful execution and closure and ultimately, delivering value to stakeholders (Coursera, 2023).

"PMI research identifies the project management career as one of the fastest growing professions in the business world, noting that project managers are highly valued in virtually all sectors" (PMI, 2015).

The project management lifecycle is a framework you can use to organize thoughts, actions, and communications during a project. The role of a project manager is to lead a team of stakeholders through the processes of defining, planning, executing, controlling/monitoring, and closing on projects (PMBOK, 2017).

A project management office (PMO) is an organizational structure that standardizes the project-related governance processes and facilitates the sharing of resources, methodologies, tools, and techniques. The responsibilities of a PMO can range from providing project management support functions to the direct management of one or more projects (PMBOK, 2017).

The Project Management Institute (PMI) conducted an in-depth study spanning 4 years and involving 65 case study organizations from 14 countries to find what value PM delivers to organizations (Thomas and Mullaly, 2009). This study concludes that PM creates tangible and intangible benefits. There is also some evidence that the value sought from a high performing PM system is associated with the success of projects (Cooke-Davies, 2004, Munns and Bjeirmi, 1996). There are several types of PMOs in organizations. Each type varies in the degree of control and influence it has on projects within the organization, such as:

Supportive: Supportive PMOs provide a consultative role to projects by supplying templates, best practices, training, access to information, and lessons learned from other projects. This type of PMO serves as a project repository. The degree of control provided by the PMO is low.

Controlling: Controlling PMOs provide support and require compliance through various means. The degree of control provided by the PMO is moderate. Compliance may involve: Adoption of project management frameworks or methodologies; Use of specific templates, forms, and tools; and Conformance to governance frameworks.

Directive. Directive PMOs take control of the projects by directly managing the projects. Project managers are assigned by and report to the PMO. The degree of control provided by the PMO is high (PMBOK, 2017).

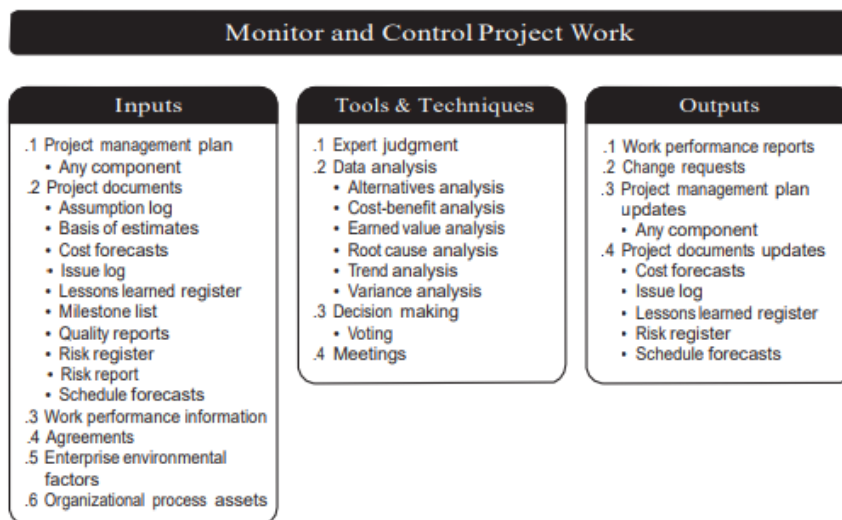
The ultimate purpose of project management is to create a continuous stream of project successes. This can happen provided that a good definition of “success” is available on each project (Kerzner, 2017).

2.1.4 Project Monitoring and Control

Monitor and Control Project Work is the process of tracking, reviewing, and reporting the overall progress to meet the performance objectives defined in the project management plan. The key benefits of this process are that it allows stakeholders to understand the current state of the project, to recognize the actions taken to address any performance issues, and to have visibility into the future project status with cost and schedule forecasts. This process is performed throughout the project (PMBOK, 2017).

A project monitoring and control system must provide the required information to answer the following questions: What is the difference between the planned and actual work performance? How is the project progressing in terms of completion of activities? How much ahead or behind schedule is the project? What is the efficiency of the time utilized on the project? (Cristóbal, 2017). The inputs, tools and techniques, and outputs of the process are depicted in the figure below.

Figure2.0.1 Monitoring and Control Project work



Source: (PMBOK, 2017)

According to (Shrenash, and Sawant, 2013), monitoring and control cycle comprises: plan making; plan implementing; actual output monitoring and recording; actual output reporting, and finally; take corrective action on the variations. This phase of the project enables to understand the project's progress so that appropriate corrective action can be taken when the project's performance deviates significantly from the plan. While project monitoring and controlling identify deviation and put things back on track in traditional project management,

it identifies changes in the business environment and adjusts the plans accordingly in the adaptive project management approach.

2.1.4.1 Monitoring and control project work: tools and techniques

Expert Judgment

Expertise should be considered from individuals or groups with specialized knowledge or training in the following topics: Earned value analysis, Interpretation and contextualization of data, Techniques to estimate duration and costs, Trend analysis, technical knowledge on the industry and focus area of the project, Risk management, and Contract management (PMBOK,2017).

Decision Making

A decision-making technique that can be used includes but is not limited to voting. Voting can include making decisions based on unanimity, majority, or plurality (PMBOK, 2017).

Meetings

Meeting is may be face-to-face, virtual, formal, or informal. They may include project team members and other project stakeholders when appropriate. Types of meetings include but are not limited to user groups and review meetings (PMBOK, 2017).

2.1.4.2 Monitoring and control project work: outputs

Work performance reports

Work performance information is combined, recorded, and distributed in a physical or electronic form in order to create awareness and generate decisions or actions. Work performance reports are the physical or electronic representation of work performance information intended to generate decisions, actions, or awareness (PMBOK, 2017).

Change request

As a result of comparing planned results to actual results, change requests may be issued to expand, adjust, or reduce project scope, product scope, or quality requirements and schedule or cost baselines. Change requests may necessitate the collection and documentation of new requirements. Changes can impact the project management plan, project documents, or product deliverables. Change requests are processed for review and disposition through the Perform Integrated Change Control process (PMBOK, 2017).

Project management plan updates

Any change to the project management plan goes through the organization's change control process via a change request. Changes identified during the Monitor and Control Project Work process may affect the overall project management plan (PMBOK, 2017).

Project documents updates

As PMBOK, (2017) explained Project documents that may be updated as a result of carrying out this process include but are not limited to:

2.1.4.3 Monitor and Control Process

The processes in the Monitoring and Controlling Process Group are monitor and control project work, perform integrated work control, control scope, control schedule, control cost, control communication, control quality, control stakeholder engagement, control risk, Control procurement. From those processes, the main Processes of Monitoring and Controlling Process Group are project performance tracking, project status reporting, change control and documentation (PMBOK, 2013)

The processes in the Monitoring and Controlling Process Group are monitor and control project work, perform integrated work control, control scope, control schedule, control cost, control communication, control quality, control stakeholder engagement, control risk, Control procurement. From those processes, the main Processes of Monitoring and Controlling Process Group are: status reporting; conducting project status meetings, establishing reporting system, and change management and documentation (Wysocki, 2014).

Change Control

Change Control is the process that management uses to identify, document and authorize changes to an IT environment. It minimizes the likelihood of disruptions, unauthorized alterations and errors. The change control procedures should be designed with the size and complexity of the environment in mind (university of Harvard, n.d)

This process, called change control, should ensure that proposed changes are interpreted in terms of their potential effect on project timescales, costs, benefits, quality, and personnel. Where there is a proposed alteration to the project's products, change control should analyze the change and assess its impact, prioritize and plan the necessary work, and finally control its implementation. (Team FME, 2013)

Status Reporting

Status reporting is the means by which “progress” is quantified and documented, providing the basis for informed decision making as the project unfolds. And that’s the key to effective status reporting.... using the information reported to make decisions, solve problems and keep the project moving forward in a positive direction.

A project status report is a document that describes the progress of a project within a specific time period and compares it against the project plan. Project managers use status reports to keep stakeholders informed of progress and monitor costs, risks, time and work. Project status reports allow project managers and stakeholders to visualize project data through charts and graphs.

You might create daily, weekly, monthly or quarterly status reports depending on your project management requirements. Here’s a quick overview of when it’s best to use each of them.

Daily Status Report

A daily status report captures what each member of the project team has worked on over the course of that day. It not only highlights what they’re working on currently but addresses any issues that are preventing them from completing their tasks. It includes a summary of today’s work and what was accomplished the day before (PMBOK, 2013).

Weekly Status Report

A weekly status report is like the daily status report except it covers a full work week rather than just one day. It includes the name of the project, the date of the status report, a summary outlining what work was done over that time period and the action plan for what to work on for the next week. There will also be a section to list any challenges, risk and mitigation plans to respond to them (PMBOK, 2013).

Monthly Status Report

A monthly status report provides a similar update on a project or projects but over a period of a month. It provides leadership with relevant information to better manage the project or projects. As with other frequencies, the team reports on what they’ve accomplished, the month is recapped and the next month’s activities are outlined (PMBOK, 2013).

Quarterly Status Report

A quarterly status report is a short and easily digestible snapshot of the project over a period of time, in this case, four months or a quarter of the year. It covers the same territory as the other

status reports and is likely to include graphs and other visuals to make all the data easier to grasp (PMBOK, 2013).

Documentation

“Project documentation is the process of documenting information and data related to project work throughout the project life, Project document includes project status report, change request, updated plan and all project progress and performance information as lesson learned placed in the repository. The lessons learned will address any issues or problems encountered in the quality of the project and the associated resolutions, which enables to prevent future project work from becoming too detached from plan” (Team FME, 2013).

Status report meeting

A meeting can be daily, weekly, or with more time interval as it is convenient with the project team and according to the type of the project (Wysocki, 2014).

There are 5 main types of project meeting that you should be considering. Some are regular, recurring appointments, others are one off or ad hoc project meetings (Banks, 2018).

1. Governance meeting
2. Project team meeting
3. Project status update meetings
4. Stakeholder engagement meetings

2.1.5 Success and Success Criteria

2.1.5.1 A new look at defining project success

The ultimate purpose of project management is to create a continuous stream of project successes. This can happen provided that a good definition of “success” is available on each project. For years, customers and contractors each worked toward different definitions for success. The contractor focused on profits as the only success factor, whereas the customer was more concerned with the quality of the deliverables. As project management evolved, all of that began to change (PMBOK,2017).

Over the last 50 years have become inextricably linked with measuring the success of project management. This is perhaps not surprising, since over the same period those criteria are usually included in the description of project management. Time and costs are at best, only guesses, calculated at a time when least is known about the project. Quality is a phenomenon, it is an emergent property of people’s different attitudes and beliefs, which often change over

the development life-cycle of a project. Why has project management been so reluctant to adopt other criteria in addition to the Iron Triangle, such as stakeholder benefits against which projects can be assessed? This paper proposes a new framework to consider success criteria, The Square Route (Atkinson, 1999).

Triple constraints for success

Today, project managers have come to the realization that there are multiple constraints on a project. More complex projects, where the traditional triple constraints success factors are constantly changing, are being worked on (PMBOK,2017).

Success Is Measured by the Triple Constraints. The triple constraints can be defined as a triangle with the three sides representing Time, cost, and performance (which may include quality, scope, and technical performance). This was the basis for defining success during the birth of project management. This definition was provided by the customer, where cost was intended to mean “within the contracted cost.” The contractor’s interpretation of cost was profit. Customer Satisfaction Must Be Considered as Well. Managing a project within the triple constraints is always a good idea, but the customer must be satisfied with the end result (PMBOK, 2017).

There can be secondary success factors that, based on the project, are more important than the primary factors. These secondary factors include using the customer’s name as a reference, corporate reputation and image, compliance with government regulations, strategic alignment, technical superiority, ethical conduct, and other such factors. The secondary factors may end up being more important than the primary factors of the triple constraints (PMBOK, 2017).

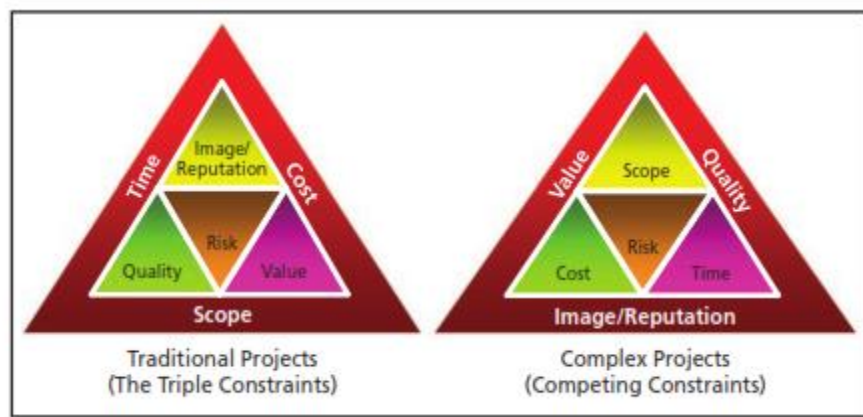
Success Must Include a Business Component. By the turn of the twenty-first century, companies were establishing PMOs. One of the PMO’s primary activities was to make sure that each project was aligned to strategic business objectives (PMBOK, 2017).

The definition of success, thus, included a business component as well as a technical component. For real success to occur, there must be value achieved at the completion of the project. Completing a project within the constraints of time and cost does not guarantee that business value will be there at the end of the project (PMBOK, 2017).

Multiple components for success

Beginning with the fourth edition of the PMBOK ® Guide the term “triple constraints” was no longer used. Because there can be more than three constraints, the term “competing constraints” is now used, in recognition of the fact that the exact number of success constraints and their relative importance can change from project to project.

Figure 2.0.2 From Triple to Competing Constraints



Source: (PMBOK, 2017)

According to AK Munns, BF Bjeirmi, (1996). The role of different project management techniques to implement projects successfully has been widely established in areas such as the planning and control of time, cost and quality. In spite of this the distinction between the project and project management is less than precise.

But as Atkinson (1999) mentioned. Cost, time and quality (The Iron Triangle), over the last 50 years have become inextricably linked with measuring the success of project management. This is perhaps not surprising, since over the same period those criteria are usually included in the description of project management. Time and costs are at best, only guesses, calculated at a time when least is known about the project. Quality is a phenomenon, it is an emergent property of people's different attitudes and beliefs, which often change over the development life-cycle of a project.

2.1.5.2 Success criteria

Cooke-Davies, (2002) eliminates a conceptual difference between ‘success criteria’ and ‘success factors. He stresses that success criteria belong to specific measurement which needs to be formulated in order to conclude whether project succeeds or fails. However, success

factors are more about particular levers that can be used by project manager to increase a probability of successful outcome of a project.

As (Pinto, 2013) define, there are three factors that determine the success of a project: Quality, costs and time, also called the iron triangle. And also, according to (PMBOK, 2017) explanation this study adds additional success criteria. Those are value and Image/Reputation.

Time

According to PMI (2013) Time Management is “the processes required to manage the timely completion of the project”. The Major project time management Processes are: Plan schedule Management, Define Activities, Sequence Activities, Estimate Activity Resources, Estimate Activity Duration, Develop Schedule and Control Schedule

Cost

Projects are obliged to a restricted budget; no company has boundless assets to spend on projects. Projects moreover compete for assets between each other. In arrange to utilize resources effectively projects must follow to confirmed budget. Hence, the second 20 requirement that control project management and determine its success is whether it is completed within pre-planned budget or not (Pinto, 2013).

The Major Project Cost Management Processes are: Plan Cost Management, Estimate Costs, Determine Budget and Control Costs.

Scope

According to PMI (2013) Project Scope Management is “the processes required to ensure that the project includes all the work required, and only the work required, to complete the project successfully”. Managing the project scope is primarily concerned with defining and controlling what is and is not included in the project.

The major project scope management processes are: Plan Scope Management, collect requirements, Define Scope, Create WBS, Validate Scope, and Control Scope.

Quality

According to PMI (2013) cost management is “the processes and activities of the performing organization that determine quality policies, objectives, and responsibilities so that the project will satisfy the needs for which it was undertaken.”

The Major Project Quality Management Processes are: Plan Quality Management, Perform Quality Assurance and Control Quality

Value

There is a relationship that guides all projects. It is relentless and honest. We can work against this relationship to our disadvantage or we can work to improve this relationship to our advantage. That relationship is the Value Triple Constraint (Baratta, 2006).

It is written as: $\text{value} = f(\text{scope, capability})$. It is read: The value delivered is a function of the scope of the project opportunity and the capability of the process used to deliver it. The delivery of value is why we undertake projects (Baratta, 2006).

Value is a compound metric which is the sum of the following major elements:

1. Project Benefit (+)
2. Identification Opportunity Cost (-)
3. Decision Opportunity Cost (-)
4. Project Schedule Cost (-)
5. Project Delivery Cost (-)

The Value Triple Constraint is a more universal model. It can measure both project success and estimating accuracy. It can guide us in selecting projects and can motivate the organization to address the significant opportunities with opportunity identification and decision making. It also makes business users more accountable for quantifying benefits and attaching them to functionality or scope (Baratta, 2006).

Image/Reputation

Corporate image can be said to be an aggregation of attributes, which have been evaluated by customers (Kennedy, 1977; Martineau, 1958). The idea of corporate image is certainly not new. Research on corporate image can be traced back to Gardner and Levy (1955), who introduced the concept of image. In addition, Boulding's (1956) seminal work, in which he conceptualized corporate image, should also be mentioned. Boulding suggests that rather than relying on reality, people rely on their perceived images (De Chernatony *et al.*, 2000).

Companies have carried out institutional advertising for many years, and in sophisticated public relations people have long stressed the significance of many kinds of effort in building up a general reservoir of goodwill for a company. But the concept of a corporate image has given much greater meaning to these endeavors (Melewar, Sarstedt, Hallier, 2012).

Against the backdrop of brand images and product-area images, the corporate image offers something new, distinct, and valuable. In a remarkably short space of time, the goals of advertising and marketing in the consumer field have been broadened past the functional stages (Balmer and Greyser, 2003).

2.2 Empirical Review

2.2.1 Project management and construction industry

The construction industry has different characteristics that may lead to delays, which in turn lead to disputes between different parties related to the project and may cause complexity in projects (salah, 2020). Gidado (2010) has defined project complexity and identified the factors that influence its effect on project success. Reiterate that as the design and construction phases of construction projects entail multiple specialists (e.g., project manager, construction manager, design engineer, construction engineer or project architect), project management is fundamental to their proper coordination, including provision of equitable solutions to the problems that arise during construction.

There is an axiomatic relationship between projects, project management and the construction industry. Activities in the construction industry such as construction of new bridges, houses, factories, roads and ports, including the repairs and maintenance of such infrastructure, are mostly considered as projects because they are temporary, time bound, unique and are geared towards the creation of a unique product, service or result (Larson & Gray 2011:3; PMI 2008:6). Both the construction and maintenance of these structures call into question strong PM skills, knowledge, tools and techniques. This implies PM is the foundation for successful delivery of construction projects and activities (Akaba, 2021) Ethiopia is one of the developing countries which cannot achieve its construction project goals due to lack of adherence to different major success factors. This is also true in in the study area of Addis Ababa (Dessalegn, Alemayehu, Assefa, 2017). There is a study conducted in Ethiopia on a title of “Investigation of Major Success Factors on Building Construction Projects Management System in Addis Ababa, Ethiopia” by Dessalegn, Alemayehu, Assefa (2017), in

which he concluded two of the top ten major success factors are Project monitoring and Project manager's commitment to meet quality, cost & time.

Another study is also conducted on a title of "Assessment of Project Management Practices in Selected Architectural Design Firms in Addis Ababa" by Amanu (2018). The study concluded "The private Architectural Design Firms whose experiences were more than 20 years in the industry scored the highest project management practice. Those firms with less than 20 years' experience showed that firms need to institutionalize their organizations to improve their project management practice".

In addition to that the study states "Since 2000, Quality management system was implemented in private architectural design firms by the government capacity building program. Though some of private architectural design firms were certified, in practice those ISO certified firms were found to be working with traditional method. Consequently, this is reflected in low practice level of firms even though the firms were ISO certified. Furthermore, firms in the ISO certification process scored highest PM practice level. This is perhaps due to the focus on process, documentation and implementation that is advocated in the ISO standards, perhaps due to the training and mentoring firms obtained during the certification process and eagerness of firms to be certified".

As Kanesan Muthusamy, Batumalay Kaliannan, (2023) stated "some common steps are followed such as project planning, project execution, progress tracking, and project closure. With the increasing complexity of cities projects and the scarcity of resources also the expertise, there is a need for better, more sophisticated tools for project planning and management".

According to the study made on Investigating Causes of Construction Delay in Ethiopian Construction Industries; Gebretsadik, Wazza, (2021) says that "Based on the RII result General Project management Related success factors becomes the leading than other success factor group". And also Koshe (2016) explains "Construction delays are occurring in every phase of a construction project and are common problems in construction projects in Ethiopia. Moreover, it is well known that the delays in construction projects are the major causes of project failure".

Based on the Dessalegn, Alemayehu, Assefa, (2017) study "The success factors of building construction projects in Addis Ababa were grouped into six categories. These groups were

project management factors, procurement related factors, client related factors, contractor-related factors, project manager related factors, and environment related factors. Analyzing of success factors based on their category is essential to take an action on it.” among all this factors project management factor got the first score.

2.3 Conceptual Framework

Swaen, & George, (2022) A conceptual framework illustrates the expected relationship between your variables. It defines the relevant objectives for your research process and maps out how they come together to draw coherent conclusions.

After reviewing relevant literature which can be used as the theoretical foundation to develop the conceptual framework of the study, the researcher developed the following conceptual framework.

Independent variables

The independent variable is the cause. Its value is independent of other variables in your study (Bhandari, 2022). In the case of this study the independent variables are project monitoring and control process group (change request, progress report and performance report).

Dependent variables

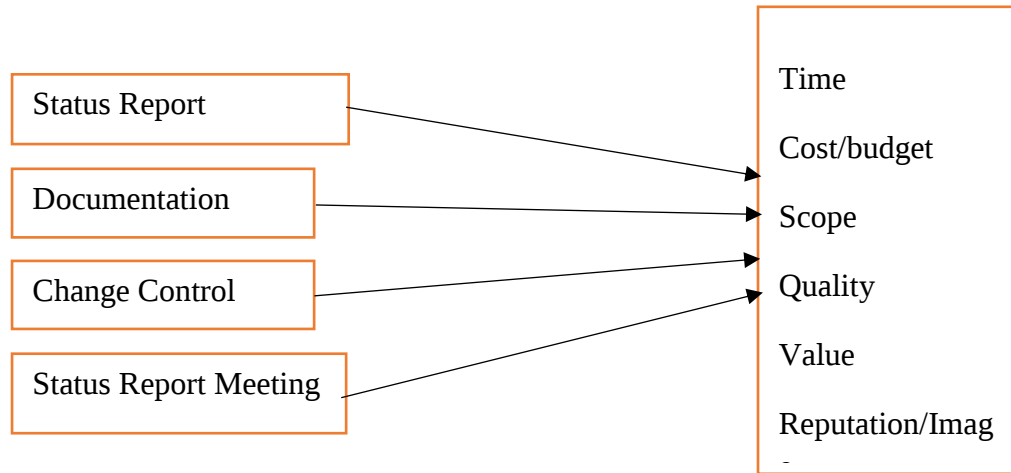
The dependent variable is the effect. Its value depends on changes in the independent variable (Bhandari, 2022).

In the case of this study the dependent variable is project success (measured by time, cost, quality, value, reputation).

Figure 2.3 Conceptual Framework

Independent Variables

Monitoring and Control



Source: Own survey (2023)

CHAPTER THREE

RESEARCH METHEDOLOGY

3.1 Research Design

Cooper and Schindler (2003) summarize the essentials of research design as an activity and time-based plan; always based on the research question; guides the selection of sources and types of information; a framework for specifying the relationship among the study variables and outlines the procedures for every research activity.

Descriptive research is carried out to describe current issues, programs, and provides information about the issue through surveys and methods (Troy,2017).Descriptive research is an appropriate choice when the research aim is to identify characteristics, frequencies, trends, and categories.

An exploratory research design helps to explore a topic or an issue in order to learn more about it. On the other hand, Descriptive research presents a picture of the specific details of a situation, social setting, or relationship. The major purpose of descriptive research is to describe characteristics of a population or phenomenon while Explanatory research builds on exploratory and descriptive research and goes on to identify the reasons for something that occurs. It looks for causes and reasons (Kothari, 2004)

This paper aims to identify the current monitoring and control practice of the study area looks like and it also study how the monitoring and controlling practice affect project success of the organization therefore this study choses descriptive and explanatory research design.so both explanatory and descriptive research design were used.

3.2 Research Approach

There is an apparently predictable tendency to divide research methods into two types. The labels for the first type comprise quantitative, positivist, and objectivist, and for the second nature, labels comprise qualitative, phenomenological, social constructionist, subjectivist, relativist, and interpretive (Mautner, 2005; Thorpe & Holt, 2008).

Quantitative research is based on the measurement of quantity or amount. It is applicable to phenomena that can be expressed in terms of quantity (Kothari, 2004). Therefore, this study will use quantitative research approach.

3.3 Study Area and Target Population

Target population refers to the entire group of individuals or objects from which the study seeks to generalize its findings (Cooper and Schindler, 2003). according to the secondary data collected from Construction Works Regulatory Authority, totally there are 74 level one consultants registered for architectural and engineering service in Addis Ababa. Among this consultant the study mainly targeted on the building consultants located at bole sub city because of proximity to the study. The sample frame for the study was established from list of consultants which are operating in Addis Ababa from the valid registration of 2013.

The primary research objective of this study is concerned with the current practices of project monitoring and control activities among project managers in the case of building consultants in Addis Ababa. Hence, the criteria used to select the target respondents are Individuals involved in both project management and consulting activities for the selected building consultant offices.

Target respondents of the study in the selected sample frame are selected using purposive sampling Crossman, (2020) “A purposive sample is a non-probability sample that is selected based on characteristics of a population and the objective of the study” who are carrying out both the managerial and consulting activities of the construction projects were set according to the minimum requirements needed to fulfill to be grade one consultant. To be grade one consultant a minimum of 7 professionals are required. Those are practicing Professional Architect, Professional Structural Engineer, professional Construction Management, professional Electrical Engineer, Professional Sanitary Engineer, Graduate Engineer and associate Engineer IV.

Among all the mentioned members only 3 of them are involved in both project management and consulting activities. (Practicing Professional Architect, Professional Structural Engineer and professional Construction Management).

As stated earlier there are 74 level one consultants which makes a total of 222 target population. To determine the sample size from the given population (Yemane,1967)

$$n = \frac{N}{1 + Ne^2}$$

- N = total number of populations (222)

- n = number of sample size
- e = error margin / margin of error, a 95% confidence level was taken and $e = 0.05$

So, for 222 respondents: $n = 143$ is taken, that means for 74 consultant organizations 48 are taken.

3.4 Data Source and Type

There are two types of data source type primary and secondary. A primary source is anything that gives you direct evidence about the people, events, or phenomena that you are researching. Primary sources will usually be the main objects of your analysis. It provides raw information and first-hand evidence. Examples include interview transcripts, statistical data, and works of art (Delozier, 2012).

Well-designed questionnaire will be used to collect primary data from the target population. A secondary source provides second-hand information and commentary from other researchers. Like journal articles, reviews, and academic books. Thus, secondary research describes, interprets, or synthesizes primary sources. This study will use both primary and secondary data sources (Bell, 2013).

As a secondary data source, the study will use reports related to project management, books, project management working manual of the company, other relevant documents like journals and other relevant published and unpublished materials that relate to project monitoring and controlling process and project success.

3.5 Method of Data Collection

Data collection is a systematic process of gathering observations or measurements. Whether you are performing research for business, governmental or academic purposes, data collection allows you to gain first-hand knowledge and original insights into your research problem (Bhandari, 2022).

The study is survey study. Since questionnaire is preferable for their time-efficient and easy to evaluate nature, the questionnaire will be distributed through email, in person or over-the-phone for data collection. Questionnaires may involve both closed questions where the researcher will be pre-setting the responses after careful review of literature and open questions where respondents answer in their own words to get a qualitative information.

The collected data will be analyzed using quantitative data analysis and presented using tables, pie charts and graphs and discuss the results. After that this study will use regression and correlation using a software SPSS (Statistical Package for the Social Sciences) version 2026 to explain the effect of project monitoring and control practice on the project success finally, the conclusion and recommendations will be drawn from the result.

The questionnaire was adopted with modification from sources of similar studies from (Abebe, 2018) and (Tadesse, 2017). The questioners consist of two parts. The first section is the background of the participants consists of 5 questions and the second section is Monitoring and Control practice. Under the second section there are 27 questions which are divided into 6 sections, change control, Project status report, Project status meeting, Project success, documentation and effective project monitoring and control practice. Five-point Likert scale (1=strongly agree, 2=disagree, 3= neutral, 4=agree and 5=strongly agree) is used to show the level of agreement on the practice of monitoring and controlling process.

3.6 Reliability and Validity

In order to increase the level of validity and reliability of the research, questionnaire preparation is divided into several phases.

Validity

Validity is the most critical criterion and indicates the degree to which an instrument measures what it is supposed to measure (Kothari, 2004). Whiston (2012) defined validity as obtaining data that is appropriate for the intended use of the measuring instruments. In this case, validity tests, which determine whether the expressions in the scale make suitable measurements according to the purpose of the research, come to the fore.

Content validity concerns the extent to which the chosen valuation method, as well as all aspects of its practical implementation, is appropriate and conducive for obtaining a measure of the true value (Mariel, Meyerhoff, Hoyos, Czajkowski,2020)

Construct validity focuses more on the construct of interest, namely the value estimates and how the validity of these might be assessed in the absence of knowledge about the true values. (Mariel, Meyerhoff, Hoyos, Czajkowski, 2020)

Criterion validity evaluates how accurately a test measures the outcome it was designed to measure. (Mariel, Meyerhoff, Hoyos, Czajkowski, 2020)

In order to ensure the validness of this study, instruments will be checked and evaluated by professionals in the subject matter area. Moreover, my advisor will evaluate and comment on the instruments before they are distributed to the respondents.

Reliability:

Reliability refers to the stability of the measuring instrument used and its consistency over time. In other words, Reliability is the ability to measure instruments to give similar results when applied at different times. Of course, it is unlikely that the same results will be given every time due to differences at the time the measuring instrument is applied, as well as changes in the population and the sample. However, a strong positive correlation between the results of the measuring instrument is an indication of Reliability (Suruku, Malslakci, 2020).

In order to check the reliability of the questioners, reliability test was conducted using SPSS version 26, and Cronbach's alpha test was identified.

Table 3.1 Reliability statistics

Overall Reliability Statistics

Cronbach's Alpha	N of Items
.942	6

Source own survey (2023)

Table 3.2 Reliability statistics

Individual Reliability Statistics

Measuring Instruments	Cronbach's Alpha	N of Items
Project status Report	0.744	4
Project status meeting	0.891	5
Documentation	0.829	4
Project success	0.717	4
Effective project monitoring and control	0.832	5

Source own survey (2023)

From the above reliability test tables, the Cronbach's Alpha value for the individual measuring instruments is all over 0.7 and the overall summation of the instruments measured together and the alpha value is 0.942 which is greater than 0.7 so we can conclude that the all measuring instruments used are reliable.

3.7 Data Analysis and Model Specification

The collected data will be analyzed in order to get findings. Data analysis is simply the process of converting the gathered data to meaningful information. Different techniques such as modeling to reach trends, relationships, and therefore conclusions to address the decision-making process are employed in this process (Start, 2006). Descriptive data analysis method will be used to summarize the responses in a tabular form to make it easy to understand and read. to assess the relationship between the two variables correlation and regression will be conducted. The first and the second research questions will be answered using descriptive data analysis and the third research question will be answered using multiple linear regression.

Regression models

Describe the relationship between variables by fitting a line to the observed data. Linear regression models use a straight line, while logistic and nonlinear regression models use a curved line. Regression allows you to estimate how a dependent variable changes as the independent variable(s) change. (Bevans, 2023).

Multiple linear regression is used to estimate the relationship between two or more variables. The formula for a multiple linear regression is:

$$\text{Equation1: } Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots \beta_n X_n + \varepsilon$$

- y is the predicted value of the dependent variable (y) for any given value of the independent variable (x).
- B_0 is the intercept, the predicted value of y when the x is 0.
- B_1 is the regression coefficient – how much we expect y to change as x increases.
- x is the independent variable (the variable we expect is influencing y).
- e is the error of the estimate, or how much variation there is in our estimate of the regression coefficient.

The regression model was specified as: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$

Y = Project success.

β_0 = the constant

$\beta_1 \dots \beta_n$ = the estimates of the independent variables. I.e., coefficient of the independent variables

$X_1 \dots X_n$ = independent variables affecting project success.

X_1 = Status Report

X_2 = Documentation

X_3 = Change Control

X_4 = Status Report Meeting

ε = the error term.

Correlation

Pearson r correlation was used to measure the degree of the relationship between linear related variables.

3.8 Ethical Consideration

The researcher is strictly protecting the confidentiality of the respondent's personality and their responses also the researcher guaranteed that the collected data are used only for academic research purpose and also the researcher used proper citation, follow truthful collection & analysis of data.

CHAPTER FOUR

DATA PRESENTATION AND DISCUSSION

4.1 Introduction

This chapter consists the presentation and discussion of data, analysis and interpretation of findings. As stated in chapter three the study targeted a total population of 222 respondents. Among all this population 143 respondents are sampled using (Yemane, 1967). A questioner was developed and distributed to 143 respondents using email, telegram and at hand, however only 140 respondents returned the questioner. The questioner was developed using Likert scale (five scale ranking); where 1 represents strongly disagree, 2 represents Disagree, 3 represents Neutral, 4 represents Agree and 5 represents Strongly Agree. According to (Mugenda, 2003) a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent. In the case of this study 97.9% is the response rate which makes the study adequate to be reported and analyzed. The analysis is done using SPSS version26.

4.2 Descriptive Analysis

4.2.1 Demographic data of respondents

This section discusses the descriptive analysis of demographic data collected from the sampled respondents which include gender, age, educational background, position in the organization, and work experience in the organization. This demographic data describes the characteristics of the respondents in which the collected data relay on.

Table 4.1 background of respondents

Demographic variables	Frequency	Percent
Gender		
male	87	62.1
female	53	37.9
total	140	100
Age		
18-25	23	16.4
26-35	85	60.7
36-45	31	22.1
46-55	1	0.7
total	140	100
Educational background		
diploma	16	11.4

BSc	84	60.0
Masters	36	25.7
Phd	4	2.9
total	140	100
Position in the organization		
practicing professional architect	55	64.7
Project Manager	30	27.3
professional Structural Engineer	49	53.8
Professional Construction Management	6	4.5
Work experience in the organization		
Below 5 years	12	8.6
6-10 years	89	63.6
10-20 years	39	27.8
total	140	100

Source: own survey (2023)

As shown in the table above both female and male respondents are involved. Beyond half respondents were male which means 62.1% and the rest were female 37.9%. Coming to the age group the 60.7% of the respondents were between 26-35; 22.1% were aged between 36-45; 16.4% were aged between 16-25 and 0.7% were aged between 46-55 from this data the author can conclude that majority of the respondents were mature enough to respond accurate data. From the total of 100% respondents, 60% of the respondents had BSc degree; 25.7% were MSc degree holder; 11.4% were diploma holder and 2.9 present were PhD holder. Their position in the organization were 64.7% practicing professional architect, 53.8% professional structural engineer, 27.27% project manager and 4.5% professional construction management. This implies that respondents were well aware regarding to the research topic and give accurate and reliable information. Out of 140 respondents 63.6% had experience of ranging from 6-10 years; 27.8% were 10-20 years and 8.6% were below 5 years which shows the collected data were from well experienced individuals so that the study can depend on.

4.2.2 Mean and Standard Deviation of Dependent and Independent variables

This section would analyze the extent of the organization's project success and the current practice of monitoring and control in level one consultants registered for architectural and engineering service in Addis Ababa. 27 questions were asked to assess the organization's current monitoring and control practice and also the organization's project success. The questioner was organized in a way to indicate the respondent's degree of agreement.

According to Aynalem, Getasew. (2020). Re: How to interpret mean and standard deviation for a Likert type survey to determine the minimum and the maximum length of the 5-point Likert type scale, the range is calculated by $(5 - 1 = 4)$ then divided by five as it is the greatest value of the scale $(4 \div 5 = 0.80)$. Afterwards, number one which is the least value in the scale was added in order to identify the maximum of this cell. The length of the cells is determined below:

From 1 to 1.80 represents (strongly disagree).

From 1.81 until 2.60 represents (do not agree).

From 2.61 until 3.40 represents (true to some extent).

From 3:41 until 4:20 represents (agree).

From 4:21 until 5:00 represents (strongly agree)

Table 4.2 Change control

Measuring statements	N	mean	St. Deviation	scale	frequency	percent
Change control procedure is well defined and structured in the beginning of each project	140	3.51	1.042	Strongly disagree	6	4.3
				disagree	19	13.6
				neutral	33	23.6
				agree	61	43.6
				Strongly agree	21	15.0
Personnel is assigned who can monitor change in the project	140	3.61	1.063	Strongly disagree	3	2.1
				disagree	26	18.6
				neutral	20	14.3
				agree	64	45.7
				Strongly agree	27	19.3
Change is accepted by assessing it with scope, schedule, budget and quality	139	3.53	1.052	Strongly disagree	5	3.6
				disagree	23	16.5
				neutral	26	18.7
				agree	64	46.0
				Strongly agree	21	15.1
Project change is followed according to	140	3.45	1.013	Strongly disagree	4	2.9

the structured procedures.			disagree	24	17.1
			neutral	35	25.0
			agree	59	42.1
			Strongly agree	18	12.9

Source: own survey (2023)

From table 4.2, the mean values of the two statements are above the cutoff point (3.52) which are 3.53 and 3.61 and the other two statements are below the cutoff point which are 3.51 and 3.45 which indicates that the organization is weak in performing the listed statements which have mean values below the cutoff points. However, all the mean values are ranging in between 3.4 and 4.2 so the author concluded the respondents agreed with the measuring statements stated under project change control. The standard deviation ranges from 1.063 to 1.013 which indicates the respondents were uniformly in agreement to the measuring statement listed in the above table. Therefore, the author concluded the organizations have good project change control practice.

Table 4.3 Project Status Report

Measuring statements	N	mean	St. Deviation	scale	frequency	percent
There is a defined and structured reporting procedure	140	3.55	0.992	Strongly disagree	2	1.4
				disagree	22	15.7
				neutral	36	25.7
				agree	57	40.7
				Strongly agree	23	16.4
Project status reports are regularly conducted	140	3.42	0.997	Strongly disagree	5	3.6
				disagree	21	15.0
				neutral	40	28.6
				agree	58	41.4
				Strongly agree	16	11.4
Reports reflect and compare the progress of the project according to the plan (Schedule, Scope, Quality 65 and cost	140	3.44	0.991	Strongly disagree	3	2.1
				disagree	24	17.1
				neutral	39	27.9
				agree	56	40.0
				Strongly agree	18	12.9
Project status report is informed to all participating	140	3.57	1.047	Strongly disagree	3	2.1
				disagree	23	16.4

stakeholders				neutral	32	22.9
				agree	55	39.3
				Strongly agree	27	19.3
Project status reports are accurate and well documented	140	3.61	1.043	Strongly disagree	3	2.1
				disagree	20	14.3
				neutral	35	25.0
				agree	52	37.1
				Strongly agree	30	21.4

Source: own survey (2023)

From 140 respondents 57 of them agree to the measuring statements listed in the above table. The mean value ranges from 3.42 to 3.57 which shows the respondents moderately agreed to the statements with a standard deviation ranging from 0.991 to 1.047 which shows their response is moderately close to the mean. The mean value of the second and the third statements are below the cutoff point (3.518) but the rest are above the cutoff point which indicate the respondents more agreed to the three statements. Finally, the author concluded the organization have a good project status report practice.

Table4.3 Project status meeting

Measuring statements	N	mean	St. Deviation	scale	frequency	percent
Project status meeting is conducted regularly with reasonable time interval.	140	3.55	0.947	Strongly disagree	2	1.4
				disagree	19	13.6
				neutral	39	27.9
				agree	60	42.9
				Strongly agree	20	14.3
Project status meeting are efficient and effective	140	3.50	1.007	Strongly disagree	3	2.1
				disagree	25	17.9
				neutral	30	21.4
				agree	63	45.0
				Strongly agree	19	13.6
In the meeting all participant has adequate information	140	3.66	1.008	Strongly disagree	3	2.1
				disagree	16	11.4
				neutral	36	25.7

about the status of the project				agree	55	39.3
				Strongly agree	30	21.4
Minuets of meeting are well documented for future reference	140	3.45	1.153	Strongly disagree	3	2.1
				disagree	36	25.7
				neutral	26	18.6
				agree	45	32.1
				Strongly agree	30	21.4

Source: own survey (2023)

When coming to the project status meeting, the mean values of the two statements are above the cutoff point (3.54) which are 3.55 and 3.66 and the other two statements are below the cutoff point which are 3.50 and 3.45. However, all the mean values are ranging in between 3.4 and 4.2 so the study concluded the respondents agreed with the measuring statements stated under project change control. The standard deviation ranges from 0.947 to 1.153 which indicates the respondents were uniformly in agreement to the measuring statements. Therefore, the author concluded the organizations have good project status meeting practice.

Table 4.5 Documentation

Measuring statements	N	mean	St. Deviation	scale	frequency	percent
The timescale, budget and customer requirements of each project are clearly defined and documented.	140	3.43	1.139	Strongly disagree	3	2.1
				disagree	38	27.1
				neutral	21	15.0
				agree	52	37.1
				Strongly agree	26	18.6
Project progress report and meetings well documented.	140	3.42	1.039	Strongly disagree	2	1.4
				disagree	31	22.1
				neutral	34	24.3
				agree	52	37.1
				Strongly agree	21	15.0
Business requirement for any Project changes is well documented.	140	3.44	1.027	Strongly disagree	2	1.4
				disagree	32	22.9
				neutral	26	18.6
				agree	62	44.3
				Strongly agree	18	12.9
	140	3.46	1.027	Strongly disagree	2	1.4

Decisions to approve or reject changes are well documented				disagree	32	22.9
				neutral	24	17.1
				agree	64	45.7
				Strongly agree	18	12.9

Source: own survey (2023)

From the above table the average mean value is 3.43. Only one statement's mean value is below the cutoff point which is 3.42 and the rest are above it. However, all the mean values are in between 3.41 and 4.20 which means that the respondents agree to the measuring statements listed. The standard deviation ranges from 1.027 to 1.139 which shows that the response given to the questions are moderately agree. Therefore, the author concluded the documentation practice of the organization is good.

Table 4.6 Project success

Measuring statements	N	mean	St. Deviation	scale	frequency	percent
Project under your supervision has been completed on or below the planned budget	140	3.65	1.017	Strongly disagree	0	0
				disagree	20	14.3
				neutral	36	25.7
				agree	71	50.7
				Strongly agree	13	9.3
Project under your supervision has been completed on or below the planned schedule	140	3.72	0.914	Strongly disagree	1	7
				disagree	24	17.1
				neutral	32	22.9
				agree	66	47.1
				Strongly agree	17	12.1
Project under your supervision has been completed according to planned scope and quality	140	3.63	1.013	Strongly disagree	0	0
				disagree	18	12.9
				neutral	34	24.3
				agree	70	50.0
				Strongly agree	18	12.9
Project under your supervision is on building the organization's image/reputation.	140	3.54	1.034	Strongly disagree	0	0
				disagree	20	14.3
				neutral	31	22.1
				agree	68	48.6
				Strongly agree	21	15.0
Project under your supervision is delivering the organization's value.	140	3.61	1.044	Strongly disagree	0	0
				disagree	17	12.1
				neutral	27	19.3
				agree	75	53.6
				Strongly agree	21	15.0

Source: own survey (2023)

When we come to measure the project success of the organization, five statement were given and 50% and above respondents agree to the measuring statements. Only one statement's mean value is below the average mean value which is 3.61 but the rest are above it and also the standard deviation deviates from 0.914 to 1.044 which shows the response to the statement is

moderately agree. Therefore, the author concluded the organization's project success is good.

Table 4.7 Effective monitoring and control practice

Measuring statements	N	mean	St. Deviation	scale	frequency	percent
There is a structured procedure of monitoring and controlling practice in order to finish projects on time				Strongly disagree	1	0.7
				disagree	27	19.3
				neutral	18	12.9
				agree	68	48.6
				Strongly agree	26	18.6
There is a structured procedure of monitoring and controlling practice in order to finish projects on budget				Strongly disagree	0	0
				disagree	20	14.3
				neutral	23	16.4
				agree	73	52.1
				Strongly agree	24	17.1
There is a structured procedure of monitoring and controlling practice in order to finish projects as per planned quality				Strongly disagree	0	0
				disagree	25	17.9
				neutral	32	22.9
				agree	53	37.9
				Strongly agree	30	21.4
There is a strong monitoring and controlling procedure to handle safety and health issue during construction				Strongly disagree	0	0
				disagree	31	22.1
				neutral	28	20.0
				agree	55	39.3
				Strongly agree	26	18.6
There is effective monitoring and controlling procedures monitor cost, schedule, quality and scope throughout the phase of the project				Strongly disagree	1	0.7
				disagree	29	20.7
				neutral	21	15.0
				agree	62	44.3
				Strongly agree	27	19.3

Source: own survey (2023)

The average mean value in the above data is 3.63. Two of the above statement is below the average mean value and the rest three are above it. As stated in the binging of this section, it can be concluded as, the respondents agree to the statements if the mean average value ranges from 3.41to 4.20. According to the above table all the mean values are in between the range so the author concluded the organization's monitoring control practice is effective.

Table 4.8 summary of mean and standard deviation of the variables

	N	mean	St. Deviation
Change control	140	3.53	1.017
Project status report	140	3.52	0.914
Project status meeting	140	3.54	1.013
Documentation	140	3.44	1.034
Project success	140	3.61	1.044
Effective project monitoring and control practice	140	3.63	0.795

Source: own survey (2023)

The above summary table describes the corresponding arithmetic mean and standard deviation of every measuring tool. Thus, Project change control has a total mean of 3.53 and a standard deviation of 1.017, project status report has a total mean of 3.52 and a standard deviation of 0.914 and Documentation has a total mean of 3.44 and a standard deviation of 1.034 and effective project monitoring and control practice a total mean of 3.63 and standard deviation of 0.795. This shows that Project change control, project status meeting, documentation and effective project monitoring and control of the organization is above the average cut-off point which is 3.53. Therefore, the author concluded respondents agree to the measuring instruments which shows that change control, project status meeting, Documentation, Project success and effective project monitoring and control is good in this organization. On the other hand, project status report has a total mean value of 3.52 which is less that the average mean value, so this implies that project status report is weak in the organization.

4.3 Correlation Analysis

Correlation analysis, also known as bivariate, is primarily concerned with finding out whether a relationship exists between variables and then determining the magnitude and action of that

relationship (What is correlation analysis). According to Pallant (2010), correlation analysis is used to describe the strength and direction of the linear relationship between two variables. In this analysis, Bivariate Pearson Product- Moment Coefficient (r) has been used to see the relationship between the dependent and independent variables. Correlation analysis, in this study determines the strengths of relationship between (project monitoring and controlling process and project success).

The Pearson's correlation indicates the strength of a relationship between variables by a value that can range from -1.00 to 1.00; where 0 to 0.29 is considered weak positive correlation; 0.3 to 0.49 is moderately positive correlation; and 0.5 to 1 corresponds to strong positive correlation. Conversely, 0 to -0.29 is considered weak negative correlation; -0.3 to -0.49 is moderately negative correlation; and -0.5 to -1 corresponds to strong negative correlation (Pallant, 2010).

In order to determine the relationship between project monitoring and control practice and project success the study conducted Pearson correlation analysis between the two variables. As shown in the table below the significance values of change control, status report, status meeting, documentation and effective project monitoring and control practice are 0.00 and r value 0.626, 0.582, 0.689, 0.604 and 0.600 respectively which shows that there is significant strong positive relationship between project monitoring and control practice measuring tools and project success.

Table 2 Table 4.9 Pearson correlation between project monitoring and control practice measuring tools and project success

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

Change control	Pearson Correlation	.626**
	Sig. (2-tailed)	.000
	N	140
Status report	Pearson Correlation	.582**
	Sig. (2-tailed)	.000
	N	140
Status meeting	Pearson Correlation	.689**
	Sig. (2-tailed)	.000
	N	140
Documentation	Pearson Correlation	.604**
	Sig. (2-tailed)	.000

	N	140
Effective monitoring and control practice	Pearson Correlation	.600**
	Sig. (2-tailed)	0.00
	N	140

Source: own survey (2023)

Table 3Table 4.10 Pearson correlation between project monitoring and control practice and project success

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

		Project success
Average project monitoring and control practice indicators	Pearson Correlation	.582**
	Sig. (2-tailed)	.000
	N	140

Source: own survey (2023)

In addition to the intercorrelation between project success and project monitoring and control measuring tools, the above table shows Pearson correlation between average project monitoring and control practice indicators and project success. The significance value is 0.00 and r value is 0.582 which implies project monitoring and controlling process has high correlation with project success.

4.4 Regression Analysis

According to (What is correlation analysis? n.d.) Multiple regression is an extension of simple linear regression. It is used when we want to predict the value of a variable based on the value of two or more other variables. The variable we want to predict is called the dependent variable (or sometimes, the outcome, target or criterion variable). The variables we are using to predict the value of the dependent variable are called the independent variables (or sometimes, the predictor, explanatory or regressor variables)

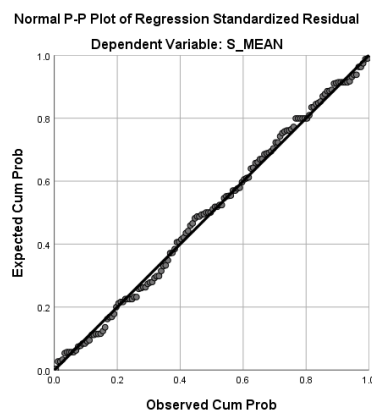
When you choose to analyze your data using multiple regression, part of the process involves checking to make sure that the data you want to analyze can actually be analyzed using multiple regression (Multiple Regression Analysis using SPSS Statistics.). it is only appropriate to use

multiple regression if your data "passes" seven assumptions that are required for multiple regression to give you a valid result.

The assumptions are: -

- 1, all the variables are continues.
- 2, The relationship between the dependent variables and independent variables are linear, both for each independent variables and globally.
- 3, There are no significant outliers in the data series.
- 4, There is no relationship between the independent variable and the residual variable
- 5, homoscedastic: - the dependent variables has the same variance for all the values of the independent variables.
- 6, the residual variables are approximately normally distributed.
- 7, Multicollinearity: - the independent variables are not strongly correlated with one another.

Figure 4.1 Normal P-P plot of regression Standardized Residuals.



Source: own survey (2023)

As shown on the figure 4.1 the data are plotted against a theoretical normal distribution in such a way that the points should form an approximate straight line which indicate the relationship between the dependent variables and independent variables are linear.

Table 4.11: Results of multiple regressions between project success and the combined effect of project monitoring and controlling process predictors

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson

1	.721 ^a	.519	.505	.48244	1.675
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a. Predictors: (Constant), D_MEAN, M_MEAN, C_MEAN, SR_MEAN

b. Dependent Variable: S_MEAN

(D-DOCUMENTATION, M-STATUS MEETING, C-CHANGE CONTROL, SR-STATUS REPORT, S-SUCCESS)

Source: own survey (2023)

The "**R**" column represents the value of *R*, the multiple correlation coefficient. *R* can be considered to be one measure of the quality of the prediction of the dependent variable; from the above table *r* value is 0.760 which indicates a good level of prediction. The *R* square value also called the coefficient of determination, which is the proportion of variance in the dependent variable that can be explained by the independent variables. The *R* square value is 0.519 that indicate the independent variables (project monitoring and control) explain 51.9% of the variability of the dependent variable (project success) or 51.9% of project success could be attributed to the combined effect of the predictor variables. However, 48.1% of the variance is explained by other factors not covered in the study. The Durbin- Watson (1.475) shows there is no relationship between the independent variable and the residual variable.

Table 4.12: Tests of normality

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
Studentized Residual	.039	140	.200*	.993	140	.679

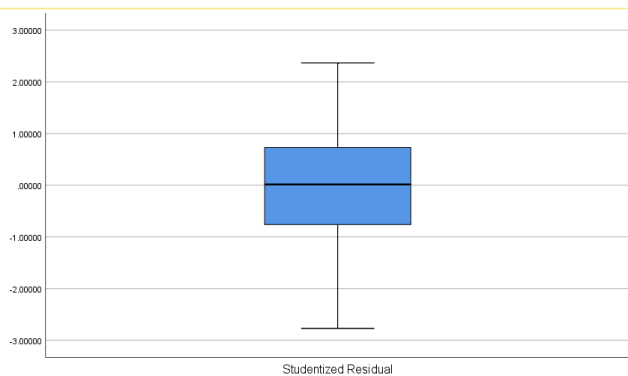
*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Source: own survey (2023)

As shown in the above table Shapiro-Wilk value is 0.679 which is greater than 0.05 that indicate the data are normally distributed.

Figure 4.2 Outlier Test



Source: own survey (2023)

As shown in figure 4.2 there is no circle or asterisks on either end of the box plot which indicates there is no outlier present.

Table 4.13: Regression coefficients of the relationship between project success and the predictive variables

Model	Coefficients ^a					Collinearity Statistics	
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Tolerance	VIF
	B	Std. Error	Beta				
1	(Constant)	1.283	.202		6.347	.000	
	C_MEAN	.273	.106	.312	2.566	.011	4.150
	SR_MEAN	-.235	.116	-.290	-2.034	.044	5.720
	M_MEAN	.461	.091	.553	5.082	.000	3.327
	D_MEAN	.163	.095	.185	1.726	.007	3.236

a. Dependent Variable: S_MEAN

Source: own survey (2023)

From the above coefficients table, the “t” and “Sig.” Value for all the project monitoring and control practice measuring tools (change control, status report, status meeting, documentation) are (6.347, 0.00), (2.566, 0.011), (-2.034, 0.044), (5.082, 0.00) and (1.726, 0.087) respectively.

All the $p < 0.05$ except documentation. This implies that all the measuring instruments are statistically significant except documentation. All the VIF column values are less than 10 (< 10) and also the tolerance is greater than 10 percent ($> 10\%$) which indicates there is no multi-collinearity influence between the explanatory variables.

The regression model is derived from Table 4.13 as:

$$Y = 1.283 + 0.273X_1 - 0.235X_2 + 0.461X_3 + 0.163X_4 + \epsilon$$

Where: Y = Project Success

X1 = Change control
X2 = Project Progress Report
X3 = Project status meeting
X4 = Documentation
 ϵ = Standard Error

The regression model provided statistical control through which the study established the influence of each predictor variable. Holding all variables at zero will result in a positive project success equal to 1.283. In a similar way, keeping all other independent variables constant, a unit change in project change control will result in 0.273 increments in project success. This means that project progress report had a great influence on increasing the project's success in the study organization. The statically significance level of this variable is 0.000; this is at 95 percent confidence interval.

The findings also indicate -0.235 increments in project success with change project progress report excluding the other independent. This means, when project progress report increases by a level the project success will decrease by around 23.5 %, keeping other factors constant. This implies that project progress report had a significant effect on decreasing project's success in the study organization. The statically significance level of this variable is 0.002; this is at 95 percent confidence interval.

In addition, a unit increase in project status meeting while holding the rest independent variables constant would lead to 0.091 increments in favorable project success. Documentation also would lead to 0.163 increments in favorable project success while holding the rest of independent variables constant. The results also show that the coefficients for each variable are non-zero. This therefore means that all the independent variables influence the response variable.

CHAPTER FIVE

CONCLUTION AND RECOMENDATION

5.1. Summary of Findings

In order to summarize the findings recalling the research question will be helpful.

1. What is the monitoring and control practice of grade one consultants registered for architectural and engineering service in Addis Ababa?
2. What is the degree of project success of the organization?
3. How does project monitoring and control practice affect the organization's project success?

The author has used quantitative data analysis by distributing questioners to the sampled population of grade one consultants register for architectural and engineering service in Addis Ababa with close-ended questions. The collected data were analyzed by Pearson r data analysis and descriptive analysis. Descriptive reporting was used in order the data to be easily understandable.

According to the descriptive analysis 62.1% of the respondents are male and the rest 37.9% ware female. Majority of the respondents are in age between 26 and 39 with 60% of them are holding BSc degree.64.7%of the respondents are practicing professional architects with the experience of between 6 to 10 years.

From the descriptive analysis the mean and the standard deviations results implies that the targeted organizations have agreed that they have a good project control practice, good status report practice, good project status meeting practice, good documentation practice and finally their project monitoring and control practice is effective. The degree of the organization's project success was measured by its mean and standard deviation result which shows that the organization's project success is good.

According to the Pearson correlation results, there is significant strong positive relationship between project monitoring and control practice measuring tools and project success. Before analyzing a multiple regression all the required assumptions were tested and passed all of it. The assumptions were:

1. All the variables are continues.
2. The relationship between the dependent variables and independent variables are linear, both for each independent variables and globally.
3. There are no significant outliers in the data series.

4. There is no relationship between the independent variable and the residual variable
5. Homoscedastic: - the dependent variables has the same variance for all the values of the independent variables.
6. The residual variables are approximately normally distributed.
7. Multicollinearity:- the independent variables are not strongly correlated with one another

From the multiple regression analysis, the results were: -

- Project change control had a great influence on increasing the project's success in the study organizations.
- project status report had a significant effect on decreasing project's success in the study organizations
- Project status meeting had a great influence on increasing the project's success in the study organizations.
- Documentation had a great influence on increasing the project's success in the study organizations.

5.2. Conclusions

In this section, conclusions are made based on the major findings of the study listed above on the summary section.

From the descriptive analysis the author concluded the monitoring and control practice of grade one consultants registered for architectural and engineering service in Addis Ababa is good. Additionally, based on their contribution on the project success, among all the project monitoring and controlling process relatively Project progress meeting have the greatest impact, change control is the 2nd, project status report has the third position but in a different direction, Documentation is the 4th.

Finally, the study concludes that the monitoring and control practice of grade one consultants registered for architectural and engineering service in Addis Ababa is good. The overall project monitoring and controlling process have strong impact on the project success and also the degree of project success of the organization is good.

5.3 Recommendation

Based on the major findings and conclusions of the study, the researcher draws the following recommendations that can enhance project success rate through the effective practice of project monitoring and controlling process.

The study recommends that organization need to focus on project monitoring and controlling practice especially on the project progress meeting and project change control area as they have significant impact on the project success. In order to reduce the project change request and to complete the projects as per the planned time limit, the organization need to have well defined and structured change control procedure in the beginning of each project and also it should be followed according to the structured procedures. To achieve an excellent project monitoring and control practice, the organization should have well documented meetings and progress report for future references. However as the result of the correlation shows project status report has a significant effect on decreasing project success in the study organization so this organizations should give attention how to decrease its effect.

Project success can be happened through strengthen the current project monitoring and controlling Practice. Working hard to fill the observed gaps under monitoring and controlling practice will also be helpful to archive project success. The introduction of latest and effective project monitoring and controlling tools and deploying of latest and effective reporting and documentation system and training of staff on how to use the new monitoring and controlling tools and systems will have significant influence on project success.

Finally, as Iman & Siew (2008) stated, poor project monitoring and controlling Practice is the major causes of project failure. Moreover, according to the findings from this study project monitoring and controlling practice has significant influence on project success. Considering all this, the study suggests that the organization should have effective project monitoring and controlling practice or system, which lead to have the maximum project success rate.

5.4 Direction for Future Research

The study only focuses on project monitoring and control practice of grade one consultants registered for architecture and engineering service but the author suggested other researchers to draw research on other project management practice.

The study explain 51.9% of the variability of the dependent variable (project success) or 51.9% of project success could be attributed to the combined effect of the predictor variables. However, 48.1% of the variance is explained by other factors not coved in the study so the author suggested for further studies on this subject area.

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Annex A

Questionnaire

Addis Ababa University School of Commerce

Post Graduate Program

Department of Project Management

Dear Respondents

I am student of MA (PM) at Addis Ababa University, School of Commerce. I am conducting research on “**The Effect of Project Monitoring and Controlling Practice on Project Success in the case of Grade One Consultants Registered for Architectural and Engineering Service**”

Confidentiality: I want to assure you that, this research is only for academic purpose authorized by AAU, thus your ideas and comments are highly honored and kept confidential. To create conducive environment for your free and genuine responses you are not required to write your name. The quality of the result of this research is based on the accuracy of the information you provided. To the end, I would like to forward my deepest gratitude for your unreserved cooperation in filling the questionnaire.

Yemisrach Assefa

Email: yemisrachassefa4161@gmail.com

Thank you for your cooperation.

General Guideline:

- No need to Write your Name
- Please put a **tick “√” mark** for your choices
- The response scale for the questions is as below:
 - **5= Strongly Agree,**
 - **4= Agree,**
 - **3= Neutral,**
 - **2= Disagree,**
 - **1= Strongly Disagree**

Section 1

Background Information

1.1 Gender

Female ☐

☐

Male

1.2 Age

18 – 25 ☐

Above 55

☐

36 – 45

☐

26 – 35 ☐

☐

46 – 55

1.3 Educational background

Diploma ☐

☐

Masters

BSC ☐

☐

PHD

1.4 Position in the organization

practicing professional architect ☐
Engineer

professional Structural ☐

Project Manager ☐
Management

professional Construction ☐

1.5 Work experience in the organization

Below 5 years ☐

10 -20 years ☐

6 – 10 years ☐

above 20 years ☐

Section 2

Project monitoring and controlling practice

Definitions of words in the study's context

value:

The value delivered is a function of the scope of the project opportunity and the capability of the process used to deliver it. The delivery of value is why we undertake projects (Baratta,2006).

Image /reputation

corporate image can be said to be an aggregation of attributes, which have been evaluated by customers (Kennedy, 1977; Martineau, 1958).

Kindly specify if you strongly disagree (1), disagree (2), Neutral (3), agree (4) and strongly agree (5) accordingly.

No	Statements	Strongly disagree	disagree	Neutral	agree	Strongly agree
		1	2	3	4	5
	Change control					
1	Change control procedure is well defined and structured in the beginning of each project					
2	Personnel is assigned who can monitor change in the project					
3	Change is accepted by assessing it with scope, schedule, budget and quality					
4	Project change is followed according to the structured procedures.					
	Project status report					
1	There is a defined and structured reporting procedure					
2	Project status reports are regularly conducted					
3	Reports reflect and compare the progress of the project according to the plan (Schedule, Scope, Quality 65 and cost					
4	Project status report is informed to all participating stakeholders					
5	Project status reports are accurate and well documented					
	Project status meeting					

1	Project status meeting is conducted regularly with reasonable time interval.					
2	Project status meeting are efficient and effective					
3	In the meeting all participant has adequate information about the status of the project					
4	Minuets of meeting are well documented for future reference					
	Documentation					
1	The timescale, budget and customer requirements of each project are clearly defined and documented.					
2	Project progress report and meetings well documented.					
3	Business requirement for any Project changes is well documented.					
4	Decisions to approve or reject changes are well documented					
	Project success					
1	Project under your supervision has been completed on or below the planned budget					
2	Project under your supervision has been completed on or below the planned schedule					
3	Project under your supervision has been completed according to planned scope and quality					
4	Project under your supervision is on building the organization's image/reputation.					
5	Project under your supervision is delivering the organization's value.					
	Effective monitoring and controlling practice					
1	There is a structured procedure of monitoring and controlling practice in order to finish projects on time					
2	There is a structured procedure of monitoring and controlling					

	practice in order to finish projects on budget					
3	There is a structured procedure of monitoring and controlling practice in order to finish projects as per planned quality					
4	There is a strong monitoring and controlling procedure to handle safety and health issue during construction					
5	There is effective monitoring and controlling procedures monitor cost, schedule, quality and scope throughout the phase of the project					

Thank you again for your willingness to participate and for your genuine answer.

Annex B

List of level one consultants registered for architectural and engineering service established from list of consultants which are operating in Addis Ababa from the valid registration of 2013.

No	Name of grade one consultants	location
1	ACUTE	Bole
2	ATCON	Bole
3	ASPIRE AECOM	Bole
4	BELES	Bole
5	BLUDOT	Bole
6	BREEZE	Bole
7	CHEDRI	Bole
8	C TECH	Bole
9	DABEK	Bole
10	EDGE	Bole
11	EF	Bole
12	ESKINDER	Bole
13	ETHIO INFRA	Bole
14	ETHIOPIAN CONSTRUCTION	Bole
15	HILTECH	Bole
16	IMAGE	Bole
17	KEEN	Bole
18	MTT	Bole
19	OBON VOYAGE	Bole
20	OBSAN BUL	Bole
21	PERFECT PLAN	Bole
22	PLUS	Bole
23	PROMINENT	Bole
24	Q T C	Bole
25	RAK	Bole
26	SABAWYAN	Bole
27	SAY	Bole
28	SCALE	Bole
29	SG CONSULTING	Bole
30	SOUND	Bole
31	STRIDE	Bole
32	XYZ	Bole
33	Y T H	Bole
34	YOHANS ABBAY	Bole
35	ABAKO	KIRKOS
36	ADDIS MEBRATU	ARADA
37	AFRI	KIRKOS
38	ASSOCIATEDE	KIRKOS
39	BET	KIRKOS
40	BEZA	NIFAS SILKE- LAFTO
41	BEZA CONSULTING	NIFAS SILKE- LAFTO
42	BINIYAM ALI	LIDETA
43	BIYBONE	ARADA
44	BRAVE	N/S/L
45	C R C	YEKA
46	CLASSIC CONSULTING	KIRKOS
47	DAWIT SIMRET	ARADA
48	DUNA CONSULTING	KIRKOS
49	E M H	NIFAS SILKE- LAFTO
50	ECDSWC	N/S/L
51	EES CONSULTING	ARADA
52	ETG	KIRKOS
53	EYOB KINFE CONSULTING ARCH AND ENGINEERS PLC	YEKA
54	JCB	NIFAS SILKE- LAFTO
55	JDAW CONSULTING	KIRKOS
56	K D T	YEKA
57	KOKETI	KIRKOS
58	LIDET	NIFAS SILKE- LAFTO
59	METAFERIA	KIRKOS
60	MOGES DESTA	KIRKOS
61	NODE CONSULTING	KIRKOS
62	NODE CONSULTING	KIRKOS
63	NOMY	YEKA
64	OMEGA	YEKA
65	OROMIA WATER WORKS	AKAKI KALITY
66	PARAGON ENGINEERS	N/S/L
67	SIGNATURE	YEKA
68	SILESHI	YEKA
69	SYNERGY PLUS	N/S/L
70	T.C.D.E	KIRKOS
71	ULTIMATE PLAN	ARADA
72	VALUE	KIRKOS
73	WEJEZ	KOLFE KERANYO
74	YORDANOS MEBRATU	NIFAS SILKE- LAFTO
75	ZIRADOC	NIFAS SILKE- LAFTO

Annex C

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.956	4	8.489	36.474	.000 ^b
	Residual	31.421	135	.233		
	Total	65.377	139			

a. Dependent Variable: S_MEAN

b. Predictors: (Constant), D_MEAN, M_MEAN, C_MEAN, SR_MEAN

