School of Commerce

Masters of Arts in Project Management Program

A Research Project Report

On

The Effect of Project Manager's Leadership Style and Teamwork on Project Performance: the case of HELVETAS Swiss Intercooperation Ethiopia

By

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June 2019
Addis Ababa

ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
SCHOOL OF COMMRECE

THE EFFECT OF PROJECT MANAGER'S LEADERSHIP STYLE AND TEAMWORK ON PROJCT PERFORMANCE: THE CASE OF HELVETAS SWISS INTERCOOPERATION ETHIOPIA

A RESEARCH PROJECT
SUBMITTED TO ADDIS ABABA UNIVERSITY
SCHOOL OF COMMERECE

MA PROJECT WORK
BY
ALEM SHUMIYE

APPROVED BY BOARD OF EXAMINERS

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Statement of Declaration

I, Alem Shumiye, have carried out independently a research work on the topic entitled ***—The Effect of Project Manager's Leadership Style and Teamwork on Project Performance: the case of HELVETAS Swiss Intercooperation Ethiopia*** in partial fulfillment of the requirement for the degree of masters of art in project management with the guidance and support of the research advisor, Abdurezak Mohammed (Ph.D.). This study is my own work that has not been submitted for any degree or master program in this or any other institutions.

Name:_____

Signature:_____

Date:_____

Addis Ababa,

Ethiopia

Statement of Certification

This is to certify that Alem Shumiye has carried out this research project on the topic entitled - ***The Effect of Project Manager's Leadership Style and Teamwork on Project Performance: the case of HELVETAS Swiss Intercooperation Ethiopia*** under my supervision. This work is original in nature and it is sufficient for submission for the partial fulfillment for the award of degree of masters of art in project management.

Name: _____

Signature: _____

Date: _____

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Abbreviations and acronyms

ANOVA:	Analysis of Variance
APC:	Actual Project Cost
APD:	Actual Project Duration
AVE:	Average Variance Extracted
A-WaSH:	Amhara Water, Sanitation and Hygiene
BPC:	Budgeted Project Cost
BRIDGE:	Building Rural Income through Inclusive Dairy Growth in Ethiopia
CDF:	Cumulative Density Function
CnR:	Contingent Reward
CPI:	Cost Performance Index
CR:	Composite Reliability
CV:	Coefficient of Variation
DRR-ER:	Disaster Risk Reduction and Emergency Response
EFA:	Exploratory Factor Analysis
EU-CSSP:	European Union Civil Society Support Program
EVA:	Equal Variance Assumed
EVNA:	Equal Variance Not Assumed
2FLRA:	Feed the Future Livelihoods for Resilience Activity
FRLM:	Full Range Leadership Model
GRAD-O:	Graduation with Resilience to Achieve Sustainable Development Project-Oromia
Horti-LIFE:	Horticultural Livelihoods, Innovation and Food Safety in Ethiopia
IC:	Individualized Consideration
II:	Idealized Influence
IM:	Inspirational Motivation
IRES:	Integrated Renewable Energy Services
IS:	Intellectual Stimulation
iWET:	Inspiring Water Entrepreneurship in Tigray Region
KMO:	Kaiser-Meyer-Olkin
MBEA:	Management by Exception (Active)
MLQ:	Multifactor Leadership Questionnaire
NGO:	Non-Governmental Organizations
NRM-B:	Natural Resource Management - Borana

OPI:	Overall Performance Index
PCFA:	Principal Component Factor Analysis
PMBOK:	Project Management Body of Knowledge
PMLS:	Project Manager's Leadership Style
P-P:	Percentile –Percentile
PP:	Project Performance
PPD:	Projected Project Duration
PRIME:	Pastoralist Areas Resilience Improvement and Market Expansion
PSNP:	Productive Safety Net Program
RBV:	Resource Based View
REP:	Rural Economy Project
RIP:	Rural Infrastructure Project
S.D.:	Standard Deviation
SEEECCS:	Strengthening Enabling Environment for Clean Cooking Sector of Ethiopia
SEM:	Structural Equation Modelling
SNNPR:	South Nations, Nationalities, Peoples' Region
SPSS:	Statistical Package for Social Sciences
TCOH:	Team Cohesion
TCOL:	Team Collaboration
TCOM:	Team Communication
TPI:	Time Performance Index
TRFI:	Tigray Rural Future Initiative
USAID:	United States Agency for International Development
VIF:	Variance Inflation Factor
VRIO:	Valuable, Rare, costly to Imitate & Organized to capturer value
WEALTHS:	Water, Sanitation and Hygiene, Environment, Livelihoods in Hitsats & Shire Refugee Camps:
WH-CARD:	Wag-Hemra Climate Adaptation and Rural Development

Acknowledgement

First of all, I owe it all to the Almighty God with whom all things are possible, the giver of knowledge, wisdom and understanding to Him I return all the praise and honor. Next, I would like to thank my project research advisor, Dr. Abdurehman Mohammed, for his valuable efforts in advising, checking, and providing timely and constructive comments which helped me to shape and make substantial improvements to this study. I would also like to thank my friends, Adefris Sori, Aynalem Geremew, Yigzaw Tilahun and Wubeshet Ayele for encouraging me right from the very start to the final stage of Masters of Arts degree in Project Management program. Thank you, my friends. Lastly, very special thanks go to my family, Aklile Tesfaye, Meseret Teshome, Yeshak Tilahun, Fitsum Alem, and Yeabsira Alem, for their immense moral support, care and love. I owe you a lot and my God bless you all!

Abstract

The purpose of this study was to establish the relationship between leadership style and teamwork and their effect on performance of projects in HELVETAS. The theoretical foundation of this study was guided by visionary leadership theory which involved transformational and transactional leadership styles. In this study, a mixed of both qualitative and quantitative research approaches was employed with mixed research design of descriptive and explanatory research. Using web-based Multi-Factorial Leadership Questionnaire (MLQ), complete and usable primary data were collected from 233 project managers and project team members. A test on adequacy of the sample, reliability and validity of the measurement model were found to be acceptable. Model diagnostic tests show assumptions of normality, autocorrelation, multicollinearity and homoscedasticity hold true. Step-wise multiple regression analysis shows that leadership style had a statistically significant positive effect on project performance; transformational leadership style was positively related to teamwork while transactional leadership style is negative related to project performance. Team communication aspect of teamwork was positively related to project performance while team collaboration and team cohesion were negatively related to project performance. In addition, the study found that teamwork was a partial mediator of the relationship between leadership style and project performance. This study recommends that, as project leader alone cannot successfully complete a project, project managers should select and adopt appropriate transformational and transactional leadership styles taking into account the critical role of teamwork. Based on the findings, senior management team in HELVETAS should act on leadership and team development programs (such as action learning) as well as staff retention strategies along the project life cycle. The study contributes to project management literature by integrating leadership theory and teamwork model.

Keywords: leadership style, transformational leadership, transactional leadership, teamwork, project performance

CHAPTER ONE: INTRODUCTION & BACKGROUND OF THE STUDY

1.1. Introduction

In this chapter, background of the study and the organization, statement of the problem, research questions, research hypothesis, general and specific objectives, significance, scope and organization of the study will be presented.

1.2. Background of the study

Ethiopia is among many countries in Africa that receives significant amount of Foreign Aid to finance development projects. According to the European Union Civil Society Support Program (EU-CSSP) report 2014 on Non-State Actors in Ethiopia, the number of projects and the budget earmarked to implement those projects increased. In 2014 alone, Civil Society Organizations implemented 2,604 development projects throughout the country with a total budget of US$ 1.788 Billion which came from foreign funds (EU-CSSP, 2014). Despite huge investment, the performance of development projects in Ethiopia were not satisfactory as it was evidenced by the 2017 Civil Society Organizations Sustainability Index for Ethiopia, which showed scores of impeded sustainability with respect to organizational capacity, service provision, public image and sectoral infrastructure (USAID, 2018).

According to Reiter W. (2003), about 20% of project success is contingent on the methods to work management, while 80% on other roles of a project manager in a project. These include leadership, team management, and organizing negotiations, problem-solving, among others. Morris (1998) reported that poor leadership is a failure factor during formation, build up, and close out phase. Although some studies (Kendra & Taplin, 2004; Naeem & Khanzada, 2017; Turner & Muller, 2006) have shown that the project manager' leadership style plays a significant role in project success, there is no consensus on the relation between project manager's leadership style and project performance (Yang, Huang and Wu, 2010). Numerous researchers (Hurduzeu, 2015; Madanchian, Hussein, Noordin & Taherdoost, 2016; Zaccaro, Rittman & Marks, 2001) studied leadership style from organizational performance view and reported a positive relationship between leadership style (in particular transformational leadership) and organization performance. However, a key concern in project management is whether project manager's leadership style can help to resolve the issue of poor project performance (Love, Edwards & Wood, 2011).

Teamwork is increasingly applied in many organizations in an effort to improve performance, yet empirical evidence demonstrating the relationship between team effectiveness and project success is scarce. Peters (2001) defined teamwork as anything that improves commitment, communication, cohesion, cooperation and celebration within the team. In spite of advances in the project management profession, research studies have shown that many projects fail, underlining the importance of the project manager's role as manager in motivating people and making efficient operating situations so as for the project team to fulfill bigger challenges in today's world economy (Anantatmula, 2010). A study done by Thamhain (2004) suggested that many factors, which drive project performance, are derived from the human side. People skills concentrate on fostering a climate of active participation and nominal dysfunctional conflict implies a situation of trust, consistent processes unequivocally, act expectations, and clarity in communications **(**Thamhain, 2004).

Prior studies also showed that teamwork (including team communication, collaboration and cohesiveness) plays an important role in team performance. Effective team performance can be derived from team communication, collaboration and cohesiveness (Yang, Wu & Huang, 2013; Morris, 1988; Kendra and Taplin, 2004). The extent to which the project teams are integrated determines the importance of communications within the entire project team. The ultimate aim of the project manager is to establish trust in managing outcomes and project leadership plays a critical role in establishing trust (Anantatmula, 2010). According to Muzio, Fischer, Thomas & Peters (2007), 90% to 95% of project issues require soft skills such as leadership, management, teamwork, and communication. Existing literature shows that leadership is positively related to teamwork in terms of team communication, collaboration and cohesiveness (Bass, 1990; Zaccaro, *et al*., 2001; Wang, Chou & Jiang, 2005).

The performance of projects in HELVETAS is not that different from the above fact. In the context of HELVETAS, project audit reports for the years ended 2016, 2017, and 2018 showed high project staff turnover especially at project leadership level, less satisfactory rating on the part of project beneficiaries (HELVETAS Community Score Card, 2017), and poor project performance as measured by time- and cost overruns which demand attention. Therefore, this study tries to examine the relationship between leadership style and project performance, analyze the effects of project manager's leadership style on teamwork and the mediatory role of teamwork in the relationship between leadership style and project performance.

1.3. Background of the organization

HELVETAS Swiss Intercooperation (herein after called HELVETAS) is an international non-profit, project-based non-governmental organization (NGO) which was established in 1955 to support poor and disadvantaged women, men and communities in about thirty developing and transition countries in Africa, Asia, Latin America and Eastern Europe by implementing its own as well as donor mandated projects. As a non-profit NGO, HELVETAS implements development projects, i.e., projects designed to deliver a specific output aiming to improve the economic and social conditions of a group of people through provision of skills training and other livelihood programs.

HELVETAS in Ethiopia started its operation in 2004. As part of its overall goal of contributing towards reduction of poverty, HELVETAS has been implementing numerous development projects. This study focused on 16 development projects that were implemented in Afar, Tigray, Amhara, Oromia and SNNPR and completed during 2016 – 2018. These projects include food security, disaster risk reduction, water supply, sanitation and hygiene, value chain development, rural economy, integrated renewable energy services, rural infrastructure and pastoralist areas resilient improvement and market expansion projects. The profile of projects is attached as Annex V of this study.

1.4. Statement of the problem

International development organizations such as HELVETAS are facing increasing demands to do more with less, from becoming catalysts of change in the communities they serve to deliver the project on time, under budget and in the quality not only expected but also demanded by donors, beneficiaries and local regulatory agencies. Leadership is more widely considered to be an important aspect of project-based organizing (Keegan and Den Hartog, 2004) of development projects such HELVETAS that aim at contributing to the reduction of poverty and improvement of the livelihoods of marginalized and disadvantage rural communities. Many development projects exhibit low performance, despite advances in project management methodologies, leadership being a major cause (Schmid and Adams, 2008), emphasizing the importance of the project manager's role as a leader. According to Yearly Project Financial Reports of HELVETAS 2016 and 2018, the total project expenditure of 49 nation-wide implemented projects was Birr 287.3 million (in 2016) as compared to the

Birr 539.2 million (for 62 projects in 2018). This shows around 87% increase in project funding and a 27% increase in project size and portfolios.

Despite huge increase in project investments, the progress towards achievement of project objectives in HELVETAS are far from satisfactory, i.e., about 58% of development projects implemented during 2016 – 2018 either failed to deliver a satisfactory outcome (with regard to conformance to time, quality, budgetary requirements and meeting stakeholders' expectation) or failed entirely (HELVETAS Project Audit Reports, 2016, 2017 & 2018). During 2016 - 2017 fiscal years, 41% of development projects failed to comply with the legal restriction set by Ethiopian Charites and Societies Agency (HELVETAS Project Audit Reports, 2016, 2017 & 2018). Over the years, the size and complexity of development projects in HELVETAS also increased demanding effective management of stakeholders and partners, as well as leading a diverse project workforce with talented project leaders. However, high-staff turnover, especially at project leadership positions, made project team building complicated or escalated the project leadership deficit in HELVETAS (HELVETAS Project Audit Report, 2017).

According to Aggarwal, Tanner and Castleberry (2004), leadership style was found to be the main reason which has also a direct impact on employees' turnover intentions. Analysis of project reports of the organization indicates that on average 38% of project beneficiaries did not graduate from some of the projects after attaining the desired outcomes. Apart from problems observed in HELVETAS with regard to project leadership, review of extant empirical literature on the relationship between the project manager's leadership and project performance showed contradictory results. For example several studies (Turner and Muller, 2007; Liphadzi *et al.*, 2015; Aga *et al.*, 2016; Kariuki, 2015) found a positive association between a project manager's leadership style and project success while other studies (Odusami *et al.*, 2003; Keegan and Den Hartog, 2004) found no significant association between project manager's transformational leadership style and overall project performance. Studies such as Wang *et al*, (2005) reported that project manager's leadership style, teamwork and project performance were highly correlated. On the other hand, Turner and Muller (2005) found that the leadership style and competence of the project manager have no impact on project success, and the unique, novel, and transient nature of projects (as well as the risk involved) means leader has less of an impact on performance.

While some of earlier studies considered the issue of leadership in general, this study examined the influence of specific leadership styles (transformational and transactional) on performance of development projects, particularly in the context of project-based organization. Methodologically, most studies studied data from project manager's perspective only. But, this study considered data from both project managers and other project team's perspective. Although leadership is rarely included in the project success factors, it likely impacts project through teamwork (Jiang 2014; Shamir, Brainin, Zakay and Popper, 2000) and Bass (1990) reinforced this view that appropriate leadership is a positive factor of teamwork related to communication, collaboration and cohesion.

Although research on project manager's leadership style and project performance has been carried out, the area is in its infancy and needs further and continued study. Specially, the effect of project manager's leadership style and teamwork on project performance has not been addressed in the context of project-based development projects in Ethiopia. Therefore, poor project performance in HELVETAS which was manifested by delayed time and cost-overrun, high staff turnover at project leadership level, inadequate satisfaction of project beneficiaries about project outcomes, lack of consensus among empirical studies on the effect of leadership style on project performance, the mediatory role of teamwork in the relationship between leadership style and project performance as well as the need to fill knowledge void prompted the design of this study.

1.5. Research questions

In line with the problem statement, this study was expected to fill research gap through a guidance of a general research question: "***what is the effect of project manager's leadership style and teamwork on performance of projects in HELVETAS Swiss Intercooperation Ethiopia***?

The specific research questions were the following.

1) Does project manager's leadership style relate to performance of projects in HELVETAS?
2) Does project manager's leadership relate with teamwork in HELVETAS?
3) Is there any relation between teamwork and project performance in HELVETAS?

4) Does teamwork mediate the relationship between project manager's leadership style and project performance in HELVETAS projects?

1.6. Research hypothesis

In accordance with the research questions, the study formulated the following research hypothesis.

Hypothesis 1: Project manager's leadership style has significant positive effect on project performance.

Hypothesis 2: Project manager's leadership style has significant positive effect on project teamwork.

Hypothesis 3: Teamwork has significant positive effect on project performance

Hypothesis 4: Teamwork mediates the relationship between project manager's leadership style and project performance.

1.7. Objectives of the study

1.7.1. General objective

The general objective of this study was to examine the relation between project manager's leadership style and teamwork and their effects on performance of projects in HELVETAS Swiss Intercooperation Ethiopia.

1.7.2. Specific objectives

The specific objectives of this study are to:

1) Examine the relationship between project manager's leadership style and project performance,
2) Evaluate the relationship between project manager's leadership style and teamwork,
3) Examine the relationship between teamwork and project performance,
4) Investigate whether teamwork mediates the relationship between project manager's leadership style and project performance, and

1.8. Significance of the study

This study attempted to examine the influence of project manager's leadership style and teamwork on project performance. Conducting a study of this sort will be important for the following major reasons:

- The study intends to empirically inform senior management team of HELVETAS with an independent assessment of the role that project leadership plays with regard to improving teamwork and project performance as well as measure the extent of resource use efficiency in the projects. Findings of the study will contribute towards the revisiting of some of project management practices and organizational policies that will help for successful project leadership, effective teamwork and performance.
- The findings of this study may also be used as a source of information for those who are interested in conducting similar research in Ethiopia or elsewhere.
- It is also hoped that such findings of the study may provide new ideas to the conflicting results found in the literature about the relationship between project manager's leadership style and project performance and contribute to fill the gap of knowledge in project management literature.

1.9. Scope of the study

The thematic focus of this study rests on examining the effects of project manager's leadership style and teamwork on performance of development projects from the perspective of a project-based organization in Ethiopia. This study relies on visionary leadership theory which consists of transformational and transactional leadership styles. Differences in demographic characteristics of the managers in relation to their styles of leadership were not examined. By 2018, more than 62 development projects were completed by HELVETAS. However, because of lack of availability of sufficient size of completed data required for statistical analysis, this study was limited to 16 development projects that were implemented in Afar, Tigray, Amhara, Oromia, and SNNPR and completed during 2016 and 2018. Methodologically, this study considered data from both project managers and project team's perspective. The study did not take into account ongoing development projects of HELVETAS.

1.10. Organization of the study

The study was divided into five chapters. Chapter one dealt with introductory part that involves background, statement of the problem, objectives, significance and scope of the study. The second chapter dealt with the review of theoretical and empirical literature on the topic and pay attention to review of leadership theories, empirical literature, and development of the conceptual framework of the study. Chapter three was devoted to deal with research design and methodology. Chapter four was devoted to cover the results and discussion part of this study. Finally, chapter five presented summary, conclusion, limitations and areas for future research.

CHAPTER TWO: REVIEW OF LITERATURE

2.1. Introduction

In this chapter, review of theoretical and empirical literature, conceptual framework of the study, operationalization of study variables, and null hypotheses will be presented.

2.2. Leadership theories and models

Over the past years, several leadership theories and models have been developed. Yet, the concept and nature of leadership are far from perfect. Some of these theories which are deemed to be relevant to the study include: (i) Visionary Leadership Theory, (ii) Resource Based View (RBV) Theory, (iii) Contingency Theory, (iv) Stakeholder Theory and (v) Agency Theory. A brief summary of these leadership theories and their significance to this study is described below.

(i). Visionary Leadership Theory

Literature shows that there are many definitions of leadership. According to Hersey and Blanchard (1993), leadership is defined as the application of inducing the activities of an individual or group in an attempt to achieve a common goal in a particular given context. The very purpose of leadership is to achieve some common goal. One of the very imperative aspects that every leader must have is the ability to have a vision without which she/he cannot set a direction to move forward. Leadership is thought to be a function of the leader, followers and other situational factors. A visionary leader, which is also known as, charismatic leaders, has the capacity to see beyond the boundaries of the operating environment, predict probable challenges and opportunities so as to be able to prepare his/her staff to overcome difficulties and unleash the benefits.

Visionary theory of leadership encompasses two major dimensions namely transactional and transformational leadership styles. According to Robbins & Judge (2013, pp. 383), the Full Range Leadership Model (FRLM) involves transformational and transactional leadership styles as depicted in Figure 2.1.

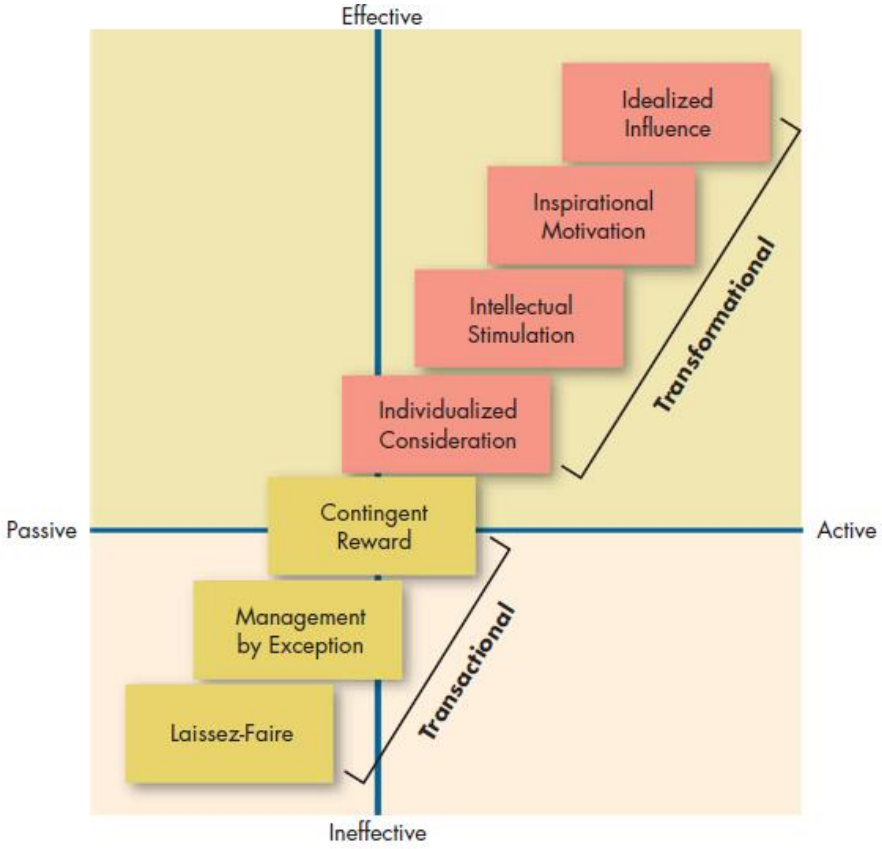

Figure 2. 1 Full Range Leadership Model (FRLM)

Source: Robbins & Judge (2013: 384)

The FRLM introduces four dimensions of transformational leadership specifically four "I's" (individualized consideration, inspirational motivation, idealized influence, and intellectual stimulation).

a) **Idealized Influence:** such a leader behavior involves envisioning, motivate respect, trust and pride by associating with him/or.
b) **Inspirational Motivation:** displays optimism in achieving goals
c) **Intellectual Stimulation**: demonstrates intelligence, promotes innovation, and examines new perspectives of problem solving.
d) **Individualized Consideration**: involves giving personal attention and mentoring of followers by recognizing their differing abilities, skills and needs.

Accordingly, this study adopts the four sub-dimensions of transformational leadership which are characterized by the four "I"s.

Transactional leadership style involves a reciprocity based on fulfillment of contractual obligations and a two way beneficial relationship between the leaders and followers. Transactional leadership is tantamount to 'carrot and stick approach' in that it presupposes

incentives and punishment to motivate people to attain results. The transactional theory tends to be goal oriented and does not emphasize on employee personal development. The FRLM also illustrates transactional leadership which is characterized by Robbins & Judge (2013: 384) as follows.

a) **Contingent Reward**: involves a positive reinforcement in return for good performance.
b) **Management by Exception (active)**: Watches and searches for deviations from rules and standards, takes corrective action.
c) **Management by Exception (passive)**: is a transactional leadership style which involves the intervention of the leader only if a worker fails to meet agreed benchmarks. According to Judge & Piccolo (2004), a leader with active management by exception monitors the behavior of subordinates, foresee difficulties, and take appropriate remedial actions before the behavior causes to serious difficulties. In contrast, passive leaders will not take actions until the behavior created problems.
d) **Laissez-faire:** displays frequent absence and lacks involvement in critical cases. This dimension of transactional leadership is actually labeled as a non-leadership as it renounces responsibilities, and avoids making decisions.

This study adopts two aspects of transactional leadership styles namely contingent reward and active management by exception.

(ii). Resource-Based View Theory

The basic premise of the Resource-Based View (RBV) is that a firm's unique resources and capabilities should define its strategic actions and be used effectively to exploit opportunities in the external environment to ensure successful performance. RBV relies on tangible and intangible resources that must be heterogeneous, immobile and have VRIO attributes (i.e., valuable, rare, costly to imitate and organized to capture value) to become VRIO resources. Advocates of RBV suggest that by using internal capacity and resources, a project organization can tap external opportunities in an innovative way rather than attempting to gain new skills for each different opportunity. Resources which exhibit VRIO attributes will contribute for the firm to tap a competitive advantage. RBV theory focuses on tangible and intangible resources. Tangible resources, from project management perspective in general and from this study's view in particular, refer to use project management methodologies and

techniques that are available and can be used according to the particular circumstance of the project. Intangible resources refer to resources that cannot be traced objectively. These include motivation, leadership, teamwork, knowledge-based assets and unique capital practices between project leader and project team members such as coaching, mentoring, brainstorming that might contribute towards competitive advantage (Barney, 1986).

(iii). Contingency Theory

The contingency theory advocates that there is no one best way of leadership style that can be applicable to all project situations. Although certain activities deemed to be repetitive, every project is unique. Project characteristics such as project size, complexity, team size differs from one project to another. Some projects are easy, direct and predictable while others are complex and risky. This implies that each project requires a different project management approach. Therefore, the relation between leadership style and project performance in the context of project management practices such as of this study, implies that project leaders should understand that "*one size does not fit all*". Hence, the optimal course of action is contingent upon the internal and external situation.

(iv). Stakeholder Theory

According to Project Management Institute (2013), a stakeholder can be defined as an individual, group, or organization who may affect, be affected by, or perceive itself to be affected by the project's actions, objectives and outcomes. Stakeholders differ in their interest and power they have in a project. Hence, with regards to this study, project managers need to map stakeholders' interest and devise a mechanism to manage competing expectations that might create conflicts within the project In this regard; having clear project governance will help to align the project with stakeholders' needs or objectives. Studies have shown that effective management of stakeholder relationships will help to achieve project success. The significance of stakeholder theory to this study arises from the fact that clarifying and managing the needs and expectations of stakeholders and working toward meeting these milestones will contribute to create competitive advantage.

(v). Agency Theory

The separation of administration from ownership breads governance problems. Adam Smith's (1776) stated that if an economic firm is controlled by a person or group of persons other than the firm's owners, the objectives of the owners are more likely to be diluted than ideally fulfilled. In the project settings such as this study, the principal–agent relationship appears to be complex as the principal and the agent also delegates their duties to their respective project managers. According to Turner and Muller (2005), this creates multiple relationships in which several participants involving internal and external project stakeholders with divergent interest are expected to work together to achieve project goal. Studies have demonstrated the effect of communication in improving project success. Jiang and Pretorius (2011) showed that there is a significant positive relationship between communication behavior and project management activities such as project communication, negotiation, conflict resolution, contract process and project team building. Zulch (2014) emphasized that project managers' skill to communicate has an impact on the cornerstone areas of project management. To mitigate the agency problem, project owners can use a number of strategies. Nevertheless, agency problems result in agency costs: costs resulting from managers misusing contracts because of their position for misappropriation and abuse of the business resources, and costs of monitoring and controlling agents to prevent them from abuse.

2.3. Implications of the reviewed leadership theories to this study

The theoretical foundation of this study is founded by visionary leadership style consisting of transactional and transformational leadership. Four dimensions of transformational leadership style namely, idealized influence, inspirational motivation; intellectual stimulation and idealized consideration were considered in this study. In addition, two dimensions of transactional leadership style, specifically, contingent reward and active management by exception were applied. As contingency theory advocates, this study subscribes the presumption that there is no single right method of doing things and it's the project context which decides the best approach. The implication of RBV theory to this study is that, given leadership and teamwork are valuable, rare, and imperfectly imitable resources, it is expected that these resources should have an impact on project performance. The significance of stakeholder's theory to this study entails that project managers need to adopt appropriate

leadership style and management strategies for both internal and external stakeholders as a way of enhancing project performance.

2.4. Review of empirical literature

The management literature significantly explores the importance of leadership in the process, which does not happen on such a large scale on the importance of leadership in the success of project management (Turner & Müller, 2005). Leadership is effectively a widely studied phenomenon as can be seen in Bass & Stogdill (1990), in which the authors refer about 7,500 studies on the subject, implying that any angle of the phenomenon that is to be studied, requires hard work positioning. This study reviewed relevant empirical literature related to corresponding research objectives.

2.4.1. Leadership style and project performance

Various empirical studies have assessed the relation between project manager's leadership style and project performance. According to Prabhakar (2005), project managers switch leadership styles during project execution, and no significant correlation was found on its impact on project performance. Aga (2016) in his study of moderating role of goal clarity on the relationship between transactional leadership and project success used 224 development projects of the Non-Governmental Organization (NGO) sector in Ethiopia. Using two-stage sampling technique to obtain the sample size, multiple hierarchical regression techniques were applied to test the hypotheses of the model. The findings indicated that contingent reward in transactional leadership is positively related to project success. In addition, the study found that relationship between contingent reward and project success was moderated by goal clarity (Aga, 2016). This study, however, did not consider the transformational dimension of leadership style and the mediating role of teamwork on the relationship between leadership style and project performance.

Nubuor, Hongyi & Frimpong (2014) examined the impact of transformational leadership style on strategic projects in large scale banks of Ghana. Questionnaires were administered to collect data on 125 employees in three banks. The result shows that a strong positive relationship between transformational leadership and banking project success. Inspirational motivation was the highest predictor to banking project success in large scale banks of Ghana, followed by individual consideration, intellectual stimulation and idealized influence.

Chaudhry, Kalyar and Rehman (2012) studied the impact of leadership on the performance of a single project. On the basis of the project nature, leadership factors of human resource planning were adopted. The researcher examined the effect of these factors on the performance of the project. The analysis was done to explore the links of these factors with strategic goals and objectives of the project so as to improve project performance and develop organizational culture that foster innovativeness, flexibility, formulating and executing human resource systems & policies to achieve its strategic aims. A cross-sectional data were collected from 70 employees of four main consultancies companies working together on a project, located in Lahore, Pakistan. Results from descriptive and Exploratory Factor Analysis suggest that leadership has positive links with project performance. This study, however, did not consider transactional and transformational dimensions of leadership style and the mediating effects of teamwork on project leadership - project performance association.

Mary (2012) assessed the effect of leadership skills, leadership experience, and leadership control and leadership style on performance of Compassion International Projects in Kitui County, Kenya. Using descriptive research design and questionnaire, a sample size of 113 respondents was selected through stratified random sampling. The descriptive statistics and multiple regression analysis showed that a positive relationship between leadership and project performance. Predicator variables such as leadership skills, leadership experience, leadership control and leadership styles all had a positive correlation with project performance and project management control had the greatest effect on performance of Compassion International projects. However, Mary (2012) did not consider the mediating effects of teamwork on project leadership –performance relationship.

Sousa, Ivo Dias, Moco, Saldanha & Caracol (2017) analyzed the type of effective leadership style in the perceptions of project managers. Using Multifactorial Leadership Questionnaire (MLQ), quantitative data were collected from 78 project managers. The finding suggests that transformational leadership style is predominantly practiced according to the project manager's perception and according to the specificities of the projects (Sousa *et al*, 2017). The study indicated that transactional leadership is not as such inefficient except the limitation it has regarding the commitment between a leader and a follower. This study, however, did not consider the direct effects of project manager's leadership style, and the

mediatory role of teamwork in the relationship between leadership style and project performance. On the basis of the above analysis, this study proposes that leadership style (transformational and transactional) will statistically significant effect on project performance.

2.4.2. Leadership style and teamwork

Studies show a positive association between project manager's leadership style and teamwork. Ekmekcioglu *et al.* (2018) investigated the effect of behavioral dimensions constituting the essence of charismatic leadership on coordinated teamwork in Turkey. Data were collected from 113 members among 20 ad hoc project teams who were employed in a public institution. Regression regression models showed that the behavioral dimensions of charismatic leadership which consists of having a strategic vision and articulation skill, sensitivity to the environment and sensitivity to member needs were found to have a significant and positive effect on coordinated teamwork. On the other hand, personal risk and unconventional behavior dispositions of a leader were reported to render no significant effect on coordinated teamwork.

A study by Duygulu and Ciraklar (2009) compared the patterns of leadership roles for team effectiveness between nonprofit organizations and economic organizations. The result showed that leadership roles significantly correlate with team effectiveness variables. Gadirajurrett, Srinivasan, Stevens and Jeena (2018) studied the association between transformational leadership and team's performance as measured by effectiveness, extra effort, and satisfaction. Ten teams each from seven software companies were chosen randomly with a total size of 262 respondents. MLQ were given to all the team members and asked them to rate their team leader's leadership behavior. Alternatively, team members were asked to give their judgement on effectiveness, extra efforts and satisfaction on leadership outcomes measure. A correlation analysis result shows that there is a positive and strong, relationship between the transformational leadership behaviors and team performance. This finding is consistent with Aldoshan (2016) who concluded that leadership styles promote teamwork. Rahbi *et al*. (2017) investigated the perceived relationship between leadership styles and team motivation levels in Abu Dhabi's healthcare sector. Specifically, their study investigated the relationship between three leadership styles (authoritarian, democratic and laissez-faire) have with team motivation. The findings suggested that transformational,

authentic and servant leadership styles were positively correlated with team motivation whereas transactional leadership style was found to be negatively correlated.

2.4.3. Teamwork and project performance

Iqbal, Nawaz and Bahoo (2017) examined the impact of project teamwork on project success in higher education sector of Pakistan. The researchers defined project teamwork to have four dimensions of project efforts i.e., project team communication, collaboration, cohesiveness and their technical skills. Following quantitative research approach and survey research, 125 questionnaires were returned. Findings from Partial Least Squares –Structural Equation Modelling technique shows that all four project teamwork dimensions were positive and significantly related with project success. The relevance of Iqbal *et al* (2017) to project management literature is leader alone cannot successfully complete a project and hence project managers should take into account the importance of teamwork for project success.

Assaf, Hassanian & Mughal (2014) examined the nature and strength of relationship between the different elements of teamwork effectiveness (i.e., team communication, team goals & objectives, team leadership, team roles & responsibilities, team relationships, trust and values within the project team) and overall project performance of Saudi construction projects. Data on 13 different project teams of large commercial buildings in Saudi Arabia were gathered using questionnaire. Their findings suggested that team effectiveness positively correlates with project success. The influence of project manager's leadership and teamwork on the project success in Pakistan was studied Nawaz *et al.* (2016). Using purposive sampling technique, 226 questionnaires were returned from employees of manufacturing organizations implying a response rate of 94%. Results from descriptive statistics and regression analysis showed that project manager's leadership was positively correlated to project success and teamwork also had positive relationship with project success. Yang *et al.,* (2011) examined the moderating role of project characteristics in the relationship between teamwork and project performance. Survey-based questionnaire was employed to measure the project manager's leadership style, teamwork, and project success in terms of objective measures of schedule performance, cost performance, quality performance, and stakeholder satisfaction. Yang *et al.,* (2011) found out that appropriate leadership style may contribute to improved relationships among team members; teamwork had significant effect on project performance

and the relationship between teamwork dimensions and overall project success was moderated by project type.

Naeem & Khanzada (2017) examined the mediating role of job satisfaction in the association between transformational leadership and project success. Using questionnaire and based on survey of 152 employees in the banking sector at Rawalpindi in Pakistan, they found that project manager's transformational leadership plays a significant role in project success and job satisfaction only partially mediates the effect of transformational leadership on project success. Although the finding of Naeem & Khanzada (2017) addressed the claim raised by Turner and Muller (2005), that leadership style and project manager proficiency have no impact on project success, they did not investigate the role of teamwork on project performance. Humaidi & Said (2014) examined the moderating effect of project knowledge on the relationship between leadership style and project teamwork in project management performance. Using survey, a total of 409 usable questionnaires were returned from respondents who work at various positions. Using Structural Equation Modeling (SEM) analysis, the results shows that project team significantly influences project management performance. Nevertheless, their finding in that leadership styles (transactional and transformational) were not significant predictors of project management performance appeared to be contrary to some literature,

Aga, Noorderhaven and Vallejo (2016), using a cross-sectional study, assessed the mediating role of team-building in the relationship between transformational leadership style of project manager and project success. On the basis of a field survey of 200 development project managers in the Ethiopian NGO sector, they reported that transformational leadership style positively influences both project team-building and project success, team-building practices positively influence project success, and team-building partially mediates the relationship between transformational leadership and project success. Similarly, Aga (2016), in his study of the moderating role of goal clarity on the relationship between transactional leadership and project success in development projects of the NGO sector in Ethiopia indicated that contingent reward in transactional leadership is positively related to project success. Further, he found out that project goal clarity moderates the relationship between contingent reward and project success.

2.4.4. The mediating role of teamwork in the relationship between leadership style and project performance

A validation study by Yang, Wu and Huang (2013) examined whether teamwork has a mediating role in the relationship between leadership style and project performance in Taiwan's construction industry. Using industry-wide survey measures and SEM, their result shows that a project manager who adopts transactional and transformational leadership can improve teamwork and capital facility project performance. The researchers' findings also suggested that teamwork can partially mediate the relationship between leadership style and project performance.

Kariuki (2015) examined the relationship between project manager's leadership style, teamwork, project characteristics and their impact on project performance in water sector projects in Kenya. Using descriptive cross-sectional research design, data were collected both from project managers and project team members involved in water projects in Kenya. Out of the targeted 102 projects, complete data were obtained for 68 projects giving a response rate of 67%. The study suggested a statistically significant relationship between project manager's leadership style and project time performance; between project manager's leadership style and teamwork; between teamwork and project time performance. In addition the research's finding suggested that teamwork mediates the relationship between project manager's leadership style and project time performance.

A study by Muller and Turner (2007) examined the interaction of the project manager's leadership style with project type, and their combined impact on project success. A mixed method of qualitative and quantitative approach was used. A quantitative a web-based questionnaire was used to determine the leadership style of project managers that is related to success of most recent project as perceived by respondents. On the basis of qualitative and quantitative studies, Muller and Turner (2007) concluded that the project manager's leadership style influences project success and different leadership styles are appropriate for different types of projects. In addition, they found that project type moderates the relationship between project manager's leadership style and project success. The study by Muller and Turner (2007), however, did not examine the mediating role of teamwork on project leadership-performance relationship. A similar study by Yakhchali and Farsani (2013) investigated whether different projects require different leadership styles. Using descriptive-

survey method, a total of 341 questionnaires were administered to project managers in Iran and their results show that differences in leadership styles in project managers in successful projects of different application areas. Yakhchali and Farsani (2013), however, did not consider teamwork.

2.5. Implications of reviewed empirical studies to present study and research gaps

This study reviewed four aspects of empirical literatures. These include: (i) the relationship between leadership style and project performance, (ii) leadership style and teamwork, (iii) teamwork and project performance, and (iv) the relationship among leadership style, teamwork and project performance. Although these studies focus on the effect of leadership style and teamwork on project performance, it's being revealed that little research has explored the relation between project manager's leadership style and teamwork on project performance in the context of project-based development organization in Ethiopia. Apart from the direct effects of leadership style and teamwork on project performance, some of the reviewed studies have analyzed the mediating role of teamwork or teambuilding in the relationship between leadership style and project performance in water, construction or other sectors. Contradictory results were observed on the relationship between project performance and leadership style (transactional and transformational).

From methodological perspective, most of the reviewed empirical studies on the subject used qualitative, quantitative or mixed research approach with descriptive, exploratory or hypothesis testing as their research design. The use of cross-sectional survey data was almost common by most of reviewed studies. Five-point Likert scale web-based survey questionnaire such as Multifactorial Leadership Questionnaire (MLQ) have been applied by most studies. In measuring project performance, some studies have used objective measures such as schedule and/or cost performance while others have applied subjective measures of performance as perceived from project manager's, project team and/or other stakeholders perspective. There may not be one best definition of teamwork. From reviewed studies, teamwork was operationalized into three dimensions of communication, collaboration and cohesion. Some of the reviewed literature also included technical skills as fourth dimension to teamwork. Leadership style was defined as two dimensional construct consisting of transactional and transformational leadership style. With regard to analytical approach, the reviewed studies used literature review, descriptive statistics such as correlation coefficient,

and coefficient of variation, mean and percentages while others used a more rigorous method of data analysis such as simple linear regression, multiple hierarchical regression techniques (Partial Least Squares), Structural Equation Modelling (SEM), or confirmatory factor analysis.

The following are the main findings of reviewed empirical literature relevant to this study.

- Project manager's leadership style is significantly related to project time performance and has also a significant positive relationship with teamwork;
- Leadership style (transactional and transformational) was not significant predicators of project management performance.
- Project teamwork dimensions (communication, collaboration, cohesion and technical skill) were positive and significantly related with project performance;
- The relationship between project manager's leadership style and project time performance is mediated by teamwork;
- Project manager's leadership style & teamwork collectively have statistically significant effect on project time performance.
- Transformational leadership and teamwork plays a significant role in project success

On the basis of review of empirical studies related to the topic of the study, the following research gaps were identified.

a) Review of existing literature on project performance and the role of leadership has resulted inconsistent results. For instance, Keegan & Den-Hartog (2004), Turner & Muller (2005) and Huamdi & Said (2014) reported that leadership styles (transactional and transformational) were not significant predictors of project management performance. On the other hand, Yang, Wu and Huang (2013) and Kariuki (2015), reported a statistically significant relationship between project manager's leadership style and project performance, but the relationship was indirect through the mediating effect of teamwork.
b) There was lack of consensus and clarity on the effects of project manager's leadership style on teamwork as well as the effects of teamwork in the relationship between leadership style and project performance

2.6. Conceptual framework of the study

On the basis of the reviewed theoretical and empirical literature, the conceptual framework of the study is portrayed as follows.

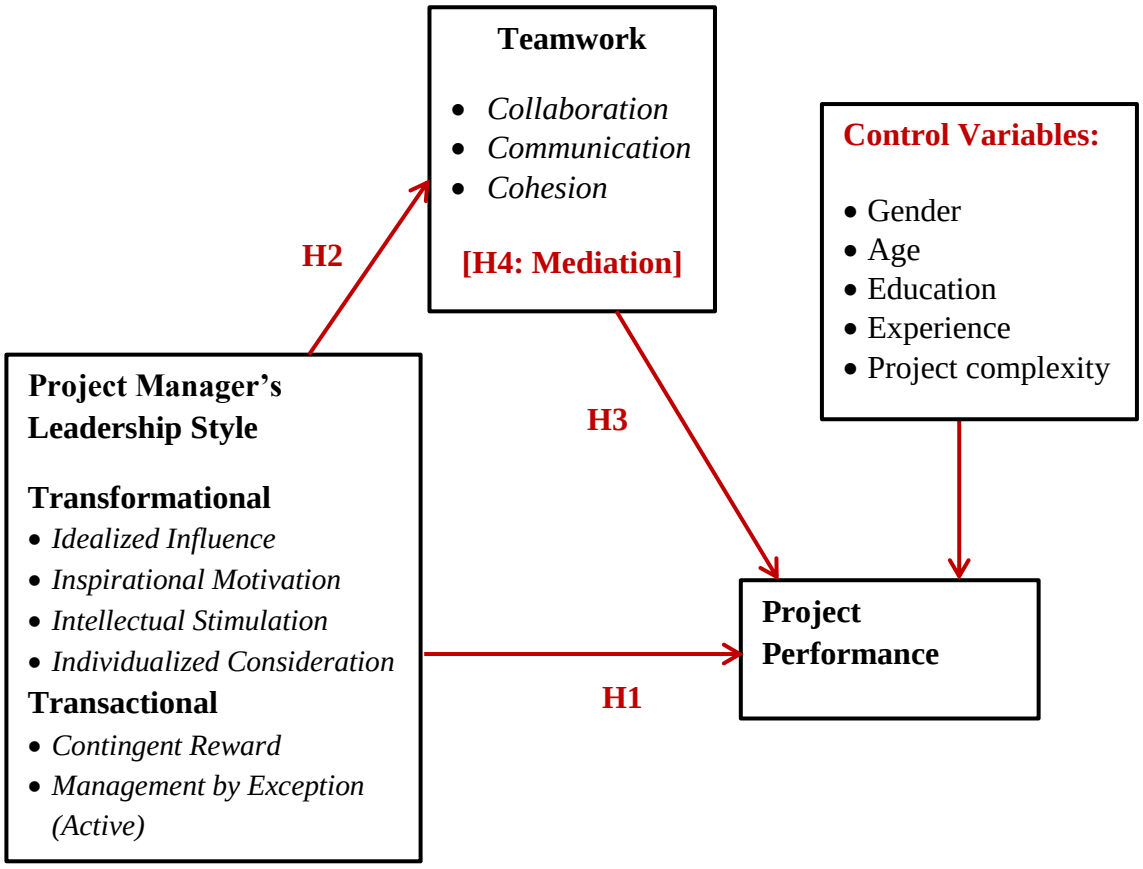

Figure 2.2. Conceptual framework of the study

Source: *Own construction, based on Muller & Turner (2007); Yang, Huang & Wu (2011, 2013); J. Jiang (2014); Aga (2016); Aga et al. (2016); Kariuki (2015)*

2.7. Operationalization of variables

The variables and items used in this study were adapted from review of earlier empirical studies. This study includes both interest variables (i.e., leadership style, project performance and teamwork) as well as control variables (i.e., gender, age, education level, experience and project complexity). A summary of the operationalization of study variables is presented in Table 2.1.

Table 2.1. The operationalization of study variables

Variable	Category	Source	Indicator	Instrument
Age, Gender, Education, Experience & Project Complexity	Control variables	Own construction	Demographic profile of respondents and project characteristics (project complexity rated as low, medium or high)	Part I of the project manager's & team members' questionnaire
Project performance	Dependent variable	Muller & Turner (2007); Jiang and Klein (2004), Aga *et al.*, (2016) and Yang, *et al*., (2011).	Respondents' qualitative judgement of project goals, schedule, cost, and quality performance and stakeholder satisfaction	Part IV of the project manager's & team members' questionnaire
Transformational leadership style	Independent variable	Liphadzi *et al.* (2015), Aga (2016), Ag *et al. (*2016), Yang *et al*., (2011)	• Idealized influence • Inspirational motivation • Intellectual stimulation • Individualized consideration	Multifactorial Leadership Questionnaire (MLQ)
Transactional leadership style	Independent variable	Yang *et al*., (2011), Liphadzi *et al.* (2015),	• Contingent reward • Management by exception (active)	Multifactorial Leadership Questionnaire (MLQ)
Teamwork	Mediating variable	Iqbal *et al. (2017);* Wang, *et al*., (2005), Jiang (2014), Yang *et al*. (2011)	• Collaboration • Communication • Cohesiveness	Part III of the questionnaire

Source: own construction

Control Variables: demographic profiles of respondents such as age, gender, highest educational level attained, and experience in project works as well as project characteristics such as project complexity (measured as low, medium and high) have been proved to influence project performance. These variables were constructed by the author based on their presumed effect on the relation between dependent and independent variables. Hence, following Barrick, Bradely, Kirstof-Brown and Colbert (2007), these variables were included as covariates. The measures and coding of control variables used in this study are described in Part I Annex I of project managers' & team members' questionnaire.

Dependent Variable: the dependent variable, project performance, was adapted from Muller & Turner (2007), Jiang and Klein (2004), Aga *et al.*, (2016) and Yang, *et al*., (2011). Project

performance was assessed in terms respondents' qualitative assessment of project performance against five items: achievement of project goals, schedule performance, cost performance, quality performance and stakeholder satisfaction. The Multifactorial Leadership Questionnaire (MLQ) was used to assess qualitative judgement of leadership style from project managers' and project teams' perspective. Each item was rated on a 5-point Likert scale, where 1 represents strongly disagree and 5 represents strongly agree. Five items which construct project performance are indicated in Part IV Annex I of project managers' & team members' questionnaire.

Independent Variables: the independent variable, leadership style was operationalized into two variables namely transformational and transactional leadership styles. These two leadership styles were further operationalized in accordance with Multifactor Leadership Questionnaire (MLQ) 5x-short. Adapting from Liphadzi *et al.* (2015), Aga (2016), Ag *et al. (*2016), Yang *et al*., (2011), transformational leadership had the following four sub-scales namely idealized influence (attributed and behaviors), inspirational motivation, intellectual stimulation and individualized consideration. Similarly, following Yang *et al*., (2011), Liphadzi *et al.* (2015), transactional leadership was operationalized into two subscales namely contingency reward and management by exception (active). Twenty eight items which formed the two dimensional construct of leadership styles are indicated in Part II Annex I of project managers' & team members' questionnaire.

Mediating Variable: in this study, teamwork is a variable that is presumed to mediate the relationship between leadership style and project performance. Following Iqbal *et al. (2017),* Wang, *et al*., (2005), Jiang (2014), Yang *et al*. (2011), teamwork construct was operationalized into eleven items categorized under three sub-scales (i.e., team communication, team collaboration and team cohesiveness). Eleven items which formed teamwork construct is indicated in Part III Annex I of project managers' & team members' questionnaire.

CHAPTER THREE: RESREACH METHODLOGY

3.1. Introduction

In this chapter, research design, population, sample, sampling techniques, source and instrument of data collection, data collection procedure and methods of data analysis will be presented. In addition, multiple linear regression model as well as ethical issues that were followed while conducting the study was covered in this chapter.

3.2. Research approach and design

In this study, a mixed of qualitative and quantitative research was employed, as recommended by Creswell (2009:203-216). According to Mark *et al*. (2009:101) mixing qualitative and quantitative approaches gives the potential to cover each method's weaknesses with strengths from the other method. The type of research design followed in this study was both descriptive and explanatory. It is partly descriptive because it describes the state of project leadership style, teamwork and project performance as it exists at present. It is partly explanatory in that the relationship between variables is examined through analyzing the influence of independent variables on dependent variable.

3.3. Target population, sample size and sampling strategy

3.3.1. Target population

The target population of this study covered a total of 894 study participants consisting of project managers and project team members. The targeted respondents were identified as individuals who were familiar with a project manager's leadership style, teamwork and project performance. Study participants were asked to identify a recent project completed during 2016-2018 in which they were familiar with for retrospective assessment. These projects include: TRFI, A-WaSH, WH-CARD, NRM-B, GRAD-O, BRIDGE, DRR-ER, WEALTHS, SEEECCS, RIP, REP, iWET, 2FLRA, Horti-LIFE, PRIME, and IRES. Geographically, these projects were implemented in Amhara, Tigray, Afar, Oromia and SNNPR. The unit of analysis in this study was individuals, i.e., individual project managers and project team members.

3.3.2. Sample size & sampling strategy

The sample size (n=269), which constituted the sampling framework, was determined using sample size determination formula of Krejcie & Morgan (1970) as presented below.

$$n = \frac{X^2 NP(1-P)}{d^2(N-1) + X^2 P(1-P)}$$

Where n = sample size

X^2= Chi-square for the specified confidence level at 1 degree of freedom (i.e., in this study, for 95% confidence level, Chi-square value is 3.8416)

N = Population size of this study is 894

P = Population proportion (assumed to be 0.50 since this would provide the maximum sample size).

d = Desired margin of error (expressed as a proportion, 5%)

$$n = \frac{(3.8416)(894)(0.5)(0.5)}{(0.05^2)(893) + (3.8416)(0.5)(0.5)} = 269$$

The target population, study sample and returned responses are illustrated in Table 3.1.

Table 3. 1. Study population, project type, final sample size and returned responses

S.No	Projects	Team size	Proportion	Sample size	Returned responses
1	TRFI	43	4.8%	13	13
2	A-WaSH	82	9.2%	25	19
3	WH-CARD	91	10.2%	27	23
4	NRM-B	54	6.0%	16	11
5	GRAD-O	113	12.6%	34	29
6	BRIDGE	34	3.8%	10	9
7	DRR-ER	67	7.5%	20	17
8	WEALTHS	40	4.5%	12	11
9	SEEECCS	12	1.3%	4	4
10	RIP	164	18.3%	49	44
11	REP	23	2.6%	7	6
12	iWET	45	5.0%	14	12
13	2FLRA	41	4.6%	12	12
14	Horti-LIFE	23	2.6%	7	7
15	PRIME	38	4.3%	11	11
16	IRES	24	2.7%	8	5
	Total	894	100.0%	269	233

Source: Own construction, based on HELVETAS Swiss Intercooperation Project Database (2016 -2018)

As presented in Table 3.1., respondents were selected using stratified random sampling technique, where the entire population was divided into sub-groups (projects). The size of the sample in each stratum (project) was determined in proportion to the size of the stratum, termed as proportional allocation. Using identity numbers of project staffs, lottery method was applied to select the final sampling units from within each project.

3.4. Sources of data and instrument of data collection

The study used both primary and secondary data. The study utilized cross-sectional survey data in the sense that all relevant data were collected at a single point in time (i.e., from April 30, 2019 to May 15, 2019). Obtaining information from a cross-section of a population at a single point in time is a reasonable strategy for pursuing many descriptive researches (Janet, 2006:94). Survey instrument was questionnaire which was implemented using Survey Monkey (www.surveymonkey.com) for electronic distribution and analysis of the results. All respondents had access to business e-mail. Using this online tool ensured data integrity. Survey Monkey captured all responses in a database, which was then exported to SPSS version 20 software thus eliminating human error. Using web-based survey questionnaire as an instrument, randomly selected respondents who worked in one of projects undertaken by HELVETAS during 2016 – 2018 self-filled in and returned the questionnaire electronically. Each respondent was informed that while filling out the questionnaire, he/she should consider only one project that he/she had been involved or familiar with in the last three years (i.e., 2016 – 2018).

Two questionnaires were used, one for the project managers and another for project team members. Project manager's questionnaire is attached as Annex II of this study and had five parts. Part one consisted of project manager's demographic data, part two covered project manager's qualitative judgement of their own leadership style (self-rating), part three captured teamwork aspects in project, part four consisted of aspects of project performance and part five factors that cause cost and time over-run. Similarly, project team member's questionnaire is attached as Annex I of the study and had five parts. The first part covered team member's demographic data, part two covered project team's qualitative assessment of their project manager's leadership style, part three captured teamwork aspects in projects, part four captured team member's qualitative assessment of project performance aspects and part five factors that cause cost and time over-run. Responses to the survey questions were

based on five-point Likert-scale in order to enable project managers and teams to respond to each statement in terms of their own degree of agreement or disagreement. To validate quantitative study findings, interview was held with five respondents (project teams) with the help of questions attached as Annex III of this study. In addition, secondary data from project database of HELVETAS were used to provide additional information where appropriate. Besides, books and published articles were reviewed to make the study fruitful.

3.5 Methods of data analysis

The study applied descriptive, exploratory factor analysis and inferential data analysis. Main data analysis tools used in this study are summarized in Table 3.2.

3.5.1. Descriptive analysis

The descriptive analysis included average, percentage, coefficient of variation, Pearson product moment correlation, and graphs.

3.5.2. Exploratory Factor Analysis (EFA)

Exploratory Factor Analysis (EFA) was conducted using principal components. The detail results of EFA are attached as Annex IV of this study. The specific goal of EFA was to summarize patterns of correlations among observed variables, to reduce a large number of observed variables to a smaller number of factors, and to provide a regression equation for an underlying process by using observed variables. Varimax rotation determined the grouping of leadership style construct, teamwork construct and project performance construct. For factor loadings of this study, any value less than 0.5 was suppressed and the variable associated with that factor loading was excluded from the rest of the variables.

3.5.3. Inferential analysis

Inferential analysis was made using statistical software called SPSS 20. The analytical tool used for each study objective is summarized in Table 3.2 below.

Table 3.2. A summary of data analysis methods

Study objective	Data Analysis Models	Tests/Indexes & Interpretation
Examine the relationship between project manager's leadership style and project performance	$PP = \beta_0 + \beta_1 Age + \beta_2 Gender + \beta_3 Education + \beta_4 Experience + \beta_5 Project\ Complexity + \beta_6 Leadersip\ Style + \varepsilon$ Where: PP = Project Performance; ε= random error term	**Tests:** Multiple linear regression analysis; ANOVA; R-square; Adjusted R^2; F-test; t-test **Interpretation:** • A relationship exist if at least one of β_i's is significant • R^2 provides predictive power of model • Model significant if p value ≤ 0.05 • Results are significant if at least one of βi's is significant
Establish the relationship between project manager's leadership style and teamwork	$TW = \beta_0 + \beta_1 Age + \beta_2 Gender + \beta_3 Education + \beta_4 Experience + \beta_5 Project\ Complexity + \beta_6 Leadersip\ Style + \varepsilon$ Where: TW = Teamwork; ε= random error term	
Examine the relationship between teamwork and project performance	$PP = \beta_0 + \beta_1 Age + \beta_2 Gender + \beta_3 Education + \beta_4 Experience + \beta_5 Project\ Complexity + \beta_6 TCOM + \beta_7 TCOL + \beta_8 TCOH + \varepsilon$ Where PP= Project Performance; TCOL = Team Collaboration; TCOM = Team Communication; TCOH = Team Cohesion	
Investigate whether project teamwork mediates the relationship between project manager's leadership style and project performance	$PP = \beta_0 + \beta_1 Age + \beta_2 Gender + \beta_3 Education + \beta_4 Experience + \beta_5 Project\ Complexity + \beta_6 TSFL + \beta_7 TSCL + \beta_8 TCOM + \beta_9 TCOL + \beta_{10} TCOH + \varepsilon$ Where: PP= Project Performance; TSFL = Transformational Leadership Style; TSCL = Transactional Leadership Style; TCOM = Team Communication; TCOL = Team Collaboration; TCOH = Team Cohesion	

Source: Own construction (2019)

3.6. Test for sampling adequacy

Kaiser-Meyer-Olkin (KMO) test, which measures sampling adequacy for each variable in the model and for the complete model, was conducted. The KMO statistic is a measure of the proportion of variance among variable that might be common variance and returns values between 0 and 1. Kaiser (1974) suggests that KMO values between 0.60 to 0.69 are considered as mediocre, 0.70 to 0.79 middling, 0.80 to 0.89 meritorious and 0.90 to 1.00 marvelous. Results of sampling adequacy test are summarized in Table 3.3.

Table 3.3.Kaiser-Meyer-Olkin (KMO) and Bartlett's Test

Tests		Constructs		
		Leadership Style (Transformational & Transactional)	Teamwork	Project Performance
KMO Measure of Sampling Adequacy.		0.870	0.825	0.740
Bartlett's Test of Sphericity	Approx. Chi-Square	3193.576	961.519	269.116
	Degrees of freedom	276	55	6
	Sig.	.000	.000	.000
Total Variance Explained (%)		**71.95%**	**66.222%**	**60.748%**

Source: Survey data (2019)

Accordingly, the results from KMO test shows values ranging from middling in case of project performance (i.e., KMO = 0.740) to meritorious in case of leadership construct (KMO=0.870) and teamwork (KMO = 0.825). Measures of sampling adequacy require KMO values to be greater than 0.5 and Bartlett's test of sphericity should be significant. Hence, in this study, the values of KMO were all greater than 0.5 and Bartlett's test for all three main constructs were significant ($p<0.01$). A statistically significant Bartlett's test of sphericity indicates that the matrix is not an identity matrix indicating that there were patterned relationships between the items.

The results of Principal Component Factor Analysis (PCFA) resulted in twenty four items of leadership style construct grouped into two factor models (i.e., transformational and transactional) accounting for 71.95% of total variance explained in the data set. Eleven items of teamwork construct were resulted in three subs-scales (communication, collaboration and cohesion) which accounted for 66.22% of total variance explained in the data set while four items of one factor model of project performance accounted for 60.748% of total variance in the data set. Except one item of project performance, all other items of leadership style and teamwork were not dropped from the rest of the group in the rotated matrix since no factor loading was less than 0.5.

Regarding the total variance explained by each constructs Henson and Roberts (2006) suggested that here is no agreement in cumulative percentage of variance in the factor analysis method, particularly in different research area. For instance, in humanities, the explained variance is generally as low as 50%-60% (Hair, Anderson, Tatham and Black, 1995a). According to Hair (2006), total variance explained should exceed the 60% threshold commonly used in social sciences. In this study, results from KMO and Bartlett's Test of Sphericity tests as well as total variance explained by the constructs is within acceptable limit suggesting that the sample was deemed to be adequate for further analysis.

3.7. Reliability and validity

3.7.1. Reliability

Reliability is the extent of how reliable is the said measurement model in measuring the intended latent construct. The assessment for reliability for a measurement model was made using three criteria: internal reliability, composite reliability and average variance extracted (AVE). The internal reliability indicates how strong the measuring items are holding together in measuring the respective construct. The values of Cronbach's alpha above 0.7 are considered acceptable and those above 0.8 are considered meritorious (Nunnally, 1978; Litwin, 1995). Reliability was assessed for each dimensions of leadership style, teamwork and project performance. As it is shown in Table 3.4, all values of Cronbach's alpha for each dimensions of leadership style (i.e., transformational and transactional), teamwork and project performance construct were above, 0.8 indicating a high degree of internal consistency in the responses.

Table 3.4. Factor loadings, composite scale reliability and Average Variance Extracted

Construct	Dimension[a]	Number of items	Range of Factor loadings	Cronbach's Alpha	Composite Reliability	AVE[b]	Square root of AVE
Transformational Leadership	II	8	0.642 to 0.876	0.911	0.8939	0.6801	0.8247
	IM	4	0.740 to 0.902	0.875			
	IS	2	0.777 to 0.839	0.702			
	IC	2	0.827 to 0.864	0.795			
Transactional Leadership	CnR	4	0.813 to 0.876	0.877	0.8549	0.7467	0.8641
	MBEA	4	0.598 to 0.816	0.851			
Teamwork	TCOM	4	0.648 to 0.842	0.817	0.8361	0.6300	0.7937
	TCOL	4	0.742 to 0.825	0.818			
	TCOH	3	0.669 to 0.855	0.744			
Project Performance	PP	4	0.721 to 0.818	0.783	0.6131	0.6131	0.7830

a. II=Idealized Influence, IM = Inspirational Motivation, IS = Intellectual Stimulation, IC=Individual Consideration, CnR=Contingent Reward, MBEA=Management by Exception-Active, TCOM = Team Communication, TCOL = Team Collaboration, TCOH = Team Cohesion, PP = Project Performance
b. AVE = Average Variance Extracted

Source: Own survey data (2019)

Unlike Cronbach's alpha which assumes factor loadings to be the same for all items, Composite Reliability (CR) does not assume this. CR takes into consideration the varying factor loadings of the item. CR which indicates the reliability and internal consistency of a latent construct was calculated and summarized in Table 3.4. In order to attain composite reliability for a construct, it should exceed a value of 0.6. Results in Table 3.4 shows that all constructs namely transformational leadership (CR = 0.8939), transactional leadership (CR = 0.8549), teamwork (CR = 0.8361) and project performance (CR = 0.6131) had composite reliability values that exceeded the minimum threshold value of 0.6 indicating composite reliability is achieved.

Another reliability measure is Average Variance Extracted (AVE), which is basically a measure of the amount of variance that is extracted by the corresponding construct relatively to the amount of variance caused by measurement errors (Fornell & Larcker, 1981). AVE values above 0.7 are considered as very good whereas a value of 0.5 is acceptable (Fornell & Larcker, 1981). As shown in Table 3.4, AVE was calculated for each constructs and transformational leadership

had AVE of 0.6801, transactional leadership had 0.7467, teamwork had 0.630 and project performance had AVE of 0.6131. All AVE values of each construct exceeded 0.50 indicating acceptable to very good level of reliability of the measurement model in measuring the constructs.

3.7.2 Validity

As a crucial component of research, validity can be defined as the capability of research instrument to measure what it supposed to measure for a latent construct. Campbell and Fiske (1959) proposed two aspects to assess the construct validity of a test: convergent validity and discriminant validity. Convergent validity is the degree of confidence we have that a trait is well measured by its indicators. Composite Reliability and Average Variance Extracted (AVE) are applicable to measure convergent validity. This study used Multifactor Leadership Questionnaire (MLQ) developed by Bass and Avolio (2000). According to Bass and Avolio (2000), the reliability of MLQ for each leadership factor ranges from 0.74 to 0.91 and it is the most widely used instrument to assess leadership styles (Kirkbride, 2006) and also considered the best validated measure of transformational and transactional leadership (Ozaralli, 2003). Bass (1985) stated that the MLQ has been constantly verified, and is a powerful predictor of leader performance. The scale used in this part ranged from one to five, with 1 (not at all) 1 (once in a while), 2 (sometimes), 3 (fairly often), and 4 (frequently if not always). Triangulation of data source and findings were made to ensure the consistency of findings corresponding to each research questions.

(a). Construct Validity

To test the construct validity of the variables in this study, Exploratory Factor Analysis (EFA) was conducted using Principal Components. Factor analysis with Varimax rotation determined the grouping of leadership style, teamwork and project performance constructs. Following Hair *et al*. (1995), only variables with a factor loading greater than 0.5 were extracted. Accordingly, 24 items of leadership style construct were classified into two main components: (i) transformational leadership construct which consists of 16 items was further classified into four dimensions of idealized influence, inspirational motivation, intellectual stimulation and

individualized consideration; (ii) the second factor was transactional leadership construct which consisted of 8 items categorized into two dimensions of contingent reward and active management by exception. Teamwork construct had 11 items that were categorized into three factors consisting of team communication, team collaboration and team cohesion. On the other hand, four out of five items determined only one factor namely project performance construct. One item of project performance was dropped because of low factor loadings i.e. factor loading less than 0.50. Details of factor analysis result are attached as Annex IV of this study. As shown in Table 3.4, all factor loadings ranging from 0.642 to 0.864 show a high level of internal consistency among items of transformational leadership style. Similarly, factor loadings ranging from 0.598 to 0.876 show a high level of internal consistency among transactional leadership style items. On the other hand, factor loadings ranging from 0.721 to 0.818 and from 0.648 to 0.855 show a high level of internal consistency among project performance and teamwork items, respectively.

(b). Convergent Validity

As it is shown in Table 3.4, all AVE values of each constructs exceed 0.5, indicating that these constructs demonstrate adequate convergent validity for the measurement model.

(c). Discriminant Validity

Discriminant determines whether constructs are measuring different concepts (Hair, Black, Banin & Anderson, 2010). The very essence of testing discriminant validity rests on examination of whether responses from different respondents to research questions are either loosely associated or not correlated at all with other latent variables. In this regard, Fornell and Larcker (1981) asserted that by comparing the amount of variance captured by the construct (AVE) and the shared variance with other constructs, discriminant validity can be assessed. Thus, for constructs to demonstrate adequate discriminant validity, the levels of square root of the AVE for each constructs should be greater than the bivariate correlation involving the constructs. A rather more conservative discriminant validity assessment involves comparison of bivariate correlations with the average variances extracted. Accordingly, on the diagonal of the correlation matrix, the

computed square root of AVE values was inserted in Table 3.5 in order to compare it with the other bivariate correlation coefficient.

Table 3.5. Correlation between study variables & square root of AVE

Study variables	Transformational Leadership Style	Transactional Leadership Style	Teamwork	Project Performance
Transformational Leadership Style	$\sqrt{\boldsymbol{AVE}}$**=0.825**			
Transactional Leadership Style	0.166*	$\sqrt{\boldsymbol{AVE}}$**=0.864**		
Teamwork	0.329**	-0.170**	$\sqrt{\boldsymbol{AVE}}$**=0.794**	
Project Performance	0.049	0.376**	-0.259**	$\sqrt{\boldsymbol{AVE}}$**=0.783**
*. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).				

Source: survey data (2019)

Hence, comparison of square root of AVE and correlation coefficient of each constructs in Table 3.5 indicates that the levels of square root of the AVE for each construct exceed the bivariate correlation between the constructs. This shows that the measurement model containing latent variables demonstrated acceptable discriminant validity.

3.8. Ethical issues

Respondents provided their response voluntarily and were assured that the privacy of their response was maintained. The integrity of data collection, analysis and reporting of results was also maintained. All research participants that were included in this study were appropriately informed about the purpose of the research, methods to be used and the demands of the study. The consent and willingness of respondents were secured before the commencement of filling in web-based self-administered questionnaire. The study maintained the confidentiality of the identity of each participant. In addition, all sources of information that were referred in this study were appropriately acknowledged.

CHAPTER FOUR: RESULTS AND DISCUSSIONS

This chapter covers the response rate, respondent's demographic profile, and descriptive statistics of key study variables are presented. In addition, rating of key study variables, relationship among variables, hypothesis testing and discussions of findings are presented.

4.1. Response rate

Out of the targeted 269 sample respondents, complete responses were obtained from 233 respondents giving a response rate of 86.6%. This response rate is representative of the population and conforms to O. Mugenda and A. Mugenda (2003) requirement that a response rate of 70% and above is very good, 60% is good and 50% is adequate. Accordingly, 86.6% response rate was considered very good for further analysis. In addition, this response rate was within the range of response rates of similar studies. For example, Liphadzi, Aigbaoboa and Thwala (2015) had a response rate of 73%; Aga (2016) had a response rate of 74.7%; Chaudhry *et al*. (2012) had a response a response rate of 78.6% on similar studies carried out to examine the relationship between leadership style and project performance.

4.2. Demographic profiles of respondents

A demographic profile of the respondents is summarized in Table 4.1.

Gender: about 84% of the respondents were men while 16% were female. This indicates that the majority of respondents were men who were over-represented in this survey sample.

Age: about 35% of respondents were in the age range of 31 to 40, 27% in the range 41 to 50, 26% in the rage 20 to 30 and about 12% were in the age range between 51 to 60. The age structure of the respondents revealed different levels of job experience in their respective projects that could bring a reliable source of information for this research.

Table 4.1 Demographic profile of study participants

Characteristics	Category	All Respondents (n=233)	
		Number	Percentage
Gender	Male	196	84.1
	Female	37	15.9
Age (years)	20 – 30	61	26.2
	31 – 40	82	35.2
	41 – 50	63	27.0
	51 – 60	27	11.6
Education level	High school	8	3.4
	Diploma	21	9.0
	Bachelor's degree	165	70.8
	Master's Degree	39	16.7
Job title or function	Project Manager	16	6.9
	Project Officer	54	23.1
	Project Expert	163	70.0
Experience in development project works (years)	< 5	31	13.3
	5 – 10	54	23.2
	10 – 15	114	48.9
	> 15	34	14.6

Source: Own survey data (2019)

Educational level: about 3.4% of respondents completed high school, 9% had diploma and 71% of respondents had bachelor degree followed by holders of master's degree which accounted for 17% of the respondents. These findings imply that the respondents had sufficient level of education to comprehend and answer the questions without difficulty.

Job function: while 7% of respondents accounted for project managers, about 93% of respondents were project team members (i.e., 23% project officers and 70% project experts). Respondents' job function shows that the selected sample respondents have a position that is relevant to the present study.

Years of experience: in terms of experience in development project works, about 49% of respondents had experiences ranging from 10 to 15 years, 23% had 5 to 10 years, and about 15% had more than 15 years of experience. This result suggests that the respondents had considerable experience in development project life cycle management and can clearly respond to the questions raised in the questionnaire based on their experience in the projects.

4.3. Regression model diagnostic tests

The cross-sectional data that were collected to establish the relationship between independent and dependent variables was diagnosed for tests of normality of residuals, heteroscedasticity and multicollinearity and autocorrelation before full-scale data analysis was carried out.

4.3.1. Test on normality of residuals

In linear regression, one of the assumptions is actually to determine whether the residuals are normally distributed. It is important to meet this assumption for the p-values for the t-tests to be valid. The P-P plot (probability–probability plot or percent–percent plot or p-value plot) compares the observed cumulative distribution function (CDF) of the standardized residual to the expected CDF of the normality distribution. Normality assumption of residuals is attained if P-P plot dots should be closer to the diagonal line; Normal P-P plot points should lie reasonably straight diagonal line from the bottom left to the top right. The P-P plot of regression of independent variables on dependent variable is portrayed in Figure 4.1.

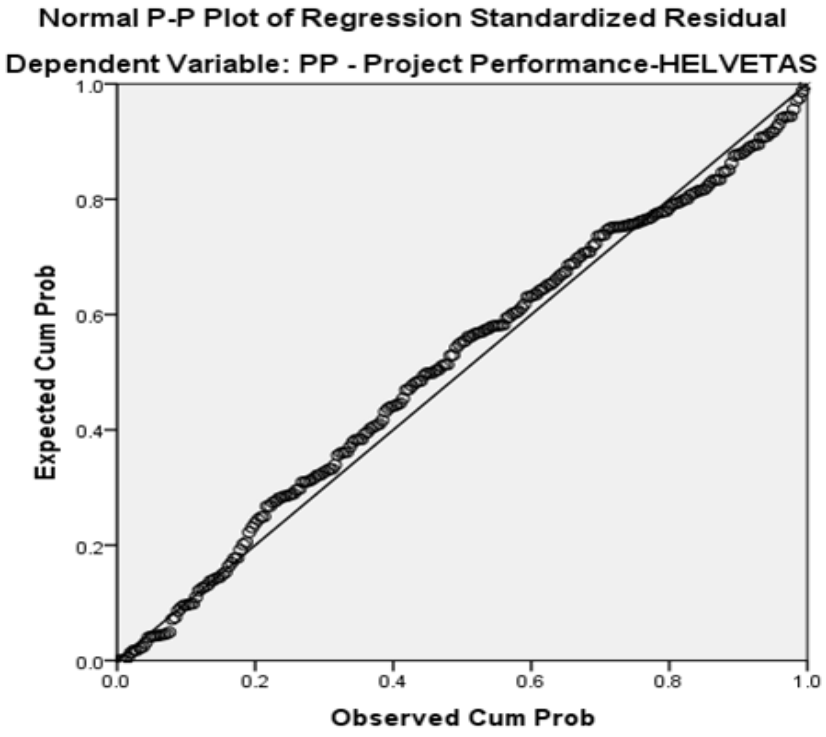

Figure 4.1. Normal P-P plot of regression standardized residual

Source: Own survey data (2019)

The points in the P-P plot lie on a straight diagonal line with a minimal deviation from the straight line. This indicates that the data were approximately normally distributed.

4.3.2. Test of homoscedasticity

One of the assumptions of ordinary least squares estimation is that the errors in linear regression model have a common variance. If errors have failed to have constant variance, it is called as heteroskedastic. Violation of homoscedasticity of the disturbance term implies inefficient estimators and invalidated test of significance. Levene's test was used to test the null hypothesis of homogeneity of variances against the alternative hypothesis that not all variance are equal. If p-value $\leq \alpha$, then reject null hypothesis; otherwise, we fail to reject the null. As it is shown in Table 4.2, calculated p-value > 0.05 shows that variances were not significantly different and implying the assumption of homoscedasticity holds.

Table 4.2. Tests of homoscedasticity

Independent variables	Leven's Test for Equality of Variance (F- Statistic)	Sig.
Idealized Influence	2.193	0.140
Inspirational Motivation	1.134	0.288
Intellectual Stimulation	0.089	0.766
Individualized Consideration	0.897	0.345
Contingent Reward	0.892	0.346
Management By Exception - Active	0.001	0.969

Source: Survey data (2019)

4.3.3. Testing for autocorrelation

In order to test whether autocorrelation of residuals from the linear regression models were present or not, Durbin-Watson test statistic (d) was used. The Durbin-Watson test statistic ranges from a value close to zero, which denotes positive autocorrelation, to a value near to four which suggests negative autocorrelation. The commonly used benchmark is that values of Durbin-Watson (d) which fall in the range between 1.5 to 2.5 indicates non-existence of residual autocorrelation of order one. The limitation of Durbin-Watson test statistic, however, is that it

tests only first-order serial correlation between direct neighbors. The computed Durbin-Watson test statistic is shown in Table 4.3.

Table 4.3. Testing for autocorrelation

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.694[a]	.482	.468	.59765	2.043

a. Predictors: (Constant), MBEA - Management By Exception - Active, CnR - Contingent Reward, IC - Individualized Consideration, IM - Inspirational Motivation, IS - Intellectual Stimulation, II - Idealized Influence

b. Dependent Variable: PP - Project Performance-HELVETAS

Source: Own survey data (2019)

As it is shown in Table 4.3, the calculated Durbin-Watson test statistic (d=2.043) is within the range of 1.5 and 2.5 indicating that the residuals from an ordinary least-squares regression are not linearly auto-correlated.

4.3.4. Tests of multicollinearity

Multicollinearity refers to 'very high' inter-correlation among predicator variables. A perfect linear relationship among the independent variables implies difficulty of computing distinctive estimates for a regression model. As the degree of multicollinearity increases, the estimates from the regression model become unstable and hence it would be difficult to disentangle the separate effect of predictor variables. In addition, the standard errors for the coefficients would be highly inflated. Variance inflation factor (VIF) was used to check the seriousness of multicollinearity among explanatory variables. The rule of thumb is that a variable having VIF greater than ten indicates high multicollinearity which requires further investigation. Hence, VIFs were calculated for all predicators and were found to be less than ten implying that multicollinearity was not a concern in this study. In addition, all bivariate correlations between predicator variables in Table 4.6 is less than 0.8. Hence, as rule of thumb, if a bivariate correlation between predictor variables is less than 0.8, it shows multicollinearity is not a serious concern.

4.4. Rating of variables

This study used three main variables namely project manager's leadership style (i.e., both transactional and transformational), teamwork (i.e., team communication, team collaboration and team cohesion) and project performance. The rating of each of these variables was measured using central tendency measures (i.e., mean, median and mode) through computation of descriptive statistics for each aspect of study variables as follows.

4.4.1. Project manager's transformational & transactional leadership style rating

A summary of respondents' overall mean rating of transformational and transactional leadership was evaluated using five point Likert scale (i.e., 1=not at all, 2=once in a while, 3=sometimes, 4=fairly often, 5=frequently, if not always). The mode and mean rating of leadership style is presented in Table 4.4 below.

Table 4.4. Transformational and Transactional Leadership Style

Aspect	Mode	Mean	Standard Deviation
Transformational			
Idealized Influence	3.88	3.33	0.9289
Inspirational Motivation	1.00	2.08	1.0558
Intellectual Stimulation	3.00	2.97	0.9010
Individualized Consideration	4.00	3.68	0.5354
Overall Transformational	**3.06**	**3.02**	**0.5085**
Transactional			
Contingent Reward	4.00	3.25	0.9106
MBE	4.00	3.53	0.7414
Overall Transactional	**3.25**	**3.39**	**0.6003**

Source: Survey data (2019)

From Table 4.4, the overall mean and mode scores of transactional and transformational leadership styles suggest that respondents view in that both types of leadership styles were practiced in the range between "Sometimes" and "Fairly often".

4.4.2. Project teamwork rating

In this study, teamwork was operationalized and assessed in terms of three aspects namely, team communication, team collaboration and team cohesion. A summary of respondents' overall mean rating of teamwork was evaluated using five point Likert scale (i.e., 1=not at all, 2=once in a while, 3=sometimes, 4=fairly often, 5=frequently, if not always). Table 4.5 shows a summary of the respondents' mean rating of each of the three aspects as well as overall teamwork rating.

Table 4.5 Teamwork Rating

Aspect	Mean	Standard Deviation
Team Communication	3.30	0.91
Team Collaboration	2.93	0.84
Team Cohesion	2.06	0.77
Overall Teamwork	**2.83**	**0.44**

Source: Survey data (2019)

The result from Table 4.5 shows that the overall mean rating of teamwork was 2.83 out of 5 demonstrating that respondents view teamwork was practiced in a range between "Once in a while" and "Sometimes".

4.5. Relationship among variables

In order to examine the relationship among study variables, Person product moment correlation coefficient (r) was calculated as summarized in Table 4.6. The correlation analysis involves both control variables (i.e. gender, age, education level, experience, project complexity) as well as interest variables (i.e., project performance, teamwork and leadership styles).

Table 4.6. Correlation Matrix – Relationship among Study Variables

Variables	Gender	Age	Education	Experience	Project Complexity	Teamwork	Transformational Leadership Style	Transactional Leadership Style
Gender	1							
Age	.086	1						
Education Level	.106	.081	1					
Experience	-.039	.059	.005	1				
Project Complexity	-.013	-.061	.058	-.116	1			
Teamwork	.072	.043	.051	.110	-.100	1		
Transformational Leadership Style	.022	.002	.074	-.112	-.079	**.329****	1	
Transactional Leadership Style	-.009	-.021	-.006	-.084	.084	**-.170****	**.166***	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
Source: Survey data (2019)

Results from Table 4.6 show that there was a statistically significant positive association between teamwork and transformational leadership style ($r = 0.328$, $p < 0.01$). Teamwork was negatively correlated with transactional leadership style ($r = -0.170$, $p < 0.01$). A statistically significant positive association was observed between transformational and transactional leadership styles ($r=0.166$, $p<0.05$) suggesting that transformational leadership style augments transactional leadership style.

4.6. Relationship between study variables and project performance

This study tested four research hypotheses. In each of the regression analysis, R, the multiple linear correlation coefficients, measured the linear correlation between the observed and model-predicted values of the dependent variable. Goodness-of-fit of the regression models were evaluated using adjusted R-square. In addition, F-statistic was used to determine the statistical significance of the fitted regression model while t-test was used to test the significance of each of the regression model coefficients. In each case of hypothesis testing, stepwise regression was applied in which in step 1 of the regression the potential effects of control variables were included. In step 2, both the control variables as well as interest variables were included in the

regression model. The following sub-section illustrates results of regression analysis corresponding to each research objectives.

Research Objective 1: To examine the relationship between project manager's leadership style and project performance

The first objective of this study was to assess the relationship between Project Manager's Leadership Style (PMLS) and Project Performance (PP). The research hypothesis related to the first objective was that there was significant positive relationship between PMLS and PP. The result of step-wise multiple linear regression analysis is summarized in Table 4.7.

Table 4.7. Regression analysis of leadership style as a predictor of project performance

	Step 1[b]				Step 2[c]			
	Unstandardized Coefficients[a]		Standardized Coefficients[a]	Sig.	Unstandardized Coefficients[a]		Standardized Coefficients[a]	Sig.
Variables	B	S.E	Beta		B	S.E.	Beta	
(Constant)	3.197	0.375		.000	1.316	.540		.016
Gender	-0.185	0.148	-0.083	.213	-.184	.142	-.082	.197
Age	0.032	0.056	0.038	.565	.035	.054	.041	.519
Education Level	-0.059	0.086	-0.046	.492	-.075	.083	-.058	.362
Project Complexity	0.116	0.070	0.110	.097	.118	.067	.112	.079
Experience	-0.046	0.061	-0.050	.452	-.011	.059	-.012	.847
Leadership style					**.570****	**.122**	**.295****	**.000**
R-square	0.025				0.111			
Change in R-square	0.025				0.086			
ANOVA (F)	1.161				4.680			
Durbin-Watson	1.977				2.033			

a. Dependent Variable: PP - Project Performance-HELVETAS
b. Predictors: (Constant), Leadership Style, Gender, Project Complexity, Age, Education Level, Experience
c. Predictors: (Constant), Leadership Style, Gender, Project Complexity, Age, Education Level, Experience

*Note: ** p < 0.01. Sample size 233, B=unstandardized beta; S.E. = Standard Error;*
Source: Own survey data (2019)

In step 1, only the control variables were included in the regression model. None of the control variables was found to be significant in explaining project performance. The result of step 2 indicates that leadership style has a significant positive relationship with project performance ($B = 0.570$, $p < 0.01$) and uniquely explains 8.6% of the variance in project performance. Hence, there is sufficient statistical evidence to support research hypothesis 1 in that there was significant positive relationship between leadership style and project performance. This finding is consistent with the findings of Yang *et al*. (2012), Nubuor *et al*. (2014) and Aga (2016).The Durbin-Watson test statistic value 1.9777 and 2.033 are within the acceptable limit of 1.5 to 2.5 indicating absence of autocorrelation of residuals in both step 1 and step 2 of the regression residuals.

Research Objective 2: Assess the relationship between leadership style and teamwork

The second objective of the study was to assess the relationship between project manager's leadership style and teamwork in sampled projects of HELVETAS. The research hypothesis of the study was that there was significant positive relationship between teamwork and project performance. In step 1, only control variables were included in the regression model. In step 2, both control variables and the two dimensional leadership construct (i.e., transformational and transactional leadership styles) was included in the model. The results of step-wise regression analysis are summarized in Table 4.8 below.

Table 4.8. Regression analysis of leadership style as a predictor of teamwork

Variables	Step 1[b]				Step 2[c]			
	Unstandardized Coefficients[a]		Standardized Coefficients[a]	Sig.	Unstandardized Coefficients[a]		Standardized Coefficients[a]	Sig.
	B	S.E	Beta		B	S.E.	Beta	
(Constant)	2.568	.200		.000	2.114	.277		.000
Gender	.081	.079	.068	.303	.076	.073	.063	.298
Age	.010	.030	.022	.737	.010	.027	.021	.726
Education Level	.032	.046	.047	.482	.010	.042	.015	.806
Project Complexity	-.050	.037	-.089	.179	-.020	.035	-.036	.558
Experience	.049	.032	.101	.129	.064	.030	.130	.034
Transformational Leadership Style					**.322**	**.053**	**.374**	**.000**
Transactional Leadership Style					**-.158**	**.045**	**-.217**	**.001**
R-square	0.028				0.184			
Change in R-square	0.028				0.156			
ANOVA (F)	1.317				7.255			
Durbin-Watson	1.866				1.738			

a. Dependent Variable: Teamwork
b. Predictors: (Constant), Experience in development project works , Education Level, Age, Gender, Project Complexity
c. Predictors: (Constant), Transactional Leadership Style, Education Level, Age, Experience, Gender, Project Complexity, Transformational Leadership Style

*Note: ** p < 0.01. Sample size 233, B=unstandardized beta; S.E. = Standard Error;*
Source: Own survey data (2019)

The findings in step 1 of Table 4.8 indicate that control variables had a negligible effect on teamwork. On the other hand, leadership style (i.e., transformational and transactional) leadership styles uniquely contributed 15.6% of the variance in teamwork upon its addition to the regression model in step 2. The results show that a strong and highly significant relationship between leadership style (i.e., transformational and transactional leadership) and teamwork. With regard to direction of relationship, transformational leadership style had a statistically significant positive relationship with teamwork while transactional leadership style had a statistically significant but negative relationship with teamwork. Correlation analysis among teamwork, transactional leadership style, transformational leadership style and control variables is summarized in Table 4.9

Table 4.9. Correlation matrix –teamwork, transactional & transformational leadership Styles

Variables	Gender	Age	Education	Experience	Project Complexity	Teamwork	Transformational Leadership Style	Transactional Leadership Style
Gender	1							
Age	.086	1						
Education Level	.106	.081	1					
Experience	-.039	.059	.005	1				
Project Complexity	-.013	-.061	.058	-.116	1			
Teamwork	.072	.043	.051	.110	-.100	1		
Transformational Leadership Style	.022	.002	.074	-.112	-.079	**.329****	1	
Transactional Leadership Style	-.009	-.021	-.006	-.084	.084	**-.170****	**.166***	1

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

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

Source: Own survey data (2019)

The findings from Table 4.9 shows that teamwork was positively related to transformational leadership style ($r=0.329$, $p<0.01$) and negatively related to transactional leadership style ($r=-0.170$, $p<0.01$). This shows that transactional leadership style does not induce employees to perform better and may stimulate higher turnover intentions. On the other hand, transformational leadership style is positively related to transactional leadership style ($r=0.166$, $p<0.05$). This finding suggests that an increase in transformational leadership style would be complemented by an increase in transactional leadership style. This finding is in line with Bass (1985) assertion in that transformational leadership is presented in a way to augment transactional approaches to management. So, we can claim that there is enough statistical evidence to support the research hypothesis of the study and conclude that a statistically significant relation was found between teamwork and project manager's leadership style. This result is consistent with Rhabi, Khalid and Khan (2017) and Yang, Wu and Huang (2013).

Research Objective 3: Examine the relationship between teamwork and project performance

The third objective of the study was to examine the relationship between teamwork and project performance in sampled projects of HELVETAS. The research hypothesis of the study was that there was significant positive relationship between teamwork and project performance. Multiple linear regression analysis was used by regressing project performance (PP) against the three dimensions of teamwork namely team communication (TCOM), team collaboration (TCOL) and team cohesion (TCOH). The results of multiple regression models are shown in Table 4.10.

The results in step 1 of the regression in Table 4.10 show that the control variables had insignificant effect on project performance. Three dimensional teamwork constructs (i.e., team communication, team collaboration and team cohesion) had statistically significant effect on project performance. Teamwork uniquely contributed 37.5% of the variation in project performance upon its inclusion into the model in step 2. Within teamwork construct, team communication had a significant positive effect on project performance while team collaboration and team cohesion had a statistically significant negative effect on project performance. This result could suggest that in the absence of collaboration and cohesion within the team, project performance diminishes. One possible explanation that were documented from structured interview held with respondents showed that team members had a defensive or mistrustful attitude during group discussion or they did not listen to each other to clarify problems and also share information willingly. According to another respondent, given the diversity of the projects and the workforce, they feel that the organization did not promote appropriate workforce diversity management systems.

Table 4.10. Regression analysis of teamwork as a predictor of project performance

	Step 1[b]				Step 2[c]			
	Unstandardized Coefficients[a]		Standardized Coefficients[a]	Sig.	Unstandardized Coefficients[a]		Standardized Coefficients[a]	Sig.
Variables	B	S.E	Beta		B	S.E.	Beta	
(Constant)	2.568	.200		.000	3.621	.394		.000
Gender	.081	.079	.068	.303	-.197	.117	-.088	.094
Age	.010	.030	.022	.737	.028	.044	.033	.533
Education Level	.032	.046	.047	.482	.018	.068	.014	.795
Project Complexity	-.050	.037	-.089	.179	.034	.049	.036	.491
Experience	.049	.032	.101	.129	.045	.055	.043	.413
Team Communication					**.228****	**.051**	**.254****	**.000**
Team Collaboration					**-.391****	**.059**	**-.400****	**.000**
Team Cohesion					**-.159***	**.063**	**-.149***	**.013**
R-square	0.028				0.403			
Change in R-square	0.028				0.375			
ANOVA (F)	1.317				18.917			
Durbin-Watson	1.866				2.057			

a. Dependent Variable: Project Performance
b. Predictors: (Constant), Experience in development project works , Education Level, Age, Gender, Project Complexity
c. Predictors: (Constant), Team Cohesion, Age, Education Level, Experience, Gender, Project Complexity, Team Communication, Team Collaboration

*Note: ** p < 0.01. * p< 0.05; Sample size 233, B=unstandardized beta; S.E. = Standard Error*

Source: Own survey data (2019)

The implication of findings in Table 4.10 indicate that a disunited team cannot attach itself strongly to the project with a sense of purpose and feeling of responsibility for maintaining and protecting the project which would ultimately led to a failed project performance. This result is consistent with Iqbal, Nawaz and Bahoo (2017), Assaf, Hassanian & Mughal (2014), Aldoshan (2016), Yang, Wu & Huang (2013) and Kariuki (2015). Negative signs of team collaboration and team cohesion may show that everyone may work hard, but usually on the wrong tasks and goals. It may also be that work pressure may not be evenly distributed among team members or it may indicate that poor team building and planning sessions bring disillusionment, low morale and negative motivation of the entire project.

Research Objective 4: Examine the mediatory role of teamwork in the relationship between project manager's leadership style and project performance

The fourth objective was to investigate whether teamwork mediates the relationships between project manager's leadership style and project performance. Accordingly, the research hypothesis was that teamwork did mediate the relationship between project manager's leadership style and project performance.

In testing the mediated relationship, the four-step causal method, initially designed by Baron and Kenny (1986) and summarized by Hayes (2013), was adopted. According to Hayes (2013), first, the independent variable must be related to the dependent variable. Second, the independent variable must be related to the mediator variable. Third, the mediator variable must be significantly related to the dependent variable. Finally, when the mediator variable is controlled for, the relationship (i.e., the coefficient) between the independent variable and dependent variable should be either no longer significant (full mediation) or substantially reduced (partial mediation). Partial mediation implies that the mechanism through mediator variable does not entirely account for the association observed between independent and dependent variable, whereas complete mediation means that the association between independent and dependent variable is entirely accounted for by the indirect mechanism (Hayes, 2013).

Accordingly, the result of research objective one exhibited a statistically significant relationship between project manager's leadership style and project performance. Results of research objective 2 demonstrated a statistically significant relationship existed between project manager's leadership style and teamwork, and results of research objective 3 indicated a statistically significant relationship between teamwork and project performance. In the relationship between project manager's leadership style and project performance, teamwork dimension met the first three conditions of mediation specified by Baron and Kenny (1986). The teamwork variable was then tested to determine if it met the fourth condition for mediation. The analysis was carried out to examine the effect of teamwork variable where leadership style was independent variable and project performance was dependent variable.

Multiple regression models were fitted by simultaneously regressing project performance on leadership style and teamwork to measure the mediating role of teamwork. By investigation changes in beta-coefficients, the mediating role of teamwork in the relationship between leadership style (transformational and transactional) and project performance were examined. The result of mediating role of teamwork on the relationship between leadership style and project performance is summarized in Table 4.11.

Table 4.11. The mediating role of teamwork in the relationship between leadership style and project performance

	Step 1[b]				Step 2[c]			
	Unstandardized Coefficients[a]		Standardized Coefficients[a]	Sig.	Unstandardized Coefficients[a]		Standardized Coefficients[a]	Sig.
Variables	B	S.E	Beta		B	S.E.	Beta	
(Constant)	1.316	.540		.016	3.018	.500		.000
Gender	-0.184	.142	-0.082	.197	-0.195	.117	-0.087	.097
Age	0.035	.054	0.041	.519	0.031	.044	0.036	.487
Education Level	-0.075	.083	-0.058	.362	0.008	.068	0.006	.902
Project Complexity	0.118	.067	0.112	.079	0.049	.055	0.047	.374
Experience	-0.011	.059	-0.012	.847	0.043	.049	0.047	.372
Leadership Style	**0.570****	.122	**0.295****	**.000**	**0.216****	.051	**0.112****	**.000**
Team Communication					0.190**	.054	0.211**	.001
Team Collaboration					-0.395**	.059	-0.404**	.000
Team Cohesion					-0.141*	.064	-0.133*	.028
R-square	0.111				0.413			
Change in R-square	0.111				0.302			
ANOVA (F)	4.680				17.442			
Durbin-Watson	2.033				2.064			

a. Dependent Variable: Project Performance
b. Predictors: (Constant), Leadership Style, Gender, Project Complexity, Age, Education Level, Experience
c. Predictors: (Constant), Team Cohesion, Age, Education Level, Experience, Gender, Project Complexity, Leadership Style, Team Collaboration, Team Communication

*Note: ** p < 0.01. * p< 0.05; Sample size 233, B=unstandardized beta; S.E. = Standard Error*

Source: Own survey data (2019)

The inclusion of three dimensional construct of teamwork increased the predictive power of the model by 30.2%. As it is summarized in Table 4.11, the testing of fourth condition of mediation shows that the inclusion of teamwork results in significant reductions in the standardized regression coefficients of leadership styles. For instance, the standardized beta coefficient of leadership style before the inclusion of mediator variable (i.e., teamwork) was 0.295 which was reduced to beta coefficient of 0.112 (i.e., 62% reduction) after the introduction of teamwork variable. Although leadership style remains to be a significant predictor of project performance even after the introduction of teamwork, its contribution was reduced supporting the mediatory role of teamwork. Therefore, teamwork plays a partial mediation role in the relationship between leadership style and performances of projects in case of sampled projects of HELVETAS Swiss Intercooperation. As a result the fourth research hypothesis was supported. This result is in line with the findings of Yang, Wu and Huang (2013) and Kariuki (2015).

Baron and Kenny's (1986) three-step mediation criteria can be used to informally judge whether or not mediation is occurring, but MacKinnon and Dwyer (1993) and MacKinnon, Warsi and Dwyer (1995) have popularized statistically based methods by which mediation may be formally assessed by using the Sobel's (1982) test. This test considers the unstandardized regression and standard error for the association between the independent variable and mediator, and also the unstandardized regression and standard error for the association between mediator and the dependent variable. Researchers argue that it is not enough to report whether the size of the relation between the predictor and the outcome variable becomes smaller (partial mediation) or insignificant (full mediation) when the mediator is added to the equation (Frazier, Tix and Barron, 2004). Thus, in order to statistically confirm the significance of the mediated effect Sobel (1982) test was applied. Sobel test of mediation was computed using Micro Soft Excel spreadsheet written by Jason Beckstead (2009), University of South Florida, for Barron and Kenny approach.

Table 4.12. Soble's Test of Mediation Analysis

Mediated effect	Sobel's test			Remark
	Test statistic	Standard Error	p-value	
The mediated effect of teamwork on the relationship between transformational leadership style and project performance	-3.2440	0.0424	0.0012	Mediation effect is statistically significant
The mediated effect of teamwork on the relationship between transactional leadership style and project performance	2.2161	0.0272	0.0267	Mediation effect is statistically significant

Source: Own survey data 2019

From the analysis of Sobel's test in Table 4.12, p-values fall below alpha value of 0.05 implying that the partial mediating effect of teamwork in the relationship between leadership style and project performance is statistically significant.

CHAPTER FIVE: SUMMARY, CONCLUSION & RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of findings for each research objectives, conclusion from study findings and study contributions. In addition, this chapter presents limitations of the study and possible areas of future research.

5.2. Summary

A summary of main findings of this study is described below.

1) The first research objective examined the relationship between project manager's leadership style and project performance in HELVETAS. As it is presented in Table 4.7, this study established a statistically significant positive relationship between project manager's leadership style and project performance.
2) The second objective evaluated the relationship between project manager's leadership style and teamwork in HELVETAS. As it is presented in Table 4.8, the study found a statistically significant positive relationship between teamwork and transformational leadership (unstandardized B coefficient = 0.322, $p<0.01$) implying that an increase in the level of transformational leadership style would result in an increase in the level of teamwork within a project in HELVETAS. In addition, a statistically significant negative relationship was found between teamwork and transactional leadership (unstandardized B coefficient = -0.158, $p<0.05$). This shows that an increase in transactional leadership is associated with a decline in teamwork within a project.
3) The third objective examined the relation between teamwork and project performance in HELVETAS. As depicted in Table 4.10, the study found a statistically significant relationship between teamwork and project performance. Specifically, team communication had a statistically significant positive effect on teamwork while team collaboration and team cohesion had a statistically significant negative effect on teamwork. This finding also suggests that about 37.5% of the variance in project performance was uniquely explained by

the level of teamwork aspects of communication, collaboration and cohesion within the project team.

4) The fourth research objective examined whether teamwork mediates the relationship between project manager's leadership style and project performance. As presented in Table 4.11, the study found that the regression model was significant ($F=17.442$, $p<0.01$) in that teamwork was a partial mediator of the relationship between leadership style and performances of projects in HELVETAS.

5.3. Conclusion

The general objective of this study was to examine the relationship between project manager's leadership style, teamwork and project performance in the context of project-based organization, HELVETAS Swiss Intercooperation. On the basis of the findings, the following conclusions can be drawn.

1) The theoretical foundation of this study was formed by visionary leadership style consisting of transformational and transactional leadership. As the visionary leadership theory had anticipated, this study confirmed existence of a statistically significant positive relationship between project manager's leadership style and project performance.
2) A statistically significant relationship was found between project manager's leadership style and teamwork. Specifically, a statistically significant positive relationship was found between teamwork and transformational leadership. In addition, a statistically significant negative relationship was found between teamwork and transactional leadership. The correlation matrix in Table 4.9 shows that transformational leadership had relatively more strong correlation ($r=0.329$, $p<0.01$) with teamwork than transactional leadership ($r=-0.170$, $p<0.01$). A statistically significant positive relationship between transformational and transactional leadership style ($r = 0.166$, $p<0.05$) indicates that these aspects of leadership are complementary. This finding coincides with that of Chan *et al*. (2005) who claimed that transformational leadership has a substantial add-on effect on transactional leadership in predicting of employees' rated outcomes of perceived leader effectiveness. This finding is

also consistent with Bass (1985) who reported that transformational leadership is presented in a way to augment transactional approaches to management.

3) A statistically significant relationship was found between teamwork and project performance in HELVETAS. While team communication had a statistically significant positive effect, team collaboration and team cohesion had statistically significant negative relationship with project performance.
4) This study found that teamwork plays a partial mediating role in the relationship between leadership style and project performance. In this regard, the informal test of Baron and Kenny (1986) and formal statistical test of mediation of Sobel (1982) confirmed that teamwork was a partial mediator of the relationship between leadership style and project performance. Hence, leadership style directly influences project performance and indirectly through teamwork.

5.4. Recommendations

On the basis of the findings, this study recommends the following:

1) Project leaders (managers) in the development sector should use of a combination of transformational and transactional leadership behaviors in a way the former to augment the latter and taking the critical role of teamwork. Combining leadership training programs along with action learning could be a possible mechanism to train project managers on leadership style.
2) In order to improve project performance, project managers should engage in confidence building trainings so that goals will be achieved; should be able to envision exciting new possibilities and communicate enthusiastically about what needs to be accompanied. In addition, project managers should focus on developing skills of project teams, treat a team member as individual rather than just a member of the team with different needs and abilities and also spend time in teaching and coaching of project teams. Project managers should also minimize their attentions on focusing on irregularities, tracking mistakes and deviations from standards and rather develop a culture of seeing mistakes as a potential learning opportunity. Searching for mistakes before commenting on performance and directing attention toward failure in meeting standards will have counterproductive effect on project performance and hence project managers should avoid such practices whenever possible.
3) Project managers should adopt ways of enhancing effectiveness of teamwork through promoting effective communication, resolving obstacles that hinder team collaboration and cohesion. These could be done through inspiring and motivating team members so that they express their opinions freely, report problems honestly, focus on the topics during team discussions, coach them to have a receptive and trustful attitude during discussions and empower them to feel part of the project that will be responsible for maintaining and protecting the project.
4) Project team members may be selected based on their technical expertise and the requirements of the project. Nevertheless, the project leader, who is the ultimate person accountable to make sure that the project is successful, should have both transformational and transactional leadership skills that could create a collaborative and cohesive team that strives for project success. Planning, implementing and monitoring team building practices over the life cycle of the project contributes to better project performance.

5) It is evident that project leader alone cannot successfully complete a project. Hence, project managers should select and adopt an appropriate leadership style within a particular project context taking into account the critical role of teamwork. Project leaders should be able to establish and communicate the project mission, clarify roles and set expectations, manage diversity, utilize individual strengths, give and ask for feedback. Nurturing a culture of learning each other's strengths and weakness, resolving team conflict timely and celebrating success contribute to greater collective efficacy that, in turn, contributes to enhanced team performance. In order to reduce staff turnover and maintain a stable team, keep compensation and benefits current, recognize and reward based on merit.

Theoretical contribution of the study

This study contributes to theory by combining leadership theories with teamwork models. This study found that leadership style, which was operationalized as a two-dimensional construct (i.e., transformational and transactional), contributes directly to project performance and indirectly through teamwork. In addition, teamwork was found to significantly contribute to project performance.

Practical significance of the study

The findings of this study can be helpful for the managers to understand which kind of leadership style is most appropriate in terms of its outcomes and how they can modify their leadership style to make it more effective and result-oriented considering the critical role of teamwork. Based on the findings, senior management team in HELVETAS should realize the importance of effective leadership style of managers and organize leadership development programs. Human resource development professionals may be hired to help managers in project staffs' training and mentoring (career development), motivation, and making retention strategies.

5.5. Limitations and areas for future research

5.5.1. Limitations of the study

- The study relies on cross-sectional data to get the views of sample respondents. Respondents' retrospective evaluation provides an overview of their understanding of leadership style, teamwork and project performance between January 2016 to December 2018. But, the recall issues may lead to biased evaluation and response.
- Due to lack of accessing complete data for analysis, this study was limited to 16 development projects and project performance was evaluated based on subjective assessment of project managers and project team members. Subjective assessment could understate or overstate the measurement of project performance, leadership styles and teamwork.
- Although the findings of the study are representative and consistent with those from a number of earlier studies, further examination remain necessary to verify if the results of this research can be generalized to other contexts.
- Due to time constraint, the study tried to incorporate very limited qualitative data to triangulate the quantitative findings.

5.5.2. Areas for future research

The following potential areas are suggested for future research:

- This study focuses on completed development projects in the context NGO sector. Other studies could examine if similar findings can be obtained with completed or ongoing projects and other sector or industries.
- It would be interesting to employ a longitudinal data and a more analytical method to analyze the relationship between leadership styles, teamwork and project performance at various life cycle stages of projects in similar or other contexts.
- Given the significant number of respondents' gender was male; it may be worthwhile to conduct a study on the effect of gender on project leadership.
- Future studies may also use both subjective and objective measures to examine the significance of leadership style and teamwork on project performance.

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Annex I: Project Team Member's Questionnaires

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MA in Project Management

This research project entitled as ***"The Effects of Project Manager's Leadership Style and Teamwork on Project Performance: the case of HELVETAs Swiss Intercooperation Ethiopia***" is designed to examine project manager's leadership style and teamwork on project performance. You are kindly requested to respond to the statements which describe a specific situation. You are to decide the extent to which you agree that the statement is typical of your judgement. To do so, tick or circle one of the descriptors beneath the statement. The research is anonymous; you do not need to disclose your personal details. The information you provide will be used purely for academic purpose and will be kept confidential. Participation in this study is absolutely voluntary. It will take 15 to 20 minutes of your time to complete the questionnaire.

PART I. DEMOGRAPHIC DATA

1. Name of the project_____

2. Gender: ☐ Male ☐ Female

3. Age (years) ☐ 20 – 30; ☐ 31 – 40; ☐ 41 – 50; ☐ 51 - 60

4. Please indicate your highest level of education attained

☐	PhD	Diploma	☐
☐	Master's degree	High school	☐
☐	Bachelor degree		

5. Your position in the project: ☐ project expert; ☐ project officer;

   ☐ Other, please specify _____

6. Years of experience in project works:

   ☐ < 5 ☐ 6 - 10 ☐ 10 - 15 ☐ > 15

7. Compared to other projects that your present organization has carried out in the past 3 years, kindly rate the project complexity of the above mentioned project.

   ☐ High ☐ Medium ☐ Low

PART II. PROJECT TEAM MEMBER'S JUDGEMENT OF PROJECT MANAGER'S LEADERSIP STYLE

A) TRANSFORMATIONAL LEADERSHIP

8. For the above mentioned project please describe how do you judge your project manager's leadership style. In doing so, think about only one project that you were involved during 2016 – 2018 and rate your project manager's behavior in general, rather than about a specific situation. Please indicate your response by putting a tick (√) in the the number that describes best how you feel about the statement.

A1	**IDEALIZED INFLUENCE (Attributed)**	Not at all (1)	Once in a while (2)	Sometimes (3)	Fairly often (4)	Frequently if not always (5)
1	Went beyond his/hers self-interest for good of others					
2	Built respect by his/her actions					
3	Instilled pride in being associated with him/her					
4	Displayed extraordinary talent of competence					
A2	**IDEALIZED INFLUENCE (Behavior)**					
5	Emphasized importance of commitment to beliefs					
6	Took a stand on difficult issues					
7	Displayed conviction of his/her ideals, beliefs, values					
8	Talked to me about his/hers most important values, beliefs					
A3	**INSPIRATIONAL MOTIVATION**					
9	Talked optimistically about future					
10	Envisioned exciting new possibilities					
11	Talked enthusiastically about what needs to be accompanied					
12	Expressed confidence that goals will be achieved					
A4	**INTELLECTUAL STIMULATION**					
13	Re-examined appropriateness of critical project assumptions					
14	Sought differing perspectives when solving problems					
15	Looked at problems from many different angles					
16	Suggested new ways of looking at how to complete project assignments					
A5	**INDIVIDUALIZED CONSIDERATION**					
17	Treated me as individual with different needs and abilities					
18	Focused on developing my strengths					
19	Treated me as individuals rather than just a member of the team					
20	Spent time teaching and coaching me					

B) TRANSACTIONAL LEADERSHIP

B1	**CONTINGENT REWARD**	Not at all (1)	Once in a while (2)	Sometimes (3)	Fairly often (4)	Frequently if not always (5)
21	Told me what to do to be rewarded for effort					
22	Worked out agreements with me on what I will receive					
23	Negotiated with me about what I can expect to receive					
24	Made sure I receive rewards for achieving targets					
B2	**MANAGMENT – BY –EXCEPTION (Active)**					
25	Kept track of my mistakes					
26	Focused attention on mistakes, deviations from standards					
27	Searched for mistakes before commenting on performance					
28	Directed his/her attention toward failure to meet standard					

PART III. TEAMWORK IN PROJECT

9. For the above mentioned project, please describe your response by putting a tick (√) in the number that describes best how you feel about the statement.

	Statements	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
	Team Communication					
29	Project team members avoided drifting from the topic during discussions					
30	Project team members responded to each other positively during discussions					
31	Project team members did not stop others from expressing their opinions during discussions					
32	During discussions, project team members reported problems in an honest manner					
	Team Collaboration					
33	During project execution, project team members were willing to share information					
34	Project team members discussed problem-solving methods and collaborated with others to address them					
35	Project team members listened to each other to clarify problems/issues					
36	Project team members did not show a defensive or mistrustful attitude during discussions					
	Team Cohesion					
37	Project team members were strongly attached to the project					
38	Project team members felt proud to be part of the project					
39	Every project team member felt responsible for maintaining and protecting the project					

PART IV. PROJECT PERFROMANCE

10. For the above mentioned project, please indicate your level of agreement with the following statements relating to the performance of the project in HELVETAS by putting a tick (√) in the number that describes best how you feel about the statement.

	Statements	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	The project objectives were met					
2	The project was completed within budget					
3	The project was completed within schedule					
4	Project stakeholder were satisfied with this project					
5	The overall quality of the project outcome was high					

Thanks for your time!

Annex II. Project Manager Questionnaire

Addis Ababa University
School of Commerce
MA in Project Management

This research project entitled as ***"The Effects of Project Manager's Leadership Style and Teamwork on Project Performance: the case of HELVETAs Swiss Intercooperation Ethiopia***" is designed to examine project manager's leadership style and teamwork on project performance. You are kindly requested to respond to the statements which describe a specific situation. You are to decide the extent to which you agree that the statement is typical of your judgement. To do so, tick or circle one of the descriptors beneath the statement. The research is anonymous; you do not need to disclose your personal details. The information you provide will be used purely for academic purpose and will be kept confidential. Participation in this study is absolutely voluntary. It will take 15 to 20 minutes of your time to complete the questionnaire.

PART I. DEMOGRAPHIC DATA

1. Name of the project_____

2. Gender: ☐ Male ☐ Female

3. Age (years) ☐ 20 – 30; ☐ 31 – 40; ☐ 41 – 50; ☐ 51 - 60

4. Please indicate your highest level of education attained

☐	PhD	Diploma	☐
☐	Master's degree	High school	☐
☐	Bachelor degree		

5. Years of experience in project works:

☐ < 5 ☐ 6 - 10 ☐ 10 - 15 ☐ > 15

6. Compared to other projects that your present organization has carried out in the past 5 years, kindly rate the project complexity of the above mentioned project.

☐ High ☐ Medium ☐ Low

PART II. PROJECT MANAGER'S SELF-RATING OF HIS/HER OWN LEADERSIP STYLE

C) TRANSFORMATIONAL LEADERSHIP

7. For the above mentioned project please describe how you judge your own leadership style in general, rather than about a specific situation. In doing so, think about only one project that you were involved during 2016 – 2018 and indicate your response by putting a tick (√) in the the number that describes best how you feel about the statement.

A1	**IDEALIZED INFLUENCE (Attributed)**	Not at all (1)	Once in a while (2)	Sometimes (3)	Fairly often (4)	Frequently if not always (5)
1	Went beyond my self-interest for good of project teams					
2	Acted in ways that brought respect among project teams					
3	Instilled pride in project teams for being associated with the project					
4	Displayed extraordinary talent of competence					
A2	**IDEALIZED INFLUENCE (Behavior)**					
5	Emphasized importance of commitment to beliefs					
6	Took a stand on difficult issues					
7	Displayed conviction in my ideals, beliefs, values					
8	Talked to project teams about my most important values & beliefs					
A3	**INSPIRATIONAL MOTIVATION**					
9	Talked optimistically about the project future					
10	Envisioned exciting new possibilities					
11	Talked enthusiastically about what needs to be accompanied					
12	Expressed my confidence that goals will be achieved					
A4	**INTELLECTUAL STIMULATION**					
13	Re-examined the appropriateness of critical project assumptions					
14	Sought differing perspectives when solving problems					
15	Made team members to look at issues or problems from many different angles					
16	Suggested new ways of looking at how to complete project activities					
A5	**INDIVIDUALIZED CONSIDERATION**					
17	Treated the project team members as individuals having different needs, abilities, and aspirations					
18	Helped team members to develop their skills and strengths					
19	Treated project team members as individuals rather than just a member of the group					
20	Spent time teaching & coaching project team members					

D) TRANSACTIONAL LEADERSHIP

B1	**CONTINGENT REWARD**	Not at all (1)	Once in a while (2)	Sometimes (3)	Fairly often (4)	Frequently if not always (5)
21	Told project team members what to do to be rewarded for effort					
22	Made it clear what each project member was to receive once project goals are achieved					
23	Negotiated with team member on what each team member can expect to receive					
24	Made sure what each project teams was to receive rewards for achieving targets					
B2	**MANAGEMENT-BY-EXCEPTION (Active)**					
25	Kept track of my mistakes within the project					
26	Focused my attention on dealing with mistakes, complaints and deviations from standards					
27	Searched for mistakes before commenting on performance					
28	Directed my attention toward failures to meet project standards					

PART III. TEAMWORK IN PROJECT

8. For the above mentioned project, please describe your response by putting a tick (√) in the number that describes best how you feel about the statement.

	Statements	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
	Team Communication					
29	Team members avoided drifting from the topic during discussions					
30	Team members responded to each other positively during discussions					
31	Project team members did not stop others from expressing their opinions during discussions					
32	During discussions, project team members reported problems in an honest manner					
	Team Collaboration					
33	During project execution, project team members were willing to share information					
34	Project team members discussed problem-solving methods and collaborated with others to address them					
35	Project team members listened to each other to clarify problems/issues					
36	Project team members did not show a defensive or mistrustful attitude during discussions					
	Team Cohesion					
37	Project team members were strongly attached to the project					
38	Project team members felt proud to be part of the project					
39	Every project team member felt responsible for maintaining and protecting the project					

PART IV. PROJECT PERFROMANCE

9. For the above mentioned project, please indicate your level of agreement with the following statements relating to the performance of the project in HELVETAS by putting a tick (√) in the number that describes best how you feel about the statement.

No.	Statements	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	The project objectives were met					
2	The project was completed within budget					
3	The project was completed within schedule					
4	Project stakeholder were satisfied with this project					
5	The overall quality of the project outcome was high					

Annex III: Interview Questions (Project Teams)

1. How do you evaluate project team members' interaction during team meetings?
2. What do you think were the main factors that contributed to project cost-overrun and time-overrun?
3. How do you evaluate staffs' motivation?
4. What mechanisms were in place to motivate staffs?
5. Have you ever encountered idealized influence and intellectual stimulation aspects of transformational leadership in the project(s) you were involved?
6. Do you think project leaders provide recognition or rewards when you reach the goals? If yes, how?

Annex IV. Factor Analysis

KMO and Bartlett's Test –Transformational & Transactional Leadership

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.870
Bartlett's Test of Sphericity	Approx. Chi-Square	3193.576
	df	276
	Sig.	.000

Communalities - Transformational & Transactional Leadership

	Extraction
II-1 - Went beyond his/hers self-interest for good of others	.653
II-2 - Built respect by his/her actions	.583
II-3 - Instilled pride in being associated with him/her	.800
II-4 - Displayed extraordinary talent of competence	.661
II-5 - Emphasized importance of commitment to beliefs	.683
II-6 - Took a stand on difficult issues	.741
II-7 -Displayed conviction of his/her ideals, beliefs & values	.536
II-8 - Talked to me about his/hers most important values & beliefs	.620
IM -9 -Talked optimistically about future	.667
IM -10 - Envisioned exciting new possibilities	.844
IM -11 - Took enthusiastically about what needs to be accompanied	.802
IM - 12 - Expressed confidence that goals will be achieved	.699
IS - 13 - Sought differing perspectives when solving problems	.758
IS - 14 - Got to look at problems from many different angles	.750
IC - 15 - Treated me as individual with different needs and abilities	.842
IC -16 - Spent time teaching/coaching me	.803
CnR 17 - Told me what to do to be rewarded for effort	.745
CnR 18 - Worked out agreements with me on what I'll receive	.675
CnR 19 - Negotiated with me about what I can expect to receive	.774
CnR 20 - Made sure I receive rewards for achieving targets	.765
MBEA - 21 - Kept track of my mistakes	.627
MBEA - 22 - Focused attention on mistakes & deviations from standards	.797
MBEA - 23 - Searched for mistakes before commenting on performance	.724
MBEA - 24 - Directed his/her attention toward failure to meet standard	.720
Extraction Method: Principal Component Analysis.	

Total Variance Explained – Transactional & Transformational Leadership Style

Component	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.392	30.802	30.802	5.062	21.092	21.092
2	2.969	12.372	43.174	3.118	12.991	34.083
3	2.871	11.961	55.135	2.945	12.269	46.352
4	1.710	7.124	62.259	2.733	11.387	57.739
5	1.285	5.353	67.612	1.823	7.597	65.336
6	1.041	4.338	71.950	1.587	6.613	71.950
Extraction Method: Principal Component Analysis.						

Rotated Component Matrix[a] - Transactional & Transformational Leadership Style

	Component					
	1	2	3	4	5	6
II-3 - Instilled pride in being associated with him/her	.876					
II-6 - Took a stand on difficult issues	.854					
II-4 - Displayed extraordinary talent of competence	.781					
II-1 - Went beyond his/hers self-interest for good of others	.752					
II-8 - Talked to me about his/hers most important values & beliefs	.731					
II-5 - Emphasized importance of commitment to beliefs	.717					
II-2 - Built respect by his/her actions	.681					
II-7 -Displayed conviction of his/her ideals, beliefs & values	.642					
IM -10 - Envisioned exciting new possibilities		.902				
IM -11 - Took enthusiastically about what needs to be accompanied		.878				
IM - 12 - Expressed confidence that goals will be achieved		.783				
IM -9 -Talked optimistically about future		.740				
CnR 19 - Negotiated with me about what I can expect to receive			.876			
CnR 20 - Made sure I receive rewards for achieving targets			.865			
CnR 17 - Told me what to do to be rewarded for effort			.862			
CnR 18 - Worked out agreements with me on what I'll receive			.813			
MBEA - 22 - Focused attention on mistakes & deviations from standards				.816		
MBEA - 24 - Directed his/her attention toward failure to meet standard				.784		
MBEA - 23 - Searched for mistakes before commenting on performance				.725		
MBEA - 21 - Kept track of my mistakes				.598		
IC - 15 - Treated me as individual with different needs and abilities					.864	
IC -16 - Spent time teaching/coaching me					.827	
IS - 13 - Sought differing perspectives when solving problems						.839
IS - 14 - Got to look at problems from many different angles						.777
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.						
a. Rotation converged in 5 iterations.						

KMO and Bartlett's Test - Teamwork

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.825
Bartlett's Test of Sphericity	Approx. Chi-Square	961.519
	Df	55
	Sig.	.000

Total Variance Explained - Teamwork

Component	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.206	38.239	38.239	2.643	24.025	24.025
2	1.814	16.492	54.731	2.599	23.624	47.648
3	1.264	11.491	66.222	2.043	18.573	66.222

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a] - Teamwork

	Component		
	1	2	3
TCOM 28 - Team members honestly reported problems during group discussion. They did not only report good & positive feedback.	.842		
TCOM 27 - Team members did not stop other from expressing their opinions during discussions	.824		
TCOM 26 - Team members responded to each other positively during discussions	.818		
TCOM 25 - Team members avoided drifting from the topic during discussions	.648		
TCOL 31- Team members listened to each other to clarify problems or issues		.825	
TCOL 32 - Team members did not show a defensive or mistrustful attitude during group discussion.		.760	
TCOL 29 - Project team members were willing to share information		.750	
TCOL 30 - Team members discussed problem-solving methods and collaborated with others to address them.		.742	
TCOH -35- Every project team member felt responsible for maintaining and protecting the project.			.855
TCOH -34 -Team members felt proud to be part of the project.			.781
TCOH -33- Team members were strongly attached to the project.			.669

Extraction Method: Principal Component Analysis
Rotation Method: Varimax with Kaiser Normalization

a. Rotation converged in 5 iterations

KMO and Bartlett's Test – Project Performance

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.740
Bartlett's Test of Sphericity	Approx. Chi-Square	269.116
	Df	6
	Sig.	.000

Component Matrix[a] – Project Performance (PP)

	Component
	1
PP 3 - The project was completed within schedule	.818
PP 4 - Project stakeholders were satisfied with this project	.809
PP 2 - The project was completed within budget,	.766
PP 1 - The project objectives were met	.721

Extraction Method: Principal Component Analysis
a. 1 components extracted

Total Variance Explained – Project Performance (PP)

Component	Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	2.430	60.748	60.748

Extraction Method: Principal Component Analysis.

Annex V. Profile of sample projects

1) Tigray Rural Future Initiative (TRFI): this project was implemented in Tigray region with focus was on improving household food security, improving their resilient to shocks and recovery from disasters, scaling of soil conservation measures and hill side farming, replication of rainwater harvesting method, promotion of high value crops, and access to land for youth groups.
2) Amhara Water, Sanitation and Hygiene (A-WaSH): it was operational in 5 Woredas of Amhara region. The objective of the project was to improve access to adequate WaSH practices.
3) Wag-Hemra Climate Adaptation and Rural Development (WH-CARD) Project: was operational in 6 Woredas of Wag Hemra Zone of Amhara region. The project had the objective of introducing climate smart agricultural techniques with research component, and promotion of value chains in marginal areas.
4) Natural Resource Management - Borana (NRM-B) Project: this project was operational in 2 Kebeles of Borana focusing on rehabilitation of degraded rangelands, introduction of gender sensitive livelihood diversification, flexible use of emergency response mechanism (nexus approach) and improved water harvesting and purification techniques
5) Graduation with Resilience to Achieve Sustainable Development Project – Oromia (GRAD-O): this project was active in 16 Woredas of rural Oromia and provided technical support on value chain development, agricultural extension, and strategic leadership on input and output marketing so as to contribute to enhanced livelihood options of chronically food insecure households in project areas; improve community and household resilience; and strengthen enabling environment to promote scale and sustainability.
6) Building Rural Income through Inclusive Dairy Growth in Ethiopia (BRIDGE): the key intervention area of this project was to contribute to the development of an inclusive dairy sector which that can produce safe quality of nutritious dairy products that are affordable by users.
7) Disaster Risk Reduction and Emergency Response (DRR-ER): the objective of this project was to improve community resilience to shocks and responses to disasters.
8) Water, Sanitation and Hygiene, Environment, Livelihoods in Hitsats & Shire Refugee Camps (WEALTHS): this project was aimed at promoting water, sanitation and livelihood improvement training as well as job placement in Shire refugee camp of Tigray region.

9) Strengthening Enabling Environment for Clean Cooking Sector of Ethiopia (SEEECCS): the objective of the SEEECCS project was to strengthen the enabling environment of clean cooking sector of Ethiopia with interventions around support for organizational and institutional capacity development and sector facilitation, including for improved cook stoves, biogas and bio-fuel.
10) Rural Infrastructure Project (RIP): the objective of RIP was to improve rural access to basic services and markets through the construction of pedestrian trail bridges, improving tracks and trails. RIP was operational in Oromia, Tigray, Amhara and SNNPR regions
11) Rural Economy Project (REP): the objective of REP was to improve value chain management, access to markets and fair trade as an income source for smallholder farmers and facilitate rural financial services for business development and employment.
12) Inspiring Water Entrepreneurship in Tigray Region (iWET): this project aimed at contributing to improved health and productivity of rural communities in 12 Woredas of Tigray region through involvement of a private sector.
13) Feed the Future Livelihoods for Resilience Activity (2FLRA) was aimed at supporting beneficiaries of Productive Safety Net Program to graduate from the program by achieving long term food security, increasing their incomes, and building resilience to market shocks.
14) Horticultural Livelihoods, Innovation and Food Safety in Ethiopia (Horti-LIFE): this project was implemented in partnership with SNV Ethiopia (Netherlands development organization) which focused on increasing the involvement of smallholders in innovative and viable horticulture production systems that contributes to improved food safety and security as well as access to local and international markets.
15) Pastoralist Areas Resilience Improvement and Market Expansion (PRIME): a multi-level local and international NGO partnership project aimed at increasing household incomes and promoting resilience to climate change through innovative and market-driven approaches in the pastoralist areas of Afar, and Oromia.
16) Integrated Renewable Energy Services (IRES) Project: aimed at providing improved cooking solutions households through increasing the productivity and incomes of small and medium enterprises engaged in the production of improved cook stoves and alternative clean fuels.