

**The effect of effective team management on project success:
The case of Ethio telecom Addis Ababa LTE project**

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Project Management (MAPM) Program

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STATEMENT OF DECLARATION

I declare that the project work entitled “**The effect of efficient team management on project success: The Case of Ethio telecom Addis Ababa LTE project**” is my original work and all sources of material used for the work have been duly acknowledged.

AMDEI MITIKU TESSEMA

STATEMENT OF CERTIFICATION

This is to certify that, this project work “**The effect of efficient team management on project success: The Case of Ethio telecom Addis Ababa LTE project**”, undertaken by **AMDEI MITIKU TESSEMA** in partial fulfilment of the requirements for Master of Arts in Project Management at Addis Ababa University School of Commerce, is an original work and not submitted earlier for any Degree either at this university or any other university.

Dereje Abi (PhD) Research project advisor

**Addis Ababa University School of Commerce
Project Management (MAPM) Program**

**The effect of effective team management on project success:
The case of Ethiotelecom Addis Ababa LTE project**

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List of Abbreviations and Acronyms

PM	Project Management / Project Manager
PMI	Project Management Institutions
PMBOK	Project Management Body of Knowledge
PMO	Project management office
OPMO	Operation and Project Management Office
LTE	Long Term Evolution
O&M	Operation and Maintenance
BRIDGE	B est Customer experience, R eputable brand, I nnovative products and services, D evelop people, G rowth in financial capacity, E xcellence in operation
PRO	Project role out

Abstract

Given the pivotal role of efficient team management in project success, this study investigates the impact of various elements of efficient team management practices on project success, focusing on the case of project implementation within the Ethio telecom wireless network division. In order to achieve these objectives, descriptive and explanatory research approaches were utilized. Through the distribution of questionnaires to 79 participants actively engaged in the Ethio telecom LTE project, we gathered valuable insights. Analysis revealed a substantial impact of effective team management on project success, particularly in relation to goals and objectives clarity and team leadership dimensions of teamwork. These findings underscore the importance of prioritizing key components of efficient teamwork for increased project success. The research offers insightful information for project managers and team leaders in the telecom industry, aiding them in aligning their focus to optimize project outcomes

Keywords: efficient team management, team dimensions, project success, telecom industry

CHAPTER ONE

1.1. Background of the Study

A project is a brief undertaking started with the intention of producing a special good, service, or outcome. It involves a set of interrelated tasks that must be completed within specific constraints, such as time, budget, and resources (PMO, 2017). Projects are often complex and require coordination among multiple stakeholders, including project managers, team members, clients, and other interested parties.

Projects are undertaken to address specific problems, to drive innovation and continuous improvement, to support the expansion or growth of an organization, to comply with legal requirement. Without projects, businesses would become irrelevant and outdated, unable to compete in the modern business world (Shenhar et al., 2001). Hence, it is crucial from an economic standpoint to properly start and finish the project in success. Project failure rates have been documented to exceed success rates worldwide, including in Ethiopia. One major reason for the high failure rate is the uniqueness of each project, as the literature lacks universal standards to determine project success (Muller & Jugdev, 2012).

It is crucial to highlight that project failures have significant influence on national economies. (Zwikael & Unger-Aviram, 2010). As a result, researchers and academicians are persistently working to discover factors that can improve the chances of project success (Alderman & Ivory, 2011).

Project management researches have not yet matured (Cooke-Davies, 2002; Meredith, 2002). Researches are still ongoing to identify key determinants of project success. According to early researches finding, people managements factor drive project success more than technical issue (Larson and Gobeli, 1989; Pinto and Slevin, 1988). In spite of the finding, there has been relatively little empirical research conducted on the human sides of project management so far. (Kloppenborg and Opfer, 2002; Delisle, 2004; Raide'n et al., 2006). Thus, scholars (Pinto, 2002) and professional organizations such as the Project Management Institute (PMI, 2002) advocate for further in-depth research on the link between project team characteristics and project success. Hence, the goal of this research is to add to the body of knowledge by examining how efficient team management affects project success in the telecom sector.

Recent literatures show the two dominant view of project success. The first one is the traditional view, project success is defined based on the “iron triangle” or the triple constraints of time, cost, and scope. A project is considered successful if its completed within the planned timeframe, budget and scope (PMI,2017). The second view, considers project success in terms of meeting stakeholders` satisfaction, quality of deliverables, and long-term impact (achieving broader objectives) (Shenhar, Dvir, Levy, & Maltz, 2001).

In this research, overall project success approach (Shenhar et al., 2001), which is almost similar to the second view, is used to measure project success. Shenhar proposes that the overall success of a project should be assessed across four key dimensions: Project effectiveness, customer impact, immediate business and organizational performance, and future readiness.

1.2. Statement of the problem

Ethiotelecom, the major telecom service provider in Ethiopia, is experiencing a surge in projects, including 5G, LTE Advanced, LTE, and telco cloud initiatives, both within Addis Ababa and across the country. These projects are instrumental in realizing its two critical three-year strategies: BRIDGE and LEAD. The BRIDGE strategy concluded in June 2022, and the LEAD strategy has been underway since August 2022.

As part of this effort, Ethiotelecom successfully completed the Addis Ababa LTE project, aiming to expand and upgrade the city's wireless network with Long-Term Evolution (LTE) technology. Despite the project's completion, evaluating the effectiveness of the team management practices employed during the project offers valuable insights for future initiatives. Notably, during the execution of the Addis Ababa LTE project, poor performance was observed. To address the causes of this poor performance, it is essential to examine project success from the perspective of team effectiveness.

This research focuses on investigating the relationship between team management practices and project success within the context of Ethiotelecom's completed Addis Ababa LTE project. Although the project is complete, analyzing past practices allows us to determine the specific team management strategies employed, evaluate these practices in terms of communication, collaboration, goal clarity, and role definition, and analyze the potential impact of these practices on project outcomes. This includes considering factors such as potential delays, cost overruns, and network performance variations across Addis Ababa.

While research underscores the significance of effective project management for achieving project success, a notable gap exists regarding the specific role of team management in large-scale telecommunications network upgrades, such as Ethiotelecom's Addis Ababa LTE project. Previous studies within Ethiotelecom have primarily focused on various project management aspects, including structures, competencies, risk management, and stakeholder engagement (Kalkidan, 2017; Tigabu, 2022; Nardos, 2020). However, these inquiries have not directly explored how team management practices interact with these elements to influence project outcomes. This gap presents a compelling opportunity to investigate how team dynamics and collaboration within the Addis Ababa LTE project influenced its success, particularly within the context of Ethiotelecom's existing project management framework.

By evaluating team management in the Addis Ababa LTE project, this research aims to identify key team management practices that contribute to successful project completion in the telecommunications industry, with a specific focus on LTE network rollouts. It seeks to establish benchmarks for future projects by comparing the Addis Ababa LTE project's efficiency and outcomes with industry standards. Additionally, the research aims to provide insights for Ethio telecom to develop and implement more efficient team management strategies for future network upgrade initiatives.

The findings of this research can benefit Ethio telecom by developing improved team management strategies that enhance communication, collaboration, and goal clarity for future projects. These strategies have the potential to reduce project timelines and associated costs while also promoting collaboration among teams to ensure consistent and optimal network performance across entire project areas in future initiatives. By exploring the factors leading to team performance and overall project success, this study aims to provide actionable recommendations to overcome the causes of poor performance observed in the Addis Ababa LTE project.

1.3. Research questions

The research questions are established in accordance with the specified research problem, and the study aims to address the following primary questions:

1. How does goal and objective clarity within a project team impact the success of the project?
2. How does effective communication within the team impact project success?
3. How does the team's mutual respect and trust affect the outcome of the project?
4. How does the leadership style of the project manager influence project success?
5. How does the distribution of roles and responsibilities among team members influence project outcomes?

1.4. Objectives of the study

1.4.1 General objective

The primary aim of this paper is to explore the impact of effective team management on project outcomes.

1.4.2 Specific objectives

- To investigate how the clarity of team goals and objectives impacts the success of projects.
- To investigate the effect of team leadership on project success
- To examine how team communication affects the success of projects.
- To investigate how trust and respect among team members influence project outcomes.
- To examine the impact of team roles and responsibilities on project success

1.5. Significance of the study

The study will demonstrate the impact of efficient team management constructs on project success while identifying key factors that significantly influence project outcomes. This insight will enable project managers and team leaders in the telecom sector to realign their focus towards essential elements of effective team management, thereby enhancing the likelihood of project success.

Another benefit of this research is to contribute lessening the absence of quantitative studies on how project team management techniques affect project performance. With a few exceptions, case studies or the opinions of knowledgeable practitioners make up the majority of the literature (Christina, 2008). This study will add to the body of knowledge by conducting an organized empirical investigation on the handling of personnel-related project concerns.

1.6. Scope and Limitation of the study

This study is solely focused Ethio telecom wireless projects on the subject of project team management. The study only gave due attention to project management knowledge area, by particularly investigating how project team management is being exercised within Ethio telecom wireless division.

The study followed qualitative research techniques, and data was collected using survey questionnaires, hence it would have limitations stemmed from this fact such as potential bias and errors (Kader, 1994). As McColl (2001) suggests, to address this limitations, close attention to questionnaire design and survey administration will be conducted.

The focus of the study was Ethio telecom wireless projects and their team management practices. Thus, restricting the case study exclusively to Ethio telecom wireless projects may not give us a representative sample for generalizing on the team management practices to all telecom service provider. However, the study will be conducted meeting all academic requirements, and consequently it will have a valuable output and lay a firm foundation for further studies in the sector.

CHAPTER TWO

2. Literature Review

Effective team management is widely recognized as essential for project success across various sectors and industries. It plays a pivotal role in meeting deadlines, adhering to budgets, and achieving goals. This literature review provides a comprehensive overview of the connection between effective team management and project success, based on a variety of studies and research findings. (Jones, P., & Smith, L. (2019).)

The capacity of project managers to effectively lead and manage their teams is often critical to the success of projects in the fast-paced, dynamic corporate world of today. A variety of techniques and approaches, such as goal-setting, team building, conflict resolution, and clear communication, are necessary for effective team management. These procedures are necessary to build a cohesive, productive team that can collaborate effectively to meet project goals.

Numerous investigations have highlighted the importance of effective team management in project success. For example, Belout and Gauvreau (2004) observed that teams with effective management techniques were more likely to achieve their project goals and deliver successful outcomes. Similarly, De Dreu and Weingart (2003) emphasized the role of effective team management in fostering collaboration and innovation within teams, leading to improved project performance.

Project managers and organizations seeking to improve their project management procedures need to understand the connection between project outcomes and efficient team management. By identifying the key elements of good team management and their influence on project success, organizations can implement strategies to improve project outcomes and achieve greater success in their endeavors.

Overall, this literature review aimed to give an understanding of the importance of effective team management in project success and offer practical recommendations for project managers and organizations seeking to enhance their team management techniques. By examining the existing research and drawing on real-world examples, this review sought to contribute to the body of knowledge on this important topic and provide valuable insights for future research and practice.

2.1 Relationship between effective team management attributes and project success

2.1.1. Clear goal and objectives

Project success depends on having well-defined goals and objectives since they give the work direction, focus, and a framework for tracking progress. Turner and Müller (2005) assert that well-defined goals and objectives are critical to the success of a project because they facilitate the coordination of team members', stakeholders', and resources' activities toward a single aim. Goals that are SMART—specific, measurable, achievable, relevant, and time-bound—offer a clear project roadmap and aid in preventing mission drift and scope creep. Moreover, well-defined goals and objectives facilitate communication and cooperation between sponsors, team members, and stakeholders (Project Management Institute, 2017).

Other scholars also collaborate on showing the strong relationship of goal clarity and objectives with project success. A study by Tesseam and Soeters (2006) found that goal clarity was positively related to project success, highlighting the importance of clear goals in project management. A meta-analysis by Klein et al.(2006) showed that teams with clearer goals tend to perform better.

2.1.2. Effective communication

A project team's ability to communicate effectively is essential to its success. It guarantees that members of the team are knowledgeable, on the same page, and capable of productive teamwork. Effective communication entails delivering information, but it also entails actively listening to others, getting feedback, and making sure that messages are heard, according to the Project Management Institute (2017). Studies shows that project success has been closely correlated with efficient communication. (Rad and Levin, 2003; Williams, 2002; Clutterbuck, 2007; Hernon and Rossiter, 2006).

Kerzner (2017) showed that communication should be frequent and timely to keep team members informed of progress, changes, and upcoming tasks. Kerzner went on to say that active listening requires team members to pay close attention, comprehend what is being said, respond appropriately, and retain the information. Kerzner further indicated that it is imperative to take

cultural and linguistic variances into account to promote efficient communication in diverse teams.

Using the appropriate channels and instruments for the message and the audience is essential to effective communication. These could be in-person meetings, emails, online collaboration tools, or project management applications (Project Management Institute, 2017).

Effective communication is also vital for resolving conflicts within the team as it enables team members to express their concerns and work towards a resolution (Project Management Institute, 2017).

Scholars generally agree that by emphasizing timely, transparent, and consistent communication, project teams can enhance their teamwork, productivity, and ultimately the success of their projects.

2.1.3 Strong Leadership

Effective team management requires strong leadership. It entails leading a team of people toward a shared objective and offering guidance, inspiration, and assistance to ensure project success (Keller, 1992; Anantatmula, 2010; Juli, 2010).

Clear direction and alignment:

Effective team leadership guarantees that team members are aligned with project objectives and gives clear direction. A study conducted by Judge and Piccolo (2004) found that good leadership is linked to better teamwork and project completion.

Motivation and Engagement:

Meta-analysis by Lowe et al (1996) found a strong positive relationship between leadership behavior and employee motivation. Effective leaders motivate and engage team members, leading to higher levels of commitment and effort.

Decision Making and problem solving:

Strong team leadership enables quick and effective decision-making, leading to timely resolution of issues and challenges. A study by Yukl (2012) found that effective leaders are able to make high-quality decisions under pressure, which is critical for project success.

Conflict resolution and team cohesion:

Effective leaders are able to contain conflict within the team and promote a sense of cohesion. According to research conducted by Tuckman (1965), teams with strong leadership are more likely to progress through the stages of forming, storming, norming, and performing, ultimately leading to higher performance and project success.

2.1.4 Team member's roles and responsibilities

Clear definition and alignment of roles and responsibilities contribute to efficient teamwork, goal achievement, and overall project success. Having clearly defined roles and responsibilities ensure that everyone is on the same page and understands what is expected of them. It is worthwhile considering each team member's skills, strengths, and weaknesses, as well as the necessary infrastructure before distributing roles and responsibilities.

Roles and responsibilities that are well defined also help avoid confusion and overlapping efforts within the team. This clarity improves coordination and reduces the risk of tasks being overlooked or duplicated (Project Management Institute, 2017).

Belout and Gauvreau (2004) conducted study on team accountability. They discovered that team members are more inclined to take responsibility for their work and accept accountability for results when they are aware of their roles and responsibilities. This accountability helps to make the project successful overall. In their study, they also found that clearly defined roles and responsibilities boost productivity and efficiency since team members can concentrate on their assigned work without having to waste time finding out what has to be done. In their research, they also demonstrated how well-defined roles and duties facilitate the resolution of conflicts within teams since team members can refer back to their assigned tasks and responsibilities to set expectations and clear up confusion.

Roles and responsibilities define the communication channels within the team. When roles are clear, communication flows more smoothly, leading to better collaboration and decision-making (Project Management Institute, 2017).

2.1.6 Trust and Respect

Team trust is essential to the success of a project. Trust among team members increases the likelihood of productive collaboration, honest information sharing, and mutual support (Mayer et al., 1995). Higher levels of team performance and project success may result from this (Dirks and Ferrin, 2002). Research by McAllister (1995) suggests that trust among team members is positively related to team performance. Teams with higher levels of trust tend to perform better and achieve their goals more effectively.

Respect among team members is also essential for project success. When team members respect each other's opinion, expertise, and contributions, they are more likely to work together cohesively and resolve conflicts constructively (Shore et al., 2006).

Trust and respect among team members have been linked to various aspects of project success, including team cohesion, communication effectiveness, and overall team performance (Mayer et al., 1995; Shore et al., 2006). Teams that have high levels of trust and respect are more likely to overcome challenges and achieve their project goals.

In summary, fostering trust and respect within a project team is essential for enhancing team performance and ultimately, project success. Leaders should prioritize building and maintaining these positive team dynamics to ensure project success.

2.2 Empirical review

As it can be seen in related literatures review, similar researches have been conducted to examine the impact of team management on project success. Accordingly, in this section of the literature review, the empirical evidences on the influence of team management on project success are discussed.

Research to examine effectiveness of project teams and their impact on the project performance was conducted by Sadi A.Assaf and Mohammad A.Hassanain (2014) in Saudi Arabia in 13 high rise commercial building projects. 94 managers whose responsibility was managing different project teams were taken part in the interview. The authors were identified 6 constructs of effective teamwork and proposed hypotheses showing the correlation of the constructs and project success.

The results revealed high correlation with a score of r (correlation coefficient) above 0.8 between constructs of team effectiveness and overall project success, in addition to indicating that the projects were successful. All effectiveness dimensions of effective teamwork were found to be strongly and positively correlated with project success. Three out of the six components of effective team work were identified to be having very positive and strong correlation with the overall success of the project. They are project team roles and responsibility; project team goals and objectives; and project team leadership.

Similarly, another research carried out at Pakistan to examine the impact of project teamwork on project success. The authors made use of four teamwork dimensions: communication, cohesiveness, and collaboration and technical skills to investigate the relations, and they hypothesized the positive and direct relationship between the project teamwork and project success. 129 project managers who lead different teams participated in the survey, and data collected from these project leaders regarding performance and contribution of project teamwork towards project success. Based on the analysis result the authors were able to conclude that project teamwork constructs have positive and direct relationship with project success. S.M. Labib, Abdul Ba'ith, Shah Bukhari (2017).

Christina Scott-Young and Danny Samson (2007) studied the impact of project team management on project success in the process industries. Their main objectives was to investigate how project team factors influence three important capital project outcomes: cost, schedule, and operability. After reviewing the literatures on general team and project management, they were able to construct and test a theoretically based, five-dimensional model of organization context: project team design, project team leadership, project team processes, and project outcome factors. The model was empirically tested on 56 recently completed capital projects carried out by 15 Fortune 500 companies in the process industries. Their findings indicated that disaggregating the project outcomes were useful for research purposes. The necessity for project managers to prioritize and focus on the goals they have for each project is the practical implication of the research, according to the researchers. This entails putting into practice the proper project team procedures to aid in the accomplishment of their goals.

Overall, the literature and empirical reviews consistently demonstrate the effective team management significantly contributes to project success. By adopting appropriate leadership styles, empowering teams, supporting team development, promoting communication and feedback, and fostering trust and respect among team members, project managers can enhance

team performance and improve project outcome. Future research should focus on identifying specific strategies and best practices for effective team management in different contexts.

To this end, this research will examine team management practices in Ethio telecom Addis Ababa 4G project, identify its best practices and limitations, and recommend future improvement areas. In so doing, the study contributes in existing literature by examining the influence of efficient team management on project success in telecom industry.

2.4 Theoretical Framework

Upon a review of literature, the writer were able to identify two variables. Effective team management is the first variable, which is an independent variable. Its constructs include clear goal-setting, honest communication, strong leadership, roles and regulations, and trust and respect. Project success is a second variable and it is a dependent variable. Meeting project objectives, delivering results within budget and schedule, impact on the customer, direct business and organizational success, preparing for the future are its components.

The theoretical framework as indicated on figure 2.1 below was formulated to show the impact of effective team management attributes on project success. Therefore, the author planned to use a regression analysis approach to examine the relationships of the two variables and test the following hypotheses:

Hypothesis (H1): Team goals and objectives clarity have significant and positive effect on project success

Hypothesis (H2): Trust and respect have significant and positive effect on project success

Hypothesis (H3): Team leadership has significant and positive effect on project success

Hypothesis (H4): Team roles and responsibilities have significant and positive effect on project success

Hypothesis (H5): Team communication has significant and positive effect on project success

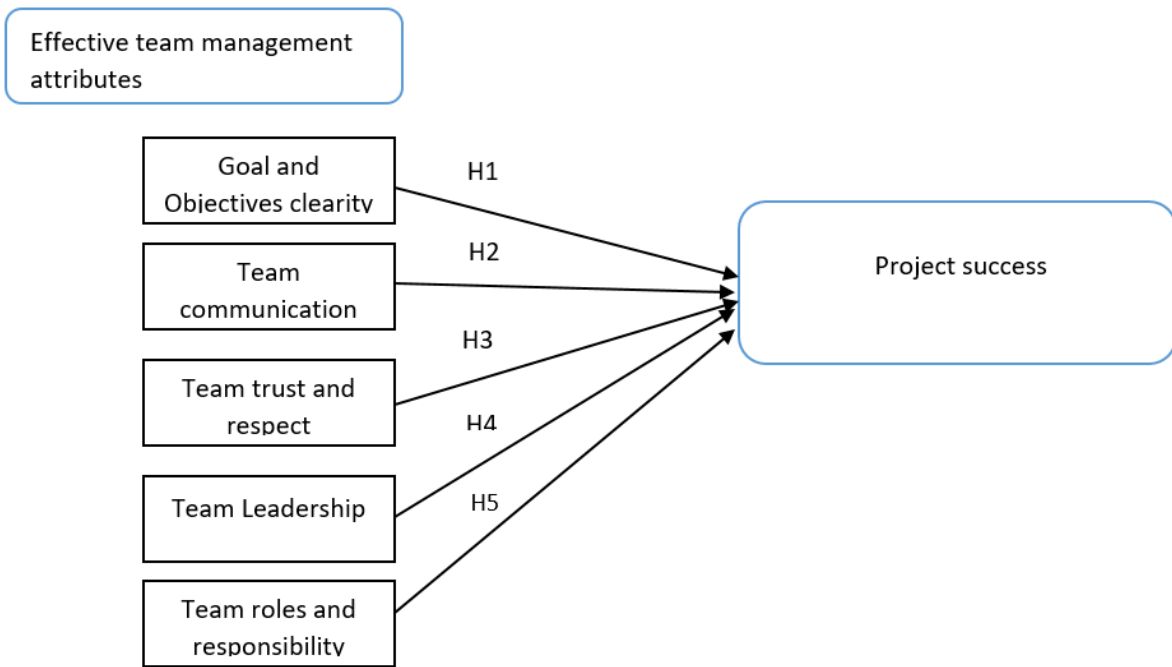


Fig 2. 1 Conceptual framework of the study adapted from Sadi A, (2014)

CHAPTER THREE

3. RESEARCH DESIGN AND METHODOLOGY

The main objective of this research is to find the impact of efficient team management on project success. In the preceding chapter, a conceptual framework to show the relationship between effective team management and project success is constructed through rigorous literature review.

This chapter will present the procedures followed to conduct the study, giving emphasis on research design, research methodology, population and sampling technique, data collection tools and procedures, validity and reliability and ethical consideration.

3.1. Research Design

The selection of a research design is based on the nature of the research problem or issue being addressed, the researchers' personal experiences, and the audiences for the study [1]. The author decided to follow descriptive and explanatory research methods. Descriptive method was used to examine the situation, as it exists in its current state, and to explore correlation between two or more phenomena (Carrie Williams,2007). On the other hand, explanatory research approach was used to examine the cause-and-effect relationships between study variables. In this study, the researcher looked at the current condition of project team management, examined correlations, and tried to determine the cause and effect link between the two variables: efficient team management constructs and project success. The research methodologies used was perfectly suited to accomplish its goals.

Research Approach

The nature of this research question necessitated a quantitative approach, as it sought to examine the relationships between specific variables through numerical data.

3.2. Population and Sampling Technique

The study was conducted at Ethio telecom's Wireless Network Division (WND), which is composed of four main departments: Wireless Network Planning and Engineering, Wireless Network Rollout, Wireless Network OPMO, and Wireless Network O&M. All of these departments participate in 4G LTE projects in Addis Ababa, with the exception of the Wireless Network O&M department, which does not. The population for this study selected from these three departments.

Because it was not possible to study the entire Population (C.R. Kothari, 2004), a sample was drawn from each department. As of March 2024 a total of 130 permanent staff were working in these three departments. The total of population size was divided into 4 as per their working role in their respective departments as shown in the table 3.1.

The sample size is determined using **Slovin's statistical formula** (1960) as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n=sample size to be determined

N=Population of interest

e=error margin,

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{130}{1 + 130(0.05)^2}$$

$$n = 98.11$$

Hence, the sample size is 98 with a confidence level of 95%, i.e. error margin is $(1-0.95) = 0.05$.

Target population				
Departments	Category	Number	sample size (proportion)	sample size approximate
Rollout, OPMO and Engineering departments	Director	3	2.26	2
	Manager	15	11.3	11
	Supervisor	30	22.6	23
	Staffs	82	61.81	62
Total		130	98	98

Table 3.1: Sample Size Determination

Table 3.1 indicates the population and sample proportion of each work category of the target population. Accordingly, 2 respondents from Directors, 11 respondents from managers, 23 respondents from supervisors and 62 respondents from staffs are considered from this study. The respondents from each group were selected using simple random sampling technique and equal chance was given to the members in the category.

The following formula was used for simple random sampling:

$$n_i = n * P_i, \quad P_i = (N_i / N)$$

N = total population size

N_i = size of strata i

n = sample size

n_i = sample size (proportion) of strata i

P_i = is the proportion of the population that belongs to the specific group

3.3. Data Collection

The study employed primary sources of data to obtain the necessary information. Sample respondents provided primary data through closed-ended questionnaires. The questionnaire approach was preferred for this study as the primary data collection tool due to its ability to reach a larger sample size and facilitate the gathering of extensive data. There were three sections to the questionnaire. Section 1 covered the respondents' personal details, including gender, level of education, number of years of experience in the company, position, and type of job. The second section of the questionnaire consisted of prepared questions on a five-point Likert scale with pre-planned answers concerning the elements of effective team management techniques. Section 3 comprised structured five-point Likert scale questions with pre-established answers concerning project success components.

3.4. Data Analysis

The raw data obtained from questionnaires statistically processed to provide interpretable information. The results presented in various types of charts, including pie charts, other forms of data presentations methods.

The data was entered into the computer for analysis using scientific statistical methods, particularly SPSS version 27, after the necessary coding was completed. The findings were summarized using descriptive statistics such as percentage, frequency, and measures of central tendency like mean, standard deviation, and skewness. The study examined the assumptions derived from the conceptual framework using regression analysis model.

Regression analysis, according to C.K. Kothari, is a statistical technique that deals with the creation of a mathematical model that illustrates the relationship between variables and can be applied to the goal of predicting the values of the dependent variable given the values of the independent variable.

3.5. Reliability and validity analysis

Reliability in research refers to the extent that a given study can be repeatable (Walliam, 2006). A study that consistently produces result each time it is carried out is considered to have reliability. On the other hand, validity of a research refers to the degree to which the research reflects or evaluates the concept or phenomenon being examined (Tirochim, 2006). In order to achieve reliability and validity of research, implementing proper research design, choosing appropriate method and writing up results are required. In this research, all aforementioned precautions and procedures were made to make the research valid and reliable.

Reliability

Numerous statistical techniques can be used to test different forms of reliability when assessing the reliability of questionnaire items using SPSS software, the Cronbach Coefficient Alpha will be used for internal consistency calculations. In general, the closer the value Cronbach's alpha coefficient is to 1.0, the more reliable is the instrument. As stated in Nunnally and Bernstein (1994), a Cronbach's alpha value equal to or greater than 0.70 is considered satisfactory.

In this research, a pretest was conducted to the check the conformity of the instrument with acceptable value of Cronbach's alpha. Accordingly, all the measurements were reliable with acceptable Cronbach's alpha value as it is depicted in table 3.2

Variable Group	Variables of the study	Cronbach's alpha	No of items
Efficient team management constructs	Clear goals and Objectives	0.902	6
	Project team communication	0.949	6
	Trust and Values	0.878	6
	Project team leadership	0.953	5
	Team roles and responsibility	0.849	4
Project Success	Project Success	0.993	16

Table 3.2 Reliability analysis results for efficient team management constructs

Validity

For this study, attempts to establish validity were made by adapting existing survey instruments. Questionnaire for components of efficient team management were adapted from Azmy (2012): The Role of Team Effectiveness in Construction Project Teams and Project Performance, and for project success part from J.Shenhar (2002): Project Success: A Multidimensional Strategic Concept.

3.6. Ethical Consideration

To fulfill the ethical requirements of the research, the researcher adhered to correct citation, truthful data collection and analysis, maintained data confidentiality, obtained permission from the case organization and staff, and kept respondent identities confidential based on their consent. The questions were created and sent to the respondents using as much ethical language as feasible.

CHAPTER 4: DATA PRESENTATION, ANALYSIS AND INTERPRETATION

This section of the paper presents and analyzes the survey results obtained from Ethio telecom Wireless Division on its Advanced LTE project implementation. The section is organized into two parts. The result of the descriptive analyses are given in the first part, and the findings of the regression analyses are given in the second part. After presenting the results, the data collected from the respondents is discussed, with supporting evidence from the literature. Generally, this part of the paper is structured as follows: the respondents` profiles were given and examined first. Second, an analysis was done on the data gathered through surveys.

4.1 Response Rate

The study was conducted to examine the relationship of effective team management and project success in the context of the LTE advanced project at Ethio telecom Wireless Network Division. Data was collected from employees, who were working in this division and took parts in the project at different levels, ranging from staff Engineer to program director. To this effect, 98 questionnaires were distributed and 79 were returned with a response rate of 80.6%. In academic research, a response rate of 50% or higher is often considered acceptable (Mellahi, Kamel and Harris, Lloyd C.. (2016)).

4.2 Respondents Profile

The population size for this research was composed of 79 respondents. As it can be seen depicted in pie chart of fig 4.1 and table 4.1, most of the respondents were project team members working in different levels, while 7% and 4% of the sample assumed project manager and director positions in the company, respectively. Given their closer involvement in the project, the survey responses from a team composition like this would provide pertinent information about the project issue.

Out of all respondents, 86% are men and 14% are women, according to the sex mix of the respondents. With regard to educational background, the bulk of research participants 58.23% have a BSc, followed by a 40.51 percent Msc and a 1.27% diploma.

The respondent service year in the case organization shows that the majority of the respondents have work experience from 3 to 8 years at 44% followed by 28% with a work experience of 9 to

14 years. Respondents with 15 to 20 years' experience, below 2 years' and above 21 years are small in number at 14%, 9% and 5% respectively.

Over all, majority of the respondents have sufficient experience to be involved and provide project team management and project outcome relationship related information for this particular study.

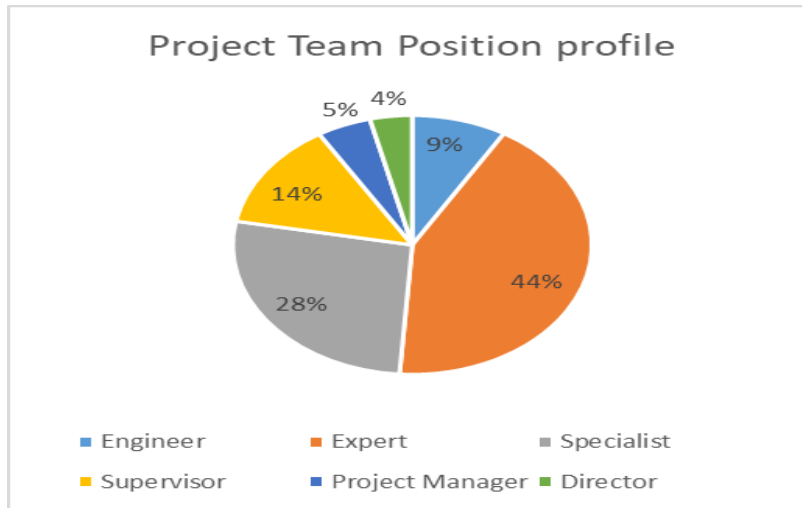


Fig 4. 2 Project team position profile

Respondents characteristics	Categories	Frequency	Percentage
Sex	Male	68	86%
	Female	11	14%
Position	Engineer	25	31.6%
	Expert	6	7.6%
	Specialist	29	36.7%
	Supervisor	11	13.9%
	Project Manager	6	7.6%
	Director	2	2.5%
Work experience	1 to 2 years	7	9%
	3 to 8 years	35	44%
	9 to 14 years	22	28%
	15 to 20 years	11	14%
	Above 21 years	4	5%
Educational Background	Diploma	1	1%
	BSc	46	58%
	Msc	32	40.5%

Table 4. 1 Respondent profile

4.3 Results of Descriptive Statistics

Variables	Mean	Std. deviation	N
1. Clear goals and Objectives	4.2	0.72	79
2. Project team communication	3.67	0.97	79
3. Trust and Values	4.01	0.72	79
4 Project team leadership	3.71	0.95	79
5 Team roles and responsibility	4.12	0.74	79
6.Project Success	3.80	0.79	79

Table 4. 2 Descriptive statistics

Source: Field Survey

In terms of well-defined goals and objectives, the table 4.2 reveals that study participants expressed clarity on project goals and objectives, with a mean value of 4.2(SD=0.72). This suggests that the project's goals and objectives are well defined, and the team has clarity on the goals and objectives of the project.

Project team communication was evaluated with a mean score of 3.67 (SD=0.97), which, according to Likert scale, it is above neutral range (2.6 – 3.4) [3]. This evaluation level shows that there is good communication within the project team, and information relevant to the project is shared transparently.

For team trust and values construct of team management, the finding showed that a mean score of 4.01 (SD=0.71). From a Likert scale perspective, this falls in the agree range [3]. This implies that the members have mutual trust and every member of the team is respected.

Project team leadership is evaluated by study participants with 3.71 mean (SD=0.95). This is also inside the agree range on the Likert scale. This suggests that there is consensus on decision-making and effective team management.

Finally, one of the efficient team management constructs, team roles and responsibility, has been evaluated with 4.12 mean (SD=0.74). This suggests that project team members are clear on individual role relative to the team as a whole, and they understand the responsibilities assigned to each of them.

The Ethio telecom LTE projects have good overall scores across all five efficient team management constructs. However, Table 4.2's statistical data highlights areas that require further

development to enhance project success. Specifically, the project receives lower scores in two efficient team constructs: project team leadership and project team communication. This suggests that efforts should be made to improve the leadership and communication abilities of the project team.

Table 4.2 above describes also the overall results generated for Ethio telecom LTE project in which the mean is 3.80 (SD=0.79), which on a five-point Likert scale is more than the neutral range (2.6–3.4) [3]. This suggests that Ethio telecom LTE project was successful.

The effect of efficient team management constructs on project success is further analyzed through regression analysis.

4.5. Regression analysis

This study used multiple regression model to test cause and effect relationship between efficient team management constructs and project success. In the regression analysis, both the existence of significant relationship and the direction of relationship between these variables are to be tested.

Preliminary Tests

4.5.1 Multicollinearity Test

When the variables have a strong correlation with one another in order to predict the dependent variable, a problem known as collinearity occurs. If the tolerance level is less than 0.2 or the greatest Variance Inflation Factor (VIF) is larger than 10, there may be a multicollinearity issue (Yaffee 2004). The current model's collinearity statistics indicate that all of the tolerance statistics are significantly over 0.2 and all of the VIF values are below 10. It is safe to conclude, then, that the available data do not exhibit collinearity.

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
Goal and Objective clarity	0.556	1.799
Trust and Values	0.456	2.191
Team Leadership	0.374	2.671
Team roles and responsibility	0.614	1.628
Team communication	0.456	2.193

Table 4. 3 Mutlicollinearity Test

4.5.2 Normality Test

Normality test is used to determine whether the error is normally distributed. The result obtained from Shapiro-Wilk test indicates that all the variables had a p-value greater than (0.05), meaning that the variables involved in the study follow normal distribution. Furthermore, plots of the normal probability and histograms demonstrate that the residuals are normally distributed.

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Studentized Residual	.070	78	.200*	.975	78	.122

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

a. Lilliefors Significance Correction

Table 4. 4 Test of normality (Shapiro-Wilk)

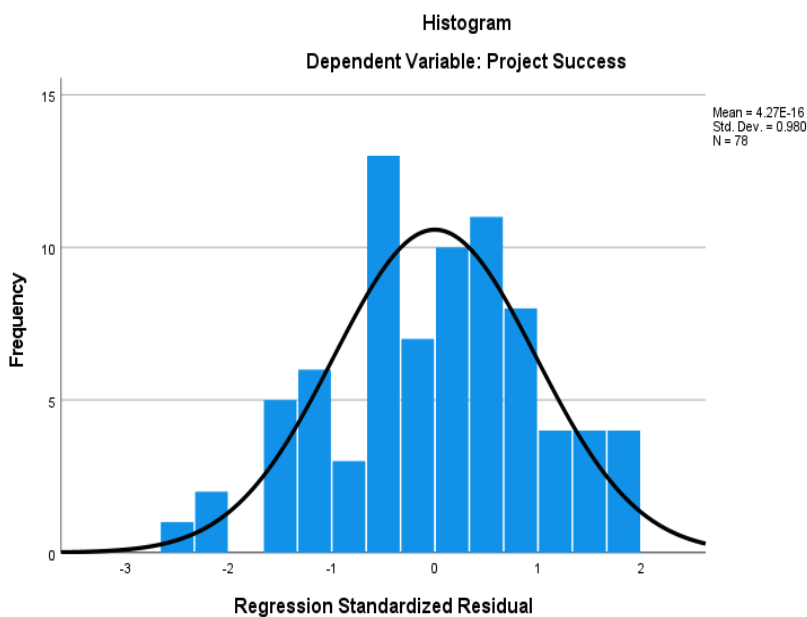


Fig 4. 3 Histogram plot

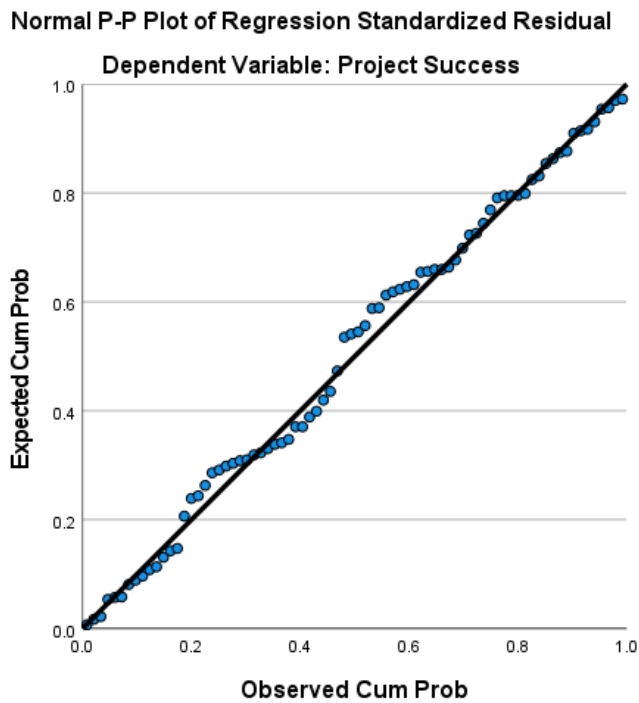


Fig 4. 4 P-P plot

4.5.3 Model Fit

In this study, the model fit—that is, the model's capacity to forecast the outcome variable—is evaluated using the R^2 , cross-validity and ANOVA. A model's cross-validity is measured by the adjusted R^2 , whereas the R^2 is used to evaluate the variance in the dependent variable: Project Success accounted for by the independent variables. Below are the ANOVA tables and model summary that display the model-fit outcomes.

Evaluating the model's goodness of fit, or how well the observed data matches the model, is crucial. An effective metric for assessing goodness-of-fit is the R^2 , which shows how much of the variation in the result is explained by the model. Put another way, it calculates the proportion of the outcome variation that the model can account for.

Model Summary^b				
Model	R	R ²	Adjusted R Square	Std. Error of the Estimate
1	.794^a	0.631	0.611	0.290497
a. Predictors: (Constant), Goals and Objectives clarity, Team communication, Team Leadership, Trust and Values, Team roles and responsibilities				
b. Dependent Variable: Project Success				

Table 4. 5 Model Summary

As the study results in table 4.5 reveals, the correlation between the observed value of dependent variable (Project success) and the optimal linear combination of the independent variables (goals and objectives clarity, team communication, team leadership, trust and values, and roles and responsibilities) is 0.794, as indicated by R. Moreover, given the adjusted R² value of 0.611, it may be realized that 61.1 % of the variation in ‘project success ‘ can be explained by the five independent variables (goals and objectives clarity, team communication, team leadership, trust and values, and roles and responsibilities). The remaining 38.9% of the variance is explained by other variables not included in this study. Because there is a significant variance in the dependent variable in the current study as a result of the independent variables, the adjusted R² percentage indicates a good assessment of the model.

Cross-validation of the Model (The Adjusted R²)

It is challenging to have confidence that the model created from our sample would adequately depict the total population. However, there exist methods for evaluating the model's predictive power in a different sample. Cross-validation is one approach to accomplish this. The process of cross-validation involves evaluating the model's accuracy on various samples. The regression analysis's adjusted R² is used to evaluate cross-validation. The shrinkage or loss of predictive power is indicated by the adjusted R². It indicates the amount of variance in the project success variable that would have been explained if the population used to generate the model had been the sample's source.

A good model to generalize is indicated by a result that is equal to or closer to the R² value. The current study's results showed an R² of 0.631 and an adjusted R² of 0.611, with a.002 (0.2%)

difference. This shrinkage indicates that about 0.2% less variance in the result would be explained if the model were based on the population as opposed to the sample. This value indicates that the cross-validity of the model in the current investigation is quite good, as it is very similar to the observed value of R^2 (0.631).

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.525	4	2.631	31.181	.000^b
	Residual	6.160	73	0.084		
	Total	16.686	77			
a. Dependent Variable: Project Success						
b. Predictors: (Constant), Team roles and responsibility, Trust and Values, Goal and Objective clarity, Team Leadership, Team communication						

Table 4. 6 ANOVA Table

The F value 31.181 of the ANOVA section of the table above is also significant(0.000), shows that the impact of the joint of the five efficient team management constructs is significant at 99% significance level. This suggests that the model is best fitted at all the conventional levels of significance.

4.5.4 Correlations test

The correlation coefficient between project success and the five team constructs is 0.794, as it is depicted in the Table 4.7 below. The result suggests that higher scores on the composite team management constructs mean are linked to higher levels of project success. In other words, teams that score well in these five areas are more likely to achieve their project goals. In the subsequent regression analysis, the individual impact of team management constructs will be determined.

Correlations			
		Project success	Team Constructs
Project success	Pearson Correlation	1	.794**
	Sig. (2-tailed)		0
	N	79	79
Team Constructs	Pearson Correlation	.794**	1
	Sig. (2-tailed)	0	
	N	79	79

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

Table 4. 7 Pearson Correlations Coefficient

4.5.5 Coefficients of the Multiple Regression Analysis

The current study used linear regression models to investigate the associations between project success and efficient team management dimensions.

Table 4.8 Coefficients of Dependent and Independent Variables

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.148	0.295		3.897	0.000
	Goal and Objective clarity	0.382	0.087	0.420	4.398	0.000
	Trust and Values	0.248	0.082	0.316	3.006	0.004
	Team Leadership	0.195	0.055	0.334	3.564	0.001
	Team roles and responsibility	0.135	0.073	0.168	1.856	0.031
	Team communication	0.146	0.074	0.219	1.976	0.042
a. Dependent Variable: Project Success						

Source: Own Survey, 2024

The contribution of each individual variable to the model is displayed in the standardized beta coefficient column. The average increase in the dependent variable when the independent variable increases by one standard deviation (all other independent variables being held constant) is known as the beta weight. We may compare these since they are standardized. The significant levels and the directions of each variable's influence on the dependent variable: project success will be covered in the discussion that follows.

1. Goals and Objectives clarity

The statistical analysis indicates a significant relationship ($p = 0.000$) between project success and the clarity of team goals and objectives, with a confidence level of 99%. This finding provides strong support for the alternative hypothesis, which posited a significant and positive association between these variables. The standardized coefficient ($Beta = 0.42$) further confirms that the clarity of project team goals and objectives positively influences project success. This suggests that when project teams establish clear, measurable goals and objectives, they are more likely to achieve success in their projects. These results underscore the importance of setting specific and achievable goals to enhance project outcomes and overall success.

The results of this study are consistent with previous research on the impact of clarity in team goals and objectives on project performance. For instance, Yang et al. (2018) examined the effects of team goal clarity, team conflict, and project performance in software development projects. Their findings indicate that clear goals have a positive and direct effect on project performance, suggesting that clear direction mitigates the negative effects of team conflict.

Similarly, Wang et al. (2021) investigated the relationship between goal setting, team communication, and project success in the construction industry. Their findings demonstrate a strong positive correlation between clear goals and project success, mediated by effective team communication.

Additionally, Wu et al. (2020) explored the relationship between team goal clarity, team psychological safety (the comfort in taking risks and sharing ideas), and project performance in telecommunication companies. Their results suggest that clear team goals positively impact performance, mediated by team psychological safety.

These studies collectively reinforce the findings of this research, highlighting the crucial role of clear team goals and objectives in enhancing project performance.

2. Trust and Values

The relationship between team trust and values with project success is significant at 99.6% with a sig value of 0.004. This supports the alternative hypothesis, indicating that team trust and values do indeed have a positive impact on project success. The standardized coefficient ($B=0.316$) further corroborates this finding, suggesting that for every unit increase in team trust

and values, project success increases by 0.136 units. The result provides a compelling evidence of significant impact that the team trust and values have on project success. By fostering a culture of trust and ensuring alignment of values within project teams, organizations can enhance their ability to deliver successful outcomes.

The results of this study on the influence of team trust and values on project performance are corroborated by several other research studies. For example, Raza et al. (2019) explored the relationship between trust, shared values, and project team performance. Their findings demonstrate a significant positive correlation between trust and shared values, both of which contribute to enhanced project performance.

Similarly, Mors et al. (2017) examined the relationship between team trust and project performance across various contexts. Their analysis reveals a strong positive correlation, underscoring the critical role of trust in achieving successful project outcomes.

Moreover, Chen et al. (2013) conducted a longitudinal study investigating the impact of trust and shared vision on project team performance in software development projects. Their findings indicate that trust and shared vision have a positive and cumulative effect on performance over time. This research highlights the enduring nature of trust and its ability to enhance team performance throughout a project's lifecycle, providing valuable insights for your project.

These studies collectively reinforce the findings of this research, emphasizing the essential role of team trust and shared values in driving project success.

3. Team leadership

The regression analysis yielded a significant result ($p=0.001$), indicating that team leadership has a positive effect on project success. The standardized coefficient ($B=0.334$) suggests that for every unit increase in team leadership effectiveness, project success increase by 0.334 units. The results provide compelling evidence for the hypothesis and highlight the critical role that outstanding team leadership plays in ensuring project success. Project team members can receive direction, inspiration, and guidance from a capable and motivating project team leader, which will ultimately improve project outcomes.

Numerous studies corroborate the findings of this research. For instance, Aga et al. (2017) conducted a meta-analysis examining various leadership styles and their impact on project

success. Their results indicate that leadership styles characterized by managerial and emotional intelligence are positively associated with project success. This meta-analysis underscores the broad importance of effective leadership, aligning with our study's focus on the positive influence of team leadership.

Similarly, Hassan et al. (2016) explored the mediating role of teamwork between leadership styles and project success. Their findings demonstrate that strong leadership fosters effective teamwork, ultimately leading to improved project outcomes.

Moreover, Shen et al. (2016) investigated the effects of team leadership in the context of international joint ventures. Their findings confirm that effective leadership plays a crucial role in project success, even in complex multinational environments.

Additionally, Wu et al. (2014) examined the mediating role of shared vision (a clear understanding of project goals) and team empowerment (giving team members ownership of their tasks) in the relationship between transformational leadership and project success. They found that strong leadership positively impacts project outcomes by fostering a shared vision and empowering team members. This research highlights the importance of leadership in creating a unified and empowered team environment for optimal project execution.

These studies collectively reinforce our findings, emphasizing the essential role of effective team leadership in driving project success

4. Project Team Communication

The regression analysis yielded a highly significant result ($p=0.042$), indicating that team leadership has a positive effect on project success. The standardized coefficient ($B=0.219$) suggests that for every unit increase in team leadership effectiveness, project success increase by 0.219 units. The results validate the hypothesis and emphasize how important it is for project teams to communicate well. Clear and open lines of communication promote cooperation, information exchange, and problem-solving, all of which increase project results.

The results of this study are consistent with other similar research. For instance, Belassi & Tukel (2019) explored the impact of effective communication on project success. Their findings demonstrate a strong positive correlation, highlighting that clear and timely communication fosters collaboration, reduces misunderstandings, and ultimately leads to better project outcomes.

Montoya-Weiss et al. (2012) also examined communication management practices in project teams. Their findings reveal patterns of communication behavior that contribute to project success, offering specific insights into effective communication strategies that can be implemented within teams.

Additionally, Edmondson et al. (2017) investigated the interplay between communication, trust, and psychological safety (feeling comfortable taking risks and sharing ideas) in project teams. They found that effective communication fosters trust and psychological safety, leading to improved team performance. This research underscores the interconnectedness of communication with other positive team dynamics that contribute to project success.

These studies collectively reinforce the findings of this research, emphasizing the crucial role of effective communication in driving project success

5. Team Roles and Responsibilities

The relationship between team roles and responsibilities with project success is significant at 96.9% with a sig value of 0.031. The coefficient ($B = 0.168$) suggests that for every unit increase in the effectiveness of team roles and responsibilities, project success increases by 0.168 units. The results validate the hypothesis and highlight how important it is for project teams to have clearly defined roles and responsibilities. Clearly defining roles and duties can improve responsibility, efficiency, and coordination—all of which can lead to better project outcomes.

The results of this study are consistent with previous research on team roles and responsibilities. For instance, Carneiro et al. (2017) explored the combined impact of role clarity, team cohesion (sense of unity), and conflict management on project performance. Their findings suggest that clear roles and responsibilities enhance team cohesion and facilitate effective conflict management, ultimately leading to better project outcomes.

Similarly, Hoch et al. (2014) investigated the mediating role of team member empowerment (giving team members ownership of their tasks) in the relationship between role clarity and project success. They found that clear roles empower team members to perform their tasks effectively, resulting in improved project outcomes.

Furthermore, a critical review of existing literature by De Wit (2011) underscores the importance of clearly defined roles and proper assignment of responsibilities, highlighting their significant impact on project success.

These studies collectively reinforce the findings of this research, emphasizing the essential role of clear team roles and responsibilities in achieving project success.

Our study's conclusions thus contribute to the broader scholarly discourse centered on efficient team management and its significance in achieving project success. By aligning our findings with existing research, we provide further insights into the complex dynamics at play within project teams and underscore the importance of effective team management strategies in driving successful project outcomes.

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4.6 Hypotheses Test

H1: Team goals and objectives clarity have significant and positive effect on project success

Refereeing to 4.3 and table 4.7, the relationship between clarity of team goals and objectives and project success is significant at 99% with a sig value of .000. The standardized coefficient (Beta = 0.42) further confirms that the clarity of project team goals and objectives positively influences project success. Therefore, the alternative hypothesis that stated team goals and objectives clarity have significant and positive effect on project success is supported.

H2: Team trust and value has significant and positive effect on project success

Pursuant to table 4.3 and table 4.7 team trust and values with project success is significant at 99.6% with a sig value of 0.004. The standardized coefficient (B=0.316) further validates this finding, suggesting that for every unit increase in team trust and values, project success increases by 0.136 units. Therefore, the alternative hypothesis that stated team trust and value has significant and positive effect on project success is supported.

H3: Team leadership has significant and positive effect on project success

According to regression analysis table 4.3 and table 4.6, the relationship between team leadership and project success is significant at 99% with a sig value of .001. The standardized coefficient (B=0.334) suggests that for every unit increase in team leadership effectiveness, project success increase by 0.334 units. Therefore, the alternative hypothesis that stated there is team leadership has significant and positive effect on project success is supported.

H4: Team roles and responsibilities have significant and positive effect on project success

As it is indicated in table 4.3 and table 4.7, the relationship between team roles and responsibilities with project success is significant at 96.9% with a sig value of 0.031. The standardized coefficient (B=0.168) suggests that for every unit increase in the effectiveness of team roles and responsibilities, project success increases by 0.168 units. Therefore, the alternative hypothesis that stated team roles and responsibilities have significant and positive effect on project success is supported.

H5: Team communication has significant and positive effect on project success

Referring to regression table 4.3 and table 4.6, the relationship between team communication and project success is significant at 95.8% with a sig value of 0.042. The standardized coefficient (B=0.219) suggests that for every unit increase in team leadership effectiveness, project success increase by 0.219 units. Therefore, the alternative hypothesis that stated team communication has significant and positive effect on project success is supported.

Hypothesis	Hypothesis Description	Result	Decision
H ₁	Team goals and objectives clarity have significant and positive effect on project success	Significant(P=0.000) and Positive (B=0.420)	Hypothesis supported
H ₂	Team trust and value have significant and positive effect on project success	Significant(P=0.004) and Positive (B=0.316)	Hypothesis supported
H ₃	Team leadership has significant and positive effect on project success	Significant(P=0.001) and Positive (B=0.334)	Hypothesis supported
H ₄	Team roles and responsibilities have significant and positive effect on project success	Significant(P=0.031) and Positive (B=0.168)	Hypothesis supported
H ₅	Team communication has significant and positive effect on project success	Significant(P=0.042) and Positive (B=0.219)	Hypothesis supported

Table 4. 8 Summary of Hypothesis test result

CHAPTER 5: SUMMARY OF FINDINGS, CONCLUSION, RECOMMENDATION and LIMITATIONS

This study aims to empirically investigate how efficient team management components impact project success within Ethio telecom, focusing on the Addis Ababa LTE Project. To achieve this goal, the study first highlights the significance of effective team management in driving project success, with a particular emphasis on understanding the relationship between various constructs of effective team management and project outcomes. Subsequently, the study examines the correlation between project success and key dimensions of efficient team management, including clarity of team goals and objectives, quality of team leadership, establishment of trust and values, and delineation of team roles and responsibilities. Furthermore, the study evaluates the influence of these variables on project success. This chapter concludes with a summary of the primary findings, offers recommendations based on the conclusions drawn and highlighting potential areas for future investigation

5.1 Summary of Findings

The descriptive statistical analysis sheds light on the various components of effective team management and their relationship with project success.

Effective team components:

a. Clear Goals and Objectives:

The data reveals that teams perceive their projects to have clear goals and objectives, with a mean rating of 4.2 (SD=0.72). This rating suggests that a majority of teams have an understanding of project goals and objectives, which is fundamental for guiding project activities and decision-making.

b. Project Team Communication:

Communication within project teams is rated slightly lower, with a mean of 3.67 (SD=0.97). While still above neutral range, there may be room for improvement in communication channels and practices to facilitate better information sharing, collaboration, and coordination among team members.

c. Trust and Values:

Teams report a good sense of trust and alignment with organizational values, as indicated by a mean rating of 4.01 (SD= 0.72). This indicates that that participants perceive trust and shared values as essential elements of effective team management.

d. Team Leadership:

Project team leadership is rated positively, with a mean of 3.71 (SD=0.95). While still above neutral range, there is a room for improvement.

e. Team Roles and Responsibilities:

Team roles and responsibility received a mean rating of 4.12 (SD=0.74), indicating that participants believe clear delineation of roles and responsibilities is important for effective team management.

Project Success

Based on the statistical data presented in Table 4.2, the average score for the Ethio telecom LTE project was 3.80, with a standard deviation of 0.79. This mean falls above the neutral range of 2.6–3.4 on a five-point Likert scale [3]. This finding indicate the success of the Ethio telecom LTE project.

Following the statistical analysis, multiple regression has been conducted in order to determine the extent to which each independent variables have impact on project success. Major outcomes are summarized as follows:

All the independent variables (goals and objectives clarity, team leadership, team communication, trust and values, and team roles and responsibilities) of the study are positive significant predictors of project success and they explain 61.1% of variation in project success as indicated in table 4.5. However, their level of significance for variance differs.

- a. Goals and objectives clarity: It has the lowest p-value of 0.000, indicating extremely high statistical significance. The coefficient of 0.420 suggests a strong positive effect on project success.
- b. Team leadership: While it has a low p-value of 0.001 and a high coefficient of 0.334, it is slightly less significant than Goals and objectives clarity but still plays a crucial role in project success.

- c. Team Trust and Values: With a p-value of 0.004 and a coefficient of 0.316, it remains significant but falls behind team leadership in terms of both significance and coefficient magnitude.
- d. Team Communication: It has a higher p-value of 0.042 and a coefficient of 0.219, indicating a weaker but still significant positive effect on project success compared to the other variables.
- e. Team Roles and Responsibilities: With a p-value of 0.031 and a coefficient of 0.168, it demonstrates a weaker significance and effect compared to the other variables.

5.2 Conclusion

The statistical analysis of the study shows that clear goals and objectives, trust and values, and team roles and responsibility have a high mean ratings and moderate standard deviation variability. This suggest that a positive relationship between these aspects of efficient team management and project success. Participants seem to perceive these dimensions as critical drivers of project success. On the other hand, the slightly lower mean rating for project team communication and project team leadership, coupled with higher standard deviations, indicates that there may be areas for improvement in these dimensions. Strengthening communication practices and leadership effectiveness within the project team could potentially enhance project success.

While the overall project success received a relatively a good mean rating, the higher standard deviation suggests some variability in perceptions among participants. This underscores the importance of considering multiple dimensions of efficient team management in order to achieve consistent and sustainable project success.

Overall, the statistical descriptive data provide valuable insights into the relationship between efficient team management dimensions and project success, highlighting areas of strength as well as opportunities for improvement.

The findings from the regression analysis underscore the multifaceted nature of factors influencing project success. Clear goals and objective clarity emerge as the cornerstone of project success in this study, indicating that when project objectives are well-defined and transparent, teams are better equipped to align their efforts and make informed decisions,

ultimately leading to successful project outcomes. This finding is in consistent with other researcher findings such as Yang et al. (2018) and Wang et al. (2021).

Moreover, effective team leadership proves to be instrumental in navigating teams towards achieving project goals. A competent and inspiring leader can provide guidance, motivation, and direction, fostering a positive team environment conducive to success. Additionally, team trust and values play a pivotal role, emphasizing the significance of fostering mutual respect, collaboration, and shared purpose within teams. Numerous researches corroborate this finding. For instance, Aga et al. (2017) and Hassan et al. (2016)

While team communication demonstrates a somewhat weaker but still significant impact, it remains a crucial aspect of project success. Open and transparent communication channels facilitate information sharing, collaboration, and problem-solving, contributing to improved project outcomes.

Lastly, while team roles and responsibilities show a lesser impact compared to other factors, they still play a role in shaping project dynamics. Clear delineation of tasks and responsibilities can enhance coordination, efficiency, and accountability within teams.

In summary, both analysis methods provide comprehensive insights addressing all research questions. The five team dimensions, integral to effective team management, exhibit a positive and significant influence on project success. Moreover, individual aspects of teamwork demonstrate a notable impact on the overall success of the project.

5.3 Limitation of the study

The findings of this study are specific to the context of Ethio telecom Addis Ababa LTE project implementation, and therefore, their applicability to other organizations or industries may be limited due to variations in organization structure, culture, and project types. Additionally, the sample size drawn from Ethio telecom is restricted, potentially impacting the study's generalizability and statistical power. Furthermore, the measurement of team factors and project success may be susceptible to biases, such as social desirability bias, potentially compromising the validity of the results. Time constraints have also constrained the depth and breadth of the analysis and hindered the exploration of additional variables or factors. Moreover, contextual factors within Ethio telecom wireless network division, such as leadership style, organizational culture, or project management practices, may have influenced the findings in a manner not necessarily applicable to other contexts.

5.4 Contribution

Despite its limitations, the research holds several significant implications. Firstly, in terms of practical application, the findings offer valuable insights for organizations, particularly within the telecom industry, on methods to enhance teamwork and consequently improve project outcomes. Secondly, from a managerial perspective, managers can utilize the findings to gain a deeper understanding of the factors contributing to project success, allowing them to tailor their leadership and management approaches to cultivate effective teamwork within their teams. Thirdly, in terms of future research directions, the identified limitations of the current study can serve as a guide for further exploration. Overall, despite its acknowledged limitations, this research contributes valuable insights that can inform both practical applications and future research endeavors in the realms of project management and teamwork.

5.5 Recommendation

In this study, regression analysis and descriptive analysis are employed in order to achieve research objectives. Regression analysis is used to determine which dimensions of efficient team management have most significant impact on various aspects of projects success, likewise descriptive analysis helps in understanding the overall perceptions and variability in responses among participants regarding the importance and effectiveness of different aspects of team management and project success. In light of this understanding, the following recommendations are forwarded:

1. Since clear goals and objectives have shown to significantly impact project success, it's essential for Ethio telecom to reinforce the clarity of goals and objectives across all projects.
2. Fostering a culture that prioritizes trust, and shared values should be Ethio telecom's top priority, as trust and values are factors in both descriptive statistics and regression analysis.
3. Despite the low mean score and high standard deviation for team leadership, the regression analysis indicates its significant impact on project success, second only to goals and objectives. Therefore, Ethio telecom should prioritize investing in leadership development initiatives to strengthen the leadership capabilities within project teams.

This could include providing training, coaching, and mentorship programs to enhance leadership skills such as communication, decision-making, and conflict resolution.

4. Team communication scores low in both statistical and regression analysis indicates that it is an area of concern that warrants concern. The following tailored recommendations are suggested:

- Offer training sessions or workshops focused on enhancing communication skills for all project team members.
- Foster an environment where project team members feel comfortable expressing their ideas, concerns, and feedback openly.
- Leadership plays a crucial role in shaping communication norms within the team. Project managers and team leaders should lead by example by demonstrating effective communication skills and promoting a culture of open communication and transparency.
- Clearly define communication channels and protocols within the team to avoid confusion and ensure information flows smoothly. Establish guidelines for when to use different communication methods (e.g., email, instant messaging, face-to-face meetings) based on the urgency and nature of the message.

5. The regression results indicate weaker significance for roles and responsibilities. This indicates that while these factors may still have an impact on project success, their influence may be less pronounced compared to other variables in the study. To address this weaker significance, Ethio telecom needs to undertake the following recommended actions:

- Examine team roles and duties in detail to make sure they are well defined and in line with project goals results.
- Make certain that team members are assigned roles that align with their skills, expertise, and strengths.
- Give team members the freedom and authority to decide in their areas of competence so they may take responsibility for their roles and duties.
- Encourage a cooperative atmosphere where team members collaborate easily to accomplish project objectives.

In conclusion, Ethio telecom should prioritize initiatives aimed at establishing clear goals and objectives, fostering effective leadership, cultivating trust among team members, improving communication channels, and clarifying roles and responsibilities. By addressing these key factors, organizations can create an environment conducive to successful project execution and achieve desired project outcomes.

5.6 Future study suggestion

To enhance the generalizability of the study findings, future research should consider expanding beyond the scope of data solely from Ethio telecom. This could involve incorporating data from various sectors, thereby offering a more comprehensive understanding of the subject matter

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ANNEX-I DATA COLLECTION INSTRUMENT



Addis Ababa University School of Commerce Project Management (MAPM) Program

Dear staff member/Respondents,

I invite you to participate in a survey on the **impact of efficient team management on project success**. I respectfully ask you take the time to complete the questionnaire as honestly and responsibly as you can. I inform you that the information you provide will be consumed for academic purpose only. Your accurate responses make the paper highly valuable. Hence, please read it carefully and provide your conscious opinion. Thank you for your participation and contribution to the completion this research.

The researcher created the following questionnaires about WND project team management in order to evaluate the effect of project team management on WND wireless projects focusing on LTE project. Kindly select the box () that corresponds with each question number to indicate your level of agreement or disagreement with each statement. I kindly request that you respond to every inquiry.

The item has five-point Likert type scales; the scales have the following meaning

- | | |
|---------------------------------|---------------------|
| 1 = Strongly disagree, | 4 = Agree, |
| 2 = Disagree, | 5 = Strongly Agree. |
| 3 = Neither Agree nor Disagree, | |

General Instructions

- There is no need to write your name and email address.
- Where answer options are available please click on the provided circle bullet (○) in the appropriate box.

Contact Address

If you have any query, please do not hesitate to contact me. I am available as per your convenience at (Mobile: 0911224077 or email: amde1972@gmail.com)

The aim of this questionnaires' is for Academy Purpose Only for Masters of Project Management.



Addis Ababa University School of Commerce
Project Management (MAPM) Program

Part I. Demographic Information

1. Educational Qualification:
 - Certificate/Diploma/Levels
 - Bachelor's Degree
 - Post Graduate Degree
 - Doctorate Degree
 - Other: _____
2. Gender /Sex
 - Female
 - Male
3. Employee Level/Work Positions
 - Director
 - General Manager
 - Project Manager
 - Supervisor
 - Specialist
 - Other: _____
4. Project related experience _____ Years:
5. Your department/Section currently working on:

Part II. Components of efficient team management. Questionnaire is adopted from (Azmy,2012)

Part I Efficient Team Dimensions

S/N	statement	score				
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	Clear goal and Objective					
GO1	The goals and objectives of the project are well-defined	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GO2	The project team members understand the goals and objectives of the project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GO3	The project team's goals align with the overall project goals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GO4	The clarity of goals and objectives affects the success of the project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GO5	The project team is committed to achieve team's goals and objectives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GO6	The results of the project will benefit the parent organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Project team communication					
PC1	The communications in and outside meetings are effective	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PC2	The communication between team members is open and honest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PC3	Team members feel comfortable expressing their ideas and opinions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PC4	Project related information is shared openly and clearly within the team	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PC5	Effective conflict management is exercised within the project team	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PC6	The team meeting is frequent and timely to keep team members informed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Trust and Values					
TV1	The team members trust each other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TV2	The team members show appreciation towards one another	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TV3	I trust my teammates in making decisions for the team	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TV4	My contributions for the team are recognized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TV5	As a member of the team, I am treated with respect	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

S/N	statement	score				
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
4	Team Leadership					
a.	I feel comfortable with the decision-making process within the team	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Team members provide input/thoughts throughout the project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	The project manager is comfortable with the concept of shared leadership with team members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	The project manager and team members spend time in clarifying what they expect from each other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	Project manager exercises good judgement and offers good advice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Team roles and responsibility					
a.	I am clear on my individual roles in relations to the team as a whole.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Team members are clear on individual roles in relations to the team as a whole.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	I understand the responsibilities assigned to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	Team members are willing to take initiative for unassigned tasks, problems for urgent situations that might need member attention	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part II project success

1	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PS01	The organization and the entire business will benefit from the successful completion of the project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PS02	The project increases the profitability of the company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PS03	The project's successful completion will meet the customers' satisfaction and resolve their issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PS04	The project's service or product will meet customers need and raise their level of satisfaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PS05	The project's outcomes will prepare the company and its infrastructure for future opportunities, such as new products, ideas, and markets.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PS06	The project team has built new skills and developed enough core competencies for future projects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PS07	The project's services or products fulfilled all technical specifications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PS08	The project's services or products met all performance requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PS09	Project was completed within budget	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PS10	Throughout the project, there were no significant change requests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PS11	Project costs were continuously monitored	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PS12	Resources (e.g. manpower, materials) were utilized efficiently during the project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PS13	The project was completed on time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PS14	Unexpected weather and physical conditions had been taken into account in the project timetable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PS15	Critical milestones were well monitored	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PS16	The team established a sense of urgency and changes were made quickly to keep or improve the schedule	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ANNEX-II STATISTICAL DATA

1. Clear goal and Objective

		Mean	Variance	St.Dev
a.	The goals and objectives of the project are well-defined	4.192	0.521	0.722
b.	The project team members understand the goals and objectives of the project	4.013	0.506	0.712
c.	The project team's goals align with the overall project goals.	4.000	0.390	0.624
d.	The clarity of goals and objectives affects the success of the project	4.295	0.756	0.870
e.	The project team is committed to achieve team's goals and objectives	4.256	0.557	0.746
f.	The results of the project will benefit the parent organization	4.449	0.406	0.638

2 Project team communication

		Mean	Variance	St.Dev
a.	The communications in and outside meetings are effective	3.769	0.959	0.979
b.	The communication between team members is open and honest	3.872	0.789	0.888
c.	Team members feel comfortable expressing their ideas and opinions	3.679	0.688	0.830
d.	Project related information is shared openly and clearly within the team	3.679	0.922	0.960
e.	Effective conflict management is exercised within the project team	3.628	0.730	0.854
f.	The team meeting is frequent and timely to keep team members informed	3.436	1.184	1.088

3 Trust and values

		Mean	Variance	St.Dev
a.	The team members trust each other	3.987	0.506	0.712
b.	The team members show appreciation towards one another	3.885	0.675	0.821
c.	I trust my teammates in making decisions for the team	4.038	0.375	0.612
d.	My contributions for the team are recognized	4.013	0.558	0.747
e.	As a member of the team, I am treated with respect	4.128	0.503	0.709

4 Project team leadership

		Mean	Variance	St.Dev
a.	I feel comfortable with the decision-making process within the team	3.744	0.713	0.844
b.	Team members provide input/thoughts throughout the project	3.962	0.557	0.746
c.	The project manager is comfortable with the concept of shared leadership with team members	3.615	0.993	0.996
d.	The project manager and team members spend time in clarifying what they expect from each other	3.628	1.120	1.058
e.	Project manager exercises good judgement and offers good advice	3.654	1.138	1.067

Part II project success

		Mean	Variance	St.Dev
PS01	The organization and the entire business will benefit from the successful completion of the project	4.551	0.458	0.677
PS02	The project increases the profitability of the company	4.667	0.381	0.617
PS03	The project's successful completion will meet the customers' satisfaction and resolve their issues	4.385	0.681	0.825
PS04	The project's service or product will meet customers need and raise their level of satisfaction	4.269	0.641	0.801
PS05	The project's outcomes will prepare the company and its infrastructure for future opportunities, such as new products, ideas, and markets.	4.359	0.467	0.683
PS06	The project team has built new skills and developed enough core competencies for future projects	3.962	0.687	0.829
PS07	The project's services or products fulfilled all technical specifications	3.821	0.487	0.698
PS08	The project's services or products met all performance requirements	3.821	0.565	0.752
PS09	Project was completed within budget	3.410	0.791	0.889
PS10	Throughout the project, there were no significant change requests	3.103	0.846	0.920
PS11	Project costs were continuously monitored	3.526	0.668	0.817
PS12	Resources (e.g. manpower, materials) were utilized efficiently during the project	3.333	0.874	0.935
PS13	The project was completed on time	3.154	0.989	0.994
PS14	Unexpected weather and physical conditions had been taken into account in the project timetable	3.244	0.784	0.885
PS15	Critical milestones were well monitored	3.641	0.623	0.789
PS16	The team established a sense of urgency and changes were made quickly to keep or improve the schedule	3.679	0.506	0.712