



**ADDIS ABABA UNIVERSITY COLLEGE OF BUSINESS AND ECONOMICS
GRADUATE STUDIES PROGRAM DEPARTMENT OF PROJECT MANAGEMENT**

**FACTORS FOR THE SUCCESS OF WATER PROJECTS FOR ADDIS ABABA
SCHOOLS: THE CASE OF SPLASH INTERNATIONAL ETHIOPIA.**

BY FREHIWOT BELETE

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**FACTORS FOR THE SUCCESS OF WATER SUPPLY PROJECTS FOR
ADDIS ABABA SCHOOLS:**

(THE CASE OF SPLASH INTERNATIONAL ETHIOPIA)

Prepared by Frehiwot Belete

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Declaration

I, Frehiwot Belete hereby declare that this research project work entitled Factors for the Success of Water Supply Projects for Addis Ababa Schools: The Case of Splash International Ethiopia” is my own paper work and that it has not been submitted before anywhere either at Masters level or Undergraduate for any institution. Any information used from other works has been acknowledged.

By: Frehiwot Belete

March, 2021

Statement of Certification

This is to certify that Frehiwot Belete has carried out this research project work on the topic entitled Factors for the success of water supply projects for Addis Ababa Schools: The Case of Splash International Ethiopia under my supervision. This work is original in nature and it is sufficient for submission for the partial fulfillment for the requirements of the award of Masters of Art in Project Management.

Berhanu Denu (PhD)

Signature: _____

Date: _____

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Abstract

School water project has significant positive impact on a child's health, wellbeing and school performance. More than 400,000 children attend government schools in Addis Ababa. Only 31% of primary schools and 29% of secondary school students have access to safe WASH. Improvements in water supply of schools not only ensure attendance of school students and incentivize teachers to foster a collaborative positive learning environment but also ensure gender equality. This study examined the success factors of school water supply project of Splash International Ethiopia. The data was collected through questionnaire and was checked for completeness, consistency then analyzed using SPSS. Descriptive analysis was done to statically describe aggregate and present which success factors contributed the most and which ones are lacking. Statistical tables and graphs were used to describe the findings. A total of 30 respondents from Splash international were included. This study examined six factors that are considered common regardless of the project type and organizational structure after reviewing the works of many authors. Project mission, top management support, project schedule and plan, personnel, Monitoring, Evaluation and Feedback and communication. The result has shown that most of the variables put as success factors were practiced by the organization while the research has investigated the organization monitoring, Evaluation and feedback is less contributing factors which has to be strengthened.

Key words; project, project management, success factors, Splash International

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

WASH is the collective term for Water, Sanitation and Hygiene. Universal, affordable and sustainable access to WASH is a key public health issue within international development and is the focus of the first two targets of Sustainable Development Goal 6 (SDG 6). WASH-in-School is a program which provides safe drinking water, improves sanitation facilities and promotes good health outcomes.

A school water project has significant positive impact on a child's health, wellbeing and school performance. Disease related to inadequate water and hygiene is predominant in developing countries. It is estimated that 88% of diarrheal disease is caused by unsafe water supply, and inadequate sanitation and hygiene (WHO, 2004). Poor environmental conditions in the classroom make both teaching and learning very difficult. Helminthic infections, which affect hundreds of millions of school age boys and girls can impair their physical development and reduce their cognitive development through pain and discomfort, nutrient deficiencies, anemia, and damage to tissues and organs. Long-term exposure to chemical contaminants in water like lead and arsenic may further impair learning ability.

Importance of School WASH

Evidence suggests that WASH in schools has a positive impact on a child's health, wellbeing and school performance.

Disease prevention and health promotion: Increasing access to WASH can contribute significantly to improving health outcomes, and is particularly important to efforts aimed at reducing the burden of disease and malnutrition, as well as relieving pressure on the healthcare system. Disease related to inadequate water, sanitation and hygiene are predominant in developing countries. It is estimated that 88% of diarrheal disease is caused by unsafe water supply, and inadequate sanitation and hygiene (WHO, 2004).

Improved learning ability: Poor environmental conditions in the classroom make both teaching

and learning very difficult. Helminthic infections, which affect hundreds of millions of school age boys and girls can impair their physical development and reduce their cognitive

development through pain and discomfort, nutrient deficiencies, anaemia, and damage to tissues and organs. Long-term exposure to chemical contaminants in water (e.g. lead and arsenic) may further impair learning ability. Rates of school absenteeism increase with the prevalence of diarrheal diseases, malaria and helminthic infections, and because of poor MHM practices. Thus, improvements in WASH ensure attendance of school boys and girls and can incentivize teachers to foster a collaborative and positive learning environment.

An estimated 1.9 billion school days could be gained related to safe water supply and sanitation are achieved and the incidence of diarrheal illness is reduced. WASH in Schools not only promotes hygiene and increases access to quality education but also supports national and local interventions to establish equitable, sustainable access to safe water and basic sanitation services in schools. (UNICEF, 2012)

In 2019, there were more than 26 million student and 68,8887 teachers in Ethiopia. The student and teacher population have increased from year (MOE,2019).Based on national SWASH guideline, the minimum SWASH package is a combination of technical (hardware) and human development (software) components that are necessary to produce a healthy school environment and develop appropriate health and hygiene behaviors. The hardware components include inclusive drinking water, hand washing, latrine, urinals and menstrual hygiene facilities as well as proper waste management in and around the school compound. Water is essential for both drinking and sanitary use in schools. Without adequate and reliable water supply, it is difficult to sustain a healthy and learning environment for boys and girls. Water. The water supply facility should be in the school compound or not more than 100mtsaway from the compound with smooth and clear path. To allow convenient access and use of water, the school should have sufficient and standardized storage and distribution points that is cognizant to age, gender and disability. On average, school boys and girls and staff members require 5 liters of water/day/ person. The quantity of the water required may increase if schools use pour flush latrines. With the exception of weekends, holidays and school breaks, this basic requirement must be met at all times. Schools need to put in place sufficient water-collection points/faucets to allow convenient access to water for drinking. In urban context, the minimum faucet to student ratio should be 1:100 students and the water supply should serve throughout the year and with a maximum down time of 10 days for operation and maintenance. (MOE,2017)

More than 400,000 children attend government schools in Addis Ababa. Only 31% of primary schools and 29% of secondary school students have access to safe WASH (MoE, 2016). The WASH inventory study conducted by AAEB and Splash international in 2016 on 444 governmental schools implied that only 6% of schools had reliable access to water for all working days and only 66% of water taps are functional and 35% of schools have useable toilets.

Rates of school absenteeism increase with the prevalence of diarrheal diseases, helminthic infections and because of poor menstrual hygiene practices. Hence, improvements in water supply of schools not only ensure attendance of school students and incentivize teachers to foster a collaborative positive learning environment but also ensure gender equality.

1.2. Organization background

Splash international is a foreign charity organization operating in Ethiopia since 2013 towards water, sanitation, and hygiene (WASH). Splash is dedicated to bringing water, sanitation, and hygiene (WASH) solutions to children living in urban poverty in Asia and Africa, improving their health and development through sustainable and scalable WASH solutions. It enables children to have access to safe and clean drinking water, access to hand washing stations and toilets and promote WASH at targeted Schools. Splash International implements cost-effective WASH programs in child-serving institutions including schools, orphanages, hospitals, and shelters to reach the highest numbers of vulnerable children over the longest period of time. Currently, Splash is managing more than 1,763 project sites and serving safe drinking water to over 428,849 children every day in eight countries (Ethiopia, China, Cambodia, Bangladesh, India, Nepal, Thailand, and Vietnam) Splash Ethiopia envisions reaching 414,677 children in Addis Ababa. The organization focuses on the most impoverished areas that have the highest concentration of kids. As Addis Ababa is growing city with high populations, water scarcity and poor sanitation are a real threat to the health and livelihood of people living in the city especially to the children that attend government schools.

The main objective of water supply intervention is to make all governmental schools in Addis meets quality standards, including access and functionality of hand washing and drinking water stations.

The Project beneficiaries are all public schools in Addis Ababa: 456 in number. Beneficiaries include school children, teachers, caregivers, support staff, and parents which includes direct beneficiaries of 414,677 (187,192 females and 227,485 males) and indirect beneficiaries of 18,763 (teachers, caregivers, support staff, and parents). The Scale is achievable through the replication of the Splash model by other actors, and sustainability is best ensured through local ownership of appropriate solutions. Splash provides 3 years of support to individual sites. In the year 1 "deployment" an intensive amount of support is provided. Splash support tapers down in years 2 and 3. Splash creates site-level sustainability through clear agreements/MoUs in order to articulate responsibilities of all parties. Splash works through a coalition approach (with relevant public, private, and social actors) to *improve WASH infrastructure* for the long haul.

Since starting the project, Splash has covered 230 schools with an estimated school beneficiary of 250,911 since by the end Q4, 2020. The clean water supply project has the following intervention component;

Water Filtration system: Ultra water filtration system installation for cleaning the water at drinking station. It can generate 80 liter/minute.

Plastic and/or fiberglass station: imported plastic drinking stations installed based on students to tap ratio

Operation and maintenance training: operation and maintenance of the filtration machine and water station training is provided for selected school staffs

The measured outcome of the water supply project is all intervention schools have functional water filtration systems, all intervention schools have microbiologically safe water supply (e.g. post-implementation and routine water quality tests are negative for E. coli). all intervention schools have regular drinking water availability (at least 80% taps connected to filter at site are in use, accessible to children, functional, water flowing)., all intervention schools have regular handwashing water availability (at least 80% of taps are in use, accessible to children, functional, water flowing) and all intervention schools have functional sanitation facilities (at least 80% of toilet stalls and urinal spaces meet sanitation standards).

1.3. Statement of the problem

Traditional project management skills were developed from the requirements of construction and defense industries to plan, control and manage large, complex “tangible” projects. (Morris, 1994) Rockart defined critical success factors as: "The limited number of areas in which if they are satisfactory, will ensure successful competitive performance for the organization. If results in these areas are not adequate, the organization's efforts for the period will be less than desired.

The project objective is to reach to 100% of Addis Ababa governmental schools (more than 480) schools, based on the preliminary discussion with the project manager the project has experienced delayed project period because of shortage of materials and delay of imported plastic water stations, lack of quick response from external project partners and poor commitment of school management team. |As this project is the first urban school water projects with wider scope in Addis Ababa the study is very important on identifying factors which are critical for the project success. As the organization is going to implement the projects for the next three years, the study finding will be used as input. Also, the project aimed to expand to other city schools, the study finding very important to identify and focus on those critical factors. As well the study has critical benefit for other organization having school water supply projects since the context is similar.

Based on the success factors considered general for most projects, the study will assess the below seven critical success factors recommended by many authors regardless of the type of the project and organizational structure.

1. Project mission - refers to a condition where the goals of a project are clear and understood by project team and departments.
2. Top management support- refers to willingness of top management to provide the necessary resources and authority/power for project success.
3. Project schedule and plan- refers to deciding what tasks must be performed, establishing realistic schedules and budgets, timing and sequence of operations to accomplish the goals of the project.
4. Personnel – includes recruitment, selection, and training of the necessary personnel for the project team.

5. Monitoring, Evaluation and Feedback - refers to the project control process by which at each stage of project implementation, key personnel receive feedback on how the project is comparing to the initial projections.
6. Communication -dealing timely and appropriate generation, collection, dissemination, storage, and disposition of project information

1.4. Research Questions

Based on the above explanation, the study intended to answer what critical success factors are influencing for the success of water supply projects of Splash Ethiopia

General Objective of the Study

- The main objective of this study is to examine success factors of school water supply project of Splash Ethiopia.

Specific Objectives of the Study

- To identify the success factors for school water projects in Addis Ababa
- Ranking success factors of school water supply projects in Addis Ababa

1.5. Significance of the study

The study will investigate the success factors affecting school water supply project success. So that the managerial team of Splash International will have a clear understanding of which critical success factors can affect the project that will have significant contribution for the next projects since the organization plan is to cover 100% of the governmental Schools. The study will also benefit other organizations running school water projects. It will also have significant contribution for the government office such as education and health bureau to identify and share determinant success factors.

1.6. The Scope of the study

This study is intended to find out the determinants of critical success factors for Splash Ethiopia water projects. The scope of the study will be focused to assessing the success factors in school water projects of Splash International Ethiopia located in Addis Ababa City Administration. The organization intervention is only limited Addis Ababa schools involving all governmental schools 460 in number. This study examined six factors that are considered common regardless

of the project type and organizational structure after reviewing the works of many authors. Project mission referring to a condition where the goals of a project are clear and understood by project team and departments. Top management support meaning willingness of top management to provide the necessary resources and authority/power for project success. Project schedule and plan including deciding what tasks must be performed, establishing realistic schedules and budgets, timing and sequence of operations to accomplish the goals of the project. Personnel consist of recruitment, selection, and training of the necessary personnel for the project team. Monitoring, Evaluation and Feedback referring to the project control process by which at each stage of project implementation, key personnel receive feedback on how the project is comparing to the initial projections. And communication dealing timely and appropriate generation, collection, dissemination, storage, and disposition of project information. The study populations are limited to the project teams (project managers, coordinators, officers and director of the water supply project team of Splash international Ethiopia.

CHAPTER TWO: LITERATURE REVIEW

2.1. Project

A project can be considered to be any series of activities and tasks that: have a specific objective to be completed within certain specifications, have defined start and end dates, have funding limits, consume human and nonhuman resources (i.e., money, people, equipment) and can be multifunctional (i.e., cut across several functional lines).

Project management is the art of creating the illusion that any outcome is the result of a series of predetermined, deliberate acts. Project management is designed to make better use of existing resources by getting work to flow horizontally as well as vertically within the company. This approach does not really destroy the vertical, bureaucratic flow of work but simply requires that line organizations talk to one another horizontally so work will be accomplished more smoothly throughout the organization (Kerzner, 2013)

Characteristics of project

Projects have a drive: projects have clearly-defined objectives and set out to produce clearly defined outcomes. Their purpose is to solve a “problem”, and this involves analyzing needs beforehand. Suggesting one or more solutions, it aims at lasting social change. Projects are realistic: their aims must be achievable, and this means taking account both of requirements and of the financial and human resources available. Projects are limited in time and space: they have a beginning and an end, and are implemented in a specific place and context. Projects are complex: projects call on various planning and implementation skills, and involve various partners and players. Projects are collective: projects are the product of collective endeavor. They are run by teams, involve various partners and cater for the needs of others. Projects are unique: all projects stem from new ideas. They provide a specific response to a need (problem) in a specific context. They are innovative. Projects are an adventure: every project is different and ground-breaking; they always involve some uncertainty and risk. Projects can be assessed: projects are planned and broken down into measurable aims, which must be open to evaluation. (PMBOK, 2017)

Project management is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements. Project management is accomplished through the appropriate application and integration of the project management processes identified for the project. Project management enables organizations to execute projects effectively and efficiently. The goal of project management is to use the resources available effectively to accomplish a set goal with certain criteria and within a schedule and budget, utilizing the existing resources efficiently (Liu and Horowitz 1989). Project management is “the application of knowledge, skills, tools, and techniques to project activities to meet project requirements”, and it consists of nine knowledge areas: integration management, scope management, time management, cost management, quality management, human resource management, project communications management, project risk management, and project procurement management (PMI,2008). People management drives project success more than technical issues does (Scott-Young & Samson, 2004). Despite this finding, there exists only a small body of research that examines the so-called soft project management, the people side of project management (Kloppenborg & Opfer, 2002). The successful project manager should have the skills and competencies of flexibility and adaptability, preference for significant initiative and leadership, aggressiveness, confidence, persuasiveness, verbal fluency, ambition, activity, forcefulness, effectiveness as a communicator and integrator, broad scope of personal interests, poise, enthusiasm, imagination, spontaneity, able to balance technical solutions with time, cost, and human factors, well organized and disciplined, a generalist rather than a specialist, able and willing to devote most of his or her time.

The main tasks of project management include defining the requirements, establishing the extent of work, allocating the resources required, planning the execution of the work, monitoring the progress, and adjusting deviations from the plan (Munns and Bjeirmi, 1996).If projects managed effectively it helps individuals, groups, and public and private organizations to: Meet business objectives; satisfy stakeholder expectations; be more predictable; increase chances of success, deliver the right products at the right time, resolve problems and issues respond to risks in a timely manner, optimize the use of organizational resources; identify, recover, or terminate failing projects; manage constraints (e.g. scope, quality, schedule, costs, resources); balance the influence of constraints on the project where as poorly managed projects or the absence of project management resulted in missed deadlines, cost overruns, poor quality,

rework, uncontrolled expansion of the project, loss of reputation for the organization, unsatisfied stakeholders, and failure in achieving the objectives for which the project was undertaken. (PMBOK, 2017)

2.2. Project Success Factors

Before 20 years project success was defined as the completion of an activity within the constraints of time, cost, and performance. Today, the definition of project success has been modified to;

- Within the allocated time period
- Within the budgeted cost
- At the proper performance or specification level
- With acceptance by the customer/user
- With minimum or mutually agreed upon scope changes
- Without disturbing the main work flow of the organization
- Without changing the corporate culture

Very few projects are completed within the original scope of the project. Scope changes are inevitable and have the potential to destroy not only the morale on a project, but the entire project. Scope changes must be held to a minimum and those that are required must be approved by both the project manager and the customer/user. Project managers must be willing to manage (and make concessions/trade-offs, if necessary) such that the company's main work flow is not altered. The project manager must be willing to manage within the guidelines, policies, procedures, rules, and directives of the parent organization. All corporations have corporate cultures, and even though each project may be inherently different, the project manager should not expect his assigned personnel to deviate from cultural norms. A Project is a success does not mean that the company as a whole is successful in its project management endeavors. Excellence in project management is defined as a continuous stream of successfully defining Project Success (PMBOK, 2017)

Any project can be driven to success through formal authority and strong executive meddling. But in order for a continuous stream of successful projects to occur, there must exist a strong corporate commitment to project management, and this commitment must be visible

Baker, Murphy and Fisher (1983) defined critical success factors as clear goals, goal commitment of project team, on-site project manager, adequate funding to completion, adequate team capacity, accurate initial cost estimates, minimum start up difficulties, planning and control techniques, task-social orientation, and absence of bureaucracy. Whereas, Cleland and King (1983) explained critical success factors as project summary, operational concept, top management support, financial support, logistics requirements, facility support, market intelligence, project schedule, executive development and training, manpower and organization, acquisition, information and communication channels and project view. Also, Walid and Oya (1996) described as factors related to project, the project manager and the team members, the organization, and the external environment.

Successful project implementation can be a difficult, complex task. The project manager is continually bombarded with a wide variety of input and information from project team members, the parent organization, and client. Through focusing attention on roles and critical factors, the project manager will be in a better position to actively monitor and steer his/her future projects toward a successful conclusion (Pinto & Slevin 1988)

Project implementation success has been defined many ways to include a large variety of criteria. However, in its simplest terms, project success can be thought of as incorporating four basic facets. A project is generally considered to be successfully implemented if it comes in on-schedule with planned time, comes in on-budget with respect to monetary measure, achieves basically all the goals originally set for it that is effectiveness, is accepted and used by the clients for whom the project is intended in client satisfaction.

Effective project management helps individuals, groups, and public and private organizations to (PMBOK, 2017)

- Meet business objectives;
- Satisfy stakeholder expectations;
- Be more predictable;
- Increase chances of success;
- Deliver the right products at the right time;
- Resolve problems and issues;
- Respond to risks in a timely manner;

- Optimize the use of organizational resources;
- Identify, recover, or terminate failing projects;
- Manage constraints (e.g., scope, quality, schedule, costs, resources);
- Balance the influence of constraints on the project (e.g., increased scope may increase cost or schedule); and
- Manage change in a better manner.
- Poorly managed projects or the absence of project management may result in:
 - Missed deadlines,
 - Cost overruns,
 - Poor quality,
 - Rework,
 - Uncontrolled expansion of the project,
 - Loss of reputation for the organization,
 - Unsatisfied stakeholders, and
 - Failure in achieving the objectives for which the project was undertaken.
- Projects are a key way to create value and benefits in organizations. In today's business environment, organizational leaders need to be able to manage with tighter budgets, shorter timelines, scarcity of resources, and rapidly changing technology.

The business environment is dynamic with an accelerating rate of change. To remain competitive in the world economy, companies are embracing project management to consistently deliver business value.

2.4. Project Success Measures

One of the most common challenges in project management is determining whether or not a project is successful. Traditionally, the project management metrics of time, cost, scope, and quality have been the most important factors in defining the success of a project. More recently, practitioners and scholars have determined that project success should also be measured with consideration toward achievement of the project objectives.

Success factor 1. Project goal/mission

A focus on the Project mission has great importance throughout the implementation of the project. The purpose/goals for the project need to be made apparent not only to a few select members of the project team, but to all project team members. An effective management strategy is very crucial in terms of to continually emphasize the purpose of the project to all team members, keeping the goals in focus throughout the life of the project (Pinto & Slevin, 1988)

Success factor 2. Top management Support

Willingness of top management to provide the necessary resources and power for project success is vital. Various competencies of the project team leader (technical, administrative, and interpersonal) are most crucial for project success. Management's support of the project may involve aspects such as allocation of sufficient resources (financial, manpower, time, etc.) as well as the project manager's confidence in their support in the event of crises. While the project team leader will assume various roles throughout the project development (motivator and visionary), project team leadership can make its presence felt most during the project's Execution. (Pinto & Slevin, 1988). The project manager is the glue holding the project together, the mover and shaker spurring it on. This role can be supplemented by his/her role as a motivator of the team in order to ensure project success. Motivation is one of the important tasks in leadership and a significant factor contributing to the success of projects. (Maritta, 2013).

The competencies of a project manager are measured by the ability to delegate authority, to negotiate, to coordinate, to make decisions and to understand their role and responsibilities. The competencies of project team members are measured by technical background, communication skills, troubleshooting, commitment, problem-solving and teamwork. (Rusare ,2015)

Success factor 3. Project Schedule and plan

Project Schedule/Plan refers to the degree to which time schedules, milestones, manpower, and equipment requirements are specified Further, the schedule should include a satisfactory measurement system as a way of judging actual performance against budget and time allowance. As the strategic plan for the project is implemented, it is essential that the

effective project manager put together a schedule and set of plans for the project and use it on a regular basis. The schedule represents a highly important and necessary element to successful project execution. During the actual work of the project, the schedule often functions as the sole feedback mechanism to many project members in assessing how the project is proceeding as a result, proper attention to schedules represents an important consideration for both project leaders and team members, not only in terms of actual time frame to completion, but also a periodic checklist for feedback on project performance. Project success often includes completing the project on time. The importance of ensuring work proceeds efficiently within individual tasks, along with the interfacing of related tasks, is a key message in project time management. The ultimate measure being project success, based on effective control of time management processes, tools and practices. The development and management of realistic project schedule and project plan is a primary responsibility of the project manager to complete the project on time. (Pinto & Slevin,1988, (PMBOK,2004)).

Success factor 4. Personnel

An important, but often overlooked, aspect of project implementation is the nature of the personnel involved. In many situations, personnel for the project team are chosen with less-than-full regard for the skills necessary to actively contribute to implementation success. Some current writers on implementations are including the personnel variable in the equation for project team performance and project success. (Pinto and Slevin,1987). A Personnel as a factor of project success is concerned with developing a project team with the requisite skills to perform their function. Further, it is important to determine whether project management has built sufficient commitment toward project success on the part of team members.

Success factor 5. Monitoring, Evaluation and Feedback

Refers to the project control process by which at each stage of project implementation, key personnel receive feedback on how the project is comparing to the initial projections. Continual and consistent practicing of M&E has the tendency to ensure that projects are completed within project success criteria. It is therefore, not surprising that project scope management recorded a strong significant relationship with M&E since scope management deals directly with the baseline practices, midterm and end reviews of M&E practice. M&E has been found to be a major management function for ensuring that the objectives set for projects are successfully

achieved and that projects meet stakeholder expectations. Projects that have not been properly monitored and evaluated end up not being successfully completed.

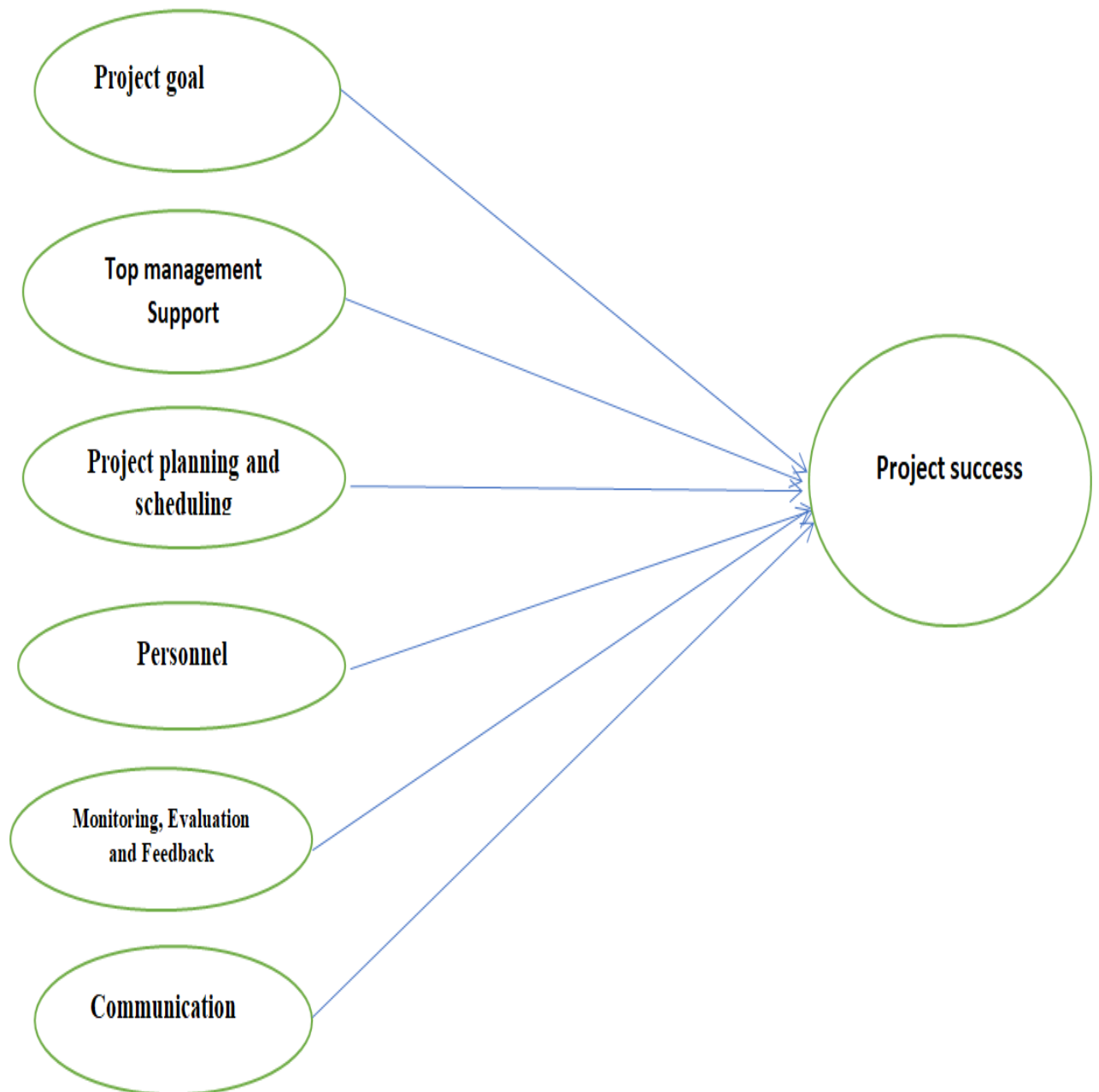
Monitoring provides information by which management can identify and solve implementation problems, and assess progress. The Logical Framework, the implementation schedule, activity schedules, and project budget provide the basis for this monitoring. Evaluation provides an assessment, systematic and objective as possible of an ongoing or completed project, program or policy, its design, implementation and Results. The aim is to determine the relevance and fulfilment of objectives, developmental efficiency, effectiveness, impact and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision-making process of both recipients and donors. Monitoring and feedback refer to the project control processes by which at each stage of the project implementation, key personnel receive feedback on how the project is comparing to initial projections. Making allowances for adequate monitoring and feedback mechanisms gives the project manager the ability to anticipate problems, to oversee corrective measures, and to ensure that no deficiencies are overlooked. (Pinto and Slevin, 1987). Monitoring and controlling includes controlling changes and recommending preventive action in anticipation of possible problems, monitoring the ongoing project activities against the project management plan and the project performance baseline, and influencing the factors that could circumvent integrated change control so only approved changes are implemented. (PMI, 2013). There is significant and positive relationship between M&E plan and project success (Enshassi 1996). Monitoring and evaluations are interactive and mutually supportive processes. Monitoring and evaluation of development activities therefore provides better means for learning from past experience, improving service delivery, planning and allocating resources, and demonstrating results as part of accountability (Cao & Fredric 2010)

Success factor 6. Communication

Effective project communications ensure that the right information reaches the right person at the right time and in a cost-effective manner. Communication is the key to keeping team members, managers, and stakeholders informed and on track to pursue the project objectives, as well as to identifying issues, risks, misunderstandings, and all other challenges to project completion. As reported by (PMI 2013) Pulse of the Profession TM, the most crucial success

factor in project management is effective communications to all stakeholders. Open and clear communications are required among planners, implementers, and all levels of the organization for project success. It includes having a communication plan, information distribution path, progress reporting, and information sharing system for management and customers (Kwak and Ibbs, 2002). The existence of integrated communication plan made the organization to work more professionally and helps staff to know the tasks and responsibilities clearly. Some organizations assign a certain person, such as a communication process specialist or manager to build the communication plan (Salminen, 2005). The study on factors that contribute to the success of a project, the author lists 'effective communication' among the top most important factors, next to 'top management support', 'clarity of purpose and goals' and 'stakeholders' involvement' (Ofori, 2013). Effective communication techniques and appropriate leadership styles are emphasized as the success factors for building and managing high performance global virtual teams (Nguyen, 2013)

Fig. 1 Conceptual Frame work



(Source: Chow and Cao, 2008) with little modification

Project mission project mission refers to a condition where the goals of a project are clear and understood by project team and departments.

Top management Support- It refers to willingness of top management to provide the necessary resources and authority/power for project success.

Project schedule and plan It refers to deciding what tasks must be performed, establishing realistic schedules and budgets, timing and sequence of operations to accomplish the goals of the project

Personnel- Recruitment, selection, and training of the necessary personnel for the project team.

Monitoring, Evaluation and Feedback- It refers to the project control process by which at each stage of project implementation, key personnel receive feedback on how the project is comparing to the initial projections.

Communication- refers timely and appropriate generation, collection, dissemination, storage, and disposition of project information

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

This chapter provides the framework of the research methodology that the study will use. It briefly describes the design and approach, source for data collection and analysis and ethical consideration. The target population includes project teams of School water supply projects at Splash international which the project scope is to cover all Addis Ababa government school in all sub cities of Addis Ababa City Administration. The project tea includes project officers, coordinators and manager.

3.1. Study design

Research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. It is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data. (Claire Selltiz 1962). The research needs to assess success factors of school water projects of Splash International Ethiopia. Descriptive research method was found appropriate for this study. Descriptive research attempts to describe systematically a situation, problem, Phenomenon, service or program, or provides information about say, living condition of a community or describes attitudes towards an issue and primarily concerned with finding out “what is” question.

3.2. Study Type

This study is quantitative study. Quantitative methods are characterized by measurable data which can be expressed in numbers or other quantities. This gives a basis for the presentation of frequencies, distributions and correlations (Limb & Dwyer, 2001).

3.3. Target Population and Sample population

The population and sample are the same because this is a census study. Project director project managers, Project coordinators and project officers were included. A census study is collected from all population. The project is implemented in only in Addis Ababa schools.

All the project team the project managers, coordinators, officers and other project personnel who actively participated throughout the project implementation are the actual population of the study

3.4. Data types and sources

This research will involve both sources of data; primary and secondary.

The primary data: - Structured interview will be done with all project manager, coordinators and officers.

Secondary Information: - information will be used from company profile, periodic reports and project reports

3.5. Data collection method

A structured questionnaire was developed to obtain firsthand information through census to gather responses from the targeted population. Thus, five points Likert rating scale ranging from strongly disagree (1) to strongly agree (5) will be used in the study.

3.6. Questioner design

The questioner was divided in to two section namely: the demographic section and success factors. The demographic section was included in order to assess whether the data collected wasn't influenced by the differences in age, year of experience in the organization, the position and role of respondents. Close ended questions were preferred in order to reduce bias and facilitated coding of questionnaire. There was no open-ended question used in the study

3.7. Data analysis

The data gathered from the census survey was be checked for completeness, consistency and analyzed using SPSS. Descriptive analysis was done to statically describe aggregate and present which success factors contributed the most and which ones are lacking. Statistical tables and graphs were also used to describe the findings.

3.8. Ethical consideration

For the confidentiality of the data to be given by respondents, there will no need to write their name and assured the anonymity and confidentiality of their response. The purpose of the study will be disclosed in the introductory part of the questionnaire. Furthermore, the researcher will avoid misleading or deceptive statements in the questionnaire. As well all

personnel that will be involved contributed in any way to this study will be properly acknowledged and appreciated.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS OF FINDINGS

4.1. Introduction

Chapter three outlined the methodology for this research. This chapter discusses in detail the finding of this study. The objective of this chapter is to provide the finding and results from the questionnaire by analyzing and interpreting the collected data to find out which success factors contribute the most for Splash International water projects. The various section of the questionnaire are analyzed detail and accompanied by numerical presentation. The researcher distributed 32 questionnaires and 30 of the staff responded and there was no incomplete reply.

4.2 Profile of respondents

Table 1 respondent's profile

Age of respondents	Sex		Total
	Female	Male	
15-30	4	4	8
31-40	4	11	15
41-50	1	5	6
>50	0	1	1

As shown in the table 1 most of the respondents are between the age of 30 to 40 followed by 15-30 and 41-50 and majority 21(70%) of the respondents are male and 9(30%) were female.

4.2.1 Educational level of respondents

Table 2 educational status of respondents

Educational level	Frequency	Percent
Diploma or less	2	7
BA/BSc	7	23
MA/MSc	21	70

As showed in table 2 the educational background of the respondents 70 % of the respondents have studied MA/MSc while 23 % have first degree as well 7% of them were having educational status of diploma and less

4.2.2 Occupational level of respondents

Table 3 Respondents work experience with the project

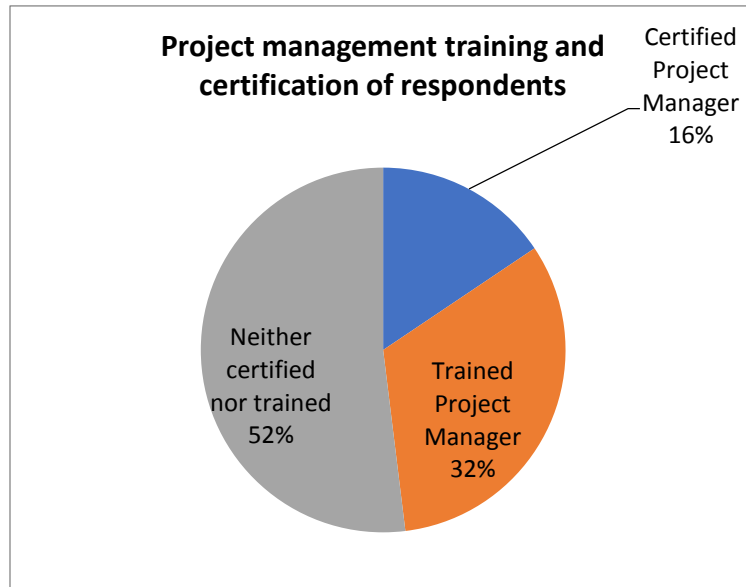
Splash Work Exp.	Resp. level of occupation				Total
	Project officer	Project coordinator	Project manager	Project Director	
Less than 3 year	13	3	2	1	19
3-5 years	4	0	1	0	5
5 years and above	5	0	1	0	6
Total	22	3	4	1	30

Of the thirty respondent's majority 22 (74%) were project officer followed by project manager 4 (14%), project coordinator 3(10%) and project director (2%). As shown on the table 3 below the majority 63.3% joined the organization with in less than 3 years which indicates that the project started actively recruiting with the past three years.

4.2.3 Training and certification of project management

The respondents were asked about the training and certification on project management

Fig.2. Project management training of respondents

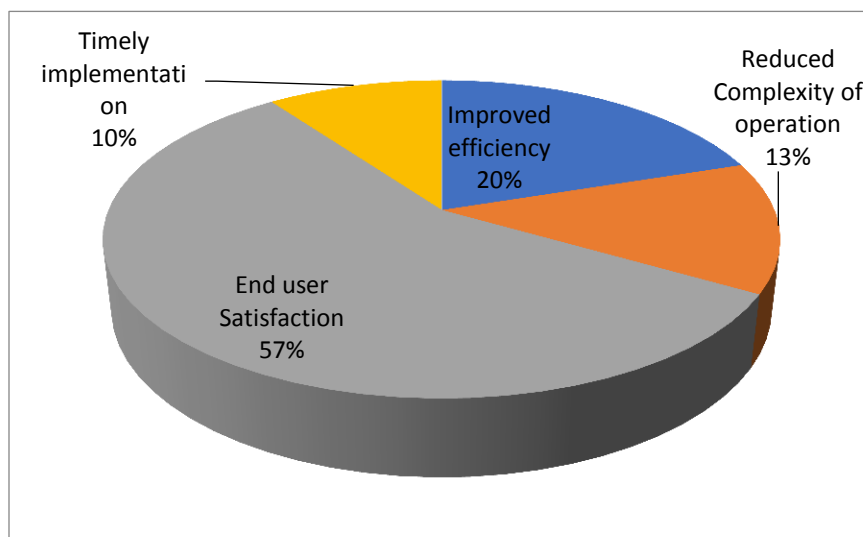


As shown on fig 1 Of the thirty respondents half of them were neither trained nor certified for project management while 32% have got training and 16% were trained certified of project management

4.2.4 Splash water project success factor

The question regarding defining the project success factor was asked with list of choices.

Fig.3 Water project success factor



As shown on the pie chart above more than half of the respondents (57%) responded that the end user satisfaction is the top followed by improved efficiency (20%) reduced complexity (10%) of the project and timely implementation (10%)

4.3 Success factors and their interpretation

In this section, the perception of respondents on each success factors were described in view of project goal, top management support, planning and scheduling, resource, technical competency, Monitoring evaluation and feedback and communication variable.

As adopted from Watiki. C (2014), factors with a mean between 0.5 and 1.5 will not be considered as influencing/contributing factors, and those factors with a mean greater than 1.5 but less than 2.5 were considered as less influencing factors. Factors with a mean greater than 2.5 but less than 3.5 were considered neutral, factors with a mean greater than 3.5 but less than 4.5 were considered as high influencing factors, and factors with a mean value greater than 4.5 would be termed as extremely influencing factors for project success as the questionnaire is presented on a five-level Likert scale.

4.3.1 Project goal

Different authors have discussed the importance of clearly defining goals at the outset of the project. Project Mission has been found to refer to the condition where the goals of the project are clear and understood, not only by the project team involved, but by the other departments in the organization. Underlying themes of responses classified into this factor include statements concerning clarification of goals as well as belief in the likelihood of project success (Morris,2011)

The respondents were asked about their perception on the project goal with four variables. These variables indicate the project goal clarity in starting its mission, if it is not in conflict with subsidiary objectives whether it is measurable, attainable and realistic also if it aligns with the overall organizational mission.

Descriptive statistic of project goal

Table 4 project goal and objective

Variable	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	F	%	F	%	F	%	F	%	F	%
Stakeholders Specify & define Goal	0	0	0	0	4	13	14	47	12	40
Objectives specify need to be achieved	0	0	0	0	2	0.1	15	50	13	43
Objective measured & can be checked	1	3	0	0	9	30	10	33	10	33
Goals achieved with the available resource	3	10	2	7	13	40	8	27	4	13

According to the above table, commutatively 87% respondents replied agree and strongly agree that stakeholders specify and define the project goal as well for the item objectives specify need and can be achieved 93 % responded agree (50%) and strongly agree (43%). For the objective measured and checked for being met 66% are strongly agree and agree with equal proportion of 33% each as well 30% replied neutral and only 3% responded strongly disagree.

For the item the project goals achieved with the available resource 40 % stayed neutral,10% strongly disagree,7% disagree and the sum of strongly agree and agree was 40%.

Table5. Mean of project goal

	Mean	Std. Deviation
Stakeholder Specify & define Goal	5.23	5.289
Objectives specify need to be achieved	4.3667	.61495
The Objective measured. & checked for being met	3.9667	.88992
Goals achieved with the available resource	3.2667	1.11211
Grand mean	4.2083	1.97660

As presented in the table the mean scores of the respondents for most of the questions under project goal ranges from 3.26 to 5.23 from which most of the mean scores are more than 3.96 in a reasonable context showing agreement by more participants the mean score 3.26 showing that disagreement of respondents about the project goal if it can be realistically achieved with the resource available. The general result of grand mean for variable under project goal is 4,21 shows the project under the study has clearly defined mission.

4.3.2 Top management

The degree of management support for a project will lead to significant variations in the clients' degree of ultimate acceptance or resistance to that project or product. Top Management Support refers to both the nature and amount of support the project manager can expect from management both for himself as leader and for the project. Manley,1973)

Top management support was taken as one of the critical success factors. The respondents were asked about their perception about top management support with four variables indicating top management commitment and encouragement.

Descriptive statistics

Table 6 frequency and percentage responses on top management support

Variable	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	F	%	F	%	F	%	F	%	F	%
Top management engages in school site Selection	0	0	1	3.33	6	20	15	50	8	26.7
Top management actively engages in recruiting project team members	0	0	1	3.33	3	10	14	47	12	40
Top management is concerned with the operational performance	0	0	0	0	5	17	13	43	12	40
Top Management prioritize project execution	0	0	1	3.33	4	13	13	43	12	40

The table showed that in sum more than 75% of respondents agreed and strongly agreed that the top management engages in project (school) site selection Also 47% and 40% of the respondent

agreed and strongly agreed that the top management actively engages in recruiting project team members where 10% were neutral. On the item regarding concern for operational performance 40%,43% and 13% Strongly agree, agree and neutral whereas 40%,43%13% and 3% responded strongly agree, agree, neutral and disagree on the top management prioritization of project execution.

Table 7 Mean of top management support

Variable	Mean	Std. Deviation
Top management engages in school site Selection	4	.78784
Top management. actively engages in recruiting project team members	4.23	.77385
Top management is concerned with the operational performance	4.23	.72793
Top Management prioritize project execution	4.2	.80516
Grand	4.165	.77370

As presented on the table the mean scores of the respondents for most items under the top management support ranges from 4 to 4.23. This explains that top management support is high influencing factor the project success.

4.3.3 Project planning and scheduling

Project Schedule/Plans refers to the degree to which time schedules, milestones, manpower, and equipment requirements are specified. Further, the schedule should include a satisfactory measurement system as a way of judging actual performance against budget and time allowances. (Nutt,1983)

Descriptive statistics

The respondents were asked about the project plan schedule with eight variables. These variables inquire clear cost and budget figure on the plan, if there is a contingency plan, if the plan includes frequency of communication between stakeholders, if the plan has monitoring and evaluation strategy, if the project has a realistic time schedule, specific manpower requirement and cascade of tasks based on their priority also a clear allocation of resources.

Table 8 Frequency of project planning and scheduling

Variable	Strongly Disagree		Disagree		Neutral		Agree		Strongly agree	
	F	%	F	%	F	%	F	%	F	%
The project plan consists of clear budget and cost figures	0	0	3	10	6	20	11	36.7	10	33.3
The Project has Back up for things that can go wrong	0	0	5	16.67	5	50	8	26.7	2	6.67
The project plan included methods and frequency of communication among stakeholders and other personnel	1	3.33	3	10	2	40	12	40	2	6.67
The project has realistic time schedules and assignments	1	3.33	5	16.67	0	33.3	11	36.7	3	10
The project plan clearly specified man power and other resource requirements	0	0	4	13.33	0	33.3	13	43.3	3	10
The project has a clear work breakdown structure		0	5	16.67	7	23.3	13	43.3	5	16.7
There a cascade of tasks listed based on their priority	1	3.33	3	10	1	36.6	13	43.3	2	6.67
There is a clear allocation of resources along the timeline	1	3.33	6	20	6	20	12	40	4	13.3

As shown on the table above the respondents strongly 33%, agree, 37% agree, 10% disagree and 20% responded neutral for question of the project plan consists of clear budget and cost figure. Half of the respondents responded neutral for the project has back up for things that can go wrong, 27% agreed, 17% disagreed and only 7% strongly agreed. Concerning the project plan included methods and frequency of communication among stakeholders and other personnel 40% agreed, 7% strongly agreed 10% disagreed, 3% strongly disagrees and 40% replied neutral.

Table 9 Mean of Project planning and scheduling

Variable	Mean	SD
The project plan consists of clear budget and cost figures	3.8710	1.02443
The Project has Back up for things that can go wrong	3.2333	.81720
The plan included methods and frequency of communication among stakeholders and other personnel	3.3667	.88992
The project has realistic time schedules and assignments	3.3333	.99424
The project plan clearly specified man power and other resource requirements	3.5000	.86103
The project has a clear work breakdown structure	3.6000	.96847
There a cascade of tasks listed based on their priority	3.4000	.89443
There is a clear allocation of resources along the timeline	3.4138	1.08619
Grand	3.4067	.93021

The mean score of the respondents for most items under project plan and schedule ranges from 3.23 to 3.87 and grand mean of 3.4 from which 6 of them are less than 3.5 which explains neither agreement nor disagreement on the variables under project planning and scheduling, The mean score under the three variables are more than 3.5 describing respondents agreed the project plan consists of clear budget and cost figures, project plan clearly specified man power and other resource requirements and project has a clear work breakdown structure.

4.3.4. Personnel

Descriptive statistics

An important, but often overlooked, aspect of the implementation process concerns the nature of the personnel involved. In many situations, personnel for the project team are chosen with less-than-full regard for the skills necessary to actively contribute to implementation success. success. people as a situational variable whose knowledge, skills, goals, and personalities must be considered in assessing the environment of the organization. Only after such a diagnosis takes place can the project management team begin to set objectives and design the implementation approach (Hammond,1979). For these personnel as a factor was assessed with seven items

Table 10 project personnel

Variable	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	F	%	F	%	F	%	F	%	F	%
Project team members are highly competent	0	0	0	0	3	10	14	46.67	13	43.33
I accept change	0	0	1	3.33	3	10	15	50	11	36.67
I am highly motivated	3	10	2	6.67	3	10	12	40	10	33.33
I have good relationship with benefit	1	3.33	3	10	7	23	12	40	7	23.33
The required technology is available	0	0	1	3.33	5	17	15	50	9	30
The PM has sufficient experience, technical knowledge and skill	0	0	1	3.33	10	33	9	30	10	33.33
Other project personnel's have enough knowledge to operate with the existing technology	0	0	1	3.33	5	17	19	63.33	5	16.67

The table above clearly explains that 90% of respondents agreed and strongly agreed that the project team members are highly competent, 10% responded neutral and none of them didn't disagree or strongly disagree it. Regarding accepting change 37% strongly agreed, 50% agree, 10% replied neutral and 3% disagreed. 40% and 23% agreed and strongly agreed that they have good relationship with benefit whereas 23%, 10% and 3% responded neutral, disagree and strongly disagree respectively. Regarding the availability of technology half of the respondents agreed and 30% strongly agreed also 17% reacted neutral and only 3% were disagreed. On the item of project management sufficient experience, technical knowledge and skill 33% were neither agreed nor disagreed, 30% agreed, 33% strongly agreed and only 3% disagreed. On the final question about project personnel enough knowledge to operate existing technology 63% agreed, 17% strongly agreed, 17% neither agreed nor disagreed and 3% were disagreed.

Table 11 Mean personnel

Variable	Mean	Std. Deviation
Project team members are highly competent	4.33	0.66
I accept change	4.2	0.76
I am highly motivated	3.8	1.27
I have good relationship with benefit	3.7	1.05
The required technology is available	4.06	0.78
The PM has sufficient experience, technical knowledge and skill	3.93	0.91
Other project personnel's have enough knowledge to operate with the existing technology	3.93	0.69
Grand	4.0033	0.87428571

The mean score variable under personnel ranges from 3.7 to 4.3 with grand mean of 4, this explains respondents agreed project team members are highly competent, they accept change and are motivated, there is require technology, project management has sufficient experience and project personnel have enough knowledge to operate with existing technology.

4.3.5 Monitoring, evaluation and feedback

Monitoring and Feedback refer to the project control processes by which at each stage of the project implementation, key personnel receive feedback on how the project is comparing to initial projections. Making allowances for adequate monitoring and feedback mechanisms gives the project manager the ability to anticipate problems, to oversee corrective measures, and to ensure that no deficiencies are overlooked. It was demonstrated that the evolving nature of implementation and model building paradigms to have reached the state including formal feedback. (Schultz &Slevin,1975)

The respondents were asked about monitoring, evaluation and feedback with six variables. These variables investigate about periodic evaluation and feedback, regular and careful monitoring progress throughout the process, report on project performance, periodic evaluation

to assess project outcome, feedback to improve performance based on monitoring and evaluation reports.

Descriptive statistic

Table 12 Monitoring, evaluation and feedback

Variables	Strongly Disagree		Disagree		Neutral		Agree		Strongly agree	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Periodic Evaluation & Feedback	1	3.33	18	60	0	0.0	11	36.7	0	0
Regular and careful progress Monitoring & review	0	0	15	50	4.0	13.3	9	30	2	6.67
Report on project performance vs objectives	0	0	19	63.3	0	0.0	10	33.3	1	3.33
Periodic review of project report	4	13.3	15	50	1	3.3	8	26.7	2	6.67
Periodic Eval.to assess outcomes	1	3.33	15	50	1	3.3	13	43.3	0	0
Feedback based on M&E	2	6.67	16	53.3	3	10.0	9	30	0	0

As the table above clearly explains 36% of respondents were agreed that there is project periodic evaluation and feedback while 60% disagreed and 3% has strongly disagreed. On regular and careful project progress monitoring and review 50% disagreed, 30% agreed 7%strogly agreed and 13% were neither agreed nor disagreed. On the item of project performance relative to established objectives (e.g., budgets, cost, and quality); 63.3 % agreed, 33.3% agreed and only 3.3 % strongly disagreed. Also, periodic review of reports was assessed that a sum of 63.3% were disagreed and strongly disagreed, 33.3% agreed and 3.3% neither agreed nor disagreed. On the question of the practice of periodic evaluation to assess the project outcomes at each stage; 43.3% agreed, 53.3% disagreed and 3.3 % each strongly disagreed and were neutral. The presence of feedback on how to improve project performance based on monitoring and evaluation reports was assessed that

30% agreed, 53.3% disagreed, 7% strongly disagreed, 3% strongly agreed and nearly half (47%) replied neither agreed nor disagreed.

Table 13 Mean Monitoring, Evaluation and feedback

Variable	Mean	Std. Deviation
There is a Periodic evaluation and feedback	2.7	1.022
Regular and careful progress (time, scope, and cost) monitoring and review Available	2.93	1.04
Report on the project performance relative to established objectives (e.g., budgets, cost, and quality)	2.76	1.04
There is a periodic review of project reports	2.63	1.22
There is a periodic evaluation to assess the project outcomes at each stage	2.86	1.04
Feedback on how to improve project performance based on M and E reports	2.63	0.999
Grand	2.75	1.072

The mean score for the variable ranges from 2.63 to 2.93 with grand mean of 2.75 this indicates that most of the respondents neither agreed nor disagreed on the presence periodic evaluation, monitoring, reporting, periodic report, and feedback on how to improve the project performance based on monitoring and Evaluation reports.

4.3.6 Communication

The need for adequate communication channels is extremely important in creating an atmosphere for successful project implementation. Communication is not only essential within the project team itself, but between the team and the rest of the organization as well as with the client. As the factor Communication has been developed for the model, it refers not only to feedback mechanisms, but the necessity of exchanging information with both clients and the rest of the organization concerning project goals, changes in policies and procedures, status reports (Pinto and Slevin, 1987).

The respondents were asked about communication four variables. These variables inquire about the presence of effective communication between stake holders and team members, the presence of clear and easy channel of communication, the presence of encouraging environment to forward opinions and feedback, presence of various communication channels.

Descriptive Statistic

Table 14 Communication

Variable	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	F	%	F	%	F	%	F	%	F	%
Effective communication b/n stakeholder, team and personnel	1	3.33	23	77	4	13.3	2	6.66	0	0
Clear and easy channel of communication	1	3.33	22	73	0	0	6	20	1	3.33
The environment is encouraging for team advice, opinion and feedback	2	6.67	26	87	0	0	1	3.333	1	3.3
Various communication channel	0	0	17	57	0	0	10	33.33	3	10

The above illustrated table showed that regarding effective communication between stakeholder, team and personnel a sum of 80% have disagree and strongly disagreed, 13.3% responded neutral and 6.6% have agreed. The presence of clear and easy channel of communication was asked and 73% disagreed, 3.3% strongly disagreed, 20% agreed and 3.33% responded strongly agreed. The presence of encouraging environment for team advice, opinion and feedback was asked and 3.3% each agreed and strongly agreed, 87% disagreed and 6.6% strongly disagreed. Lastly, the presence various methods of communication channel were asked 57% disagreed, 33.3% agreed and 10% strongly agreed.

Table 15 The Mean communication

Variable	Mean	Std. Deviation
Effective communication b/n Stakeholders, team,	2.2333	.62606
Clear and easy channel of communication	2.4660	.97320
Encouraging Environment for team members advice, opinions, feedback	2.1000	0.71197
Various communication channels	2.9667	1.15917
Grand	2.4415	.86760

As shown on the above table the mean score ranges from 2.1 to 2.9 with grand mean of 2.44 this implies the respondents disagreed for effective communication between stakeholders' team, the presence of clear and easy channel, the encouraging environment for team members advice, opinion and feedback and the availability of various communication channel.

Table 16 Grand mean of success factors under study

Critical success factors under study	Grand mean
Project goal	4.2083
Top management support	4.165
Project scheduling and planning	3.4067
Personnel	4.0033
Monitoring, evaluation and feed back	2.75
Communication	2.4

Looking at the aggregate mean score, project goal, top management support and personnel have the highest score of 4.2, 4.16 and 4.00 respectively. Monitoring evaluation and feedback as well communication have a low score of 2.75 and 2.4 respectively. Therefore, the organization should improve dimensions that need further focus. which is monitoring, evaluation and feedback and communication variables.

Monitoring, evaluation and feedback includes: periodic evaluation and feedback, regular and careful monitoring progress throughout the process, report on project performance, periodic

evaluation to assess project outcome, feedback to improve performance based on monitoring and evaluation reports.

4.4. Discussion

In this section, the major findings will be summarized and the results of this research will be further elaborated.

By Looking at the demographic profile of the respondents, the project is undertaken by staffs whose educational level is Masters and above. When looking into the project team profile of the respondents, it is found that most of the team members are not certified in project management courses. When having look in to what respondents replied on the questioner's respondents choose Splash success in terms of end user satisfaction than improved efficiency and reduced complexity of the project.

This study was designed and carried out in order to identify the factors for the success of Splash international water projects. According to the study's finding all six dimensions project goal, top management support, project scheduling and planning, personnel, monitoring evaluation and feedback and communication were identified as having influence on the success of the project.

A Personnel is predictor of Project success. For the questions raised in this category, Project team competency, change acceptance and motivation were expected to influence overall success of a project. The findings of this research are consistent with that of (Mladen Radujkovića,2017) who found out that People dimension had a positive effect on the overall project success.

Pinto and Slevin (1989) demonstrated the importance of selecting project managers who possess the necessary technical and administrative skills for successful project completion. Also, Zwikael and Globerson 2006) stated project manager's competence is the most critical when planning and termination. The study has shown that there is a good support from the top management side.

The success of a project was defined as the completion of an activity within budgeted cost, within the allocated time Period (Hawk 2006), the study has revealed that there was the planning and scheduling should be strengthened

CHAPTER FIVE

SUMMARY CONCLUSION AND RECOMMENDATION

This chapter winds up the study undertaken so far by giving insights about summary, conclusions, and recommendations.

5.1. Summary of the Major Findings and conclusion

The primary objective of this study was to assess critical success factors in the implementation of Splash International water projects. The six determinants of success factors were used. These are project goal, top management project planning and scheduling, personnel, Monitoring evaluation and feedback and communication Project. Hence, this study has attempted to identify which factors have the highest influence on the overall success of a project. In addition, this study has also tried to answer the research questions stated on the introduction part.

Census of all project staffs was applied to gather the required data. 33 items were provided in 5-point Likert scale to the respondents. The gathered data was entered and analyzed using SPSS version 20 software.

- The overall goal and objective of the project is clearly specified and recognized by all stakeholder
- The objectives are measurable to check whether they are being met
- The project goal aligns with the overall organizational mission
- Over all from other item in the project goal the respondents have relatively less thrust for the project goal achieved with available resource h the resources available
- Top management supports the project in exhibiting commitment and encouragement
- The top management engages in project (school) site selection and also actively involved in recruiting project team members.
- There is high support from top management side
- The project plan consists of clear budget and cost figures
- The plan includes method and frequency of communication

- There is also clear work breakdown structure however; there is need for planning backup for things that may go wrong.
- The cascade of tasks based on priority and clear allocation of resource along the timeline needs improvement First of all,
- The project team members were highly competent
- The required technology is available are not available
- There is good motivation, relationship and benefit
- The periodic monitoring, evaluation and reporting is not as expected
- There is feedback to improve what is missing as per the reports but not as agreed by majorities
- There is no effective communication between stakeholders and team members and there is lack of clear and easy channel of communication.
- There is also no encouraging environment for team members advice, opinion and feedback

In conclusion as the primary objective of the study was to assess the factors associated with the success of Splash International water projects, from the above findings one can conclude that all the success factor under study has affected the project not only in a positive way but also negatively.

5.2 Recommendation

Based on the above-mentioned results the researcher would like to suggest the following for

- Effective completion of the rest three years project and other similar future projects in Ethiopia.
- The project goal should be developed realistically considering available resources, skilled personnel, technology and budget to sound attainable.
- The required technology should be availed
- The project must have a backup plan for changing gear at times of uncertainties to move forward in achieving its mission.
- The plan should contain methods and frequencies of communication during the lifecycle of the project.

- There has to be effective communication between stakeholders and team members There should be encouraging environment for team members advice and feedback\ time provision of resources with the required quality and quantity.

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Appendix

Questionnaire

Dear sir/Madam,

This research question is designed to obtain information about current school water project critical success factor of Splash international Ethiopia. The data generated from this research will be used to develop a mechanism in improving the success of water supply projects of the organization and other similar projects in the country. As expert working on water project, your view could be used as important input. Filling this tool will take approximately 10 minutes. The answer will be completely confidential and strictly for academic purpose only.

For any clarification, please contact me with the below address and thank you in advance for your cooperation!

Frehiwot Belete

Mobile 0911531347

Email freabx@yahoo.com

Part I: Demographic or Personal Information

Please reply to the following statements by showing your level of agreement /disagreement on each by putting a “√” mark.

Respondent's information

1. Age

- ☐ 15-30
- ☐ 30- 40
- ☐ 40- 50
- ☐ Greater than 50

2. Sex

- ☐ Female
- ☐ Male

3. Educational level
 - ☐ Less than diploma
 - ☐ diploma
 - ☐ graduate
 - ☐ post graduate
 - ☐ other
4. Occupational level
 - ☐ Project officer
 - ☐ Project coordinator
 - ☐ Project manager
 - ☐ Project director
 - ☐ other project personnel _____
5. Which of the following best describes your role in Splash school water Project?
 - ☐ Project Manager
 - ☐ Project team member
 - ☐ Project Team Leader
 - ☐ Other-----
6. Work Experience in Splash International?
 - ☐ Less than 3 year
 - ☐ 3-5 years
 - ☐ 5 years and above
7. Are you a certified or trained Project Manager?
 - ☐ Certified Project Manager
 - ☐ Trained Project Manager
 - ☐ Neither certified nor trained
8. On what key factors do you define Splash water project Success? (Please rank if more than one selected)
 - ☐ Improved efficiency
 - ☐ Reduced Complexity of operation
 - ☐ End user Satisfaction
 - ☐ Low cost of ownership
 - ☐ Timely implementation
 - ☐ Implement within budget

Part II

The below listed of success factors (SFs) are picked from different literatures that could impact on the successful delivery of project. You are expected to indicate your opinion on the degree of relevance /importance of each of the CSFs on the scale 1 up to 5. To what extend do you think the following factors are critical to success of successful Project.

(1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5=Strongly Agree

	Questions	1	2	3	4	5
Project goal	The overall goal of the project is clearly specified and recognized by all stakeholders involved in the project					
	The project objectives clearly specify what needs to be achieved					
	The objectives are measurable to check whether they are being met					
	The goals of the project can be realistically achieved with the resources available					
Top management support	Top management actively engages in the school site selection process					
	Top management actively engages in recruiting project team members					
	Top management is concerned with the operational performance of the water projects					
	Top management tries to take part in prioritizing project execution activities					
Project planning and scheduling	The project plan consists of clear budget and cost figures					
	The project plan has a backup for things that can go wrong ⁴⁶					

	The plan included methods and frequency of communication among stakeholders and other personnel					
	The project has realistic time schedules and assignments					
	The project plan clearly specified man power and other resource requirements					
	The project has a clear work breakdown structure					
	There is a cascade of tasks listed based on their priority					
	There is a clear allocation of resources along the Timeline					
Personnel	Project team members are highly competent					
	I accept change					
	I am highly motivated					
	I have good relationship with benefit					
	The required technology is available					
	The project manager has sufficient experience, technical knowledge and skill					
	The other project personnel's have enough knowledge to operate with the existing technology					
Monitoring, Evaluation and Feedback	There is a Periodic evaluation and feedback					
	There is a regular and careful progress (time, scope, and cost) monitoring and review throughout the project					
	There is a necessary report on the project					

	performance relative to established objectives (e.g., budgets, cost, and quality)					
	There is a periodic review of project reports					
	There is a periodic evaluation to assess the project outcomes at each stage					
	There is a necessary feedback on how to improve project performance based on monitoring and evaluation reports					
Communication	There is effective communication between project stakeholders, team, and personnel					
	There is a clear and easy channel of communication					
	There is an encouraging environment for team members for advice, opinions, feedback					
	There are various communication channels					