



**ADDIS ABABA UNIVERSITY
SCHOOL OF COMMERCE**

**ASSESSMENT OF EFFECTIVENESS OF TEAM WORKS IN PROJECT
MANAGEMENT: THE CASE OF WATER ACTION AID PROJECT, ADDIS
ABABA, ETHIOPIA.**

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**A RESEARCH PROPOSAL SUBMITTED TO ADDIS ABABA UNIVERSITY,
SCHOOL OF COMMERCE IN PARTIAL FULFILLMENT OF
REQUIREMENTS FOR AWARD OF MA IN PROJECT MANAGEMENT**

Advisor
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Addis Ababa

**ADDIS ABABA UNIVERSITY
SCHOOL OF COMMERCE
DEPARTMENT OF PROJECT MANAGEMENT
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(MAPM)**

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ADVISOR APPROVAL SHEET

This is to certify that the thesis entitled “ASSESSMENT OF EFFECTIVENESS OF TEAM WORKS IN PROJECT MANAGEMENT: THE CASE OF WATER ACTION AID PROJECT, ADDIS ABABA, ETHIOPIA.” submitted in partial fulfillment of the requirements for the degree of Masters of Arts in Project Management, has been carried out by Tsedeke Hanfore, under my supervision.

Therefore, I recommend that the student has fulfilled the requirements and hence hereby can submit the Project Work (thesis) to the department.

Name of advisor

Signature

Date

DECLARATION

I declare that this thesis is my original work and has not been presented for degree or other purposes in any university or places. I further confirm that all the sources of materials used for this thesis are dully acknowledged.

Name: Tsedeke Hanfore

Signature: _____
June, 2017

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Above all, always and forever my deepest and endless love and appreciation goes to my Almighty God and parents, who is always with me giving me this chance and for giving all the strength and everything I ever asked, to keep myself on track. Without his blessing I would never have succeeded and for all achievements which I have been able to attain in my entire life.

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DEDICATION

I dedicate this Research Project/Thesis to my father and mother who passed away during my class. GOD forgives their soul!!!

TABLE OF CONTENT

CONTENTS	PAGES
Advisor approval sheet.....	I
Approval by board of examiners.....	II
Declaration.....	III
Acknowledgment.....	IV
Dedication.....	V
Table of content.....	VI
List of tables.....	IX
Abstract.....	X
CHAPTER ONE	1
1. INTRODUCTION	1
1.1. Background of the study	1
1.2. Statement of the problem.....	3
1.3. Research Questions.....	4
1.4. Objectives of the study.....	4
1.4.1. General objective	4
1.4.2. Specific objective.....	4
1.5. Scope of the study.....	5
1.5. Significance of the study.....	5
1.6. Limitation of the study.....	6
1.7. Organization of the study.....	6
CHAPTER TWO	7
2. REVIEW LITERATURE	7
2.1. Introduction.....	7
2.2. Teamwork	7
2.3. Project Teams.....	9
2.4. Factors Affecting Team Management.....	10

2.4.1. Team Leadership.....	10
2.4.2. Team Members.....	11
2.4.3. Project work atmosphere.....	11
2.4.4. Project management and performance strategies.....	12
2.5. Project Management Skills	13
2.6. Theories of teams.....	13
2.6.1 Tuckman’s model.....	13
2.6.2. Belbin’s Team Roles Theory.....	13
2.7. Attributes of Effective Teamwork.....	15
2.8. Characteristics of effective team.....	16
2.9. Challenges of Team Work in Project Management.....	17
2.9.1. Technological Challenges.....	19
2.9.2. Organizational Challenges.....	20
CHAPTER THREE	23
3. Research methodology	23
3.1. Description of study area	23
3.2. Research design and approach.....	24
3.3. Data types and sources.....	24
3.4. The target population and sampling technique	25
3.5. Data collection procedures and techniques.....	25
3.6. Data analysis	26
3.7 ETHICAL CONSIDERATIONS.....	26
CHAPTER FOUR.....	27
4. Data analysis, interpretation and presentation	27
4.1 General profile of the respondents.....	27
4.2 The extent to which various skill and traits were exhibited by team leader.....	29
4.3 The extent to which various behavior were exhibited by team member.....	29

4.4 The extent to which indicators of environment conducive to project performance.....	31
4.5 The extent to which various strategies were utilized in the project to promote effective teamwork.....	31
4.6 Respondent response on the relationship between teamwork management of workers in the water action aid project and successful completion of project.....	32
4.7 Due to teamwork how you see the relationship and accomplishment in shared vision in the project.....	33
4.8 The relationship between collaboration and participation of team members and the project success.....	34
4.9 The extent to which the various factors were applied in the team.....	35
4.10 The extent to which various targets were met.....	36
4.11 Challenges in building effective team work in the project.....	36
CHAPTER FIVE.....	40
5. Summary, Conclusions and Recommendations.....	40
5.1 Summary of findings.....	40
5.2 Conclusion.....	41
5.3 Recommendations.....	41
Reference.....	43
Appendix.....	47

LIST OF TABLES

Table 4.1: Sex, Age, Educational status of Respondents and Duration of work experience in the organization-----	28
Table 4.2: The extent to which various skill and traits were exhibited by team leader -----	31
Table 4.3: The extent to which various behavior were exhibited by team member -----	32
Table 4.4: The extent to which indicators of environment conducive to project performance ---	36
Table 4.5: The extent to which various strategies were utilized in the project to promote effective teamwork -----	36
Table 4.6: Team identity in achieving the common mission and tasks-----	37
Table 4.7: Due to teamwork how you see the relationship and accomplishment in shared vision in the project -----	37
Table 4.8: The relationship between collaboration and participation of team members and the project success -----	38
Table 4.9: The extent to which the various factors were applied in the team -----	42
Table 4.10: The extent to which various targets were met -----	43
Table 4.11: Challenges in building effective team work in the project -----	44

ABSTRACT

Project team work in Water Action Aid encounters different problem of effectiveness during project implementation of organizational objective. The study assesses the practices and challenges of Project team work case of Water Action Aid. Censes was used to use all staff members of Water Action Aid organization 30 respondents comprising 1 CEO, 1 Program Manager, 4 Project Managers, 7 Project Coordinators, 11 Frontline Project Staff and 6 key resource persons. Structured questionnaire was used to get information from CEO, Program Manager and Project Managers, whereas FGD questionnaire was used to provoke information from Project Coordinators, Frontline Staff and key resource persons. The study identified that success and faller of project majorly affected by the effectiveness of project teamwork. It was discovered also that the interests and parts of the key Stakeholders were very critical to the effectiveness of the projects. The project teamwork was found to be predominantly not institutionalized (separate organizational body). The study also revealed challenges like Lack of clear Communication, lack of shared vision, problems of Collaboration and participation, problems in leadership style, stimulating work environment, Innovation and creativity and adaptability to change were found to effect on the performance of the projects teamwork in the organization. Finally, it is recommending that team management courses should be incorporated in the training of professional to enhance their skills to higher levels, Professionals should work in teams as opposed to functional structure as there is positive relationship between team effectiveness and project performance and the Government should come up with laws requiring maintenance of records by professional bodies, of events in the water aid project. This would facilitate, among others, continuous improvement of team management in the water aid project. assessment of effectiveness of team works in project management: the case of water action aid project, addis ababa, ethiopia.

CHAPTER ONE

INTRODUCTION

1.1. BACKGROUND OF THE STUDY

An evolution of teamwork and its concept started during the Industrial Revolution, where most work organizations shifted to the hierarchical approach and used scientific management to design organizations and jobs (Taylor 1911). According to Taylor (1911), scientific management methods call for optimizing the way tasks were performed by simplifying the jobs, so workers could be trained to perform their specialized sequence of motions in the "best" way. This resulted in more simplified jobs and provided benefits to skilled workers.

However, during the 1920s and 1930s, the scientific management model was questioned, since it created issues with people's relationships to work, although the model functioned well. Workers became alienated and difficult to motivate. In addition to no task flexibility, changes were difficult to implement.

The use of work teams, a group of employees with interdependent interactions and mutually-shared responsibilities (Sundrom et al. 1990), has improved dramatically during the past decade. A study conducted by Ostermann (1994) indicated that over 50% of the 700 organizational units studied were using teams and over 40% had more than half of their employees working in teams. Lawler et al. (1995) proved the trend continues to gain momentum, where 60% of the 313 organizations studied stated increments in their use of teams over the next decade. Only 3% plan to discontinue the use of teams. Additionally, according to Cohan and Bailey (1997), 85% of companies with 100 or more employees use some type of work teams.

At present, more organizations use teamwork to meet today's global competitions and expand customer expectations. Mohrmar et al. (1995) indicated application of a team is an essential element in a company, where organizations restructuring were determined, based on teams. Teamwork is no longer applied only to manufacturing, but also to management, service, problem-solving, projects, and other work. Recent developments in teamwork and teams in organizations have heightened the need to determine better ways to utilize teams, especially in the construction sector. Highly effective teams have proven to establish good working relationships and potentially achieve greater outcomes, since conflicts within teams are

minimized (Demkin 2008). Due to this, the concept of working together collaboratively as a team by pooling knowledge and experience ensures buildings meet the needs of today, let alone tomorrow.

The Project Management institute defined a project as a temporary endeavor undertaken to create a unique product or service (Meredith and Mantel, 2006). Normally an idea is hatched when trying to overcome certain problems. The problems may be non-utilization of either the available funds, plant capacity to make profit or for Government to avail to all Citizens certain basic amenities or satisfy political consideration. A project starts from scratch with a definite mission, generates activities involving a variety of human and non-human resources all directed towards fulfillment of the mission and stops once the mission is fulfilled. The project lives between these two cut-off points, therefore, this time-span is known as project Life Cycle (Choudhury 1988). To accomplish the project goals, project management skills must be used to allocate responsibility and authority to each task covering the whole project cycle. The common assessment of success of a project is when it is delivered on time, to budget, meet technical specification and satisfy the stakeholders.

A team will normally consist of members with diverse specialization and sometimes from different organization and cultures. Teamwork is not possible where there is cynicism about the motives of others. Better understanding is reached through the development of personal relationships and learning about each team member's strength and what they can bring to the table. With understanding comes trust and with trust comes the possibility of a successful relationship and project. Learning to respect and trust one another's' respective role in the construction process and recognizing the risk inherent with those roles is important for team synergy and project success (Smith & Wilkins, 1996). Therefore, ineffective communication can produce undue stress and tension among team members, which lowers both moral and productivity that can lead to loss of time and money. Effective teams work by developing and promoting open and clear communication amongst its team members.

According to Egan (2002), process and team integration are the key drivers of changes necessary for the construction industry to become more successful. However, simply bringing people together does not necessarily ensure they will function effectively as a team.

Effective teamwork does not occur automatically. It may be challenged by various issues, such as lack of organization, misunderstandings, poor communications, and inadequate participation from team members.

Therefore, it is crucial for assessing the effectiveness of team work in project management of water aid project teams to find a solution to help their team members to integrate and work together effectively.

This study is conducted in Addis Ababa, the center of African Union, which is also considered as the capital of Africa. According to the Ethiopian Population and Housing Census conducted in 2007, the total population of the city is estimated to be 3,384,569-where women constitute 52 per cent of the population (CSA, 2007). In Addis Ababa, unemployment, low family income, poor housing conditions, poor access to basic facilities such as water, electricity and mobile network, disempowerment, etc. are some of the major challenges of the residents that make their living conditions rather difficult. Addis Ababa is divided in to ten Sub-Cities/Kifle Ketemas/, and 116 Woredas

1.2. STATEMENT OF THE PROBLEM

Teamwork in project works has been widely researched by a number of researchers (Baiden, 2006; Cheng et al., 2006; Chervier, 2003; Ochieng, 2008), and the findings have clearly illustrated that best result is achieved when the whole project team is fully integrated and aligned with project objectives.

A water action aid project of Addis Ababa is developed to provide sufficient and quality water services to the society in various parts of the city. The goal is through providing safe and quality water, avoiding water related problems in team. To ensure water action aid project teams successfully complete their projects, it is necessary for water action aid project managers to promote, measure, and evaluate their teams' effectiveness. By all means, it is a challenging task to be effective, but there are underlying reasons why such projects need an effective measurement system for teams.

Although there are numerous effectiveness measurements for teams, there is not one measurement tailored specifically for water aid project teams in the study area. Since the project in the study area comprises individuals with diverse backgrounds, each possesses a unique set of requirements he/she wishes to achieve. Furthermore, it is often impossible for managers and

team leaders to compare teams in different functional areas, departments, or facilities. Therefore, it is crucial for team leaders to determine the best way to ensure all team players' expectations are aligned with the overall project's goals and objectives in the study area. Busseri et al. (2000) suggested it may be useful for team members to reflect on how well they are working together from time-to-time. This can be addressed by conducting assessment and evaluation among team members and by the project owner on what they think is working well, what is not working well, and how it can be improved.

An area that merits attention to successful team work is established on factors leading to effective team work management of projects. This has received little attention in literature. Coordination of the different professions is imperative for the successful completion of Water aid projects. In the study area, due to lack of effective team work, there are numerous failed projects. These problems may be attributed to poor team management in addition to the alleged corruption and political interferences. The aim of this study was therefore to investigate how teamwork management leads to effective implementation of water aid projects by answering the question: how does team work management in the water aid projects affect project management in Addis Ababa, Ethiopia?

1.3. RESEARCH QUESTIONS

- ✓ What is the effectiveness of teamwork management in water aid project of the study area?
- ✓ What is the relationship between teamwork management of workers in the water aid project and project success in the study area?
- ✓ What are the challenges facing the teamwork management of employees in the water aid project of the study area?

1.4. OBJECTIVES OF THE STUDY

1.4.1. General Objective of the Study

The general objective of this study was to assess the effectiveness of team work in project management in case of water action aid project, Addis Ababa, Ethiopia.

1.4.2. Specific Objectives of the Study

In line with the above general objective, the study would seek to achieve the following specific objectives:

- ✓ To determine the extent to which effective teamwork management has been employed in the water aid project in the study area;
- ✓ To establish the relationship between teamwork management of workers in the water aid project and project success in the study area;
- ✓ To identify the challenges facing the teamwork management of employees in the water aid project of the study area;

1.5. SCOPE OF THE STUDY

The scope of this research will focus on geographic location and theme. In terms of geographic location the study will focus on water action aid project, Addis Ababa, Ethiopia. The thematic scope of the study will focus on assessment of the effectiveness of team work in project management.

1.6. SIGNIFICANCE OF THE STUDY

The study will have the following significances:

a) Academicians

In the academic field, future researchers can use the study as a reference point if one is researching on team work management and the related topics. The findings of the study will be of use to trainers in marketing in that it will assist them in knowing the areas which should be given concentration when training managers on teamwork management.

b) Policy Makers

The study will be of importance to other government agencies whose interest lies on improved services delivery for economic development and creating investor confidence. It will assist the government in pointing out areas of difficulties in the allocating of resources towards addressing priority needs. The study will also help the government in formulating a policy on the regulatory process in the economy in the areas that

necessitate professionalism and teamwork, in order to ensure orderly economic growth and development.

c) Professional Firms

The study of project success will attract considerable attention in various development projects. As project participants always aim for the success of a project, the industry will benefit alongside the professional firms to enhance results oriented teamwork.

1.7. LIMITATION OF THE STUDY

The following limitations in their descending sequence of difficulties they impose will encounter while various stages of research activities will be developed. The very critical and premier will be problem of acquiring relevant documents due to its confidentiality. Following this, there might be lack of willingness by few officers to provide relevant data will be major limitation. Mismatch of similar data from various sources (lack of accuracy in existing data) will also contribute a lot in limiting the research. Finally, limitation of available literature which is directly connected with the study theme will be pointed out as they impose a significant impact in achieving the study goal. Therefore, for each challenges the researcher will set strategies until the end of the project.

1.8. ORGANIZATION OF THE PAPER

This research/project paper has five chapters. The first chapter deals with the background of the study , statement of the problem, objective of the study, research questions, significance of the study , scope of the study , the limitation of the study and organization of the paper. The second chapter deals about the review of related literatures. The third chapter deals with the research methodology. The fourth chapter describes all about data presentation, data analysis and interpretation. The last chapter deals with the conclusion and recommendation.

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

A team is a collection of individuals who exist within a larger social system and who can be identified by themselves and others as a team. Team members are interdependent and perform tasks that affect other individuals and groups. Teams are formed because they can accomplish what an individual cannot due to their different functional skills. In addition, social needs are easily satisfied in a team (Stewart, et al 1999).

To assist in understanding how teams are managed in the projects, various literatures addressing team work in general and specifically in the industry have been reviewed. From the literature reviewed, indicators of an effective team, the team members and their responsibilities in a project, factors affecting team management, challenges encountered were identified.

2.2. Teamwork

To hand devours been a elongated predictable intensification in squad edifice motion in diligence plus business (Thamhain and Wilemon, 1983) and “plenty of management practitioners and researchers take into account team building to be one amongst the foremost crucial leadership qualities that verify the performance and success of multi-disciplinary efforts, and therefore the organization’s ability to be told from its experiences and position itself for future growth. The aim of this literature survey is to spot the factors presumably to influence impassive groups and therefore the effect of cooperation on project success.” To do this, however, its 1st necessary to explain what's painted and characterized by the term ‘team’ and in what sense it are often aforesaid to be effective. “With AN increasing scale of multi-national comes and international business operations, team building takes on further dimensions and challenges in organizing and unifying the task cluster across industrial, technological and geographic boundaries.” Jointly of the project leader’s prime responsibilities, team building involves a full spectrum of management skills to spot, commit and integrate the assorted personnel from totally different purposeful organization into one task cluster.

“In several project-oriented organizations, team building is shared between the project manager and therefore the purposeful managers, WHO usually report back to a unique organization with a unique superior. The constitution of the project team depends on the stage within the lifecycle of the project, as an example, at the look stage of the development project; there's usually the designer, structural engineer, amount surveyor and numerous alternative technical specialties like the bottom water engineer and legal consultant.” The contractor and numerous sub-contractors (such as heating/ventilation engineers) are brought in to hold out specific tasks because the project moves through the operational part. Once the actual task is completed, the team in every case is disbanded.

Every project ends, and there might or might not be another project to follow. “The disadvantage of such a briefing is that the project team is just temporary and these individuals might have not any commitment to its success (Maylor, 1996). With the expansion of project matrix organizations, it's anticipated that groups of the longer term would require an individual to belong to many units at constant time and have 2, three, or perhaps four bosses (Maylor, 1996: 117).” Individuals can shift chop-chop from one project team to following team.

In summary, the effectiveness of the project team could be a crucial determinant of project success. Came has well-defined objectives, i.e. a target schedule, and a target value or budget. The action of those objectives could be a tangible facet of the project team mission. If a project over runs its value and schedule, or fails to attain its technical performance objective, the effectiveness of the project team is impaired.

A great deal of analysis has been conducted on the qualities that effective groups possess and therefore the issues arising from the lesser effective teams. Moreover, researchers like Dumaine, Drucker, Peters and boatman, bryophyte Kanter, and Thamhain have emphasized the non-linear, intricate, usually confused, and random nature of cooperation, which involves all aspects of the organization, its members, and atmosphere. Though abundant has been written on several aspects of effective groups, most of the analysis has been conducted with firms or organizations from the producing or production and therefore the services sector, e.g. FWO, urban center exchange. Restricted studies are done on the impact of effective cooperation on the project atmosphere and so, there's little proof to point out that

project cooperation within the producing trade may gain advantage from the results of those researches.

2.3. Project teams

The professionals engaged; work in teams, despite, sometimes, not having known each other before. The team formed can be considered effect if it is able to deliver a project successive without losing its members and satisfying the needs of each individual member. The success of the project is measured by the satisfaction of the client while that of the members by expression of their happiness and want to continue working together. (Stewart et al, 1999)

For the teams to be effective they must be able to establish their task by setting objectives, deciding plans and defining roles and responsibilities. But to help the team to work together productively there is need to create open and honest communication channels, establish team values and develop ground rules. Failure to address these issues leads to infighting and no task to accomplish (Nash, 2001).

Early in the teambuilding process, team members should state their duties, responsibilities and authority levels to the other members. This exercise provides other team members with firsthand knowledge of who they need to work with to solve a particular issue. Team members cannot task and social inputs unless they have the necessary knowledge, skills and ability. Members' capability to provide desirable inputs can be obtained either through effective team member selection or through training and development. Team building is important for the successful accomplishment of any project. The objective of the team is to deliver a project that completes on time, is on or under budget, is profitable to all team members, void of claims, and results in a satisfied owner. Rivalries, documentation battles, doing harmful actions out of spite, and other distracting actions may result in at least an unpleasant work environment and more likely an unsuccessful project (Cheng et al, 2006).

2.4. Factors Affecting Team Management

To have an effective team there is need to understand factors that influence team management, key of which is team leadership, identifying the members and their strength and weakness. Other factors are the work environment and the project strategy applied.

2.4.1. Team leadership

The Client's project team, the manager and the consultants are the key project participants in a project and their respective team leaders form the main focus of this factor. They should possess all the necessary skills of a project manager, namely leading, planning, organizing and coordinating skills and perform to the greatest extent of their capability (Smith and Wilkins, 1996). They should have a clear understanding of the Client's brief and be mindful to the business and cultural aspects of the company (Deakin, 1999). Indeed, all project team leaders should be devoted to the integration of specialized knowledge for a common purpose towards project success (Hemlin, 1999) and should have sufficient knowledge on construction documentation and dissemination (Songer and Molenaar, 1997).

Apart from working within the constraints of the project itself, project team leaders should also possess certain human skills in coping with stresses, establishing good relationships among team members and inducing a harmonious working atmosphere (Smith and Wilkins, 1996).

The traditional skills of an effective project team leader rests in the project or project-related aspects - technical and social skills (Hauschildt et al., 2000).

One increasingly critical prerequisite, the adaptability to change, is also necessary to cope with constant and rapid change of technology, markets, regulations and socio-economic factors (Hemlin, 1999).

Without the coordination and support from the project team members, the success of the project can hardly be assured. The team leader requires support from his firm and adequate delegation of authority to help speed up decision making and implementation (Munns and Bjeirmi, 1996).

2.4.2. Team Members

In the water aid teams, members have different specialization and may come from different organizations. Each member plays his functional. But to have an effective team, team role as described by Belbin (2004) need to be considered. The Belbin Team Role Model describes how suitable the member is for the team and looks at six factors, namely, personality, mental abilities, motivation, values, field restrictions and experience and role learning. By assessing the member's behavior, team roles can be allocated. These roles include, Coordinator/Team Leader, Plant, and Implemented Resource Investigator Monitor/Evaluators, Team workers, Shapers Completer/Finishers and specialist. These members are utilized at different stages of the project and when need arises.

2.4.3. Project work atmosphere

A pleasant and encouraging working atmosphere is conducive to the success of a project. How project participants look at a particular project can significantly affect their performance (Kok, 1995). Other team members should establish satisfaction, expectations and values from the project. An adequate delegation of the project team decision-making authority can indeed raise their morale standards (Retherford, 1998) and if the project is appealing and innovative enough for the manager to provide a better alternative option, the chance of success can be higher when the project team members are psychologically fit to implement the project, the chance of forming a cohesive and well-integrated team can be increased, which is essential to construction project success (Rowlinson, 1997).

Such a project team is effective in eliminating communication problems, encouraging respect and mutual trust (Deakin, 1999). The formation of team spirit strengthens the willingness of all parties to work as a team (Smith and Wilkins, 1996) and enhances cooperation to link interdependent functions together towards project success.

The working atmosphere is harsher for projects that are bigger, more complex and located farther from the headquarters of the teams and widely dispersed (Songer and Molenaar, 1997). Hence, the attributes of project characteristics include: the project size, level of complexity, project location, project scope, project objectives, appeal of the project and project scope for innovation.

2.4.4. Project management and performance strategies

Project management has been considered as one major determinant of project success (Smith and Wilkins, 1996). With the key goals of project management being timeliness, adherence to specification, working within budgets and satisfying stakeholders, the project strategy works target to achieve this goals. These strategies should be formulated and well understood by the consultant teams to enable effective implementation of the strategies.

The strategies applied aims at drawing attention of all stakeholders by establishing proper communication and feedback channels. This can be achieved by holding frequent progress and coordination of the consultant teams and with clients and manager. If this is utilized well, at the design stage, all the requirements of the client will be captured at design and minimizing the need for variation during construction. Though timeliness, cost and quality is the main target of project management, the benefits may be irrelevant if the stakeholder are not satisfied.

Dispute resolution procedures ensure that conflicts in design information is resolved in systematic manner (Lamont, 1999). Enforcing adherence to a rigid framework of programme date established through detailed programming will ensure completion on time. To ensure specification and contractual obligations are met, a system for quality, risk, safety, and more human related management is established by creating procedures to followed by project participants (Al-Meshekeh and Langford, 1999).

To avoid unnecessary changes that may prolong the completion date, variation control measures are applied (Hidenori, 1995). Variation controls minimizes overrunning the budget by limiting change in specification that may result to higher cost due to higher specification or prolonged completion date. Addressing of dispute in a speedy manner lowers resource idle time, which the Contractor may demand compensation hence increase the cost of the project.

Hence, the attributes of project management strategies include: communication and feedback systems, quality, safety, risk and conflict management systems, organizational structures and culture, control mechanisms of sub-contractors' works and the overall managerial actions in planning, organizing, leading and controlling.

2.5. Project Management Skills

There are various skills needed for effective management of a project. In most cases, failure to adopt such skills in whatever phase of the project may cause inefficiency either at that level or to the overall outcome of the project. To begin with, proper resource management is essential to ensure that there is no shortage that may disrupt the flow of the project. Secondly, it is of significant importance to have a team spirit. This is because there are some issues which cannot be handled by the management but can be handled by the subordinate. This will also ensure that work is not suspended every time the person supposed to do it is caught up with other commitment of equal importance.

There are also has to be proper communication skills. Since the project is done in phases, Miscommunication to or in any phase will affect the activities in that phase and the others linked to it (Andersen, 1995).

2.6. Theories of teams

This study is based on the Tuckman's model which has five stages of team working (i.e. forming, storming, norming, performing as well as the last stage of adjourning. Belbin looks at the needs for a team and matches to members with the required traits and experience.

2.6.1 Tuckman's model

Tuckman's model explains that as the team develops maturity and ability, relationships establish, and the leader changes leadership style. Beginning with a directing style, moving through coaching, then participating, finishing delegating and almost detached.

At this point the team may produce a successor leader and the previous leader can move on to develop a new team. This progression of team behavior and leadership style can be seen clearly in the Tannenbaum and Schmidt Continuum - the authority and freedom extended by the leader to the team increases while the control of the leader reduces (Tuckman, 1977).

2.6.2. Belbin's Team Roles Theory

Belbin (2004), made some experiments that consisted of the fundamentals of her theory. The results of her experiments, which constituted a model of management teams, based on the roles required for the success of the team. Belbin described team roles as a servant member's, who facilitated the progress of the team as a whole with his performance, structure of team as a whole with his performance, structure of others. She believes that team members have two

types of roles. The first one, as described in role theory, typical functional role. The second type is the team role(s). Team role describes how suitable the member is for the team, not the functions. In this model the role is described with six factors, namely, personality, mental abilities, motivation, values, field restrictions and experience and role learning. However, Belbin didn't demonstrate how most of the changes could be explained by each factor. Instead, she defended the opinion that high performance teams required a balanced distribution of all the roles within the team.

Belbin also thought that team role concept should be distinguished from the concept of functional role that points out job related operational and technique knowledge. As a result, some members may have the same functional role but still have different team role(s). Belbin attracts the attention to the connection between the needs for different team roles prevailing at different stages of the development process of the team. The mentioned six stages are as follows; 1) Determining the needs. 2) Coming up with ideas.

3) Formulating the plans, 4) Realization of the ideas, 5) Forming the team and 6) finalization of the job. At the first stages the Shaper and Coordinator will be needed mostly whereas the Completer-Finishers and Implemented will come in the later stages.

At the beginning, she labeled the team roles as; Chairman, Shaper, Plant, Resource Investigator, Monitor Evaluator, Team Worker, Company Worker and Completer/Finisher. She later renamed the Chairman as "Co-ordinator" and the Company Worker as "Implementer" and he added a ninth role as "Specialist". Team roles were divided into three groups; action roles (Shaper, Implemented and Completer Finisher), social roles (Co-ordinator, Team worker and Resource Investigator) and thinking roles (Plant, Monitor Evaluator and Specialist). Belbin Team Role Theory is applicable in this study because it will help in identifying suitable character of the team member.

An effective team is the main key factor for project success. Teams in the Construction industry are constituted of different professionals from different firms and sometimes unknown to each other. This makes team management a major challenge. Effective team leader who is both technically and socially- empowered, well balanced team, with complementing roles, and an environment conducive to working and project strategies are factors that contribute to success of a project.

The major challenge facing the development project professionals is poor communication skills due to their different professional background. This and including long working hours, dangerous and dirty working condition results to stress. Lack of project management skills leads to poor planning and resource allocation making coordination of the team difficult as members are not aware of their roles at different stages.

2.7. Attributes of Effective Teamwork

Teamwork is defined by Scarnati (2001, p. 5) “as a cooperative process that allows ordinary people to achieve extraordinary results”. Harris & Harris (1996) also explain that a team has a common goal or purpose where team members can develop effective, mutual relationships to achieve team goals. Teamwork relies upon individuals working together in a cooperative environment to achieve common team goals through sharing knowledge and skills. The literature consistently highlights that one of the essential elements of a team is its focus toward a common goal and a clear purpose (Fisher, Hunter, & Macrosson, 1997).

Teams are an integral part of many organizations and should be incorporated as part of the delivery of tertiary units. Successful teamwork relies upon synergism existing between all team members creating an environment where they are all willing to contribute and participate in order to promote and nurture a positive, effective team environment. Team members must be flexible enough to adapt to cooperative working environments where goals are achieved through collaboration and social interdependence rather than individualized, competitive goals (Luca & Tarricone, 2001).

Research has provided a number of attributes required for successful teamwork. Many of these attributes have been consistently identified in the literature. The data below provides a summary of literature on the successful attributes needed for effective teamwork as follows:

- ✚ Commitment to team success and shared goals - team members are committed to the success of the team and their shared goals for the project. Successful teams are motivated, engaged and aim to achieve at the highest level;
- ✚ Interdependence - team members need to create an environment where together they can contribute far more than as individuals. A positive interdependent team environment brings out the best in each person enabling the team to achieve their goals at a far superior level

(Johnson & Johnson, 1995, 1999). Individuals promote and encourage their fellow team members to achieve, contribute, and learn;

- ✚ Interpersonal Skills includes the ability to discuss issues openly with team members, be honest, trustworthy, and supportive and show respect and commitment to the team and to its individuals. Fostering a caring work environment is important including the ability to work effectively with other team members;
- ✚ Open Communication and positive feedback - actively listening to the concerns and needs of team members and valuing their contribution and expressing this helps to create an effective work environment. Team members should be willing to give and receive constructive criticism and provide authentic feedback;
- ✚ Appropriate team composition is essential in the creation of a successful team. Team members need to be fully aware of their specific team role and understand what is expected of them in terms of their contribution to the team and the project; and
- ✚ Commitment to team processes, leadership & accountability - team members need to be accountable for their contribution to the team and the project. They need to be aware of team processes, best practice and new ideas. Effective leadership is essential for team success including shared decision-making and problem solving.

2.8. Characteristics of Effective Teams

Carl Larson and Frank LaFasto (2010), pointed out the major characteristics effective teams in project management. These are:

- ✚ A clear, elevating goal. Everyone knows the specific performance objective and when it has been met.
- ✚ A results-driven structure. It is often best to let the team develop a structure that allows them to operate in a manner that produces results.
- ✚ Competent team members. Members are able to tackle their responsibilities given their level of knowledge.
- ✚ A unified commitment. All individuals direct their efforts toward the goal.
- ✚ A collaborative climate. It is a climate of trust produced by honest, open, consistent, and respectful behavior.

- ✚ Standards of excellence. Team members know what is expected of them individually and collectively.
- ✚ External support and recognition. Encouragement and praise motivate individuals and teams.
- ✚ Principled leadership. Team members appreciate that team leaders have the position because they have good leadership skills and are working for the good of the team.

2.9. Challenges of Team Work in Project Management

In a number of studies in small and large Scrum teams in various consulting and product development settings in companies of variable size through the last five years, we have observed three recurring challenges (Carl Larson and Frank LaFasto, 2010).

Since the beginning of human history people have formed work groups to accomplish a specific task. A group of people focused on a common goal have the potential to achieve amazing results. But there is a difference between a group of people who work together and those who work together effectively as a team.

In today's fast-paced, high tech, globally competitive workplace, work teams are increasingly viewed as an important way to enhance an organization's creative and problem-solving capabilities. This may mean that people at ease with making decisions and directing others are being asked to change their role to that of a team facilitator and adopting a more collaborative approach. Employees accustomed to working independently are being asked to participate in cross-functional teams sometimes with co-workers who live on the other side of the country... or the world (Carl Larson and Frank LaFasto, 2010).

With the changing face of the workplace the challenges (and opportunities) teams face are greater than ever. Globalization means the workplace is becoming increasingly more diverse with diversity encompassing gender, ethnicity, age, personality, cognitive style, education, and more. Work teams need to know how to embrace diversity in order to be successful. They also need to know how to work remotely as technology allows employees to plug into the group while working from home or travelling on business. Today's "virtual teams" are generally temporary, A group of people working as a team can achieve amazing results. But successful

teamwork takes more than collecting people together in a group. Culturally diverse, geographically dispersed and dependent upon electronic communication.

“Most of us have experience being part of a team – for example a sports team, a volunteer group, or a work unit. Some teams are highly successful and others can be a disaster.

High-functioning teams are where objectives are achieved or surpassed and each member feels good about the team, the process and their role. Achieving a high-functioning team is possible with a little planning and knowledge,” says Brooke Owen, Human Solutions’ Manager of Workplace Development Services (Carl Larson and Frank LaFasto, 2010).

Solving the wrong tasks: Team members often work on tasks that have low priority or are not even prioritized. Many developers also choose only tasks within a given component, type of module or type of technology due to interest or felt ownership independently of priority. These practices are not consistent with the focus in most agile methods on delivering the highest prioritized functionality to the customer. Lack of communication: Sometimes critical decisions are taken by the project management without involving the team. This happens despite the strong emphasis on communication and shared decision-making in agile development methods. On the other hand, many team members approach only the team leader in the daily meeting and not the whole team. Moreover, we have observed team-members who did not pay attention when important issues were raised, and even a few who fell asleep in planning meetings. Unreleased potential of learning: Agile development methods suggest several ways of giving feedback and create opportunities for analyzing experience. However, we have observed that many teams spend little time reflecting on how to improve how they work, and they do not discuss obvious problems. Some of the teams that carry out regular retrospective meetings struggle to convert their analysis into changes in action. Among those who try to remedy identified problems actively, several give up after seeing little change (Carl Larson and Frank LaFasto, 2010).

2.9.1 Technological Challenges

Establishing trust in online transactions is a well-recognized problem in e-commerce; it is also a significant challenge for virtual teams. Online communication lacks the richness of face-to-face interaction. Relying solely on online communication tends to inhibit participation and the creation of trust and the sense of mutual responsibility that characterizes teamwork.

Jarvenpaa and Leidner (1999) have highlighted the importance of the first "online impression," which can set the tone for much of the later discussion. Jarvenpaa, Shaw, and Staples (2004) argue that trust has both a direct and a mediating effect on team effectiveness. Given this problem, most virtual teams will still tend to favor holding occasional face-to-face meetings. For example, a study by Kimble and Hildreth (2005) that dealt with a virtual team spread across three continents found that although the team had access to some of the most sophisticated and up-to-date communications technology available, the "boost" provided by face-to-face meetings was needed to sustain it through extended periods of online communication.

Studies have identified two principal modes of interaction in virtual teams (Sivunen & Valo, 2006). The first is sometimes termed "hot" virtual working and is also known variously as "Closely coupled," "tightly coupled," or "online" working. This is interaction in the sense that we would normally think of it that is, synchronous, fluid, and requiring the active participation of the other members of the team. The second is "cold" virtual working, which is sometimes termed "loosely coupled" or "off-line" working. This form of interaction is work in the sense that it is part of some collective activity directed toward a shared goal or common purpose, but it is work that is performed individually. In general, it does not require the active presence of the other members of the group and can be performed alone and asynchronously.

During the life of a team, the interaction between its members moves repeatedly between these modes of communication. For example, Ribeiro, Kimble, and Cairns (2010) noted how people in the groups they studied would sometimes use the techniques of cold distributed working even when they shared the same physical office space.

However, while their use of technology was "fluid and almost transparent"(Ribeiro et al., 2010), their decision about when to use it was not. The members of the groups were happy to use technology to maintain day-to-day contact, yet when it became too difficult or involved delicate decisions, face-to-face meetings were still the preferred method of communication. When face-to-face meetings are feasible, this need not be a problem, but in situations where they are either too costly or would be inefficient, as in the example of the software support teams in case 1, other solutions need to be found.

The technological solution to the problem of not being able to meet somebody face to face relies on the creation of what is called social presence. The classic definition of social presence is the degree of awareness of other people in an interaction and the subsequent recognition of interpersonal relationships (Short, Williams, & Christie, 1976). Now social presence, or co-presence, is more commonly taken to mean the degree to which one can form a sense that one is interacting with another individual. Early attempts to deal with this problem relied on trying to provide "contextual information" about the other person, usually in the form of textual descriptions; later attempts relied on avatars (computer-generated animated images) to simulate co-presence. Now this problem is most often dealt with by some form of teleconferencing. In case 1, where establishing a close working relationship quickly was critical, great efforts were made to create a sense of co-presence. However, in other cases, such as case 5, this was of less importance, and document management software that supported the simultaneous editing of documents was simply augmented by standard teleconferencing facilities.

2.9.1 Organizational Challenges

As we have seen, without effective communication effective teamwork becomes difficult. While some aspects of this problem can be dealt with by technological means, others are more fundamentally rooted in the ways in which people work and are managed. Identity, for example, plays a critical role in communication, where knowing the identity of those with whom you communicate is central to creating a shared understanding. Yet in virtual teams, the status and identity of a person can be ambiguous, as many of the basic cues that exist in the physical world may be absent; in the virtual world, one can have as many electronic personas as one has the time and energy to create. At the individual level, this can lead to the problems of trust

outlined earlier, but at the level of the team, it can lead to difficulties in establishing a sense of collective identity and can inhibit effective communication among team members.

Identity helps to establish shared meanings through providing a common perspective on, for example, where somebody's job fits within the wider organization. Without this common ground, it becomes difficult to share knowledge effectively. At a more fundamental level, unless shared meanings can be established, even "common sense" words and terms become open to different interpretations, as the same word may be used in different ways in different settings. Identity in this sense is defined by a group rather than by an individual.

Within a group, a shared interest or a common domain of knowledge provides the "common sense" definitions for the words and terms used by the group. Sharing that group's identity implies not only a commitment, but also shared knowledge and shared competencies.

Teams are mainly focused on achieving a task rather than building a sense of identity.

Consequently, we need to look elsewhere for a different type of group structure if we are to solve the problems of building and maintaining group identity.

Communities of Practice are a different cut on the organization's structure that emphasizes the learning that people do rather than the functional unit they report to or the project they are working on (Wenger, 1998). Because membership in a Community of Practice is based on a shared interest, it can cross organizational boundaries and span structures and hierarchies. Communities of Practice are "not just places where local activities are organized, but where the meaning of belonging to broader organizations is negotiated and experienced" (Wenger, 1996, p. 25). Thus, for example, people who work in cross-functional teams might form a Community of Practice to keep in touch with their peers and keep up to date with what is happening in their particular field of specialist expertise.

Richard McDermott coined the phrase "the double-knit organization" (McDermott, 1999) to describe an organization that combines teams with Communities of Practice and by doing so overcomes some of the problems of maintaining a sense of identity online. He argues that cross-functional teams focus on outputs such as products, processes, or market segments, while Communities of Practice focus on working together to solve shared problems, to learn, and to build a body of knowledge. He sees Communities of Practice as a way to maintain

a technical focus within a broader discipline, while cross-functional teams serve to unite those disciplines around a common product. Instead of sharing product or process-specific information via team leaders, Communities of Practice share knowledge and standardize practices across teams. Other research has also indicated that Communities of Practice may be one way to make some inroads into the complexities and challenges of virtual working. Pemberton -Billing,

Cooper, Wootton, and North (2003) used the concept of a Community of Practice to highlight some of the root causes of the problems they found in their study of distributed design teams, such as the problems that a hierarchical client/supplier relationship caused when attempting to create a common sense of purpose for the team. Similarly, research by Hildreth (2000) has indicated that the willingness to go "the extra half mile" in a Community of Practice can help overcome many of the problems associated with issues of trust and identity in virtual working and enable relationships in virtual teams to develop quicker, go further, and provide a sound basis for subsequent hot and cold electronic collaboration.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. DESCRIPTION OF THE STUDY AREA

This study is conducted in Addis Ababa, the center of African Union, which is also considered as the capital of Africa. According to the Ethiopian Population and Housing Census conducted in 2007, the total population of the city is estimated to be 3,384,569-where women constitute 52 per cent of the population (CSA, 2007). In Addis Ababa, unemployment, low family income, poor housing conditions, poor access to basic facilities such as water, electricity and mobile network, disempowerment, etc. are some of the major challenges of the residents that make their living conditions rather difficult. Addis Ababa is divided in to ten Sub-Cities/Kifle Ketemas/, and 116 Woredas.

Addis Ababa is the diplomatic capital of Africa with more than 90 embassies and consular representatives, which makes it the fourth diplomatic center in the world. The city has been serving as the Headquarters of the United Nations Economic Commission for Africa (UNECA) since 1988 and the former Organization of African Union (now the African Union) since 1963.

Addis Ababa is the home of various ethnic groups: 48.3 per cent Amhara, 19.6 percent Oromo, 17.5 percent Gurage, 7.6 percent Tigray, and 6.9 percent others (Golini et al. 2001, 128). Regarding religion, 82 per cent of the population is Orthodox Christians, 12.7 per cent Muslims, 3.9 per cent Protestants, 0.8 percent Catholics, and 0.6 percent followers of other religions.3 Some 93.6 percent of the men and 79.9 percent of the women in the city are literate (CSA and ORC Macro 2005, 35-36). The same report revealed that 68.9 percent of the men and 44.2 per cent of the women are employed. Some 96.2 percent of the city's households have tap water and 34.4 percent own houses (Golini et al. 2001).

Meheret Ayenew (1999, 1) wrote, "Addis Ababa is a fast growing urban center that is beset with problems afflicting most cities in the developing world, including extensive poverty, joblessness, inadequate housing, severe overcrowding/congestion and undeveloped physical infrastructure."

According to Sandra Dierig (1999), pollution, poverty and environmentally induced hazards are among the major problems threatening the health and life of the majority of the city's inhabitants, particularly the urban poor.

3.2. THE RESEARCH DESIGN AND APPROACH

The research design employed in this project was a descriptive type which describing the effectiveness of team work on a particular project at one point in time. The study was a survey one that combines secondary data sources with primary data. The primary data was collected from the field using structured and semi-structured questionnaire as well as focus group discussion and key resource persons discussion. Thus a mixed approach will be employed. To ensure support or otherwise of facts and issues that are gathered. So, the research approach for this study was mixed approach. The basis for selecting a mixed approach for this study is because the nature of the research problem required both qualitative and quantitative data sets. In fine, it can, indeed, increase credibility of scientific knowledge by improving both internal consistency and generalizability through combining both quantitative and qualitative methods in the same study. It is not aimed merely at validation but at deepening and widening one's understanding.

3.3. DATA TYPES AND SOURCES

3.3.1. Data Types

Both qualitative and quantitative data types will be used. Primary data are collected through survey, focus group discussion, structured question and key resource persons discussion. Secondary data are quantitative and qualitative in their form and will be collected from various teams and stakeholders in the water aid project, documents, books, publications and other available source from records.

3.3.2. Data Sources

Sources of data for this study were both primary and secondary sources. A primary source includes project teams, program manager, project managers, project coordinators, and frontline project staff and key resource persons. And also from officers and experts from stakeholder

organizations and Secondary sources includes reports and documents in different stakeholders, central statistics agency publications etc.

3.4. THE TARGET POPULATION AND SAMPLING TECHNIQUE

The target population of this study were all of the employees and management body of the organization. According to the information gathered from the Administration and Finance head department of the Project, there are 30 employees who are responsible to planning, implementing, coordinating, managing and supporting the overall projects implementation of the organization. Therefore the target population of the study is 30 respondents in number from which the data was collected.

According to Kothari (2004) Census inquiry needs to be emphasized that when the universe is a small one, it is no use resorting to a sample survey. Census is a complete enumeration of all items in the 'population'. It can be presumed that in such an inquiry, when all items are covered, no element of chance is left and highest accuracy is obtained.

Thus, the Census inquiry will be employed this technique will be appropriate to use because the target population for this study will be limited in number. In all over the organization, project managers are interviewed using structured questionnaire and semi-structured guide for focus group and key resource personnel discussion sessions with some frontline project staff and one CEO, one Heads of Program and seven Project Coordinators of the sampled projects. Total of 30 respondents are interviewed in different grounds. This comprised 1 CEO, 1 Program manager, 4 Project managers, 7 project team coordinators, 11 project team members and 6 key resource persons. In addition it enables the highest accuracy on the finding of the study. Therefore all of the target populations were addressed for information inquiry on the subject under study.

3.5. DATA COLLECTION PROCEDURES AND TECHNIQUES

This work was relies mainly on primary and secondary sources of data but more heavily on primary data as the research will be purely a survey type which utilized structured questionnaire and semi-structured guide. The structured questionnaires are made up of close and open-ended questions administered directly and indirectly to mainly program/project managers.

The semi-structured guide was for focused group and key resource personnel discussion. Closed-ended and open ended questions were also used. Most of the questions of this research are closed-ended to enable the researcher obtain the exact information needed for the study purpose, the rest of the questions are open ended to elicit information.

3.6. DATA ANALYSIS

To transform the raw data into information for useful and meaningful purposes, there is the need to put the data into manageable form, thus creating summaries and categories and applying Statistical inferences. From here, the following was done to finally analyze the data in order of the research objectives and questions. First and foremost the data was edited to ensure consistency and as well as identify and purge them of all forms of errors and omissions which could come up in the course of the data collection.

The data then code thus classifying and categorizing the data into manageable and analyzable form. The quantitative aspect of the data will be analyze using statistical software known as, SPSS Statistics version 20 and descriptive statistical measures including mean, standard deviation were used while the qualitative aspect was analyzed and interpreted by way of transcription as well as logical and deductive narratives mainly with the aid of tables, graphs and charts.

3.7.ETHICAL CONSIDERATIONS

In the context of ethical consideration, the researcher informs the respondents about the aim of the study and they will be participating based on their own willingness. Privacy and confidentiality will be maintained. In the beginning all legal permissions will be secured, as per the work plan and schedule procedures will be follow by effectively undertaking the research process.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATION AND PRESENTATION

This chapter presents data analysis, findings interpretation and presentation. Data in this study have been analyzed using descriptive techniques including percentages, mean, frequency and standard deviation. This chapter was organized into sections based on objectives including determining the extent to which effective teamwork management of professional firms has been employed in the water aid project, establishing the relationship between teamwork management of professional firms in the water aid project and successful completion project as well as establishing the challenges facing the teamwork management of professional firm.

Before the questioner distributed, pilot testing (pretest) was made with 5 questioner and amendments were taken for clarity. Out of the 30 questionnaires distributed, 30 was filled and returned. The response rate to questionnaire distributed was 100 % $(30/30*100)$.

4.1: GENERAL PROFILE OF THE RESPONDENTS

Table 4.1 below presented the general profile of the respondents. These include sex, age, educational status and working years in the organization.

As it is indicated in Table 4.1, out of the total 30 respondents of 6(20%) were female and 24 (80%) were male. From this, we can understand that the numbers of male respondents were a little bit greater than female head of respondents. The age group of the respondents indicated in table 4.1 below, about 7(23.33%) of respondents are in the age group 15-29, 23(76.67%) of respondents are in the age group 30-64 and there is no respondents in the age group 65 and above. In general, the data clearly shows that, majority of respondents were in the age group of 30-64 were more matured with different work experience which was taken as a good opportunity to effective implementation of the stake holder management.

Table 4.1 below indicates, the mean age of households was 34 years with the standard deviation of 8.22003. The minimum and maximum age of the household heads was 24 and 56 years, respectively.

When we see the educational status of the respondents, about 24(80%) of the respondents have BA/BSc, the 6(20%) respondents have MA/MSc degree holders in different specialists and there is no other educational status regarding to sampled respondents only. Here the data indicates that the numbers of respondents who hold Bachelor of art or science are greater than that of other with significance difference.

Table 4.1: Sex, Age, Educational status of Respondents and Duration of work experience in the organization

Characteristics	Frequency	Percent (%)
Sex of respondents		
Male	24	80%
Female	6	20%
Total	30	100
Age of respondents		
15-29	7	23.33%
30-64	23	76.67%
65 and Above	-	-
Total	30	100
Educational status		
BA/BSc	24	80
MA/MSc	6	20
Other	-	-
Total	30	100
How long have you worked in this organization?		
0-5 Years	19	63.33%
6-10 Years	9	30%
11-15 Years	2	6.67%
More than 15 Years	-	-
Total	30	100

Source: computed from own survey data, 2018

4.2: The extent to which various skills and traits were exhibited by team leaders

Findings on the extent to which various skills and traits were exhibited by team leaders showed that to a great extent, the team leaders 20 (66.67%) were resilient with a standard deviation of 1.1. In addition to that, the team leaders applied their technical knowledge, looked to it that the team members were motivated and at the same time, the team leaders were dynamic. While they practiced all the above skills, they did not undermine negotiation which they applied to a great extent too.

Table 4.2: The extent to which various skills and traits were exhibited by team leaders

Characteristics	Frequency	Percent
Negotiation	1	3.33
Resilient	20	66.67
Dynamism	1	3.33
Motivation	2	6.67
Technical knowledge	1	3.33
Understanding of Client's requirements and culture	2	6.67
Management Skills	2	6.67
Balance mix of the above	1	3.33
<i>Total</i>	<i>30</i>	<i>100</i>

Source: computed from own survey data, 2018

4.3: The extent to which various behavior were exhibited by team members

Regarding the extent to which various behavior were exhibited by team members, majority of the team members upheld discipline and reliability with a standard deviation of 1.2. They also displayed the trait of being creative, imaginative and unorthodox to a large extent with a standard deviation of 1.1. To a moderate extent, they were enthusiastic, communicative and also mature, confident, dynamic and thrived under pressure. It is also imperative to note that the team members were to a moderate extent sober, strategic and discerning in their work. In addition to that, they cooperated to a great extent while upholding to a moderate extent. Single-mindedness and dedication was the least prevalent behavior with a standard deviation of

0.9. This implies that many of the team members have various behavioral characteristics which contribute to the successful ending of various water aid projects. Some however needs to be pressurized in order to thrive in their work; a trait which should be eliminated at all costs.

Table 4.3: The extent to which various behavior were exhibited by team members

Characteristics	Mean	Standard deviation
Creative, imaginative, unorthodox	3.4	1.1
Extrovert, enthusiastic, communicative	3.4	1.0
Mature, confident, dynamic, thrives under pressure	3.8	1.0
Sober, strategic and discerning	3.6	0.8
Co-operative, mild, perspective and diplomatic	3.6	1.0
Disciplined, reliable, and efficient	3.6	1.2
Painstaking, conscientious, anxious	3.0	1.1
Single minded, self-starting, dedicated	3.5	0.9
Balance mix of the above	3.3	0.8

Source: computed from own survey data, 2018

4.4 The extent to which various behavior were exhibited by team members

The researcher was also concerned with the extent to which indicators of environment conducive to effective project team performance was exhibited. The respondents indicated that to a great extent, the project consultants were confident with the design and water aid construction methods. They also added that to a large extent, the team members were satisfied with their terms of work. Delegation of decision making authority by team leaders and communication in the team were practiced to a great extent. The virtue of respect and mutual trust among team members was also not undermined. It was applied to a great extent with a standard deviation of 1.0. Team leaders confidences with water aid project management, delegation of decision making authority by team leaders and communication in the team were practiced to some extent. On the contrary, the satisfaction of team members with their terms of work was less prevalent with a standard deviation of 0.8.

Table 4.4: The extent to which indicators of environment conducive to project performance

Characteristics	Mean	Standard deviation
Team leaders confidence on water aid project management	3.6	0.9
Satisfaction by team members	3.6	0.8
Delegation of decision making authority	3.6	0.9
Innovation	3.4	1.2
Communication in the team	3.5	0.9
Respect and mutual trust among team members	3.6	1.0

Source: computed from own survey data, 2018

4.5 The extent to which various strategies were utilized in the project to promote Effective teamwork's

Concerning the extent to which various strategies were utilized to promote effective team works in the water aid project, majority of the respondents gave the opinion that variation control procedures were observed to a great extent with a standard deviation of 1.2 while undertaking the various projects. They also said that communication among team was implemented to a great extent with a standard deviation of 1.1. The framework of the program was also rigid for many projects to a great extent. Regarding conflict resolution procedures, the respondents said that they were observed to some extent with a standard deviation of 0.9.

Table 4.5: The extent to which various strategies were utilized in the project to promote Effective teamwork's

Characteristics	Mean	Standard deviation
communication among stakeholders	3.6	1.0
Conflict resolution procedures	3.6	0.9
Variation control procedures	3.4	1.2
Rigid framework of program	3.2	1.0
Work quality control procedures	3.8	1.0

Source: computed from own survey data, 2018

4.6: Respondents response on the relationship between teamwork management of workers in the water aid project and successful completion of the project.

The first dimension to evaluate the relationship between team work management and successful completion of the project work is measuring Team identity in achieving the common missions and tasks.

Table 4.6: Team identity in achieving the common missions and tasks.

Characteristics	Frequency	Percent
1. The team takes ownership of the problem and accepts joint responsibility for its achievement	17	56.7
2. The team recognizes that its members have individual and team goals and tasks are framed accordingly	8	26.66
3. The focus of the team is on the tasks that individual members need to solve	5	16.7
4. Team members take limited interest in issues that lie Outside their own immediate area of responsibility	-	
5. Team members concern themselves only with their own responsibilities	-	
Total	30	100

Source: computed from own survey data, 2018

How a team behaves and what it achieves is a result of the collective behavior of its members. As depicted in table 4.6 above, respondents clearly responded on team identity in achieving the common missions and tasks. Majority 17 (56.7%) of respondents responded that the team takes ownership of the problem and accepts joint responsibility for its achievement, 8 (26.66%) of respondents replied that the team recognizes that its members have individual and team goals and tasks are framed accordingly and the remaining 5 (16.7%) of respondents replied that the focus of the team is on the tasks that individual members need to solve. Therefore, from the above figure it's possible to conclude that there is a good condition for achieving the project success in

the study area. The qualitative discussion held with the focus groups also supports the above facts and figures in the study area.

Table 4.7: Due to teamwork how do you see the relationship and accomplishment in Shared Vision in the project?

Characteristics	Frequency	Percent
1. The team has a shared vision and set of objectives, Developed collaboratively and regularly reviewed	18	60
2. The team has developed for itself both a shared Vision and clear objectives	6	20
3. The whole team is working to a set of common objectives	3	10
4. Team members, both individually and collectively, lack a common vision and clear objectives	3	10
Total	30	100

Source: computed from own survey data, 2018

4.7 Due to teamwork how do you see the relationship and accomplishment in Shared Vision in the project

Most people perform better when they have a clearly defined ‘future state’ to work towards a vision of the future as the focus for their efforts. Similarly, a team will perform better if it takes time to develop a shared vision. The vision should motivate and inspire team members, commit them to the task and convince them that it will be achieved more successfully if they work together rather than as individuals. As depicted in table 4.7 above, majority 18 (60%) of respondents replied that the team has a shared vision and set of objectives, developed collaboratively and regularly reviewed, 3 (10%) of respondents replied that The team has developed for itself both a shared Vision and clear objectives and the remaining 3 (10%) of the respondents replied that the whole team is working to a set of common objectives in the project area. Therefore, from the above figure we can conclude that the teams in the study area are more motivated to deliver a vision they themselves have developed because the vision has its roots in their own values, skills and beliefs, rather than coming from outside.

4.8 The relationship between Collaboration and participation of team members and the project success

Table 4.8: The relationship between Collaboration and participation of team members and the project success

Characteristics	Frequency	Percent
1. Familiarity, honesty, mutual trust and full participation harness the collective expertise of the team	20	66.67
2. All members are given opportunities to contribute and Build on suggestions from others	7	23.33
3. Team members prefer to work alone and give more priority to their own concerns than to those of the team	1	3.33
4. Insularity, lack of trust or power struggles reduce Participation and collaboration	2	6.67
Total	30	100

Source: computed from own survey data, 2018

Collaboration works best when team members share values and vision, develop a team spirit, absorb the information they need to perform their task and learn to work well with each other. Trust, honesty, mutual respect and full participation are vital. Team members need to know that when they pass the ball their team mates will not drop it. In effective teams, members do whatever is needed to get the job done. They keep their ultimate goals and objectives in mind. If they fall behind, everyone pitches in to help the group get back on schedule. On less effective teams, members work independently and do not concern themselves with tasks outside their area. As depicted in table 4.9 above, majorities 20 (66.67%) of respondents replied that Familiarity, honesty, mutual trust and full participation harness the collective expertise of the team, 7 (23.33%) of respondents replied that All members are given opportunities to contribute and build on suggestions from others, 1 (3.33%) of respondents replied that team members prefer to work alone and give more priority to their own concerns than to those of the team and the remaining 2 (6.67%) of respondents of respondents replied that Insularity, lack of trust or power struggles reduce participation and collaboration in the project work. Thus, greater trust and familiarity between team members allowed more forceful group behavior, more willingness to question

in the search for better solutions and, ultimately, better outcomes. Team members are most open to information from those they feel are their equals. Ultimately, the above situation positively promoted the project success in the study area.

4.9 The extent to which the various factors were applied in the team

The researcher also sought to know the extent to which various factors were applied in the team. Findings revealed that setting of objectives together, established team values and ownership of the project were the most prevalent factors applied in the team with standard deviations of 1.1 each. In addition to that, open and honest communication, established team ground rules and preparation of plans, roles and responsibilities together formed part of the prevalent factors with standard deviations of 1.0, 1.0 and 1.0 respectively. On the other hand however, individual satisfaction was a less prevalent factor in the team with a standard deviation of 0.8. This implies that many of the team members undertaking in the water aid projects embrace the idea of setting objectives together, establishing team values and ownership of the project.

Table 4.9: The extent to which the various factors were applied in the team

Characteristics	Mean	Standard deviation
Setting of objectives together	3.3	1.1
Preparing plans, roles and responsibilities together	3.3	1.0
Open and honest communication	3.4	1.0
Established team values	3.3	1.1
Established team ground rules	3.4	1.0
Individual satisfaction	3.4	0.8
Team spirit	3.6	0.9
Ownership of project	3.7	1.1
Personal Initiative	3.7	0.9

Source: computed from own survey data, 2018

4.10 The extent to which various targets were met

With regard to the extent to which various targets were met, it is worth noting that completion within expected time was goal which to a very large extent was met with a standard deviation of 1.3 whereas work’s quality to specification a large extent met with a

standard deviation of 1.2. In addition, cost within budget, minimum change of scope and satisfaction of stakeholder were also achieved though to moderate extent with 1.1 standard deviations each. This shows that among various targets set at the beginning of the project, it is easier to achieve completion of the project within expected time than to meet cost within budget.

Table 4.10: The extent to which various targets were met

Characteristics	Mean	Standard deviation
Cost within budget	3.2	1.1
Works quality to specification	3.5	1.2
Completion within expected time	3.1	1.3
Minimum change of scope	3.0	1.1
Satisfaction of stakeholder	3.9	1.1

Source: computed from own survey data, 2018

4.11 Challenges in building effective team work in the project work

According to Gaurav Lohiya (2008) pointed out that the key challenges to team building are: tight project schedule, budget constraints, different outlook or attitudes of the team members towards the project goals, improper communication, lack of leadership and the power war among the team members. Every project management plan covers the aspects of time, cost and quality but the human resources are almost always untouched in these plans/reports. It is important to measure the team's as well individual team member's efficiency and motivation levels periodically during the entire life cycle of the project so that effective team building measures can be adopted to improve performance if the results show a lowered efficiency and motivation levels. The qualitative data gathered through focus group discussion and interview confirmed that Good communication, High involvement, Conflict resolving capacity, Mutual trust, High team spirit, and High level of commitment, Team self-development, Ability of interface, Need for achievement and Collaborative spirit as the major challenges for building effective teams from people's side in the project work. Moreover, Organizational ability, Direction and leadership, Facilitating group decision-making, Motivation, Conflict resolution, Team unification, Visibility and accessibility and Top management linkage are the major leadership

factors that may increase or decrease the project success. The interview schedule held with the management of the water aid project also pointed out that Collaborative Culture, Common goals and objectives, Risk sharing, Involved management, Long-range strategy, Stimulating work environment, Technical success, Quality results, On time, On budget, Innovation and creativity and Adaptability to change are the major challenges in building team work in the project area.

Table 4.11: The major Challenges in building effective team work in the project work

Characteristics	Frequency	Percent
1. Lack of clear Communication	2	6.67
2. Lack of shared vision	2	6.67
3. Problems of Collaboration and participation	4	13.33
4. Problems in leadership style	2	6.67
5. Stimulating work environment	2	6.67
6. Innovation and creativity	3	10
7. Adaptability to change	1	3.33
8. Mix of the above	14	46.67
Total	30	100

Source: computed from own survey data, 2018

As depicted in table 4.11 above majority of respondents 14 (46.67%) of respondents responded that Lack of clear Communication, Lack of shared vision, Problems of Collaboration and participation, Problems in leadership style, Stimulating work environment, Innovation and creativity and Adaptability to change are the major factors that affects team work in building teams in the project area. The result was clearly coincides with the qualitative data.

From the study, various skills and traits exhibited by team leaders are behind the success of every project undertaken. According to Smith and Wilkins, (1996), team leaders should possess all the necessary skills of a project manager, namely leading, planning, organizing and coordinating skills and perform to the greatest extent of their capability. They should have a clear understanding of the Client's brief and be mindful to the business and cultural aspects of the company (Deakin, 1999). As construction projects require design inputs from the

contractor, its team leader should be able to first develop Client's requirements by clearly formulating the intentions of the Client (Leung, 1999).

The study indicated that, the teams are normally constituted of building consultants whose training is varied, from pure science for engineers to pure art for architects. This allows a wide variation in natural traits hence a well mixed team. Team work is one of the most important aspects in any organization or company. This is because in a team, many skills are exhibited by various team members and at the same time, members complement each other where one member does not know, the other member does. At the end of it all, high quality work is produced from combined efforts. As the saying goes, two hands are better than one. The study also shows that most team workers undertaking construction projects are innovative to a very large extent respect and trust each other.

There is nothing as devastating as living or working with someone you do not trust. If anything good is to come out, then two or more people working together should cultivate trust and respect towards each other. It is also of significant importance that people involved in any task open their minds to new horizons of ideas through innovation. This will enhance increase in knowledge not just for that particular task but also to be applied in future projects.

Building a team work in water aid project is an expensive affair and hence the stakeholders are normally people of means, above average in education and highly exposed. This makes it mandatory for the professionals to continuously inform their queries and demands. Not having open lines of communication (protocols), inappropriate communication channels (inefficient and/or ineffective), and unexpected communication breakdown are factors, that have lead to surge in the formation of water aid project networks (Weatherley, 2006).

Industrial institution and professional bodies have come up with standard forms for agreements which cover requirement for programming, procedures for controlling variations, and works quality control and dispute resolutions. This has made it easy for teams to prepare customized programs and procedures. The greatest challenge that can hinder success in any project done by a team is conflict among members. It is therefore crucial that the team leaders come up with strategies to control the differences among

various team members and to resolve conflicts whenever they occur. This will ensure that there is harmony among the team members which will in turn result in effective team working hence quality output.

It is of significant importance that in a team working together towards a goal, there should be open and honest communication. This will ensure that when one member gets to know something, he/she will share with the rest of the members which in turn prevents the issue of some members feeling like they know better than others. It will also provide room for members to correct each other where one thinks they know when they really don't. In addition, any company or organization dealing with production of certain goods or offering services should set objectives to guide the workers on what is expected at the end of the task. It is important that the team members stick to the defined objectives while in the project. This will increase chances of success as opposed to moving away from the set objectives.

Water aid project professional, in a team, are each distinctly unique as none one of them can perform the duties of the other. This forces all members to appreciate their differences and hence the need to work together. Often when people from different professions work together on a team they tend to look or approach an issue from different points of views (Weatherley, 2006). Similarly, since each member's involvement is unavoidable with responsibility clearly obvious, personal initiative and ownership of the project is manifested. Teamwork in water aid project has been widely researched by a number of researchers (Baiden, 2006), and the findings have clearly illustrated that best project performance is achieved when the whole project team is fully integrated and aligned with project objectives. In a study by Granath and Hinnerson (2002) it was noted that although there is an agreement on the values and objectives of a project, there is a risk that these will change due to the project processes of today.

With the improved governance in the country, requiring performance contracting of Government personnel and increased competition in the property market, clients have demanded strict control of cost and delivery time. Properties are often sold off plan and therefore any increase in cost is totally discouraged by the investors. Sometimes this may encourage lowering of specification to make bigger margin. But with the responsibility fall under the professional consultant this is normal checked and avoided.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Summary of findings

The purpose of this study was to assess the effectiveness of team work in project management of professional firms in the water aid project in the project area, to determine the extent to which teamwork management of professional firms has been employed in the water aid project; to evaluate the relationship between teamwork management in the water aid project and successful completion of projects in the study area and to establish the challenges facing the teamwork management in the project. The proposed research population was all professionals in the water aid project of the study area.

Findings on the extent to which various skills and traits were exhibited by team leaders showed that to a great extent, the team leaders were resilient, with a standard deviation of 1.1. In addition, the team leaders applied their technical knowledge, looked to it that the team members were motivated and at the same time, the team leaders were dynamic to a great extent with a standard deviation of 1.0. While they practiced all the above skills, they did not undermine negotiation which they applied to a great extent too. Regarding the extent to which various behavior were exhibited by team members, majority of the team members upheld discipline and reliability with a standard deviation of 1.2.

The findings also revealed that, effective teamwork is determined by good team leadership, project atmosphere, project members and project management strategies. Regarding the relationship between team effectiveness and project performance, the study reveals that a change in one unit of team effective results to change in project performance by 0.56 in the same direction with team effectiveness explains 32% of any change in project performance. Finally, the study confirmed that Lack of clear Communication, Lack of shared vision, Problems of Collaboration and participation, Problems in leadership style, Stimulating

work environment, Innovation and creativity and Adaptability to change are the major challenges that affects team work in building teams in the project area.

5.2. Conclusion

The success of any activity done as a group relies on the leaders of the group. A slight mistake by the leader affects the entire team. It is therefore of significant importance that the team leaders be wise and have the necessary skills that it takes to make the work end successfully. It is also of significant noting that people involved in any task should open their minds to new horizons of ideas through innovation. This enhances increase in knowledge not just for that particular task but also to be applied in future projects. The greatest challenge that can hinder success in any project done by a team is conflict among members. It is therefore crucial that the team leaders come up with strategies to control the differences among various team members and to resolve conflicts whenever they occur. They will ensure that there is harmony among the team members which will in turn result in effective team working for quality output.

It is of significant importance that in a team working together towards a common goal, there should be open and honest communication. This will ensure that when one member gets to know something, he/she will share with the rest of the members which in turn prevents the issue of some members feeling like they know better than others. It will also provide room for members to correct each other where one thinks they know when they really don't. This will increase chances of success as opposed to moving away from the set objectives. Whenever one decides to embark on a task say academic, business or even building, he/she must be well set and should have extra finance because of emerging extra spending as the project progresses. It is also crucial that the stakeholders ensure that the specified work quality is achieved with minimal or no diversions from the set quality target.

5.3. Recommendations

In the attempt to establish the effectiveness of team work in project management in the water aid project of the study area, the researcher recommends that;

- ✚ Though teamwork management is employed to a great extent among the water action aid project professionals in the study area, team management courses should be incorporated in the training of professional to enhance their skills to higher levels.
- ✚ Professionals should work in teams as opposed to functional structure as there is positive relationship between team effectiveness and project performance.
- ✚ To capture challenges experienced in projects, the Government should come up with laws requiring maintenance of records by professional bodies, of events in the water aid project. This would facilitate, among others, continuous improvement of team management in the water aid project.

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APPENDEX

ADDIS ABABA UNIVERSITY

SCHOOL OF COMMERCE

DEPARTMENT OF PROJECT MANAGEMENT

GRADUTE PROGRAM

Questionnaire

Dear/ Sir/Madam

My name is Tsedeke Hanfore. I am currently doing my MA Degree in Project Management at Addis Ababa University School of Commerce. I have finished my course work and now I am doing my MA Project work entitled: *Assessment of Effectiveness of Team Works in Project Management: The Case of Water Action Aid Project, Addis Ababa, Ethiopia.*

I believe that your work experience will greatly contribute to the success of my project work. So it's with great respect that I ask you to fill this questionnaire. I guarantee that your identity will be kept confidential and the information you provide only be used for academic purposes. I will be happy to share the findings of this research when it's completed.

Thank you in advance for taking your precious time to fill this questionnaire. Please try to answer all the questions openly, as your answers will have an influence on the outcome of the research. Your 30 minutes or less will greatly contribute to the growth and advancement of knowledge in the project stakeholder management.

If you have any questions or comments, please don't hesitate to contact me. You can reach me by;

- ➡ Mobile: +251-910152462
- ➡ Email: tsedekehanfore@gmail.com

With best Regards,

INTRODUCTION

Effectiveness of team work in project management is an important task if there is a commitment to build a winning team both at organizational as well as at the project leadership level. In any development projects, team building needs to be incorporated in the project management plans and addressed at both the organizational and project level. This tool is therefore designed and used to collect data that conveyed the Effectiveness of Team Works in Project Management: The Case of Water Action Aid Project, Addis Ababa, Ethiopia.

Instructions

- Please just tick the bracket provided in front of each options for the question
- Write your opinion on space provided for those questions

SECTION 1: General profile of the respondent

1. Age of respondents:
2. Sex: 1. Male 2. Female
3. Organization:
4. Position:
5. Profession.....
6. Project:
7. Address:
8. Educational status?
 - A. BA/BSc
 - B. MA/MSc
 - C. Others; please specify.....
9. How long have you worked in this organization?
 - A. 0 – 5 years B. 6 – 10 years
 - C. 11 – 15 years D. More than 15 years

SECTION 2: Extent of Effective Team work and Management

1. Team Leadership

To what extent was the following skills and trait exhibited by the team leader?

	1. Least extent	2. Less extent	3. Moderate	4. Great extent	5. Greatest extent
a) Management Skills					
b) Understanding of Client's requirements & culture					
c) Technical Knowledge					
d) Motivation					
e) Dynamism					
f) Resilient					
g) Negotiation					

2. Team Members

To what extent was the following behavior exhibited by the team members

	1. Least extent	2. Less extent	3. Moderate	4. Great extent	5. Greatest extent
a) Creative , imaginative, unorthodox					
b) Extrovert, enthusiastic, communicative					
c) Mature, confident, dynamic, thrives under pressure					
d) Sober, strategic and discerning					
e) Co-operative, mild, perspective and diplomatic					
f) Disciplined, reliable, and efficient					
g) Painstaking, conscientious, anxious					

h) Single minded, self-starting, dedicated					
i) Balance mix of the above					

3. Working Environmental

To what extent was the following exhibited in the water aid project?

	1. Least extent	2. Less extent	3. Moderate	4. Great extent	5. Greatest extent
a) Team leaders confidence of management and method					
b) Satisfaction by team members					
c) Delegation of decision making authority					
d) Innovation					
e) Communication in the team					
f) Respect and mutual trust among team members					

4. Project Strategy

To what extent was the following strategies utilized in the project?

	1. Least extent	2. Less extent	3. Moderate	4. Great extent	5. Greatest extent
a) communication among stakeholders					
b) Conflict resolution procedures					
c) Variation control procedures					
d) Rigid framework of program					
e) Work quality control procedures					
f) Respect and mutual trust among team members					

SECTION3: Effective Teams and Teamwork's

To what extent was the following exhibited in the team?

	1. Least extent	2. Less extent	3. Moderate	4. Great extent	5. Greatest extent
a) Setting of objectives together					
b) Preparing plans, roles and responsibilities together					
c) Open and honest communication					
d) Established team values					
e) Established team ground rules					
f) Individual satisfaction					
g) Team spirit					
h) Ownership of project					
i) Personal Initiative					

SECTION 4: Project Performance in relation with effective team work

To what extent was the following met?

	1. Least extent	2. Less extent	3. Moderate	4. Great extent	5. Greatest extent
a) Cost within budget					
b) Works quality to specification					
c) Completion within expected time					
d) Minimum change of scope					
e) Satisfaction of stakeholder					

SECTION 5: Interview schedule

1. How do you evaluate the effectiveness of team work in project management for the last consecutive

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2. How do you evaluate the water aid project success in economical, social and environmental dimensions in relation to effective team works and team management?.....

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3. From your past working experience in water aid projects, please specify any other factor(s) that may influence teamwork and provide your opinion below:

4. What do you think are the major challenges facing the teamwork management of employees
in the water aid project of the study area?

