Assessment of Critical Success Factors in the Implementation of Autoline in MOENCO

BY

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This is to certify that the Project paper is prepared by Meron Lemma, entitled; The Assessment of critical success factors and s in the implementation of IT project the case of Autoline in Moenco, In partial fulfillment of the requirements for the award of the Degree of Master of Arts in Project Management with the regulation of the University and the accepted standards with respect to originality.

Approved by Board of Examiners

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Declaration

I, Meron Lemma, hereby declare that this research paper entitled "**Assessment of Critical Success Factors in the Implementation of Autoline in Moenco**" is my original work and has not been used by others for any other requirements in any other university and all sources of information in the study have been appropriately acknowledged.

Meron Lemma _____ **26th August 2019**

Student **Signature** **Date**

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ABSTRACT

Critical success factors (CSFs) for project management significantly improve the chance for the success of projects. This project investigates the CSFs for IT project management using a quantitative and qualitative approach. Five CSFs for project management were identified through a systematic literature review for this study. A survey study was conducted among MOENCO information technology (IT) teams from 50 project teams. On the basis of the results using regression analysis, the dimensions relating to the success factors for project management were determined. In addition, the study identified most significant factors relating to project success in Autoline implementation in MOENCO.

Keyword: Project Management, Critical Success Factor, Information System, Information Technology

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Information Technology (IT) is being used by almost all organizations throughout the world. However its success at supporting and improving business is debatable. There is always the risk of IT project failure and studies have proven that a large number of IT projects indeed do fail. Studies have found the most necessary components for success in software development projects, include executive support, project manager competency, communication, etc. IT projects are complex works subjected significant budget, time and quality. IT projects are exceptionally complex because it requires the involvement of expertise and software problems, and is time taking. Many companies have been implementing IS in their respective organizations and reorganizing their business processes (Rajagopal, 2002).

One of the greatest in IT projects it determining the success and the failure factors of each IS (Information System) project. Huge yearly investments were made by organizations for the development and maintenance. However, it has been reported that most of the IT projects fails as it is delayed, over budget and discontinued quality. One of the fields of study in project management is success factors and failure causes in projects. The significance of how to measure success in projects was identified by Project management institute.

There are several problems which occur during the implementation of new software or information system. These problems can be observed in a series points corresponding to each stage of the overall process. It appears that every layer is comprised of multiple issues that create or worsen the s. There are many factors which are critical for the success of a project. We call these factors as critical success factors, which are the key jobs that must be done exceedingly well for a company to be successful. Moreover, the success of new software implementation in the organization also depends on a multitude of important and interrelated factors (Bannerman 2008)

There are a wide range of definitions of the term “Success”. Success is perceived differently by different stakeholders. It plays out in various ways across states, communities, and population subgroups since there is a large diversity of people with different ideas. In fact, the definition of success is so broad that its meaning differs from one specific branch of science to another. Thus,

success is not easily defined or determined. As suggested by Meredith & Mantel (2006), what appears to be a failure in one project might be a success factor in another one.

A Successful Project**,** Similarly to what has been mentioned before, there is a remarkable difference in the perception of the meaning of "success" in the minds of people who evaluate project performance. Project managers, system analysts, sponsors and users all have a specific definition of "project success". Some researchers such as Dvir et al. believe that a project is deemed successful when it meets budget and schedule constraints even though it may not have met factors such as customer needs or achieved a quality commercialization process of the final product.

One of the biggest automotive dealer in Ethiopia, Inchcape MOENCO, is now implementing the new global automotive system Autolione, which is supplied by its software company CDK.

CDK has implemented and was successful in different Inchcape group companies in the implementation of the auto line system. In MOENCO the project started before a year and is now in the implementation phase. In this paper, previous literatures that have looked into these success promoting factors will be critically reviewed and analyzed. Moreover specific critical success factors and their relationship with the success of the project will be analyzed through relationship models.

1.2 Background of IT system of MOENCO

HILL MARK

Previously the company has been using a local customized system called Hillmark. From the old Hill mark system, there is a need to change to Autoline system because each departments functions its own task , which is not integrated by functions and is not globally integrated to other Inchcape markets.

Existing system problems

1. Lack of integration across departments
2. Lack of integration with the global system which creates a huge difficulty of control
3. Customer and vehicle data base duplication

4. Poor customer relationship management
5. Manual stock management

The New System- Autoline

Autoline has been developed progressively over 30 years and is used by more than 4,000 dealers in 45 countries around the world, of which over 2,500 are UK based. Designed to increase business efficiency for its users, Autoline delivers a fully integrated approach to dealer management, with all key business operations built into a single powerful software solution.

Flexible and adaptable

Autoline meets the needs of all vehicle dealerships, from single site, single franchise organizations through to the large multi-franchise groups operating multiple locations.

Extensive manufacturer and third party interfaces

The Autoline system developing company called CDK understands that a dealer management system is a vital component in the business of managing the supply of vehicles and parts - from the manufacturers through to the customer. Autoline has the capability to integrate with a wide range of manufacturer-specific and third party interfaces and data sources. By providing these interfaces, Autoline eliminates the need for a user to access stand-alone systems or re-key data to complete transactions.

1.3 Statement of the problem

With developing technological possibilities, IT projects are becoming increasingly ambitious in both goals and scale. Although technology itself is enabling easy management of project execution, failure can still occur particularly with respect to an ample number of unique IS projects.

One of the greatest s in project management is determining what is necessary to do in order to achieve success. Hence the question is what are the key factors that make an IT project successful?

Organizations have made significant investments in technology, hoping to gain competitive advantages in today’s dynamic markets. Traditional organizational structures are rigid and highly

bureaucratic. Previous evidence has shown that they cannot quickly or accurately respond to the constant changes of the business environment. Organizations should carry out significant changes and implement new practices more adjusted to reality, including the use of project and benefits management approaches, seeking a better use and control of existing resources and capabilities. As project management became crucial for the development of organizational strategies, by reinforcing professional skills and capabilities, it is of interest to carry out studies aiming to identify which factors contribute to projects success.

It is important to notice that a lack of awareness of numerous and varied challenging issues surrounding the implementation process i.e. resistance to change, knowledge gap, existing database cleansing, frequent internet interruptions, system set up problem could cause problems for the whole process of Autoline development and deployment.

Due to rapid development of IT industry, people today have hugely recognized the importance of implementation of IT projects. IT project management often encounter many issues, such as rapid technological upgrade, fast changes in environment and frequent movement of people.

Consequently, discussing the finding out factors for success goes a long way in improving and establishing IT projects. Combining project management ideology and methods with information technology during the implementation of IT project is very significant for attainment of IT projects.

The success of IT project related to innumerable factors and it's important to find the critical ones. IT project complexity and high uncertainty also call for critical success factors in IT project to be analyzed from different angles.(Md.Athar Imtiaz,Abduljalil S.Al-Mudhary,Md.Taha Mirhashemi, Roslina Ibrahim,2013)

Furthermore, the problem of a lack of standard for the key success issues, diversion from the existing system to the new Autoline system seems to be a serious obstacle for implementation process. It is essential to define the success factors and manage them in order to carry out a successful implementation. Additionally, Autoline implementation affects the operational processes of MOENCO and these effects are related to the consequences of the business processes. Consequently, these issue is critical and crucial for an organization to consider when implementing Autoline in the company. The problem addressed in this study focus the s and key success factors, and measure the impact of each success factors to the success of a project

regarding Autoline implementation in the case of MOENCO. Additionally, the problem addressed in this study refers to effects and consequences on MOENCO and its business process.

The framework proposed in this paper assists organizations to identify and monitor the benefits of technological projects, allowing the answer to our main research question: "what are the critical success factors for the successful implementation of Auto line project in MOENCO?"

1.4 Research Questions

Based on the above foundational problem statement the researcher posed the following questions to get clear picture and answer about the critical success factors for the successful implementation of auto line project in MOENCO.

- What are the key success factors for the successful implementation of Autoline system in MOENCO?
- How are the CSFs associated with each other?
- What is the most influential factor in measurement dimension from the project company perspective?

1.5 Research Objective

1.5.1 General Objective of the Study

The main objective of this study is to examine critical success factors of IT project implementation in MOENCO.

1.5.2 Specific Objectives of the Study

- To identify the key success factors for the implementation of Autoline in MOENCO.
- To determine the most significant key success factor(s) in implementing the Autoline IT project implementation in MOENCO

1.6 Scope of the Study

This study's focus is on identifying and describing IS project success factors. In order to do this, different literatures are reviewed and CSF will be identified and explained. The study use different variables which are, pertinent to explain success of a project. Since we are measuring CSF from the project perspective, dimensions included under the study are organizational, process Technical, project and people. However, few variables other than the mentioned once are not covered in literature reviews and not applicable to our case. In addition considering the

resource, time and financial constraints it covers only Autoline application project teams in Addis Ababa, MOENCO Head office only.

1.7 Significance of the Study

The research contribute by being used as a reference by other researchers who want to conduct further study on the concept of CSF in IS project success in the information technology Industry. Furthermore, it gives some high lights about the most prominent contributors of project success in the implementation phase of IS in the company. Hence, all concerned parties of MOENCO may make use of the findings to take a lesson on project planning, scheduling, implementation and project close out. Findings of this study is useful and very important for students and academicians as an input for embarking upon similar researches in the future and also the research findings will be a helpful literature reference

1.8 Organization of the study

This study is organized into five chapters .The chapters comprised of: Introduction, Review of related Literature, Results and Discussion and, Summary, conclusions and recommendations.

The first chapter provides a general introduction of the study including background of the study, Statement of the problem, Research questions, Objectives of the study, Scope of the study, Significance of the study, Limitations of the study, organization of the research report and definitions of key terms.

Chapter two covers the literature relevant to the study .It includes concepts and theoretical framework, empirical literature as well as discussions on project success factors in IS industry.

Chapter three elaborates research design and methodology: the type and design of the study .It includes research method sampling technique, data collection method and method of data analysis that is used in the study

Chapter four summarizes the findings of the study and discuss them in detail

Finally chapter Five comprises of four sections which include summary findings, conclusions, limitations of the study and recommendation

CHAPTER TWO
REVIEW OF RELATED LITERATURE

This chapter provides an insight to the readers about the theoretical framework, empirical review and conceptual framework of the topic under study .In line with the objectives of the study, this chapter covers topics related to, Project success model, critical success factors and other relevant concepts related to the topic under study.

2.1 Concepts of Project and Project Management

Project can be defined in a various ways as there are different types of project such as IT projects, Construction projects, community development projects etc. According to PMBOK (2013) A project is a temporary endeavor undertaken to create a unique product, service, or result‘

Wysocki (2009) define a project as a sequence of unique, complex, and connected activities that have one goal or purpose and that must be completed by a specific time, within budget, and according to specification‘. This definition tells quite a bit about a project.

Project management is defined by different scholars differently. However, the current study uses PMBOK concept of project management, project management is the application of knowledge, skills, tools and techniques to project activities‘(PMBOK2013). Project management is accomplished through the application and integration of the project management processes of initiating, planning, executing, monitoring and controlling, and closing’ Thus, project manager is the person responsible for leading a project from its inception to execution.

2.2 Defining Project Success

Project success variously refers to “on time, within budget, to specification” completion; success of the product produced; or success in achieving the business objectives of the project. Also, these measures are often contested, making it difficult to determine whether there is a problem at all (Sauer, Gemino, & Reich, 2007).Project success has attracted much attention in the research and practice literature. Three main streams are found. The first and dominant stream aims to identify the *factors* that practice suggests are likely to contribute to project success, project failure, or project risk (e.g., Baker, Murphy, & Fisher, 1997; Cooke-Davies, 2002; Pinto & Covin, 1989; Pinto & Slevin, 1988).

Some researchers suggest that success criteria should be project-specific and therefore determined by stakeholders at the start of each project (Nelson, 2005) This view has considerable merit because of the broad range of project types, project objectives, and other variables that can contribute to project outcomes. However, there is also a role for a common reference framework to enable project success to be discussed in a uniform way and to provide a standard benchmark by which project outcomes can be compared (Pinto & Slevin, 1988), especially within the same discipline.

Several surveys of project success research already exist in the literature (e.g., Cooke-Davies, 2004; Jugdev & Müller, 2005; Pinto, 2004) summarizes characteristics of project success criteria. Among them some of the success criteria of a project are summarized below.

2.3 Project Management Success

The classic criterion from practice is a measure of the immediate performance of a project against its main design parameters—schedule (time), budget (cost), scope, and/or quality—which the literature tends to call a measure of *project management success.*

A variety of authors have defined success for IT projects using different ways. According to (Hastie, 2006) project success is defined as a measure of the effectiveness of the organizations processes for implementing new Information System projects, up to the point of deployment of the new system to the end user community. This incorporates all the project related activities to ensure: project delivery on time, on budget, of required features and functions and to the requisite quality standards. Bannerman, P. L. (2008).

A standard must be established by which to define and measure project success. Fundamentally, project success is the delivery of the required product, service, or result on time and within budget. To meet these objectives is to deliver a quality project. PMI illustrates project quality through the concept of the triple constraint—project scope, time and cost. Project quality is affected by balancing these three interrelated factors. ―The relationship among these factors is such that if any one of the three factors changes, at least one other factor is likely to be affected‖ (PMBOK, 2004)

Figure 2.1 illustrates this constrained relationship, sometimes called the "iron triangle."

Source: PMBOK, 2004 page37

In the three-element form, this criterion is variously called the triple constraint, iron triangle, or three-legged stool of project management. Other variants include all four elements as the project diamond or four-legged stool. Scope is less clearly defined than time or cost, referring to the extent to which the main deliverable was completed against specification or whether all intended activities and phases of the project were completed. Quality is often assessed, *post hoc*, against established industry or subjective criteria. The conventional approach is that an assessment of performance is made in a post project review based on whether the project was completed "on time, within budget and to specification." If each was achieved within a narrow range of tolerance then the project is deemed a success. This criterion is of particular interest to stakeholders with vested interests in the project vehicle itself, such as the project manager, project team, and project governance stakeholders.

2.3.1 Product Success

Drawing on the IS literature, several researchers implicitly argue that project success is a function of the success of the information system produced by the project Bannerman, P. L. (2008). Completing the main project deliverable "to scope" (specification) may not be a valid or sufficient measure of project success if the deliverable is not also accepted and used by the intended client/end-user and/or does not provide sufficient benefit to them. In the case of information system deliverables, this success criterion might comprise measures of information quality, system quality, service quality, intention to use, actual use, user satisfaction, and net benefits ,Bannerman, P. L. (2008).

A project can succeed in delivering an information system "on time, within budget and to specification" but fail to gain user acceptance or use of the system. It is well-recognized that this

can occur, for example, when a system specification lacks adequate user input to its definition and/or when user requirements change due to evolving business circumstances. D.J. Bryde (2003)

Pinto and Slevin (1988) modeled project success as comprising two components: success of the project itself, as indicated by time, cost, and performance subcomponents, and client success, as reflected by use, satisfaction, and effectiveness of the project in benefiting intended users. Similarly, Kerzner (2003) defined project success as completion within time, cost, and specifications (the traditional triple constraints), as well as with minimum or mutually agreed scope changes and acceptance by the client/user (what I have called product success). Kerzner added two additional components: completion without disturbing the main workflow of the organization and without changing the corporate culture. The intent of these components is not to argue that projects should not be vehicles of change within the organization but an acknowledgement that projects execute within an existing operational organizational context with established values and norms of behavior. This is consistent with the view of a project as a discrete change activity within an organization.

2.3.2 Business success

It is the measure of the degree to which the project objectives are met and benefits accrue to the investing organization. Describing business objectives as business or organizational objectives rather than project objectives Simplistically, project objectives relate to the goals in the project plan while business or organizational objectives relate to the goals in the business plan. Bannerman, P. L. (2008).Taking information systems, ultimately, businesses do not invest per se in a new computer system for the right system to be installed on time, within budget, to specification, and the satisfaction of users. Instead, they aim to solve a particular business problem (albeit in a timely, cost-efficient, and effective manner). If the project does not deliver an acceptable solution to that problem then investment stakeholders are likely to view the project as a failure. Naturally, the business success criterion also permits the perverse possibility encountered in practice of a project failing on project management and/or project deliverable criteria but still achieving business objectives in some acceptable way and, therefore, being considered a success. This reinforces the counterintuitive view that project management success and even project deliverable success are neither necessary nor sufficient for project success. Bannerman, P. L. (2008).

2.3.3 Strategic success

De Wit's (2008) concerns about multiple stakeholder objectives are further partially addressed by criteria that assess project success beyond direct organizational benefits. These include benefits that favorably position the organization for future opportunities (Shenhar et al., 2001), and benefits that accrue to the stakeholder community beyond the investing organization (Atkinson, 1999). In the proposed framework, these considerations are generalized as a *strategic success* criterion. This criterion represents the highest level of benefit achieved by a project, despite the possibility of failures against lower level criteria, as recognized by external stakeholders, such as investors, industry peers, competitors, or the general public, dependent upon the nature of the project. A strategic success criterion also applied for IS projects, its success depends on its effectiveness in the marketplace and is dependent on the perceptions of competitors and other industry stakeholders external to the investing firm.

Its success depends on its effectiveness in the marketplace and is dependent on the perceptions of competitors and other industry stakeholders external to the investing firm. Bannerman, P. L. (2008).

2.3.4 Process success

It responds to the need to consider technical and managerial processes associated with project management that are important at different times throughout the project life cycle. Consequently, this is a lower level criterion than the project management criterion discussed above. Consistent with the aims of quality management (such as Deming's Quality Management System, Total Quality Management, Motorola's Six Sigma, Lean, and ISO 9000 standards), this criterion provides a basis of focus on continuous improvement of critical discipline-specific in-project processes. Bannerman, P. L. (2008).

In the case of information systems, for example, the systems and software engineering literature has a strong interest in the processes that underpin successful information systems development and deployment.

For example, software process improvement (SPI) is a key component of software quality accreditation (Bannerman, P. L. (2008). Key related processes include software development methodologies, configuration management, risk management, change management and quality control within the context of project and technical governance mechanisms. Most post-project reviews include consideration of these processes in determining project management success.

Reviews typically consider whether the right processes were chosen and effectively applied when needed, and whether they were appropriately aligned and integrated to facilitate achieving the objectives of the project.

2.4 Multilevel Project Success Framework

An alternative approach to the problem of defining project success is a framework that enables success to be determined at key milestones at different times after project closeout and from different stakeholder perspectives. (Bannerman, P. L. (2008).

2.4.1 Five Levels of Project Success

This approach enables success to be determined and periodically re-determined as benefits accrue from the project over time. It also enables stakeholders to progressively map success to perceptions of higher derived value from the project as benefits accrue. Based on this framework, project success is defined by the highest level of benefit achieved by the project at any point of reflection. This makes it possible, even non-controversial, for a project to fail at a lower level of assessment but still succeed at a higher level of perceived return from the project. Bannerman, P. L. (2008).

Each level is briefly described as follows.

Level 1 – Process success. Every project discipline has generic and project-specific best practices that are critical to successfully completing a project. Even generic processes such as project management and risk management have discipline- and domain-specific best practices. Others will be exclusive to the discipline. Determination of success at this level considers the appropriateness of the processes used, their alignment with the project's purpose, and their integration and effectiveness in contributing to the project outcomes. As with the other levels, analysis here provides feedback to the project team and organization for learning and improvement for subsequent projects.

Level 2 – Project management success. This is the traditional criterion of project success, determined on closeout against key project design parameters such as the project schedule, budget and some performance expectations such as completing all planned stages and activities. Note that scope at this level refers to project scope, not product scope (the latter is a component of the next level).

Level 3 – Product success. This level considers the success of the major deliverable from the project. Clearly, what this is will vary with the project discipline and the specific project (e.g., an information system, building, submarine, road, or some form of service deliverable). It includes measures relating to the deliverable itself (such as its match to specifications, requirements, and quality expectations) and to client/user satisfaction (such as product acceptance, use, and effectiveness).

Level 4 – Business success. Success at this level is accounted as accrual of positive net benefits to the organization from the project. It may also include an assessment of the organizational contribution to the project's outcome. Consequently, measures will typically include the degree to which the project met the goals and objectives that motivated the investment approval (which are usually specified in the business plan), and whether the expected benefits were realized. They may also include consideration of the effectiveness and contribution of corporate governance to the project. Finally, assessing net benefits will also include any unintended benefits and negative impacts that arose from the investment.

Level 5 – Strategic success. At this level, organizational benefits are assessed by external stakeholders such as investors, competitors, industry analysts, or regulators, rather than company insiders. Success at this level derives from net improvements in industry position, business growth and development, competitive advantage, and/or other strategic gain. Strategic success may be planned or emergent.

2.5 Critical success factors

CSFs are defined by Bullen and Rockhart (2010) as "the limited number of areas in which satisfactory results will ensure successful competitive performance for the individual, department, or organization. CSFs are the few key areas where things must go right for the business to flourish and for the managers' goals to be attained".

There are many factors critical to project success. In the literature they are called critical success factors and many studies have focused on trying to define clarify or analyze such factors. The first mention of the concept of success factor is usually attributed to Wateridge (2009) which he describes as a key jobs that must be done exceedingly well for the a company to be successful. Since then, different & complementary definitions can be found in the literatures published. Focusing on projects field, Shenhar et.al. (2001) State that they are management factors, listed in order of importance, that lead to achieve a successful project when they are present in the

environment. Also they can be viewed as the set of circumstances facts or influences that contribute to the successful outcome of a project (13) that is, the forces to facilitate achieving success.

The success of a project and the factors that affect this success are considered in various ways by different scholars. Critical success factors (CSFs) for project management significantly improve the chance for the success of projects. Different research investigates the CSFs for project management using different approaches. Among them Chow and Cao (2008,) identified Five CSFs for project management were identified through a systematic literature review for this study.

A survey study was conducted among information technology (IT) professionals from 50 projects conducted in 20 companies in service giving companies including banking &finance sectors. On the basis of the results using factor analysis, the dimensions relating to the success factors for project management determined. In addition, by using regression analysis, this study identified five significant factors relating to project success in information system (IS) project management.

The CSF approach aims at identifying and measuring project performance, which was investigated by Rockhart (2007) and the CSF approach was further developed by various researchers Chow and Cao (2008) propose five success attributes, as shown in Table 1, for identifying and measuring project success. CSFs are defined by Bullen and Rockhart (2010) as "the limited number of areas in which satisfactory results will ensure successful competitive performance for the individual, department, or organization. CSFs are the few key areas where things must go right for the business to flourish and for the managers' goals to be attained".

Authors identified factors which are related to the success of an IS project. According to Chow and Cao(2008) IS project critical success factors include the following dimensions.

Table 2.1 List of Success factor Dimensions in Information System (IS) Project

Dimension	Factor
Organizational	1. Strong executive support
	2. Committed sponsor or manager
	3. Cooperative organizational culture instead of hierarchal
	4. Oral culture placing high value on face-to-face communication
	5. Organizations where agile methodology is universally accepted
	6. Collocation of the whole team
	7. Facility with proper agile-style work environment
	8. Reward system appropriate for agile
People	9. Team members with high competence and expertise
	10. Team members with great motivation
	11. Managers knowledgeable in agile process
	12. Managers who have light-touch or adaptive management style
	13. Coherent, self-organizing teamwork
	14. Good customer relationship
Process	15. Following agile-oriented requirement management process
	16. Following agile-oriented project management process
	17. Following agile-oriented configuration management process
	18. Strong communication focus with daily face-to-face meetings
	19. Honoring regular working schedule – no overtime
	20. Strong customer commitment and presence
	21. Customer having full authority
Technical	22. Well-defined coding standards up front
	23. Pursuing simple design
	24. Rigorous refactoring activities
	25. Right amount of documentation
	26. Regular delivery of software
	27. Delivering most important features first
	28. Correct integration testing
	29. Appropriate technical training to team
Project	30. Project nature being non-life-critical
	31. Project type being of variable scope with emergent requirement
	32. Projects with dynamic, accelerated schedule
	33. Projects with small team
	34. Projects with no multiple independent teams
	35. Projects with up-front cost evaluation done
	36. Projects with up-front risk analysis done

3

(Source: Chow and Cao, 2008, p.963)

Here the study focused on five factors identified by : Chow and Cao (2008) which were assumed to be most important influential factors in service industry; i.e. organizational , people , process ,technical &project dimensions.

2.6 Organizational factors

Considering the success of a project, different attributes are included in the success of a project. These dimensions include: Top management support, the ability to get a sponsor / manager, the culture of the organization, reward system and team work capability.

Different authors have written the importance of Top management support for the success of a project. According to Md. Athar Imtiaz et. al. (2013), organizational factors from the sense of top management is a critical one.

2.6.1 Top management support

Top management support is a factor that can be affected by the general state of the economy; a lack of this factor can lead to project failure. In their research it was found that in the successful project executive support,(i.e. the Top Management) supported the project managers actively and held meetings. However, in the failed project there was no evidence of the top management supporting the lower management. Top Management Support is one of the most important factors for success of IT/IS projects. This factor is important for ensuring a long-term business vision, top-level interaction among users, and IS departments to facilitate successful implementation. It was found out that greater the top management support, greater is the chance of success for the project.

2.6.2 Organizational culture

According Hulya Julie (2015) Organizational culture is defined as the set of values, beliefs, and behavioral norms that guide how members of the organization get work done. Many organizational factors were attributed to team effectiveness. Organizational context is defined as management processes, organizational culture, and organizational systems that exist within an organization.

Firms with more flexible change oriented cultures were found associated to higher levels of technology transfer versus more stable direction oriented cultures were related to higher levels of knowledge transfer. Furthermore, an organizational culture that supports communication and cooperation between teams was significantly found related to team leader effectiveness and team member satisfaction. Janz and Prasarnphabich (2003) emphasized the importance of knowledge

centered culture and found a significant relationship between organizational climate and cooperative learning.

2.6.3 Budget/Financial Support

IT projects require significant financial resources that affect firm operations. Authors also mentioned that for global information systems strong financial backing is required. Financial support is dependent on another critical success factor 'Top Management Support' as the senior executives approve the budget. In the study the importance of this factor was proved by a comparative study on two projects. The point to be noted in their research is that the successful project had more financial support than the failed project.

2.7 People

2.7.1 Project manager competency

The competency of an individual in an organization has become a very powerful tool in modern human resource management (Collins, 2007). The project manager competency as a big impact on the success of the project, the qualities of the project manager include: hard skills & soft skills. Time management skill, scope management skill, communication skill, cost management & Quality management skills are basics required for the success of IS project.

The soft skills include: leadership skill, negotiation, motivation skill and team working and motivation are important for the success of any project.

Project managers with the required hard and soft skills are important and help in the success of a project.

2.7.2 Motivation

Motivation can inspire, encourage, and stimulate individuals and project teams to achieve great accomplishments. Motivation can also create an environment that fosters teamwork and collective initiatives to reach common goals or objectives. The level of motivation an individual and/or team applies to project efforts can affect all aspects of project results, including a direct impact to the triple constraint project success factors (i.e. on time, within budget, high quality, met scope / customer expectations). Knowing this, it is in the project manager's best interest to

understand the demotivation cause in order to drive toward project success through the creation and maintenance of a motivating environment for all members of the team.

2.7.3 Team work

Cross-functional team and cooperation between members of team and describes it as a critical success factor for IT projects. Studies of different authors also listed teamwork as an important critical success factor of IT project.

2.7.4 Key users Involvement

The first step to achieve the user's involvement is to identify them and define their responsibilities Germán Ariasa et.al. (2012). this identification process may be simple or could require a major effort. This will depends on the knowledge that the project manager has related with the company culture and will also depends on the number of users and business processes that the application being developed must support. Often the identification activity involves several meetings with the project sponsor and the nominated key users. Keep in mind that part of the project's success depends on proper selection of these key users. During these interviews, we also must have a good understanding on the business processes that each user knows to assign the right responsibilities in the project. All this information must to be registered formally in the project plan. Usually, organizations have a functional structure and the key users are assigned to operational activities much of their time. The project manager's responsibility is to estimate the key user´s participation (effort and duration) along the project life cycle. This activity is critical in order to communicate when and how much time these users should be allocated to the project. Once the Project Manager has the estimated effort of key users, a project commitment of these users and their supervisors should be ensured as the project activities may compete with the operational activities mentioned above. Therefore, it is important to obtain the user's supervisor assignment approval, so they can plan with time in advance how to solve the assignment of operational activities.

2.7.5 Effective Communication

Effective communication is regarded as an important factor for the success of IT projects, especially global IT projects. Lack of cross-functional and inter-departmental communication

results in only moderate success. Effective communication helps stakeholders to understand the objectives and makes them more responsible towards their work

2.8 Process

Project management success is defined by the level of efficiency the project achieved to reach the project objectives. Efficiency is related to how the project manages its limited resources to meet the goals while building good relationships with internal and external stakeholders. Process include: flexibility, agile oriented project management process & approach, strong communication, and strong customer commitment and communication.

2.8.1 Adequate Planning

According to Germán Ariasa et.al.(2012) Project planning is much more than building an schedule. Planning is the strategy that the project team will follow to achieve the project objectives. Planning is a creative activity that implies to imagine the future as well as to define the project strategy based on that. Planning is also to analyze the actions required to change that future. It is important for software development projects, which need to manage a high degree of uncertainty and is not easy to build a detailed plan for the entire project, to manage two different planning levels. The first level is the high-level project planning and include the estimates results, requirements management plan, identification of project stakeholders, the phases and iterations plan etc.). This information is consolidated in a unique document named the unified project plan. The second level includes the phase or iteration planning, which includes detailed plan of the activities to be performed. During the project, near to the end of the current phase or iteration (which generally must have a duration of less than one month), the next phase is planned in detail, taking into account the present context and getting lessons learnt of previous phases or iterations.

2.8.2. Effective Monitoring and Control

Adequate monitoring and control is important for the quality of the project. Successful projects always have some mechanism for this Germán Ariasa (2012). Effective control can help in reducing the planned time and can also help in reducing ambiguity. According to them, project controlling and monitoring should be done on all stages of the project. Monitoring and control should be proactive, i.e. must be used to prevent incidents and provide regular feedback.

2.9 Technical

2.9.1 Software feature

Software feature is about the simplicity of the software design to end users, whether important features are included or not, correct integration testing, well defined coding and the provision of training to end users**.**

2.9.2 Training

Staff training or user training has been defined as a critical success factor by some researchers. In the study carried out in Md. Athar Imtiaz (2013), it was found that in the successful project adequate training was conduct, whereas in the failed project training was inadequate and the help manuals were also incomplete. As per them, training should be conducted for managers, staff and end-users for the success of the IT project. It was also found that by training users gain more confidence in the IT system and hence it affects their attitudes towards the system. User training early in the development phase of the project can also help in building a better system.

2.10 Project

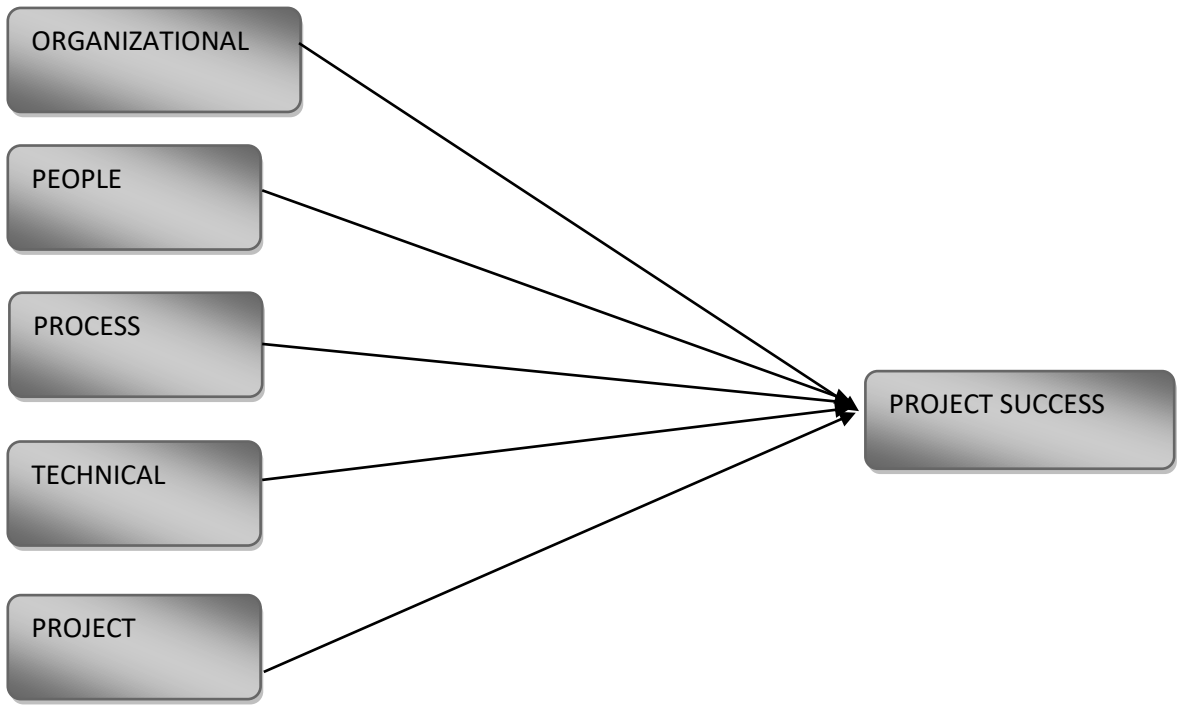
2.10.1 Project schedule

As unlike in other projects where we can see the product being developed physically, software don't have physical manifestation therefore keeping track of the development schedule is very important. This lack of physical dimensions of a software product also makes it tough to monitor and track Md. Athar Imtiaz (2013). Success is synonymous with meeting project schedule; this highlights the importance of this critical success factor. The project schedule should be realistic enough to be met and completed on time.

2.10.2 Risk Management

In successful projects risk analysis was done at the start of the project and risks that arose were handled successfully, whereas in the failed project no risk analysis was done Md. Athar Imtiaz (2013). As per him, risks arise because stakeholders of the project do not take their responsibilities seriously. Active risk management can reduce risks and can also help in avoiding risks.

Fig.2.2 Conceptual framework



(Source: Chow and Cao, 2008, p.963) with little modification

Organizational – Top management support, the ability to get a sponsor / manager, the culture of the organization, reward system and team work capability.

People – includes project team competency, ability to accept change, motivation and having good customer relationship.

Process – factors considered in the dimension of process include authority of customers, system integration & delivery of important feature list.

Technical – include system definition, system interactivity, understanding system reports and system performance to deliver all important features.

Project – Project dimensions include scope variability, team size, cost evaluation and project schedule.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research design & approach

When conducting a research, there are different ways to consider in approaching the research problem. According to Creswell (2009), there are three research designs which involve quantitative, qualitative and combination of the two. According to Cooper et.al (2003) as cited by Farhadi (2009) quantitative research helps to determine the relationship between an independent variable and a dependent variable in a population. It also used to explain causal relationships to facilitate generalization and to predict the future whereas qualitative research methods provide a complete picture of the situation by increasing the understanding of social process and interrelations.

Based on the objectives of the study and the availability of relevant information, the study is casual in nature in that it attempts to discover the CSF in the implementation of IT project in MOENCO.

Descriptive method is undertaken in order to ascertain and be able to describe the characteristics of variables of interest in the situation (Uma Sekaran, 2006)

In this study literature studies and questioners are done to gather information. Therefore, a qualitative and quantitative techniques are conducted in order to collect data and analyze them.

3.2 Data collection method

Interview & questionnaires are the most widely used method to collect data. Questionnaire is a method of deciding how the sample is to be surveyed (e.g., by mail, by phone, in person) and developing the specific questions that will be used Marczyk, DeMatteo and Festinger(2005). This study used questionnaire to collect information from respondents because it was helpful to collect large amount of information in short period of time with larger sample size. Second, it was also the easiest method to analyze scientifically than other forms of research methods. Finally, this method was a relatively cost effective and also can be carried out by the researcher or by any number of people with limited affect to its validity and reliability.

3.3 Source of Data

The survey undertaken identified a target group. To realize the objective both primary and secondary sources are used. The secondary sources include books, articles and journals which have been published previously.

This research used primary data; structural questionnaire was prepared to obtain information targeting Auto line project teams in MOENCO, head office.

3.4 Data Collection procedure

Structured questionnaire is adopted and developed to gather information on the CSF in the Autoline project success in MOENCO. The questionnaire attempt to solicit answers for various variables which are critical for the success of the project.

3.5 Population

All the items under consideration in any field of inquiry constitute a population. Population is defined as "the complete set of units of analysis that are under investigation, while element is the unit from which the necessary data is collected" (Davis 2000). As stated in the scope of the study, the research examined the critical success factors for the success of Autoline system in MOENCO. Therefore the target population of the research used census survey and take all 50 Autoline project team members from MOENCO.

The unit of analysis will be Autoline application project teams in MOENCO head office Addis Ababa only.

3.6. Reliability and Validity

The questionnaire adopted is confirmed for its reliability and validity when it was applied initially. In addition, the situation in which it was applied initially is evaluated for its similarity and differences with the situation it is intended to be used now. Based the results of the evaluation the necessary modifications are made as part of reassuring the validity and reliability of the same. The table below presents reliability scores of success factors.

Table 3.1 Reliability Statistics and Tests of dimensions

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
ORGANIZATIONAL	21.4657	2.780	.435	.721
PEOPLE	21.3157	2.591	.591	.788
TECHNICAL	21.8507	2.425	.487	.701
PROCESS	22.1020	3.076	.203	.781
PROJECT	22.5408	2.472	.435	.719
	22.0038	2.855	.451	.820
PROJECTSUCCESS	21.4558	3.244	.104	.722

Source : Researchers survey (2019)

Table 3.2Reliability Statistics

Cronbach's Alpha	N of Items
.780	7

Source : Researchers survey (2019)

3.7 Data Analysis and Presentation

Once the data is collected, it is edited, coded, cleaned and is entered and processed using statistical package for social science (SPSS) software using graphs, tables and regression to analyze.

Appropriate statistical tool, such as frequency, percentage, mean standard deviation, correlation and regression are used in order to analyze the data.

Blending of qualitative and quantitative method (mixed approach) was used to analyze the data.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter presents the data analysis and discussions on findings to test stated objectives. The research has focused on identifying critical success factors and s of auto line implementation in MOENCO. Data were collected from the auto line project team of MOENCO. The collected data are statistically treated in order to discover the relationship between the project success variables and project success.

Out of the total distributed 50 questionnaires, all are collected i.e. the response rate is 100%

4.2 Demographic Profile of Respondents

The first part of the questionnaire consists of the demographic characteristics of respondents. This part of the questionnaire requested a limited amount of information related to personal and demographic status of the respondents. Accordingly, the following variables about the respondents were summarized and described in the subsequent table. These variables includes role, experience certification and auto line implementation success solutions.

The role profile of respondents is led by the project team member which represents 88% of the total population. The next largest role is project team leader which comprises of 10% of the total population. The remaining 2% includes those respondents whose role is project manager.

Considering work experience, 74% of the project team members have 5 years and above experience. 16% of the total population have 3-5 years' experience & 10% of the respondents have less than three years' experience.

Regarding the certification, out of the total 50 respondents 40% are neither certified nor trained project managers, 8% are trained project managers and 2% are certified project managers.

Results of the study indicate that 52% of the respondents define autoline as a solution to improve efficiency, 14% of the respondents said autoline is implemented timely , 14% of the respondents said autoline reduce complexity of operation, and 4% define autoline as it's a base for low cost of ownership.

From this it can be said that majority of the respondents agree that autoline improve efficiency of operations.

DEMOGRAPHIC DATA

4.1 ROLE IN AUTOLINE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PROJECT MANAGER	2	4.0	4.0	4.0
	PROJECT TEAM MEMBER	41	82.0	82.0	86.0
	PROJECT TEAM LEADER	7	14.0	14.0	100.0
	Total	50	100.0	100.0	

4.2 WORK EXPERIENCE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	LESS THAN THREE YEARS	5	10.0	10.0	10.0
	THREE TO FIVE YEARS	8	16.0	16.0	26.0
	5 YEARS AND ABOVE	37	74.0	74.0	100.0
	Total	50	100.0	100.0	

4.3 Project Management certification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	CERTIFIED PROJECT MANAGER	2	4.0	4.0	4.0
	TRAINED PROJECT MANAGER	8	16.0	16.0	20.0
	NEITHER CERTIFIED NORE TRAINED	40	80.0	80.0	100.0
	Total	50	100.0	100.0	

4.4 KEY FACTORS FOR AUTOLINE SUCCESS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	IMPROVED EFFICIENCY	26	52.0	52.0	52.0
	REDUCED COMPLEXITY OF THE PROJECT	7	14.0	14.0	66.0
	LOW COST OF OWNERSHIP	2	4.0	4.0	70.0
	TIMELY IMPLEMENTATION	15	30.0	30.0	100.0
	Total	50	100.0	100.0	

4.3 Frequency, Mean and Standard Deviation

In order to analyze the Critical success factors and s of Autoline project, a total of 22 questions were grouped into five dimensions of Project success which are: Organizational, People, Process, Technical and Project.

In order to compare the respondents' critical success factors of a project, descriptive statistics of mean and standard deviation are used. The mean indicates to what extent the sample group averagely agrees or disagrees with the different statements. The higher the mean the more the respondents agree with the statement while the lower the mean the more the respondents disagree with the statement. In addition, standard deviation shows the variability of an observed response. Below the results are discussed on by one.

4.3.1 Organizational Dimension

As per table 4.13 the list of items comprising of Organizational dimension, the mean score for the item "I got strong support from the project team & Management" Scored the highest with a mean score of 3.97 While the item " There is appropriate recognition & reward " scored the lowest with a mean score of 3.58. for the low score mean of recognition and reward , through the company's average is not bad , it has to work more on rewarding and recognizing team for the success of the implementation.

Table 4.5 Organizational Dimension Analysis

Variables	Mean	Standard Deviation
1. I got strong support from the project team & Management	3.97	.849
2. Project teams are committed to support me any time I need them	3.80	.515
3. The Organizational culture is more cooperative than Hierarchical	3.62	.752
4. Appropriate training was provided to me	3.70	.753
5. There is appropriate recognition & reward	3.58	.807
6. Facility with proper agile working environment	3.92	.427

(Source: Researcher's survey, 2019)

Table 4.6 Descriptive statistics of Organizational dimension

Dimension	**Responses**									
Organizational	**Strongly Disagree**		**Disagree**		**Neutral**		**Agree**		**Strongly agree**	
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**
I got strong support from the project team & management					**3**	**6%**	**34**	**68%**	**13**	**26%**
Project teams are committed to support me any time I need them					**5**	**10%**	**32**	**64%**	**13**	**26%**
The Organizational culture is cooperative than Hierarchical	**2**	**4%**			**11**	**22%**	**25**	**50%**	**12**	**24%**
Appropriate training was provided to me	**3**	**6%**			**5**	**10%**	**30**	**60%**	**10**	**24%**
There is appropriate recognition & reward	**14**	**28%**		**4%**	**13**	**26%**	**21**	**42%**		
Facility with proper agile working environment					**19**	**38%**	**23**	**46%**	**8**	**16%**

(Source: Researcher's survey, 2019)

As can be seen from the table above, for the first item of organizational dimension, 94% of the respondents have reported that they got a strong support from the project team and top management. The project team members are collaborative enough to address issues raised by end users and clients.

For the second item of organizational dimension i.e. commitment, 89% (Adding 64% and 26% agree and strongly) agree with the statement. Respondents claiming to be neutral amount to 10%. With regards to the third item″organization culture” those saying "agree" and "strongly agree" amount to 50% and 24% respectively. 22% of the respondents are neutral. 4% was found for a strong disagreement for the training variable.

When looking at the fourth item, training”, 74% of respondents (Adding 60 % and 24%) agree and strongly agree with the statement “appropriate training was provided to me”. Those who

were neutral represent 10% of the total respondents & 6% respondents strongly disagree with the training aspect.

With regard to recognition and reward variable 42% agree that they got proper recognition and reward where as 26% of the respondents are neutral and 32% disagree with recognition & reward statement.

From this it can be concluded that almost 58% don't get the proper reward & recognition.

Considering the six variable "Agile working environment", 62% of the respondents said that the project environment is agile where as 38% are neutral.

From this it can be concluded that the project was agile.

4.3.2 People

People dimension consist of all people related competency, feelings, change acceptance, motivation, and customer relationship. Hence,4 items related to People were put to the respondents. The Table below shows the analysis about People Dimension.

Table 4.7 People Analysis

Variables	Mean	Standard Deviation
I accept change	4.24	.942
I have good customer relationship	4.30	.690
I am highly motivated	4.04	.693
Project team members are highly competent	3.98	.807

(Source: Researcher's survey, 2019)\

Table 4.7 shows that the 'respondents scored the highest for the item "I accept change. "with a mean score of 4.24 while the lowest went to the item which states " Project team members are highly competent " This implies said that People related variables are highly associated with the success of the project.

Table 4.8 Descriptive statistics of People dimension

Dimension	**Responses**									
People	**Strongly Disagree**		**Disagree**		**Neutral**		**Agree**		**Strongly Agree**	
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**
1. Project team members are highly competent					**8**	**16%**	**35**	**70%**	**7**	**14%**
2. I accept change					**7**	**14%**	**24**	**48%**	**19**	**38%**
3. I am highly motivated			**3**	**6%**	**6**	**12%**	**27**	**54%**	**14**	**28%**
4. I have good customer relationship					**2**	**4%**	**31**	**62%**	**17**	**34%**

(Source: Researcher's survey, 2019)

According to the above table, the respondents who agree and strongly disagree with the first item of people competency is 84% (Adding 70% and 14% respectively). Those who are neutral make up 16%.

For the second item “change acceptance”, those who agree and strongly agree with the statement sum up to 38% and 48% respectively. Those who disagree add up to 14%.

In the case of the third item “motivation”, 54% goes to those respondents who agree and 28% to those who strongly agree with the statement. Those who disagree make up 6% and while those claiming to be neutral add up to 12%.

For the last item, 62% are those who strongly agree, 34% are those who agree, 4% are those who are neutral responses .The majority of the respondents have good customer relationship.

4.3.3 Technical

Technical aspect of the project is a core dimension of IS Project Success. Accordingly, 4 items related to Technical were put to the respondents.

Table 4.9 Technical Analysis

Variables	**Mean**	**Standard Deviation**
The system is well defined	3.89	0.879
The system is very interactive	3.72	0.628
I understand all system reports	3.29	0.678
The system can deliver the most important features I need	3.38	0.741

(Source: Researcher's survey, 2019)

Table 4.9 shows that "The system is well defined" scored the highest among the list of items related to Technical with a mean score of 3.89 while the respondents gave the least score of 3.29 to the item "I understand all system reports". This clearly indicates that even though the system is well defined, respondents have doubt in understanding all system reports.

Table 4.10 Descriptive statistics of Technical dimension

	Responses									
Technical	**Strongly Disagree**		**Disagree**		**Neutral**		**Agree**		**Strongly Agree**	
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**
1. The system is well defined					**8**	**16%**	**35**	**70%**	**7**	**14%**
2. The system is very interactive					**7**	**14%**	**24**	**48%**	**19**	**38%**
3. I understand all system reports			**3**	**6%**	**6**	**12%**	**27**	**54%**	**14**	**28%**
4. The system can deliver the most important features I need					**2**	4%	**31**	**62%**	**17**	**34%**

(Source: Researcher's survey, 2019)

As can be seen from the table above, 86% (74%+12%) of the respondents said the system is well defined.14% from the total population, are neutral to the statement.

With regard to the second variable "Interactivity" 64%(56% & 8%)of the respondents reported that the system is very interactive while 26 % are neutral & 10% disagree with the statement.

Looking for the system reports, 56% agreed that they understand the system reports, while 22% are neutral and disagree with the clarity of the system.

With the forth statement "The system can deliver the most important features I need" is 56% (52%+4%) agree with the statement while 32% are neutral and 12% of the respondents disagree . From this, it can be concluded that the system can deliver important outputs required.

4.3.4 Process

In order to test the respondents thought about process performance, three items were given for the respondents to answer. Table 4.16 shows the analysis regarding the Process aspect of the Project from the respondent point of view.

Table 4.11 Process Analysis

Variables	**Mean**	**Standard Deviation**
Customers have full authority	2.97	1.13
Deliver most important feature list	3.02	1.20
Correctly integrated system	3.03	.762

(Source: Researcher's survey, 2019)

As can be seen from Table 4.16, the respondents gave a low mean score of 2.97 to the item "Customers have full authority". From the above table it can be said that customers need to access some features of the system.

Table 4.12 Descriptive statistics of Process dimension

A. Process	**S.Disagree**		**Disagree**		**Neutral**		**Agree**		**S.Agree**	
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**
1. Customers have full authority	**19**	**38%**	**14**	**28%**	**8**	**16%**	**9**	**18%**		

2. Well defined features	**17**	**34%**	**15**	**30%**	**12**	**24%**	**6**	**12%**		
3. Correctly integrated system						**12%**	**41**	**82%**	**3**	**6%**

(Source: Researcher's survey, 2019)

According to the Table, 66% (38% and 28%)of the respondents reported that customers don't have full authority to the system. This mean that customers' requests like payment processing, online requests are not processed with the system. 16% are neutral and 18% of the respondents agree that customers have full authority to the system.

Considering the second question, 64% of the respondents said the process step is not well defined. About the system integration 89% (82% and 6%) strongly agree that the system is well integrated. Those who are neutral about the statement represent 12%.

4.3.5 Project

In order to test Overall aspect of the project, respondents were given to measure four variables. Below is the result.

Table 4.13 Project Analysis

Variables	Mean	Standard Deviation
Project type with variable scope	3.34	.356
Project with small team	3.42	.384
Project cos evaluation is done	3.73	.580
Accelerated & dynamic scheduled project	3.62	.532

(Source: Researcher's survey, 2019)

As can be seen from Table 4.13, the respondents gave a low mean score of 3.34 to the item "Project type with variable scope". From the above table it can be said that Scope variability measure have a small difference from the mean value.

Table 4.14 Descriptive statistics of Project dimension

Dimension	Response									
Project	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	F	%	F	%	F	%	F	%	F	%
1. Project type with variable scope	27	54%	3	6%	9	18%	11	22%		
2. Project with small team	25	50%	14	28%	11	22%				
3. Project cost evaluation is done			2	4%	5	10%	39	78%	4	8%
4. Accelerated & dynamic scheduled project	8	16%	36	72%	6	12%	11			

(Source: Researcher's survey, 2019)

Looking at the first variable from the table above, 60% (adding 54% and 6%) of the respondents said the project doesn't not have variable scope and there is no frequent change in scope. About 44% (adding 22%, and 18%) fall on agree and neutral responses.

When seeing the second question, 78 %(adding 50% and 28%) of the respondents said the project team is not small. 22% don't know about the size of the project and they are neutral.

As shown in the table above, respondents who said cost evaluation is done are about 86% adding the two variables agree & strongly agree. Those who replied "neutral" make 10% and those who disagree are 4%. From this it can be said that almost all the respondents agreed that proper cost estimation has done before the project implementation.

For the fourth item, 86% (adding 72% and 16%) of the respondents believe that the project schedule is not dynamic and accelerated. The project goes with the specified timeline. Those who are neutral in their responses are 12%.

4.3.6 Aggregate mean score

Table 4.15 Descriptive Statistics

	N	Mean	Std. Deviation
ORGANIZATIONAL	50	3.86	.727
PEOPLE	50	4.14	.626
TECHNICAL	50	3.57	.558
PROCESS	50	3.35	.641
PROJECT	50	3.52	.572
Valid N (listwise)	50		

Looking at the aggregate mean score, People and organizational dimensions have the highest score of 4.14 and 3.86 respectively. Process have a low score of 3.52. Hence the company should improve dimensions that need further focus.i.e. Process and project variables.

Process variables including: Authorizing customers, deliver the most important feature list are among the variables that should be emphasized.

Users or customers are have key importance in the success of a project. They system may be is very interactive and well defined. If however, if it poorly defined, the requirement of a customer, this will create dissatisfaction.

Considering the project dimension: Project type with variable scope and other related dimensions should be well addressed. Continuous variation in scope, cost evaluation, schedule change will affect the project. Hence, controlling of scope change is an important one.

4.4 Regression Analysis

In order to see the contribution of factors that shape the success of Autoline project, a regression analysis was employed. Project success was used as the dependent variable while the other variables were used as the independent variables. Table 4.22 provides the results of the the model summery.

Table 4.16 Model summery

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.787[a]	.708	.738	.32031	1.933

a. Predictors: (Constant), , PROCESS2, ORGANIZATIONAL, PROJECT, TECHNICAL, PEOPLE

b. Dependent Variable: PROJECTSUCCESS

Table 4.17 Regression analysis of Project implementation success elements

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.690	.724		2.334	.000
	ORGANIZATIONAL	.624	.149	.628	4.174	.000
	PEOPLE	.500	.163	.502	3.066	.000
	TECHNICAL	.231	.111	304	2.089	.000
	PROCESS	.191	.153	.198	1.247	.000
	PROJECT	.016	.097	.021	4.163	.001
		.618	.154	.557	4.017	.000

a. Dependent Variable: PROJECTSUCCESS

Similarly, the regression table 4.17 shows the overall significance/ acceptability of the model from a statistical perspective. As the significance value of F statistics shows a value of (.000), which is less than $p<0.05$. Thus, the model is significant which indicates that the variation explained by the model is not due to chance.

As stated earlier, this study aims to identify the most contributing independent variable in the prediction of the dependent variable. Thus, the strength of each predictor (independent variable) influencing the criterion (dependent variable) can be investigated via standardized Beta coefficient.

The regression coefficient explains the average amount of change in the dependent variable that is caused by a unit change in the independent variable. The larger value of Beta coefficient an independent variable has, brings the more support to the independent variable as the more important determinant in predicting the dependent variable. Project, Process, Technical, People, and Organizational were found to be a determinant of project success in their ascending order referring to Organizational as the most important underlying factor of Project implementation success in Auto line of MOENCO.

As one can see the Model Summary from the appendix 5 the adjusted R Square statistic tells us the proportion of variance in the dependent variable that is accounted for by the independent variables. In this case the co- efficient of determination adjusted (R^2) was 0.732. This implies that about 73.2% of the dependent variable (i.e. Project success) can be explained by the independent variables (i.e. Organizational, , People, Technical, Process and Project), leaving about 26.8% to be explained by other exogenous factors. Adjusted R^2 values also indicate the overall effect size of all the independent variables on the dependent variable.

According to Table 4.23, the standardized coefficients for the five independent variables Organizational, , People, Technical, and Process Project 0.628, 0.557, 0.502, 0.304, 0.198, 0.216 and their significance levels are .000, .000, .000, .000,.000, .001 respectively which are all less than 0.05. This indicates a significant relationship between the independent variables and the dependent one.

From the above table we can have the following general formula for the model under the study.

The regression equation was

Overall project success (OPS) =α+β1x1+β2x2+β3x3+β4x4+ Σ..... (1)

OPS =α+β1Organizational+ β2Technical +β3People+ β4Process+ β5+ β6Project …….. (2)

OPS=1.690+0.624Org+0.231 Tech+0.500People+0.191Process+0.618+0.500Project + Σ ……. (3)

The regression model from table 4.15 above result shows that keeping other variables constant 0.628 unit increase in Organizational will bring a unit increase in the Project implementation success in Autoline system.

0.304 unit increase in Technical will have a unit increase impact on the project implementation success in Autoline system.

0.502 unit increase of People will have a unit increase impact on the project implementation success in Autoline system.

0.198 unit increase of process will have a unit increase on the project implementation success in Autoline system.

0.021 unit increase of project will have a unit increase on the project implementation success in Autoline system.

4.5 Discussion

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

By Looking at the demographic profile of the respondents, the project is undertaken by senior staffs from MOENCO. When looking into the project team profile of the respondents, it is found that most of the team members are not certified in project management courses.

The next demographic profile is to know "how do respondents define Autoline? In this survey it reveals that respondents choose autoline because it improve the efficiency of operation.

When having a look into what the respondents replied on the questionnaires, although they gave a more or less positive feedback for all project success dimensions, questions relating to Organizational and People received the highest mean scores while the lowest went to Process & Project.

This study is designed and carried out in order to identify the critical success factors in the implementation of Autoline system.

According to the study's findings, all the five dimensions: Organizational, People, Technical, Process and Project were identified as having an influence on the success of the project.

The influence of Organization was found to be the most important one. It is a known fact that for the success of any project having executive support and team support is an important one. Without the approval of the executive and project team collaboration a project will not be successful.

Having the right team, committed project manager having the hard skill and soft skills, Project environment and training are important variables to be considered for the success of a project. This result is supported in the works of Mladen Radujkovića, (2017).

People dimension is also one predictor of Project success. For the questions raised in this category, Project team competency, change acceptance, motivation and having good customer relationship were expected to influence overall success of a project. The findings of this research

are consistent with that of Mladen Radujkovića, (2017) who found out that People dimension had a positive effect on the overall IS project success.

Technical, Process and Project Dimensions were also found to be other important factors that affect the success of a project.

The study investigates the critical success factors that affect project success in information system projects using a qualitative and quantitative approach. The data collected were analyzed and categorized in five dimensions - Organization, Process, and Technical, Project, People and variables. From the results of regression analysis, the all factors have influence on project success.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

This chapter winds up the study undertaken so far by giving insights about summary, conclusions, recommendations and highlighting future research areas

5.1 Summary of the Major Findings

In this chapter of the study, summary of the major findings and conclusion of the study is presented.

The primary objective of this study was to assess critical success factors and s in the implementation of Autoline in the case of MOENCO. In order to do this, five determinants of success factors are used. These are Organizational dimension, People dimension, Process, Technical and Project. Hence, this study has attempted to identify which factors has the highest influence on the overall success of a project. In addition, this study has also tried to answer the research questions stated on the introduction part.

- As stated above, in order to measure Autoline project success in MOENCO, the study considered five determinants namely organizational, People, Process, Technical and Project dimensions. Census was applied to gather the required data. 22 items were provided in a 5 point Likert scale to the respondents. The gathered data were analyzed by means of descriptive and inferential statistics using SPSS version 20 software.
- The findings of the descriptive analysis indicate that majority of the project teams are senior staffs with 5 years and above experience.
- Out of the total respondents, most of them are team members and few are project leaders of a specific function and only one person is a project manager.
- On Key success factors assessment, most people prefer Autoline because it's efficient.

In the inferential statistics part the following results were achieved:

- The results indicate that although all five variables had a positive and significant influence on the overall project success, Organizational dimension, People, and Technical had influence on Project success of Autoline respectively in MOENCO.

Finally, overall project success was found to be positively explained by the sum of the independent variables by 73.8 % in this study and the remaining 26.2% of the dependent variable (i.e. overall project success implementation) was explained by other exogenous variables.

5.2 Conclusions

The CSF approach aims at identifying and measuring project performance, which was investigated by Rockhart (1984) and the CSF approach was further developed by various researchers Chow and Cao (2008) propose five success attributes, for project success.

The present study entails a detailed and empirical analysis of the sources of Project success in Autoline implementation in MOENCO.

This research used adopted conceptual model, as the most common and well accepted framework in IS project. Previous studies were conducted in Commercial Bank of Ethiopia in core banking system.

- The findings support the adopted model. Thus, the initially proposed dimensions, Organizational, People, Technical, Process, & s show a significant and positive influence on Project Success of Autoline system.
- One of the objectives of this study was to find out which dimension has the most significant impact in determining project success and the results revealed that Organizational dimension and people are the most significant variables affecting project success. However, the other dimensions also have influenced overall project success but their intensity was less than the dimension of Organization & people.
- The independent variables in this study have positive and significant correlation with the overall project success, which implies that the independent variables had effect on the overall project success.

5.3 Recommendations

Without appropriate success measurement criteria, it is difficult to assess whether the project was concluded successfully or not. Further, it is important to know the extent of the project success to make corrective actions (if necessary) and to reward the people who were involved in the project

Therefore, companies doing IS projects must be aware of IS project success variables for the successful implementation. In order to do this, they must follow the following steps. Identify important factors for the successful implementation.

Organizational factors: **Top Management Support** as the most commonly cited factor when implementing complex IT systems. This factor has a strong influence on the success of a project. Hence in doing any projects, its recommended to have first executive support. According to (Md. Athar Imtiaz 2013) of the eight unsuccessful projects studied, six were not considered urgent by the top management and didn't pay due attention to the project thus leading to its failure.

Team Work: cross-functional team and cooperation between members of team and describes it as a critical success factor for IT projects. Studies (Sudhakar, G.P 2012), (Fan. D, 2010), (McLeod, L.2011) also listed teamwork as an important critical success factor of IT project.

Training Staff training or user training has been defined as a critical; we recommend companies to conduct training for the success of a project.

Training should be conducted to all teams engaging in a project. Moreover appropriate recognition and reward is the important one.

People: accordance with the study of many researcher studies the importance of a well-qualified team is the core success factor for any project. In one project the team had a similar previous experience as that of the ongoing project and hence the project was successful. Having competent people, make project feasible. It's recommended IS people to have multi-dimensional skill

Professional Project Manager is with requires soft and hard skills is important one. For other companies doing IT projects, the study recommends to have a professional project manager like MOENCO.

Technical: in doing IT related projects, initial definition of requirement is an important one. Well defined system with the required inputs can ease the process and is efficient. Hence we recommend projects to be well defined and interactive to end users.

Process: the system should be very interactive, and simple to process requests for customers. Moreover, having a proper customer data base, is a core asset for companies. System integration with feasible process steps is important to ease the process to end users.

Project: Projects are different types. The study recommends companies to do a proper planning, scheduling &budgeting before implementing any project. The quality of a project is measured by its Planning and controlling efficiency.

Proper planning and managing scope are the important variables considered for the successful implementation of Autoline in MOENCO.

Furthermore there is always in any project. s should be clearly identified and giving proper solution is recommendable.

Finally, according to the research undertaken, overall the project is successful and we do recommend companies to follow and take experience from this project implementation program.

5.4 Limitations and Directions for Future Research

This study has mainly focused on measuring success factors and s in one system only covering project team members The research would have been more conclusive if it had considered more end users/customers and do further analysis on similar projects.

This study has covered only Autoline project in MOENCO. However, it would have been better if similar projects were included so that a comparative study was made. Therefore any party interested in this area can study the relationship of the antecedents of the project success model in other sectors.

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APPENDICES

Questionnaire

Addis Ababa University School of Commerce

Project Management (MA)

Dear Respondent,

The objective of this questionnaire is to gather and analyze relevant, accurate, and timely information that will help to assess critical success factors in implementation of Autoline in MOENCO. This study is undertaken as a partial requirement for the completion of Masters of Project Management. All data and information that will be gathered through these Questionnaires will be used for the sole purpose of the research and remains confidential. Therefore, you are kindly requested to respond to the questions with utmost good faith, freely and to the best of your knowledge.

Part I: Demographic or Personal Information

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

1. Which of the following best describes your role in Autoline System Implementation Project in MOENCO?

□ Project Manager □ Project team member □ Project Team Leader □ Other----------

2. Work Experience in MOENCO?

□ Less than 3 year □ 3-5 years □ 5 years and above

3. Are you a certified or trained Project Manager?

□ Certified Project Manager □ Trained Project Manager □ Neither certified nor trained

4. On what key factors do you define Autoline implementation Success? (Please rank if more than one selected)

□ Improved efficiency □ Reduced Complexity of operation

□ End user Satisfaction □ Low cost of ownership □ Timely implementation □ Implement within budget Other (please Specify) ……

Part II. This part of questionnaire covers critical success factors in the implementation of Autoline in MOENCO. Please indicate how much you agree or disagree with each of the following statements by writing the number that best represents your opinion. 1 indicates strongly disagree (SDA), 2 indicates disagree (DA), 3 indicates neutral (N), 4 indicates agree (A) and 5 indicates strongly agree (SA).

Dimensions	**Rating Scale**				
A. Organizational	**Strongly Disagree**	**Disagree**	**Neither agree Nor disagree**	**Agree**	**Strongly Agree**
1. I got strong support from the project team & management					
2. Project teams are committed to support me any time I need them					
3. The Organizational culture is more cooperative than Hierarchical					
4. Appropriate training was provided to me					
5. There is appropriate recognition & reward					
6. Facility with proper agile working environment					
B. People					
1. Project team members are highly competent					
2. I accept change					
3. I am highly motivated					
4. I have good customer relationship					
C. Technical					
1. The system is well defined					
2. The system is very interactive					
3. I understand all system reports					
4. The system can deliver the most important features I need					
D. Process					
1. Customers have full authority					
2. Deliver most important feature list					
3. Correctly integrated system					
E. **Project**					
1. Project type with variable scope					
2. Project with small team					
3. Project cos evaluation is done					
4. Accelerated & dynamic scheduled project					

Part III. Project success

1. How successful was the project in meeting project time goals? Project success: meeting timeline goals

Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree

2. How successful was the project in meeting project budget goals?

Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree

3. How successful was the project in meeting scope and requirements goals?

Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree

4. How do you rate the project team's satisfaction with the project?

Failure	Not fully successful	Mixed	Successful	Very successful

5. How do you rate users satisfaction with the project's results?

Failure	Not fully successful	Mixed	Successful	Very successful

6. How do you rate the overall success of the project?

Failure	Not fully successful	Mixed	Successful	Very successful