DETERMINING THE CRITICAL SUCCESS FACTORS IN CARGO TERMINAL EXPANSION PROJECT-IN CASE OF ETHIOPIAN AIRLINES

BY

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DECLARATION OF CANDIDATE

I, Sefanit Mekonnen hereby declare that this thesis entitled ―Determining the critical success factors in cargo terminal expansion project: in case of Ethiopian Airlines is my own paper work and that it has not been submitted before anywhere either at masters level or undergraduate for any award. Any information used from other works has been acknowledged.

By: Sefanit Mekonnen

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STATEMENT OF CERTIFICATION

This is to certify that Sefanit Mekonnen has carried out this research project work on the topic entitled “Determining the critical success factors in cargo terminal expansion project: in case of Ethiopian Airlines” under my supervision. This work is original in nature and it is sufficient for submission for the partial fulfillment for the award of Degree of Masters of Art in Project Management.

Solomon Markos (PHD)

Signature _____

Date _____

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ABSTRACT

Large construction projects are inherently complex and dynamic. A comprehensive answer on how to manage such projects successfully is difficult to provide. Critical Success Factors pertain to the objectives, principles and efficient performance of the project. To attain goals and what methods are used to achieve them and how efficient its output, these all based on designed critical success factor. This paper expounds on the critical success factors for cargo terminal expansion projects: in case of Ethiopian Airlines. The researcher employed a descriptive design and a quantitative approach to analyze these success factors perceived by a total of 40 respondents from Ethiopian airlines, two contractors and a consultant. The researcher conducted census on a total of 40 respondents who are professionals working on different positions in their respective company to have their different perspectives towards the success factors under study. A survey questionnaire was used to collect data. Data analysis uncovered that which success factors are contributing towards success of the project under study and which are missing. The findings of this study can be used as a guideline to successfully handle similar unique construction projects and in general other construction projects in the country.

Key words*; project, project management, success factors, cargo terminal*

ACCRONOMIES AND ABBREVATIONS

IATA: International Air Transport Authority

ICAO: International Civil Aviation Authority

EEPA: Ethiopian Electric Power Authority

ETH: Ethiopia (IATA three letter country code)

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CHAPTER ONE: INTRODUCTION

1.1Background of the study

Critical Success Factors pertain to the objectives, principles and efficient performance of the project. To attain goals and what methods are used to achieve them and how efficient its output, these all based on designed critical success factor. As it is well known that the construction management or industries having dynamic nature because of it's all over dissemination through technologies and in the developing countries construction industry is one of the largest job creators. Once appropriate critical success factors for projects have decided it's become understandable to implement and to fulfill the requirement of the project. For every single construction project in the time of feasibility analysis it is required to have the prepared success factors.

Project failures worldwide are still significantly high, despite attempts by project management societies to provide project managers with frame works, standards, techniques and methodologies to assist them in their activities (Smith,Bruyns, and Evans ,2011). Marnewick & Labuschagne (2009) suggest that many organizations invest resources in project management, believing that it can be used to all new initiative successfully. However several surveys have shown that many projects still fail to deliver expected results.

Resent research by Brill,Bishop&Walker(2006) has linked more successful projects with matching project managers to project characteristics and project manager competence effect on project performance outcomes(Lindbergh,2009).

1.2 Background of the company

Ethiopian Airlines (IATA/ICAO Code ETH) is the flag carrier of Ethiopia, and one of the largest and most profitable carriers in Africa. It was founded in 1945 and is wholly owned by the Government of Ethiopia.

The airline commands a lion's share of the Pan African network and currently serves 90 international destinations, operating the newest and youngest fleets. Ethiopian Airline's vision is to become the leading aviation group in Africa by the year 2025. The airline has its hub in Bole International Airport, located in Addis Ababa, Ethiopia's capital.

Ethiopian plans to be the most competitive and leading aviation group in Africa by providing safe, market driven and customer focused passenger and Cargo Transport, Aviation Training, Flight Catering, Maintenance Repair and Overhaul (MRO), Ground Services, Domestic and Regional Services by 2025.

Ethiopian Cargo started operation in 1946 to Nairobi. Since the early 1970s, the flourishing agricultural export products of Ethiopia have positively impacted the growth of the cargo services.

Ethiopian Cargo is dedicated in maintaining fast and reliable operation for all outgoing and incoming products. The Cargo service mainly focuses on exports such as fruits, semi-processed (finished) leather, vegetables, flowers, carpets, chilled meat and frozen fish products and coffee. Imports include chemicals, machinery spares, electronics, garments, pharmaceuticals, and vehicles.

By 2025, Ethiopian Cargo plans operating to 37 freighter destinations across five continents using 20 dedicated cargo aircraft.

Ethiopian cargo has the below listed features.

Ramp Handling Service; provide ramp handling services to freighters which fully integrate with Ethiopian physical cargo handling service, giving maximum efficiency between air-side operations and Terminal Operated by Ethiopian Ramp Services Unit.

Warehousing Service (Physical Handling); the terminal provides state-of-the-art facilities for air cargo handling. With all facilities integrated by the highly automated cargo handling systems, offer a complete range of time-efficient Physical Handling services designed to help speed up your business process.

Advanced Automation: highly automated Storage System is one of the most sophisticated devices of cargo handling technologies, enabling us to process cargo with unprecedented speed, transparency, and reliability.

Security; using the automated cargo handling and storage systems inside the Cargo Terminal means that human handling is minimized. The Racking System is fully customs-bonded with both computerized and human security systems providing maximum protection. The Main

Terminal Building has more than 38 close circuit television cameras and security access control system to safeguard the security of stored cargo and the premises.

Document handling; Ethiopian Cargo provides a one-stop-shop service to help speed up the import and export processes. Fully integrated with our warehouse handling and ramp handling services, we offer the following document handling services.

Export; to help speed up the export process offers Checking, accepting, Processing manifests, Load estimates, Load preparation.

Import; Ethiopian cargo provide Airlines, freight forwarders and shippers import documentation services like Arrival notification ,Document release ,Customs clearance by import brokers ,Quarantine process ,Express discharge of special cargo.

Ethiopian Airlines has begun a four-fold expansion of its air cargo terminal in Addis Ababa as Africa's largest carrier improves the freight-handling ability of its hub to support a growing global reach.

The new cargo terminal is being built on 140,000sqm of land adjacent to the existing cargo terminal. With a capacity to handle 1.2 million tons of cargo per annum the cargo terminal will be one of the biggest cargo terminals in the world. The state of the art fully automated cargo terminal is designed to handle perishable and dry cargo. The project includes the construction of office building, apron that can accommodate eight cargo aircraft as big as B747 and parking lot.

The carrier is placing a strong emphasis on building its cargo network, as the second largest strategic business unit. It is handling 200,000 tons of cargo a year and flies to 24 freighter destinations in Africa, the Middle East, Asia and Europe using eight dedicated freighters,

The 106.7million Euro terminal, which will be the size of five football grounds, is designed by German engineer Unitechnik Group. Funding for the scheme was obtained by Ethiopian Airlines from the KfW IPEX-Bank, a specialist financier to the German export industry, and AgenceFrançaise de Développement, which offers soft loans to African development projects.

The new cargo terminal covers:

Apron area: 44,390 square meters

Terminal size: 14,000 square meters

Capacity: 350,000 tons of air cargo per annum

Cold room size: 2,000 square meters, cold room storage: 130 tons of palletized cargo

Office area: 4,500 square meters

Parking area: 19,200 square meters

Apart from the locally-generated perishables, Addis Ababa is also a key transshipment point (the largest in Africa) but its location places the airport in direct competition with the booming Middle East hubs of Dubai in the UAE, Doha in Qatar and the dual Saudi hubs of Jeddah and Riyadh.
The design will include an automated, high-bay racking system with four elevating transfer vehicles to increase the speed of loading and unloading.

Once the new terminal is operational, planning will begin on another phase that will increase capacity to 1.2 million tons a year, far and away the largest cargo terminal in Africa, and one of the biggest in the world (Global Construction Review)

Therefore the purpose of the study is identifying the success factors for the completion of Ethiopian cargo terminal which is considered a main strategic project which paves the way to achieve the company's long term vision. The study will also recommend a conceivable means of resolution for problems encountered.

1.3 Statement of the problem

Success factors are components of the project that have to be put in place to ensure the completion of the project. In simple terms, they create an enabling environment for the project to exist in the first place. These critical factors usually vary from project to project.

(John F. Rockart, 979) defines critical success factors as: "key areas in which satisfactory results would ensure the successful competitive performance for the organization." He also defined CSFs as "…key areas where things must go right for the business to flourish."

There is currently a wealth of project management literature and several writers have developed set of CSFs which, if addressed, will significantly improve project implementation chances. Although these CSFs developed separately by many authors may vary in degree of comphrensivenes, ranging from general guidelines to specific points of consideration, it is possible to determine similarities or patterns of commonality between them.

Assessing the success factors for the cargo terminal expansion project is an important research question because as per the preliminary interview with the project manager, the new cargo terminal expansion project has been delayed beyond the scheduled completion date because of lack of communication and lack of sound decision between the two contractors, lack of quick response by external support giving organizations like telecom and EEPA also shortage of raw materials because of hard currency and delay of imported materials. The project has also experienced lack of skilled labor because the contactors choose to handle the work with the existing team rather than having more employees to avoid additional cost for their benefit. Now the project is completed around 90% even though it has experienced above mentioned problems.

In this particular case study, the researcher would like to assess/recognize below seven success factors for the cargo terminal expansion project based on the success factors considered general\similar for most projects by many authors regardless of the type of the project and organizational structure.

1. **Project mission** 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**-

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

3. **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.

4. Resources

It refers to the availability of all necessary inputs and equipment's and skilled personnel that are necessary for effective project implementation.

5. **Technical Tasks\competency**-

It refers to the availability of the required technology and expertise to accomplish the specific technical action steps.

6. **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.

7. Communication

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

1.4 Research Question

Based on the above background, the research question of this study is as follows: "What are the determining critical success factors for the cargo terminal expansion project?"

1.4.1 Objective of the study

General objective

The aim of this study is to find out the determining critical success factors in cargo terminal expansion project: in case of Ethiopian Airlines

Specific objective

To determine critical success factors to the effective cargo terminal expansion project and find out which success factors are most critical to success of cargo terminal expansion project.

- ✓ Assess the presence of clearly defined project mission
- ✓ Review top management involvement
- ✓ Assess specified schedule and project plan
- ✓ Assess resource availability and check the recruitment, selection and training trend

- ✓ Assess the availability of required technology and expertise
- ✓ Assess the monitoring and feedback process
- ✓ Evaluate communication between project personnel

1.5 Significance of the study

The research will be beneficiary to project managers, consultants, personnel who may involve in such unique project by identifying which success factors affect the success or failure of the project considering the existing technology, resource availability in Ethiopia.

Also the research results will have great importance in assisting project leaders\managers in Ethiopia to identify which success factors are lacking in construction projects and helps to structure/prioritize issues vital for such project success and use the experience and findings for their next assignment, moreover, for future researchers studying the topics regarding CSFs in related projects, particularly in Ethiopia.

1.6 Scope of the study

This research is intended to find out the determinants of critical success factors for Ethiopian Airlines cargo terminal expansion project.in this study the researcher only try to examine seven critical factors that are considered common regardless of the project type and organizational structure after reviewing the works of many authors.

1.7 Structure of study

The structure of the present study is as in the following figure.

First of all, the Introduction presents a brief overview of the research aim and introduces the research question and objectives, as well as, the scope and limitations of the research study.

Next, the Literature review provides the reader with both empirical and theoretical background for the research subject.

The, third chapter, the Research Methodology enables the reader with the chosen research methodology of this study. The entire research process including its approach, time horizon, as well as, its data collection methods is being discussed. The sampling procedure in addition to the ethical and quality of the data collected considerations are being discussed within this chapter as well.

The data analysis and interpretation chapter presents the analysis and interpretation of data collected using SPSS.

The Conclusion and recommendation chapter summarizes findings, drawn conclusion and recommendation as per data analysis results.

CHAPTER TWO: LITRATURE REVIEW

A project is a temporary endeavor undertaken to create a unique product, service, or result. The temporary nature of projects indicates that a project has a definite beginning and end. The end is reached when the project's objectives have been achieved or when the project is terminated because its objectives will not or cannot be met, or when the need for the project no longer exists. A project may also be terminated if the client (customer, sponsor, or champion) wishes to terminate the project. Temporary does not necessarily mean the duration of the project is short. It refers to the project's engagement and its longevity. Temporary does not typically apply to the product, service, or result created by the project; most projects are undertaken to create a lasting outcome. For example, a project to build a national monument will create a result expected to last for centuries. Projects can also have social, economic, and environmental impacts that far outlive the projects themselves. In addition, projects are undertaken at all organizational levels. A project can involve a single individual or multiple individuals, a single organizational unit, or multiple organizational units from multiple organizations.

Every project creates a unique product, service, or result. The outcome of the project may be tangible or intangible. Although repetitive elements may be present in some project deliverables and activities, this repetition does not change the fundamental, unique characteristics of the project work. For example, office buildings can be constructed with the same or similar materials and by the same or different teams. However, each building project remains unique with a different location, different design, different circumstances and situations, different stakeholders, and so on**.(PMBOK,2017)**

The second definition is offered by Cleland and Kerzner (2001, P199), in their work A Project Management Dictionary of Terms, and includes the following characteristics: [A project is] A combination of human and nonhuman resources pulled together in a temporary organization to achieve a specified purpose.

A project, then, can be defined as possessing the following characteristics:

- A defined beginning and end (specified time to completion).
- A specific, preordained goal or set of goals.
- A series of complex or interrelated activities.
- A limited budget.

Cooke-Davies (2002) also noted that decades of individual and collective efforts by project management researchers since the 1960s have not led to the discovery of a definitive set of factors leading to project success.

Characteristics of a project

Projects have a purpose: projects have clearly-defined aims and set out to produce clearly-defined results. 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 five Process Groups which are initiating, planning, executing, monitoring and controlling and closing. Managing a project typically includes, but is not limited to:

• Identifying requirements;

• Addressing the various needs, concerns, and expectations of the stakeholders in planning and executing the project;

• Setting up, maintaining, and carrying out communications among stakeholders that are active, effective, and collaborative in nature;

• Managing stakeholders towards meeting project requirements and creating project deliverables **;(PMBOK, 2017)**

Project management is considered as a research field with potentials of bringing different disciplines to focus on projects (Soderlund, 2004). Both practical and theoretical research in this field has developed rapidly in recent years. Over the past few years, a number of review articles have appeared in conference or journal publications. Some have criticized much of the research on projects and project management. Packendorff (1995) claims that, in the dominant line of research, projects are seen as tools, project management is largely considered as a general theory, and there is no sufficient empirical research. Shenhar and Dvir (1996) state that most research on project management suffer from a scanty theoretical basis and lack of concepts. Koskela and Howell (2002) argue that there is no explicit theory of project management in prior literature and that has slowed down the diffusion of project management methods in practice. Soderlund (2004) criticizes that too much effort has been dedicated to clarifying the reasons of project success and failure, and researchers should address a number of important research questions that might be at the core in order to further the knowledge about project management.

Project management is a complex process targeting multiple outcomes. Project management competency is just as complex, requiring the acquisition of a variety of knowledge and skill sets that often cross areas of expertise, including instructional technology, management, information technology, engineering, and manufacturing (Cleland, 1995; Greer, 1992; Kerzner, 2001; Tinnirello, 2000).

In turning to a broader literature base on project management/manager competencies, we noted two significant strands of ongoing work that may prove useful to ID professionals, the establishment of standards for project management by a number of national and international professional organizations (Global performance based standards for project management, 2003)

and reports of empirical research into project management competencies, although often bounded by discipline and diverse in their focus (Crawford, 2004).

Crawford (2004) identifies recognized project management standards as inadequate for developing and assessing project managers for two main reasons. First, she criticizes recognized standards for representing insufficient models of competence. Drawing on the work of Boyatzis (1982) and Spencer (1993), Crawford puts forth a model of competence that integrates knowledge, skills, demonstrable performance, and core personality characteristics, noting the last, personality characteristics, as challenging to develop and assess through training. She argues that two of the most influential project management standards, the PMBOK® and APMBoK, address only the knowledge aspect of competence while a third, Australia's National Competency Standards, draws from knowledge but focuses only on demonstrable performance. Second, **Crawford(2001)** notes that most standards are not based in empirical research but rather in an "assumption that there is a positive relationship between standards and effective workplace performance" (p. 7). Clearly, there is a need to look beyond currently established project management standards and investigate further, through empirical research, the core competencies of the effective project manager in the workplace.

In addition to defining the concept project, it is important, before attempting any discussion of the steps leading to a successful project, to describe just exactly what a "successful project" is. 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 can achieve the below:

- Comes in on-schedule (time criterion).
- Comes in on-budget (monetary criterion
- Achieves basically all the goals originally set for it \effectiveness

  Criterion.
- Is accepted and used by the clients for whom the project is intended/

  Client satisfaction criterion. (Pinto and sleven ,1988)

Max Wideman (2000) determines project success as a multi-dimensional construct that inevitably means different things to different people. He believes that success is better expressed

at the beginning of a project in terms of key and measurable criteria upon which the relative success or failure of the project may be judged.

He gives the following principle “The measure of project success, in terms of both process and product, must be defined at the beginning of the project as a basis for project management decision making and post-project evaluation. First and foremost, project success needs to be defined in terms of the acceptability of the project’s deliverables, for example scope, quality, relevance, effectiveness, and so forth; secondly in terms of its processes, for example time, cost, and so forth.”3 For Max Wideman the project evaluation has four dimensions, namely: product scope, quality grade, time-to-produce and total cost at completion. He underlines the importance of the product success to the overall success of the project.

James P. Lewis in Project Planning scheduling & Control: a hands-on guide to bringing projects in on time and on budget (2000) states that “The only truly successful project is the one that delivers what is supposed to, gets results, and meets stakeholder expectations.” In this definition of project success we underline the phrase “stakeholder expectations”. Lewis and many writers as we are going to see next take into account the satisfaction of the project stakeholders as well as the unique way that each and every of them understands the term “success”. For Lewis there are four criteria for measuring project success. These are Performance, Cost, Time and Scope. The first has to do with technical and functional performance requirements, the second with the labor and material cost needed to accomplish a task, the third with the time required for the project to be completed and last, the scope, that is the magnitude or size of the work. These are actually the four constraints for measuring project success established by the PMI.

Pinto &Rouhiainen (2001) as well as Kerzner (2001) add a new criterion to the triple constraint concerning the customer’s satisfaction/acceptance. This is very important because this criterion turns the eyes of the company outside the organization and towards the customer. Furthermore, it enhances the specific role of the marketplace in a successful project.

Shenrar and Dvir (2010) reinforce the concept of project success linked to efficiency and effectiveness. Meeting deadline and budget goals indicates that a project has been efficiently managed. However, most projects are part of their organizations' strategic management and must be evaluated based on their contributions to the business' results (effectiveness).

Based on their study, Shenrar and Dvir (2010) suggest that a project's success can be defined by five metrics:

• The first dimension, project efficiency, represents a short-term metric that is concerned with whether the project was completed according to plan.

• The second dimension, client impact, represents the main stakeholders and should clearly show how the project improved the client's business.

• The third dimension, impact on team, assesses the team's satisfaction and the indirect investment that the organization made in the team members, including further qualifications and the development of professional and managerial skills.

• The fourth dimension, commercial and direct success, is related to the project's commercial success and its contribution to the organization's final results.

• The fifth dimension, preparing for the future, reflects how well the project helped the organization prepare its infrastructure for the future, and how the project created new opportunities.

Various authors have identified a number of factors, either from experience or research that are important to project success. Hayfield, for example, identified two sets of factors that determine the successful outcome of a project. A set of macro factors falling mostly in the realm of the owner and a set of micro factors which are more in the engineer/constructor’s domain.

Macro factors are Realistic and thorough definition of project/ What, Efficient manner of project execution / How,-Comprehension of project ‘environment’ / Context, Selection of organization realizing project/By whom.

Micro factors include Formulation of sound project policies /Policies, Clear and simple project organization/Framework, Selection of key personnel/Human resources, Efficient and dynamic management controls/ Controls, Reliable management information systems/ Information.

There is no single process that makes a project successful. It is the careful orchestration of a number of different elements. The factors that lead to successful projects include:

- Clearly defined goals and objectives

-A well-defined project management process

- A proven set of project management tools

- A clear understanding of the role of project management.

The project manager has a broad array of behavioral and management techniques from which to choose. The objective of the selection process is to choose techniques that ensure high-quality, on-time deliverables that are accepted by the business and that fit the conditions and environment.(Chandler and Arizona 2013)

During the 1970s-1980s, critical success factor requirements had been addressed rather as a response to the indicators of project success at the implementation phase, focusing on time, cost, and quality, as well as, stakeholder satisfaction (Jugdev and Müller, 2005). It was Pinto and Slevin (1987), who first attempted to develop a comprehensive set of CSFs related to project implementation success. In their work, they propose a project implementation profile (PIP) model, which consists of 10CSFs, namely, project mission, top management support, project schedule/plan, client consultation, personnel, communication, technical tasks, client acceptance, monitoring and feedback, troubleshooting, determining project success. Additionally, the PIP model of 10 CSFs, is claimed to be suitable as an instrument for project managers to measure those factors (Pinto and Slevin, 1987).

Later, Pinto and Prescott (1988), take a further step by determining the relative importance of 10 CSFs over the life of a project and discover that the relative importance of several CSFs vary at different phases of the project life cycle. The generalized 10 CSFs of the project implementation process (PIP) have also been employed as a model for many project types in several studies (Pinto and Prescott, 1988, Finch 2003, and Hyvari, 2006). However, the factors identified by Pinto and Slevin are not likely to cover every aspect involved in project management.

Another interesting study is by Cooke-Davies (2002, p.185), in which he introduces a set of questions for the purpose of grouping of CSFs, such as; “What factors are critical to project management success?”; “What factors are critical to success of an individual project?”; and “What factors lead to consistently successful projects?” .Moreover, he distinguishes between project management success and project success by claiming that project management success is the satisfaction of traditional criteria of time, cost and quality, whereas, project success is the satisfaction of the overall project objectives. Then, he proposes 12 CSFs, which he extracts from

multi-national organizations' activities and practical actions. Additionally, although his proposed CSFs are not directly related to human factors, he points out that people have intrinsic importance to all project processes.

Table 1 below shows a sample of attempts by different researchers to determine critical success factors for project implementation.

Table 1. Critical cusses factors by different authors

Source	Critical success factors
(baker ,murphy and fisher 1983)	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.
Clealand and king 1983	Project summary ,operational concept, top management support,fininancial support, logistics requirements, facility support ,market intelligence, project schedule,excutive development and training, manpower and organization ,acquisition ,information and communication channels and project view
Morris and hughes 1987	Project objective, technical innovation uncertainty, politics, community involvement, schedule duration urgency financial contract, legal problems, and implementation problems.
Pinto and sleven 1987	Project objective ,top management support project planning ,communication with client ,human relation ,technical tasks ,client acceptance ,project control
Tukel and rom 1995	Top management support, client consultation, preliminary estimates, availability of resources, project manager's performance.

Walid and oya 1996	Factors related to project, the project manager and the team members, the organization, and the external environment.
Martin ,1976	Clear goals, selection of project organizational philosophy, general management support, organize and delegate authority, selection of project team.

Taner (2013) report that Leadership and commitment of top management, cross-functional teamwork and Commitment of middle managers are found to be the most CSFs for successful introduction of Six Sigma, whereas lack of knowledge of the system to initiate and complacency are found to be hindering its implementation.

Alias (2014) state that the Critical success factors (CSFs) are inputs to project management practice which can lead directly or indirectly to project success. It encompasses many elements, which have to be synchronized to ensure the project delivery on time.

Adnane Belout and Clothilde Gauvereau considered the following four dimensions as the success factors in 2003:

1. Project Result

2. Customers effects

3. Commercial success and conduction and preparation for the future

4. Identifying the beneficiary groups (stockholders, managers, customers and personnel) which are significant as well as critical success factors until different people wants to see success in different ways.

In 1996 Walid Belassi and Tukel OyaIcmeli also divided the critical success factors into four main groups in a new format:

1. Project dependent factors

2. Team members and project manager dependent factors

3. Organizational structure dependent factors

4. External environment dependent factors

In an empirical survey on the relationship between project planning and project success, DovDvir declared that there is a certain and positive relationship between the amount of effort in determining the project's goals, job requirements and product's technical features on one hand and project success on the other hand and no effort should be spared in the first stage of the project to define the receivable requirements and goals, and this demand is not met without involving the customer or the final beneficiary in the processes.

The construction industry is related to risks, just as any other global industry. Due to the complex nature and the participation of different parties in construction, an extra risk is added to construction projects (PMI 2004). In the last few decades, construction projects have become more challenging to the contractors and clients due to tough budget and scheduling requirements.

Project managers can increase the chances of completing the projects successfully and meeting all the requirements by applying management tools during the planning and the execution phases of the project (Jaselskis, Ashley 1991).

Perhaps the best known approach for tackling the human and organizational aspects of projects is through the use of critical success factors. (Fortune, White 2006). The fact that the construction industry suffers the most to meet deadlines and budgets necessitate a great attention to identify critical success factors.

According to Salminen (2005) one important area of success factors for construction projects is Work Behavior and Leadership. The management style is important, and it is needed to combine focus on people with focus on production, with a slightly higher importance of the latter. Furthermore, for work behavior – control is slightly more important than flexibility – thus communication and effectiveness & clarity of tasks are more important than community spirit and satisfaction & growth. Other areas of success factors according to Salminen (2005) are Preconditions – defined as the support from client/consultant, designers and company headquarters, and Management Systems defined as the principles and methods of operation and documentation. One interesting result is that management systems are indicated as only slightly important for project success.

Project success is dependent on the interaction of the success factors; Project Steering Committee, Commission, Process/Phases and Monitoring. A well composed and well-functioning Project steering committee can be a great support for the project manager, who from the clearly defined commission knows what decisions he/she may effectuate without escalation. The dialogue between internal stakeholders and the ability to focus on the most important issues is supported by a continuous and structured monitoring of the project performance. Such a monitoring routine should clearly point out deviations from the agreed plan to meet the requirements for each milestone and project phase. In the planning phase, it is a great opportunity for the project to learn from success stories from other similar projects – both as inspiration and not to re-invent solutions that are already defined as best practice in other projects.

Project success is also supported by the application of a common and comprehensive risk management system, from start of the project to the very end. From a contractor perspective, the project most often starts with a tender phase – but from the customer perspective it starts with an idea and some sort of pre-study. In addition to a structured approach, it is important to spend some effort to create risk awareness, increase the competence in risk management methodology and to increase the understanding of human behavior.

Other researchers have previously investigated success factors for projects. Some researchers have defined success factors for projects in general, while others have studied construction projects specifically.

Cooke-Davies (2002) defines 12 different comprehensive success factors for projects in general, divided into three categories: Factors critical to project management success – enabling achievement of cost targets, and time schedule; Factors critical to success on individual projects – enabling the reach of project specific objectives as anticipated by main stakeholders as the customer and sponsor; Factors that consistently leads to successful projects – forming the basis for continuous improvement of a corporate general principles for how to manage projects. One core element is a defined routine for collecting and analyzing portfolio metrics to reveal the relation between current performance in a specific project and the final success of the same project.

Chua and Kog and Loh (1999) have investigated critical success factor for projects in the construction industry. All in all 67 expected success factors were examined in a questionnaire to get the relative importance for each of the projects objectives; budget, schedule and quality. When analyzing the results, they took into consideration what organization each respondent were working for; consultant, contractor; client, or project management. The result is a top ten list of success factors for each objective and perspective, where adequacy of plans and specifications is considered as one of the most important factor for most objectives, by most of the respondent categories. Other top ranked factors are constructability, project manager commitment and involvement, and realistic obligations/clear objectives.

2.1 Project goal/mission

Several authors have discussed the importance of clearly defining goals at the outset of the project. Morris, classified the initial stage of project management as consisting of a feasibility decision. Are the goals clear and can they succeed? Bardach's, six-step implementation process begins with instructions to state the plan and its objectives. For both these authors, Project Mission has been found to refer to the condition where the goals of the project are clear and under- stood, not only by the project team involved, but by the other departments in the organization. (Pinto and Slevin (1987)

2.2 Top management support

Management support for projects, or indeed for any implementation, has long been considered of great importance in distinguishing between their ultimate success and failure. project management is seen as not only dependent on top management for authority, direction, and support, but as ultimately the conduit for implementing top management's plans, or goals, for the organization. Further, 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. (Pinto and Slevin 1987)

Top management support is an essential factor in project success and has been examined in various studies as one of the critical success factors. Kandelousiet (2011) mentioned that top management support can be viewed in several forms, for example, helping teams in dealing with hurdles, exhibiting commitment to the work and encouraging the subordinates. Usually top

management support results in availability of in time financial resources, allocation of human and other physical resources and also it refers to the delegation of necessary power to project leaders and project team for successful completion of projects.

Most of the critical success factors are quite different for each industry, but the top management support is still one of the most common critical success factors across the industry (Belassi and Tukel 1996). The importance of top management support being an active stakeholder is a strong factor that must be present throughout the process of project implementation to ensure project success (Kuen et al. 2009). Top management support is a combination of gaining attention and providing resources to project leaders for successful accomplishment of projects (Barczak et al. 2009; Chollet et al. 2012; Ernst 2002). Top management support is considered as the amount and nature of the support that the project leader expects from the top management both for the project and for himself as a leader (Pinto and Slevin 2008). The committed and strong leadership at top management level is one of the major critical factor to project success (Sarker and Lee 2003) which can moderate the accomplishment of project success (Anantatmula 2010). The high level planning and/or support from top management is sometime sufficient for project success, but the top management support is almost always essential for project success (Young and Poon 2013).

Lack of top management support is a critical barrier (Guimaraes and Igbaria 1997; Igbaria 1995; Somers and Nelson 2004) because the top leadership plays an important role throughout the life of the project. Top management support is essential in both implementation stage and the operation stage, where top management involves in setting up the projects, determining the goals, establishing goals, deciding budget, and providing human, material and technical resources (Dai et al. 2013). Young and Jordan (2008) cited top management support as one of the most critical success factors for project success.

Top management support is essential for setting up the vision, mission, goals and strategies for integration of department and units in the organizations (Singh 2013). It is believed that top management plays a critical role in the success of projects when the top leaders are highly supportive in providing sufficient human, material, and financial resources to the project team. Effective roles of top management support include actively influencing the stakeholders through resource provision, negotiation, persuasion, and motivating powerful parties to support the implementers (Boonstra 2006).

2.3 project plan and schedule

The purpose of project planning is to define each major task, estimate the time and resources required and provide a framework for management review and control. It defines the objectives of the project ,the approach o be taken and the commitment being assumed .it evolves through the early stages and by the time the project is ready to begin project execution ,contains the details required to successfully complete the project, then when implementation begins ,the plan is updated as required.

The development of project plan is an iterative process .each element of the plan is regularly revisited for changes and refinements based up on further analysis and decisions made in developing other plan elements. The refinement also develops “buy in” from the project team and stakeholders.it is also critical to get approval on the plan from the involved parties prior to actually starting the project. Approval of the plan commits the resources needed to perform the work. (PMM, 1997)

A project plan is fundamental to the success of any project (Kerzner, 2013). It is a formal, approved document that defines how the project is executed, monitored and controlled, and closed (Project Management Institute, Inc., 2013). The main purpose of applying a project plan is to document planning assumptions and decisions, facilitate communication among stakeholders, and document approved scope, cost, and schedule baselines. (Frigenti and Comninos, 2002).The project plan serves as a guideline for the lifetime of the project and may be revised as often as needed. The project plan is a standard from which performance can be measured by the customer and the project team (Kerzner, 2013). All appropriate stakeholders should be involved when planning the project and developing the project management plan and other project documents (Project Management Institute, Inc., 2013).

Time schedules, milestones, manpower requirements should be specified thus every activity is laid out clearly therefore it can be used as a measurement to compare the original plan and the actual work during implementation and take corrective action in good time in case of deviation.

2.4 Resource

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. Further, it is important to determine whether project management has built sufficient commitment toward project success on the part of team members. (Pinto and Slevin (1987)

2.5 Technical task

There must exist adequate technology to support the project. Technical Tasks refers to the necessity of not only having the necessary personnel for the Implementation team, but ensuring that they possess the necessary technical skills and have adequate technology to perform their tasks. Further, it has been identified that two of the eight risk factors as being caused by technical incompatibility: the user's unfamiliarity with the systems or technology, and cost ineffectiveness. (Pinto and Slevin 1987)

Project managers should possess sufficient technical knowledge and skill to perform their jobs. The project manager should have at least a working level understanding of the technical challenges the project team is facing. Technical skills enhance the ability of the project manager to lead and manage, also enhance project team's performance through an understanding of the complex issues that develop during a project life cycle.

Construction projects tend to be characterized by crises, uncertainty and suspense which combine to test the ability and performance of the manager. Project success is therefore dependent upon the leadership abilities of the manager and their ability to bring the best out in their team (Dainty, Cheng, &Moore ,2005).As they state "the success of a construction project depend on several factors, one of which is the competencies of project managers. Their personalities, characteristics, skills and leadership styles also impact on project outcomes: with the later being essential for construction projects .project managers must be able to handle unanticipated problems competently".

2.6 Monitoring and Feedback

Monitoring and evaluation when carried out correctly and at the right time and place are two of the most important aspects of ensuring the success of many projects.

Although monitoring and evaluation are viewed as related, they are distinct functions. Monitoring is viewed as a process that provides information and ensures the use of such information by management to assess project effects – both intentional and unintentional – and their impact. It aims at determining whether or not the intended objectives have been met.

Evaluation draws on the data and information generated by the monitoring system as a way of analyzing the trends in effects and impact of the project. In some cases, it should be noted that monitoring data might reveal significant departure from the project expectations, which may warrant the undertaking of an evaluation to examine the assumptions and premises on which the project design is based.

Monitoring and Feedback refer to the project control processes by which at each stage of the project implementation, key personnel receive feed- back 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 (Project Management Institute, Inc., 2013).

Monitoring is a good management tool which should, if used properly, provide continuous feedback on the project implementation as well assist in the identification of potential successes and constraints to facilitate timely decisions. Unfortunately, in many projects, the role of this is barely understood and therefore negatively impacts on the projects.

Monitoring is not only concerned with the transformation of inputs into outputs, but can also take the following forms:

Physical and financial monitoring -Measuring progress of project or program activities against established schedules and indicators of success.

Process monitoring -Identifying factors accounting for progress of activities or success of output production.

Impact monitoring- Measuring the initial responses and reactions to project activities and their immediate short-term effects. (Project Management Institute, Inc., 2013).

Projects are monitored so as to:

• assess the stakeholders' understanding of the project;

• minimize the risk of project failure;

• promote systematic and professional management; and

• assess progress in implementation.

Each project is unique. It is therefore suggested that prior to starting of a project, a discussion should ensure to try and identify these. Among them could be: simple, quickly provides information for corrective action, cost-effective, flexible, accurate, comprehensive, relevant, accessible, leads to learning, transparent, and shares information up and down.

Some of the most widely used tools for project monitoring are verbal communication, meetings, reports and diary reports. (Project Management Institute, Inc., 2013).

Purpose of Evaluation

Evaluation has several purposes, which include the following:

• It assists to determine the degree of achievement of the objectives.

• It determines and identifies the problems associated with program planning and implementation. • It generates data that allows for cumulative learning which, in turn, contributes to better designed programmers, improved management and a better assessment of their impact. The key words in this scenario are "lessons learned".

• It assists in the reformulation of objectives, policies, and strategies in projects / programs. (Project Management Institute, Inc., 2013).

2.7 Communication

The importance of communication in project management is equally critical. It is the "oil" that lubricates the project movement in the attainment of the stated objectives. According to PMI's Pulse research, 55 percent of Project Managers agree that effective communication with all stakeholders is the most critical success factor in project management (PMI, 2013). 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. Effective communication is a critical element of team effectiveness, both in traditional and virtual teams (Pitts et al., 2012).

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).

As reported by PMI's 2013 Pulse of the Profession TM , the most crucial success factor in project management is effective communications to all stakeholders—a critical core competency to all organizations. Business research from Forbes, PricewaterhouseCoopers LLC and Towers Watson shows that organizations are very aware of the positive impact that effective communications has on projects, programs, and portfolios.

White and Fortune in their empirical study on practices in project management established a list of critical success factors for a project and 'clear communication channels' was a number 6 factor on the 1360 list. It is worth noting that number 1 factor, which was 'clear goals/objectives' is also strongly dependent on clear and precise communication (White & Fortune, 2002). In another study on critical factors that contribute to the success of a project, the author lists 'effective communication' among the four 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 by Nguyen as the success factors for building and managing high performance global virtual teams (Nguyen,

2013). Earlier research reports that 74% of the problems in distributed projects were caused by "communication and contacts" (Komi-Sirviö and Tihinen, 2005).

Another research (Xiao et al., 2014) described two types of communication practices – one regarded forms of communication among team members, who worked in the same location (communication within the teams), and the other one regarded communication practices realized between cooperating teams (communication between the teams). Practices applied within the teams included:

1. In person, face-to-face communication, this fosters interaction – for internal discussions

2. e-mail – used mostly for record-keeping and follow-up potential, the importance of the matter, getting other people involved, sending Internet links or files, and sending/receiving background in-formation;

3. Phone calls (local communication) – used when off-site, after working hours;

4. Regular team meetings;

5. Instant messaging – used sometimes in one team

Communication between cooperating teams generally followed a need-based approach in both teams (no planned procedures were followed) and was realized using the following practices:

1. Meetings;

2. phone calls (although a bit impractical due to 12-hour time difference) – for urgent situations;

3. E-mail (which was associated with a one-day delay in receiving response);

4. Chatting (occasionally);

5. Conference calls;

2.8 Conceptual framework

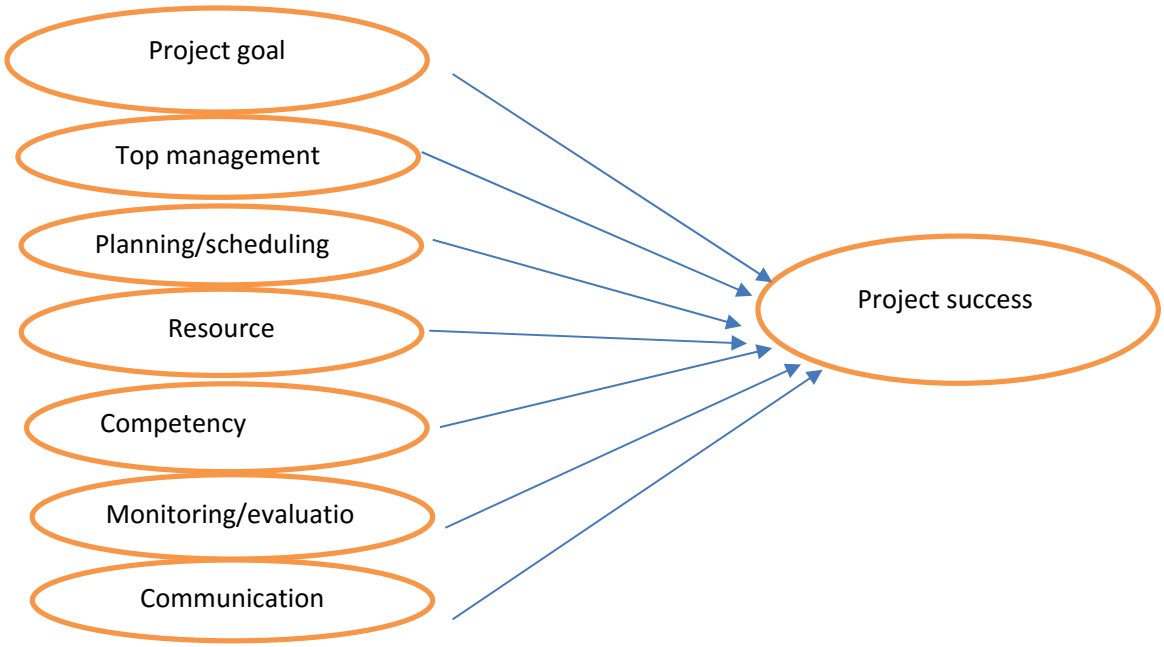

Figure 1 conceptual framework

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.1. Research Design

According to Claire Selltiz et al (1962), 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. In fact, the research design is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data.

To successfully achieve the research objectives and answer the stated research questions, this study employed descriptive research design and quantitative approach.

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. 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).

3.2. Data types and sources

This research employed both sources of data; primary and secondary.

The primary data: - In addition to observation, structured interview was held with project manager, and other personnel who have direct and indirect contact with project under study as well as questioner.

Secondary Information:- information was collected from publications, company profile, periodic reports, project reports

3.3 Data collection method

A structured questionnaire developed by the researcher has been administered 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) have been used in the study.

A census is a survey conducted on the full set of observation objects belonging to a given population or universe. It is the complete enumeration of a population or groups at a point in time with respect to well defined characteristics: for example, population, production, traffic on particular roads. In some connection the term is associated with the data collected rather than the extent of the collection so that the term sample census has a distinct meaning.

The project manager, employees' of contractor and consultant and other project personnel who actively participated throughout the project implementation are the very population of the study and are 45 in number thus the researcher has used census.

3.4Data analysis

In the analysis part, the data gathered from the census survey has been analyzed using SPSS performing descriptive analysis to statically describe aggregate and present which success factors has contributed the most and which ones are lacking.

3.5 Validity and Reliability

To ensure the quality of the case study and make it credible for the project management community, the researcher gave due care to both validity and reliability issues of the data, the research process in general as well as the research output. The researcher used different source of data form literature, interview, questioner, site observation and document review to triangulate the data. The need for triangulation arises from the ethical need to confirm the validity of the processes involved. Triangulation increases the reliability of the data and the process of gathering it.

Validity is concerned with whether the findings are really about what they appear to be about (Sounders et. al., 2003). Validity defined as the extent to which data collection method or methods accurately measure what they were intended to measure (Sounders et. al., 2003). Different steps taken to ensure the validity of the study: Before the questioner were used for data collection the draft copies was evaluated for content validity by my advisers, data was collected from the reliable sources,

As reliability measures gives greater confidence that the individual variables are consistent in their measurement, the researcher calculated Cronbach's alpha with a commonly used value 0.70

to measure the reliability of all variables addressed on the questioner. Cronbach's alpha score more than 0.70 indicates that the instrument is reliable

Table 2 reliability analysis for success factors under study

	Success factor	N of items	Cronbach's Alpha
1	Project Goals	9	0.870
2	Top management	4	0.945
3	Project planning and scheduling	9	0.889
4	Resources	6	0.891
5	Technical task\competency	3	0.704
6	Monitoring and Evaluation	6	0.917
7	Communication	4	0.918

3.6 Ethical Consideration

The researcher followed ethically and morally acceptable processes throughout the research process. The data was collected with the full consent of the participants and they are aware about the purpose of the study.

CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

The objective of this chapter is to provide the findings and results from the questioner by analyzing and interpreting the collected data to find out which success factors contribute the most for Ethiopian Airlines cargo terminal expansion project and which are lacking.

The researcher distributed 45 questioners among those, 40 is completed and returned, 5 not returned and there were no incomplete replies.

4.2 Profile of respondents

4.2.1 Educational level of respondents

Table 3: showing the educational back ground of the respondents 42.5% are graduates, 30% are below diploma, 25%are post graduates and 2.5% are post graduates. Which implies the respondent's ability to understand the objectives of the study and reply accordingly.

		Frequency	Percent	Valid Percent
Valid	Undergraduate	1	2.5	2.5
	Graduate	17	42.5	42.5
	Post graduate	10	25.0	25.0
	below diploma	12	30.0	30.0
	Total	40	100.0	100.0

Table 3 Educational back ground of the respondents

4.2.2 Occupational level of respondents

Table 4: showing the occupational level of the respondents 67.5% are other project personnel who are working on the project with different professions, 10% are field managers, 10% are general managers and 10% project managers from Ethiopian airlines, two contractors and a consultant .

Table 4 Occupational level of the respondents

		Frequency	Percent	Valid Percent
Valid	field manager	4	10.0	10.0
	general manager	4	10.0	10.0
	project manager	4	10.0	10.0
	Supervisor	1	2.5	2.5
	other project personnel	27	67.5	67.5
	Total	40	100.0	100.0

4.2.3 Experience of respondents in related project work

Table 5: showing the Experience of the respondents in related project works 52.5% has more than 15 years of experience, 35% has 0 up to 5 years of experience, 10% are other project personnel who are workin10 up to 15 years of experience and 2.5 %has 5 to ten years of experience

Table 5 Experience of respondents in related project work

		Frequency	Percent	Valid Percent
Valid	0 upto 5 years	14	35.0	35.0
	5 to 10 years	1	2.5	2.5
	10 to 15 years	4	10.0	10.0
	more than 15 years	21	52.5	52.5
	Total	40	100.0	100.0

4.2.4 Organization of the respondents

Table 6: showing the Organization of the respondents 55% are from the two contractors,32.5 % are from Ethiopian Airlines ,12.5%are from the consultant which describes their different point of view towards the effects of the success factors without bias because all respondents do not belong to the same organization.

Table 6 Organization of the respondents

		Frequency	Percent	Valid Percent
Valid	Ethiopian airlines	13	32.5	32.5
	Consultant	5	12.5	12.5
	Contractor	22	55.0	55.0
	Total	40	100.0	100.0

4.3 critical success factors and their interpretation

In this section, the perception of respondents on each critical success factors was described in view of project goal, top management support, planning and scheduling, resources, technical competency, monitoring evaluation and feedback, and communication variables.

The researcher considers mean scores more than 1.5, 2.5, 3.5 and 4.5 having the value of the next higher score and vice versa.

4.3.1 Project goal

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

Table 7 project goal

Variables	Mean	Std. Deviation
The overall goal of the project is clearly specified and recognized by all stakeholders involved in the project	3.85	1.292
Subsidiary objectives are clearly specified and are recognized by all stakeholders	3.80	.758
The overall goals and subsidiary objectives are not in conflict	3.38	.740
The objectives specify what needs to be achieved	3.70	1.067
The objectives are measurable	3.90	.591
The objectives are attainable	3.85	.533
The goals of the project can be realistically achieved with the resources available	2.78	.862
There is a specific timescale to achieve the project objective	3.70	.823
The project goal aligns with the overall organizational mission	3.85	.580
Grand mean and standard deviation	3.64	0.80

As presented in the table 7 the mean scores of the respondents for most items under project goal ranges from 2.78 up to 3.85 from which most of the mean scores are more than 3.5, in a considerable context showing agreement by more participants .the mean score 2.78 explains the disagreement of the respondents about the project goal, if it can be realistically achieved with the resources available. As per the result of the grand mean for variables under project goal 3.64, shows the project under the study has clearly defined mission.

4.3.2 Top management

The respondents were asked about their perception about on top management support with four variables. These variables indicate the top management's commitment and encouragement,

clearly defined leadership, clarity on distribution of authority, independent decision making by subordinates.

Table 8 Top management

Variables	Mean	Std. Deviation
top management supports the project in exhibiting commitment and encouragement	3.70	.939
the project have strong clearly identified leadership	3.43	1.174
the project has clarity as to how authority is distributed below	3.07	.829
top management provides authority to subordinates to make an independent decision	3.10	.810
Grand mean and standard deviation	3.32	0.938

As presented in the table 8 the mean scores of the respondents for most items under project goal ranges from 3.07 up to 3.70 and grand mean of 3.32, from which 3 of them are less than 3.5 which explains neither agreement nor disagreement on the variables under top management support even though most respondents agreed on the presence of top management support by exhibiting commitment and encouragement.

4.2.3 Project planning and scheduling

The respondents were asked about the project plan schedule with nine variables. These variables inquire if there is a 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 9 Project planning and scheduling

Variables	Mean	Std. Deviation
the project plan consists of clear budget and cost figures	3.90	.744
the project plan has contingency plan	2.68	.971
the plan includes methods and frequency of communication between stakeholders	2.53	.640
the project plan has monitoring and evaluation strategy	3.25	.927
the project has realistic time schedule and assignments	3.05	1.131
the project plan has clearly specified manpower and other resource requirements	3.40	.672
the project has a clear work breakdown structure	3.30	.853
there is a cascade of tasks based on their priority	3.32	.829
there is a clear allocation of resources along the timeline	3.40	.900
Grand mean and standard deviation	2.88	0.766

As presented in the table 9 the mean scores of the respondents for most items under project goal ranges from 3.90 up to 2.53 with 2.88 grand mean ,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 for two variables are under 3.00 explaining their disagreement on the existence of contingency plan and communication plan on the project plan and a 3.90 mean score explaining respondents agreement on the clear budget statement on the plan.

4.3.4 Resources

The respondents were asked about resources with six variables. These variables inquire if the required resources are available, if there is an on time provision of resources, if all the resources are with the required quality and standard, if there is a skilled personnel available, if there is a

standardizes recruitment and selection process ,if there is a training to increase the technical knowledge of project personnel.

Table 10 Resource

Variables	Mean	Std. Deviation
all required resources are available	2.27	.640
there is an on time provision of resources	1.95	.677
all the resources are with the required quality and standard	3.28	.905
there is availability of skilled personnel	2.30	.564
there is a standardized recruitment and selection process	2.58	.768
there is training to increase the technical knowledge of project personnel	2.45	.504
Grand mean and standard deviation	2.47	0.67

As presented in table 10 the mean scores of the respondents for variables under resource ranges from 3.28 up to 1.95 with 2.47 grand mean, from which 4 of them are less than 2.5 which explains disagreement on the availability of skilled personnel, on time provision of resources, availability of resources and technical training. The mean score for two variables is 2.98 and3.28 explaining the neutral stand of the respondents on the existence of standardized recruitment and selection process and quality and standard of the resources respectively. The grand mean 2.47 explains the lack of resources, skilled personnel and training on the project under study.

4.3.5 Technical competency

The respondents were asked about technical competency with three variables. These variables inquire if the required technology is available, if the project manager have sufficient experience, technical knowledge and skill, if other project personnel's have enough knowledge to operate with the existing technology.

Table 11 technical task\competency

Variable	Mean	Std. Deviation
the required technology is available	3.72	1.037
the project manager has sufficient experience, technical knowledge and skill	3.72	.877
other project personnel have enough knowledge to operate with the existing technology	2.45	.921
Grand mean and standard deviation	3.29	0.945

As presented on Table 11 the mean score variables under technical competency ranges from 3.72 up to 2.45 with grand mean of 3.29, from which the two variables mean score is 3.72, which explains more of an agreement of the respondents on the availability of technology and on the technical skill and sufficient experience of the project manager.one variable scored 2.65 meaning more of disagreement on other project personnel capacity to operate with the existing technology.

4.3.6 Monitoring, evaluation and feedback

The respondents were asked about monitoring, evaluation and feedback with six variables. These variables inquire 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.

Table 12 Monitoring evaluation and feedback

Variables	Mean	Std. Deviation
there is a periodic evaluation and feedback	3.80	.564
there is a regular progress monitoring and review	3.48	.905
there is a report on project performance relative to established objectives	3.52	1.037
there is a periodic review f project reports	3.10	.928
there is a periodic evaluation to assess outcomes at each stage	3.45	.846
there is a feedback on how to improve project performance based on monitoring and evaluation report	2.80	.853
Grand mean and standard deviation	3.35	0.855

As presented on table 12, the mean score for variables range from 3.80 up to 2.80 with grand mean of 3.35.two variables scored 3.80 and 3.52 meaning more of an agreement on the presence of periodic evaluation and performance report on the project respectively. Three variables scored 3.48, 3.10 and 3.45, 2.80 showing respondents neutrality on presence of regular progress monitoring and review, periodic review of project reports, periodic evaluation to assess outcomes at each stage, presence of feedback to improve project based on monitoring and evaluation report respectively.

4.3.7 Communication

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.

Table 13Communication

Variables	Mean	Std. Deviation
there is effective communication between stakeholders team and other personnel	2.20	1.047
there is a clear and easy channel of communication	2.21	.591
there is an encouraging environment for team to forward comments, ideas and feedback	2.72	.832
there is various communication channel	2.70	.776
Grand mean and standard deviation	2.43	

As presented on table 13 the mean score of all variables range from 2.72 up to 2.20.two variables scored 2.2o and 2.21 explaining the disagreement of the respondents on existence of effective communication between stake holders and availability of clear and easy channel of communication respectively. Two variables scored 2.72 and 2.70 explains more of the neutral stand of the respondents on existence of encouraging environment for communication and existence of various channels.

The grand mean 2.43 shows lack of effective communication in the project under study.

Table 15 Grand mean of critical success factors under study

Critical success factors under study	**Grand mean**
Project goal	**3.64**
Top management support	**3.32**
Project scheduling and planning	**2.88**
Resource	**2.47**
Monitoring ,evaluation and feed back	**3.29**
Technical competency	**3.35**
Communication	**2.43**

As per the table above we can clearly see which factors are contributing to success and which are not. Grand mean scores 2.43 and 2.47 indicates that among all the critical success factors under study, lack of resources and lack of communication has caused major delay on the original schedule and hindered the performance of the project under study. Also the grand mean score for project planning and scheduling 2.88 indicates that the project personnel should give attention for the missing elements under project planning and scheduling especially the lack of contingency plan.

CHAPTER FIVE: SUMMARY CONCLUSION AND RECOMMENDATION

Under this last chapter, findings of the whole case study are discussed, conclusions are drawn and recommendations are forwarded.

5.1. Summary of Basic finding

The findings of the study indicates that;

- The overall goal and subsidiary objectives of the project is clearly specified and recognized by all stakeholders and both are not in conflict with each other,
- The objectives are measurable to check whether they are being met
- The project goal aligns with the overall organizational mission. But as per the analysis the goals of the project cannot be realistically achieved with the resources available (resources except budget) even if there is a specific time scale to achieve the project objective.
- Top management supports the project in exhibiting commitment and encouragement,
- The project plan consists of clear budget and cost figures,
- There is a cascade of tasks based on their priority
- There is a clear allocation of resources along the timeline but the project plan doesn't have a contingency plan and do not include methods and frequency of communication between stakeholders,
- The required resources are not available ,
- There is no on time provision of resources moreover there is lack of skilled personnel and training to increase the technical knowledge of the existing workers.
- Even though technology is available and the project manager is competent enough, other team members do not have the knowledge to function with the existing technology.
- There is a periodic monitoring, evaluation and reporting but there is lack of feedback to improve what is missing as per the reports,
- In addition there is no effective communication between stakeholders and team members also there is lack of clear and easy channel of communication.

5.2 Conclusion

The primary objective of this study was to assess the critical success factors for the completion of Ethiopian Airlines cargo terminal expansion project and find out which factors contribute the most for success and which one are deficient.

From the above findings the study, one can conclude that all the critical success factors under study has affected the project not only in a positive way but also negatively. The actual presence of the variables under each success factors has contributed positively on the performance of the project. for instance, the clarity of project goal helps everyone to understand what they will be doing for the specified project life time, the cascade of tasks helps to identify which activities should come first before any other job, periodic monitoring and evaluation helps to examine the progress of the project, clear budget figure tells everyone the limit, top management support helps to facilitate work and creates harmony, clear allocation of resources along the timeline enables the team who and how many is needed at each stage.

At the same time lack of resources, skilled personnel, training and delay of raw materials has hindered the project progress. As it is mentioned in the statement of the problem, lack of communication especially between the two contractors delayed the project for two more years beyond the original schedule.in addition lack of contingency plan increased the risk of the project.

5.3 Recommendation

Based on the above mentioned findings the researcher would like to suggest the following for effective completion of the rest 10% of 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 project should have identified leadership structure with designated authority to enable sound decision making.

-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 should be on time provision of resources with the required quality and quantity.

-There should be training to increase the technical knowledge of personnel

-There should be involvement of skilled personnel only to have the project output as required and complete the work within the specified period.

-There should be continuous monitoring and evaluation at each stage of the project to have correction on what is missing and keep up the good work.

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Appendix 1 Questioner

Dear sir\madam

As part of my MA in project management program, I am currently undertaking a case study which aims at assessing the critical successes factors (CSFs) relevant for delivery of Ethiopian Cargo terminal expansion project.

Considering your experience in project works, your participation in this survey will significantly contribute to the accuracy and usefulness of the research outcome.

It will take you approximately 15 minutes to complete the questioner.

Please note that the information you provide in this survey shall be treated with utmost confidentiality.

My contact details are indicated below if you inquire any clarification and/or support.

Thank you very much for your time and support.

Best regards

Sefanit Mekonnen

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Part I: General information

Survey Question 1,

Please give your answer by ticking by one of the boxes provided below

Respondent's information

1. Age

- o Less than 30
- o 30-40
- o 40-50
- o Greater than 50

2. Sex

- o Female
- o Male

3. Educational level

- o undergraduate
- o diploma
- o graduate
- o post graduate
- o other

4. Occupational level

- o field manager
- o general manager
- o project manager
- o supervisor
- o other project personnel

5. Number of years of experience in related project works?

- o 0 to 5 years
- o >5 to 10 years
- o >10 to 15 years
- o >15 years
- o none

6. Organization

- Ethiopian Airlines
- Consultant
- Contractor
- other

Part II: General Success Factors of Project Management

Survey Question 2,

Based on literature review I have compiled a list of critical success factors (CSFs) that could impact on the successful delivery of Ethiopian cargo terminal expansion project. Please 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 completion.

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

No.	GENERALFACTORS	1	2	3	4	5
	Project Goals					
1	The overall goal of the project is clearly specified and recognized by all stakeholders involved in the project					
2	Subsidiary objectives are clearly specified and are recognized by all stakeholders who need to be aware of them					
3	The Overall goals and subsidiary objectives are not in conflict					
4	The objectives specify what needs to be achieved					
5	The objectives are measurable to check whether they are being met					
6	The objectives are attainable					
7	The goals of the project can be realistically achieved with the resources available					
8	There is a specific time scale to achieve the project objective					
9	The project goal align with the overall					

	organizational mission					
	Top management					
10	The top management supports the project in exhibiting commitment to work and encouragement					
11	The project have strong, clearly identified leadership					
12	The project has clarity as to how authority is distributed below the overall leadership level					
13	The top management supports the project in providing authority to the subordinate personnel's to make independent but important decisions					
	Project planning and scheduling					
14	The project plan consists of clear budget and cost figures					
15	The project plan have a backup for things that can go wrong					
16	The plan included methods and frequency of communication among stakeholders and other personnel					
17	The project plan have monitoring and evaluation strategy					
18	The project has realistic time schedules and assignments					
19	The project plan clearly specified man power and other resource requirements					
20	The project has a clear work breakdown structure					
21	There a cascade of tasks listed based on their priority					
22	There is a clear allocation of resources along the timeline					
	Resources					
23	All the required resources are available					
24	There is on time provision of resources					
25	All the required resources are with the required quality and standard					

26	There is availability of skilled personnel					
27	There is a Standardized recruitment and selection process					
28	There is a training to increase the technical knowledge of project personnel					
	Technical task\competency					
29	The required technology is available					
30	The project manager have sufficient experience, technical knowledge and skill					
31	The other project personnel's have enough knowledge to operate with the existing technology					
	Monitoring ,evaluation and feedback					
32	There is a Periodic evaluation and feedback					
33	There is a regular and careful progress (time, scope, and cost) monitoring and review throughout the project					
34	There is a necessary report on the project performance relative to established objectives (e.g., budgets, cost, and quality)					
35	There is a periodic review of project reports					
36	There is a periodic evaluation to assess the project outcomes at each stage					
37	There is a necessary feedback on how to improve project performance based on monitoring and evaluation reports					
	Communication					
38	There is effective communication between project stakeholders, team, and personnel					
39	There is a clear and easy channel of					

	communication					
40	There is an encouraging environment for team members for advice, opinions, feedback					
41	There are various communication channels					

Appendix 2 Frequency

the overall goal of the project is clearly specified and recognized by all stakeholders involved in the project

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	4	10.0	10.0	10.0
	disagree	3	7.5	7.5	17.5
	neutral	3	7.5	7.5	25.0
	agree	15	37.5	37.5	62.5
	strongly agree	15	37.5	37.5	100.0
	Total	40	100.0	100.0	

subsidiary objectives are clearly specified and are recognized by all stakeholders

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neutral	16	40.0	40.0	40.0
	agree	16	40.0	40.0	80.0
	strongly agree	8	20.0	20.0	100.0
	Total	40	100.0	100.0	

the overall goals and subsidiary objectives are not in conflict

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	5	12.5	12.5	12.5
	neutral	16	40.0	40.0	52.5
	agree	18	45.0	45.0	97.5
	strongly agree	1	2.5	2.5	100.0
	Total	40	100.0	100.0	

the objectives specify what needs to be achieved

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	8	20.0	20.0	20.0
	neutral	6	15.0	15.0	35.0
	agree	16	40.0	40.0	75.0
	strongly agree	10	25.0	25.0	100.0
	Total	40	100.0	100.0	

the objectives are measurable

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	2	5.0	5.0	5.0
	neutral	3	7.5	7.5	12.5
	agree	32	80.0	80.0	92.5
	strongly agree	3	7.5	7.5	100.0
	Total	40	100.0	100.0	

the objectives are attainable

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neutral	9	22.5	22.5	22.5
	agree	28	70.0	70.0	92.5
	strongly agree	3	7.5	7.5	100.0
	Total	40	100.0	100.0	

the goals of the project can be realistically achieved with the resources available

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	20	50.0	50.0	50.0
	neutral	9	22.5	22.5	72.5
	agree	11	27.5	27.5	100.0
	Total	40	100.0	100.0	

there is a specific timescale to achieve the project objective

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	7	17.5	17.5	17.5
	agree	31	77.5	77.5	95.0
	strongly agree	2	5.0	5.0	100.0
	Total	40	100.0	100.0	

the project goal aligns with the overall organizational mission

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neutral	10	25.0	25.0	25.0
	agree	26	65.0	65.0	90.0
	strongly agree	4	10.0	10.0	100.0
	Total	40	100.0	100.0	

top management supports the project in exhibiting commitment and encouragement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	3	7.5	7.5	7.5
	neutral	16	40.0	40.0	47.5
	agree	11	27.5	27.5	75.0
	strongly agree	10	25.0	25.0	100.0
	Total	40	100.0	100.0	

the project have strong clearly identified leadership

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	2	5.0	5.0	5.0
	disagree	6	15.0	15.0	20.0
	neutral	15	37.5	37.5	57.5
	agree	7	17.5	17.5	75.0
	strongly agree	10	25.0	25.0	100.0
	Total	40	100.0	100.0	

the project has clarity as to how authority is distributed below

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	10	25.0	25.0	25.0
	neutral	19	47.5	47.5	72.5
	agree	9	22.5	22.5	95.0
	strongly agree	2	5.0	5.0	100.0
	Total	40	100.0	100.0	

top management provides authority to subordinates to make an independent decision

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	10	25.0	25.0	25.0
	neutral	17	42.5	42.5	67.5
	agree	12	30.0	30.0	97.5
	strongly agree	1	2.5	2.5	100.0
	Total	40	100.0	100.0	

the project plan consists of clear budget and cost figures

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neutral	13	32.5	32.5	32.5
	agree	18	45.0	45.0	77.5
	strongly agree	9	22.5	22.5	100.0
	Total	40	100.0	100.0	

the project plan has contingency plan

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	2	5.0	5.0	5.0
	disagree	21	52.5	52.5	57.5
	neutral	5	12.5	12.5	70.0
	agree	12	30.0	30.0	100.0
	Total	40	100.0	100.0	

the plan includes methods and frequency of communication between stakeholders

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	22	55.0	55.0	55.0
	neutral	15	37.5	37.5	92.5
	agree	3	7.5	7.5	100.0
	Total	40	100.0	100.0	

the project plan has monitoring and evaluation strategy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	2	5.0	5.0	5.0
	disagree	6	15.0	15.0	20.0
	neutral	13	32.5	32.5	52.5
	agree	18	45.0	45.0	97.5
	strongly agree	1	2.5	2.5	100.0
	Total	40	100.0	100.0	

the project has realistic time schedule and assignments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	6	15.0	15.0	15.0
	disagree	3	7.5	7.5	22.5
	neutral	17	42.5	42.5	65.0
	agree	11	27.5	27.5	92.5
	strongly agree	3	7.5	7.5	100.0
	Total	40	100.0	100.0	

the project plan has clearly specified manpower and other resource requirements

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	2	5.0	5.0	5.0
	neutral	22	55.0	55.0	60.0
	agree	14	35.0	35.0	95.0
	strongly agree	2	5.0	5.0	100.0
	Total	40	100.0	100.0	

the project has a clear work breakdown structure

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	7	17.5	17.5	17.5
	neutral	17	42.5	42.5	60.0
	agree	13	32.5	32.5	92.5
	strongly agree	3	7.5	7.5	100.0
	Total	40	100.0	100.0	

there is a cascade of tasks based on their priority

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	7	17.5	17.5	17.5
	neutral	15	37.5	37.5	55.0
	agree	16	40.0	40.0	95.0
	strongly agree	2	5.0	5.0	100.0
	Total	40	100.0	100.0	

there is a clear allocation of resources along the timeline

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	7	17.5	17.5	17.5
	neutral	14	35.0	35.0	52.5
	agree	15	37.5	37.5	90.0
	strongly agree	4	10.0	10.0	100.0
	Total	40	100.0	100.0	

all required resources are available

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	2.5	2.5	2.5
	disagree	30	75.0	75.0	77.5
	neutral	6	15.0	15.0	92.5
	agree	3	7.5	7.5	100.0
	Total	40	100.0	100.0	

there is an on time provision of resources

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	9	22.5	22.5	22.5
	disagree	25	62.5	62.5	85.0
	neutral	5	12.5	12.5	97.5
	agree	1	2.5	2.5	100.0
	Total	40	100.0	100.0	

all the resources are with the required quality and standard

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	10	25.0	25.0	25.0
	neutral	11	27.5	27.5	52.5
	agree	17	42.5	42.5	95.0
	strongly agree	2	5.0	5.0	100.0
	Total	40	100.0	100.0	

there is availability of skilled personnel

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	2	5.0	5.0	5.0
	disagree	24	60.0	60.0	65.0
	neutral	14	35.0	35.0	100.0
	Total	40	100.0	100.0	

there is a standardized recruitment and selection process

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	12	30.0	30.0	30.0
	neutral	17	42.5	42.5	72.5
	agree	11	27.5	27.5	100.0
	Total	40	100.0	100.0	

there is training to increase the technical knowledge of project personnel

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	22	55.0	55.0	55.0
	neutral	18	45.0	45.0	100.0
	Total	40	100.0	100.0	

the required technology is available

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	2.5	2.5	2.5
	disagree	6	15.0	15.0	17.5
	neutral	4	10.0	10.0	27.5
	agree	21	52.5	52.5	80.0
	strongly agree	8	20.0	20.0	100.0
	Total	40	100.0	100.0	

the project manager has sufficient experience, technical knowledge and skill

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	4	10.0	10.0	10.0
	neutral	10	25.0	25.0	35.0
	agree	19	47.5	47.5	82.5
	strongly agree	7	17.5	17.5	100.0
	Total	40	100.0	100.0	

other project personnel have enough knowledge to operate with the existing technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	24	60.0	60.0	60.0
	neutral	8	20.0	20.0	80.0
	agree	6	15.0	15.0	95.0
	strongly agree	2	5.0	5.0	100.0
	Total	40	100.0	100.0	

there is a periodic evaluation and feedback

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	1	2.5	2.5	2.5
	neutral	8	20.0	20.0	22.5
	agree	29	72.5	72.5	95.0
	strongly agree	2	5.0	5.0	100.0
	Total	40	100.0	100.0	

there is a regular progress monitoring and review

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disgree	8	20.0	20.0	20.0
	neutral	8	20.0	20.0	40.0
	agree	21	52.5	52.5	92.5
	strongly agree	3	7.5	7.5	100.0
	Total	40	100.0	100.0	

there is a report on project performance relative to established objectives

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	4	10.0	10.0	10.0
	disagree	2	5.0	5.0	15.0
	neutral	5	12.5	12.5	27.5
	agree	27	67.5	67.5	95.0
	strongly agree	2	5.0	5.0	100.0
	Total	40	100.0	100.0	

there is a periodic review f project reports

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	13	32.5	32.5	32.5
	neutral	12	30.0	30.0	62.5
	agree	13	32.5	32.5	95.0
	strongly agree	2	5.0	5.0	100.0
	Total	40	100.0	100.0	

there is a periodic evaluation to assess outcomes at each stage

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	8	20.0	20.0	20.0
	neutral	7	17.5	17.5	37.5
	agree	24	60.0	60.0	97.5
	strongly agree	1	2.5	2.5	100.0
	Total	40	100.0	100.0	

there is a feedback on how to improve project performance based on monitoring and evaluation report

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	18	45.0	45.0	45.0
	neutral	13	32.5	32.5	77.5
	agree	8	20.0	20.0	97.5
	strongly agree	1	2.5	2.5	100.0
	Total	40	100.0	100.0	

there is effective communication between stakeholders team and other personnel

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	10	25.0	25.0	25.0
	disagree	14	35.0	35.0	60.0
	neutral	9	22.5	22.5	82.5
	agree	7	17.5	17.5	100.0
	Total	40	100.0	100.0	

there is a clear and easy channel of communication

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	2.5	2.5	2.5
	disagree	23	57.5	57.5	60.0
	neutral	15	37.5	37.5	97.5
	agree	1	2.5	2.5	100.0
	Total	40	100.0	100.0	

there is an encouraging environment for team to forward comments, ideas and feedback

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	2.5	2.5	2.5
	disagree	16	40.0	40.0	42.5
	neutral	14	35.0	35.0	77.5
	agree	9	22.5	22.5	100.0
	Total	40	100.0	100.0	

there is various communication channel

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	18	45.0	45.0	45.0
	neutral	14	35.0	35.0	80.0
	agree	8	20.0	20.0	100.0
	Total	40	100.0	100.0	