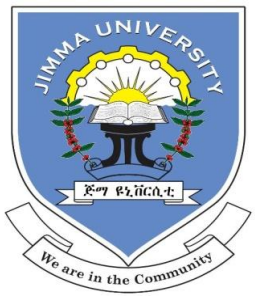

JIMMA UNIVERSITY,

COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF ACCOUNTING & FINANCE

PROJECT MANAGEMENT AND FINANCE PROGRAM

Title: The Effect of Project Management Practice on Project Success on Selected Public Projects Found In Jimma Town, Ethiopia.

MSc Thesis

Submitted to department of accounting and finance in Partial Fulfillment of The Requirements for the Award of a Master's Degree in Project Management and Finance of the Jimma University

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Major advisor: Tesfaye G. (Assistant Professor)

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Jimma, Ethiopia

APPROVAL SHEET

JIMMA UNIVERSITY COLLEGE OF BUSINESS AND ECONOMICS

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Title: **Effect of Project Management Practice on Project Success on Selected Public Projects Found In Jimma Town, Ethiopia.**

I have completed my thesis work as per the title approved and it has been evaluated and accepted by my advisors hence, I kindly request the department to allow me to summits the thesis.

Name of student Signature of student

Eyuel Mesera _____

We, the thesis advisor have evaluated the contents of the thesis and it's written according to the standards and formats of the University and is ready to be summited. Hence, we recommended to be presented.

PG Candidate Signature date

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College/Institution Dean Signature Date

_____ _____ _____

Tesfaye G. (Assistant professor) _____ _____

Major Advisor Signature _____ Date_____

Yohanis.F (Msc) _____ _____

Co-Adviser Signature _____ Date _____

DEDICATION

This thesis is dedicated to my wife, Yemsirach Tezera, who did a lot for my educational endeavor

DECLARATION

I, Eyuel Mesera hereby declare that the thesis work entitled with the Effect of Project Management Practice on Project Success on Selected Public Projects Found in Jimma Town, Ethiopia submitted by me in partial fulfillment of the requirements for the award of the degree of M.Sc. Project Management and Finance at Jimma University. It is the original work carried out by myself and the matter embodied in this thesis work has not been submitted to any other educational institutions for achieving any academic awards.

Name of the student: Eyuel Mesera

Signature: _____

Date: _____

BIOGRAPHICAL SKETCH

The author was born on February 21, 1992 in former Sidama zone, at Yirgalem town, rural shoe Kebele. He attended his elementary school at Motto elementary school and high school and preparatory education at Yirgalem Secondary and Preparatory School, respectively. He joined Debre Markos University and graduated in plant science in 2013. After graduation, he was hired around Yirgalem, rural area Dalle Woreda at Job creation Office and had worked for one year as Youth Job Creation Assistant Officer. Then after, he joined Southern Agricultural Research Institute as a researcher and served up to August 2019 at Jinka Agricultural Research Center (JARC). In 2021 he joined Jimma University College of business and Economics to pursue his M.Sc. in project management and finance.

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ABSTRACT

Applying project management tools and techniques in public institutions has become an important issue in many developing countries. However, Implementation delay, overestimation of project return and poor manpower quality of projects were found to be statistically significant cause of project failures to meet their objectives. To examine the effect of project management practice on project success on selected public projects found in Jimma town, Ethiopia and specifically intended to examine the effect of project planning, project execution, monitoring and controlling of projects on project success on selected public projects found in Jimma town. The study used stratified simple random sampling techniques in order to study the effect of Project management practice on Project success using total sample size of 155 of selected public projects. The collected data were collected with questionnaires, coded and interred into the SPSS computer software for analysis. The data were analyzed with descriptive and inferential statistics such as ANOVA, Pearson correlation and the Multiple Regression Analysis Model. The result show that 115(77.18%) of the respondents were male while 34(21.1%) of the respondents were females, in which 129(86%) of the respondents' responded their sector have adequate and comprehensive project management. The results of Pearson correlation revealed that project initiation & planning was positively and significantly associated with project success ($r = 0.735$, $\rho < 0.01$). Further, project execution process was positively and significantly correlated to project success ($r = 0.659$, $\rho < 0.01$). Moreover, monitoring & controlling was positively and strongly correlated with project success ($r = 0.747$, $\rho < 0.01$) and also there is a positive correlation between project closure & project success ($r = 0.348$, $\rho < 0.01$). The study suggests the introduction of effective monitoring tools; training of staff on use of monitoring tools; use of effective communication and improved reporting and documentation in order to improve the monitoring and control process.

LIST OFACRONYMSAND ABBREVIATIONS

KPIS …… .Key performance indicators

MSc……..Masters of Science

PWC ……Price Water house Coopers

UK……United kingdom

PMI……..Project management and Implementation

TOC…… Theory of constraints

ROI……..Return on investment

PIP ……...Project initiation and planning

PEP…… Project execution process

MC……Monitoring and controlling

PC…….Project closure

Ps……..project success

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1. INTRODUCTION

1.1 Background of the Study

Several definitions had been given to project by different authors, due to the fact that project is a multidisciplinary word that has different meaning from different perspective and orientations. Engineers, Architects, Managers and so on, have their definitions coined out from their experiences as far as their professions are concerned. Project Management is a temporary activity or endeavor undertaken purposely to create a unique output (product or service) within budget, time and standard (Pinto, (2007) ". Turner and Muller (2003) in their own words defined project as "an organization of human materials and financial resources in a novel way, to undertake a unique scope of work, of given specification, within constraints of cost and time, defined by quantitative and qualitative objectives so as to achieve a beneficial change".

The uniqueness of project is pointing to its genuine nature in the sense that there may not be a pre-existing blue print for the project's execution and there may not be a need to repeat the project once completed. Its goal characteristics may be well perceive as achieving stated objectives or solve a particular problem, while its temporary nature signifies a discrete, definable commencement and conclusion. Project management on the other hand, it is the art and science of planning, designing and managing work throughout all the phases of the project life cycle

(Abbasi and Al-Mharmah (2000).It is also regarded as a system or process of planning, designing, scheduling, managing and controlling interconnected project activities in order to achieve specific objectives or goal within a specific time, budget and standards (Lewis, 2007).

It is also regarded as a system or process of planning, designing, scheduling, managing and controlling interconnected project activities in order to achieve specific objectives or goal within a specific time, budget and standards (Lewis, 2007).

Project Management is an innovative management practice that tends to achieve stated or specified objectives within specific time and budget limits through optimum use of resources (Stuckenbruck & Zomorrodian, 1987).

It helps organization in investing their limited resources in the best way possible in order to achieve recurring success and meeting the expectations of stakeholders. Government and organizations usually embark on different projects with the aim of creating new service or improving the functional efficiency of the existing ones. All these projects require appropriate skills and techniques that go beyond technical expertise only, but encompass good and sound skills to manage limited budgets, and monitor shrinking schedules and unpredicted outcomes, while at the same time dealing with people and organizational issues (Abbasi & Al-Mharmah, 2000). The application of project management practice in public sector has been identified as an efficient approach which would help in upgrading management capabilities and enable public sector to efficiently complete projects and attain developmental objectives (Arnaboldi *et al*, 2004). It is also recognized as a key enabler with whom public sector organizations adopting business improvement methodologies such as Lean Management, improve their efficiency and competitiveness.

Studies have confirmed that application of modern project management methods and techniques has a great effect on public institutions. Arnaboldi *et al* (2004) observed that application of project management strategy in public sector was as a result of pressure on governments to abandon bureaucratic organization in favor of leaner structures. The authors studied the projects carried out at Italian Treasury Ministry using project management methodology and discover that proper implementation of project management concepts and methods will help in avoiding project failure, continuous communication and the definition of project control system. They however stated that, project management methods needed to be modified and specifically tailored towards the needs of public institution.

Project success is one of the most important topics in project management (Prabhakar, 2009). Importance of the project success varies by the contract of the project, type of project and individual role of personality in project also (Muller & Jugdev, 2012). Project success comprises of two parts. First is success of project management and other is success of product (Baccarini, 1999).

Success on a project implies that specific desires for a given member are met, whether property owner, organizer, designer, temporary worker, or administrator. The accompanying are some different dentitions of "Project Success" in general: Project

success is referred as having results much superior to anything expected or typically saw as far as cost, calendar, quality, security, and member fulfillment (Ashley et al., 1987). A project is viewed as a general success on the off chance that it meets the specialized execution specification or potentially mission to be performed, and if there is an abnormal state of fulfillment concerning the project's result among key individuals in the parent association, enter individuals in the project group and key clients or customers of the project exertion (de Wit, 1988). Success for a given project member as how much project objectives and desires are met. They included that these objectives and desires may incorporate specialized, financial, instructive, social, and expert angles. (Sanvido et al, 1992). Numerous exact reviews demonstrate the positive effect of project anticipating project success (Murphy et al., 1974; Rothwell et al., 1974).

Application of project management practices in Africa shows positive effect on project outcomes in the continent, especially in the private sector and in Non-Governmental Organizations (NGOs). Research into Nokia projects in Africa (Sheiki, 2014) revealed a positive correlation between proper Earned Value Management (EVM) and project success. The study established that planning phase and initial assumptions made influence the way EVM can be handled, hence impacting on project outcome. According to Price Water house Coopers (PWC) survey, capital projects and infrastructure delivered expected benefits to stakeholders (Price Water House Coopers, 2014). Respondents indicated that key challenges included lack of skills and capacity to handle large projects, project delays and budget overruns. Adoption of project management methodologies and practices in the entire project life cycle increases chances of achieving project goals.

Particularly, in Ethiopia, the involvement of project management in different national strategic plans as well as in different levels of micro activities becomes more visible. Nowadays, the government of Ethiopia is on the way of implementing a five years strategic plan which is also part of the national 20 years visionary plan to transform the country to the level of middle income countries. Under this strategic plan, several projects are included such as Addis Ababa light railway project, national railway project, different national and state road projects, different mega hydraulic structures like dams and irrigations, and others. These projects have their own technical specifications, time and resource schedules as well as specified level of budget to drive.

With regard to the private sector, individuals set their social and private goals to accomplish by devoting the necessary resources. Up on the struggling for accomplishing their goals, the involvement of projects is vital tool to enjoy the bottom line of their efforts. Construction industry is one of the key areas that the government gives focus as one of the cornerstones of development. Significant amount of money is budgeted by the government for this sector which enables to involve the government itself as well as to facilitate the involvement of private entities.

Moreover, In Ethiopia, 79.06 percent of projects had failed to meet their objectives in addition 72 percent of projects financed by Development Bank of Ethiopia (2013) were under failure category. Implementation delay, overestimation of project return and poor manpower quality of projects were found to be statistically significant cause of project failures to meet their objectives.

Approaching to the study area different public projects or sector found in Jimma town contribute their part in the development of different project constructions and or infrastructures aiming to satisfy their goal of improve ,standardize and develop the livelihood of the community. This study focuses on the effect of project management practice on project success： a study on selected public projects found in Jimma town. Therefore, the aim of this study was to explore the front-end project management practices in Jimma town context in selected public projects.

1.2. Statement of the problem

Applying project management tools and techniques in public institutions has become an important issue in many developing countries, due to its successful application in private

organizations and its proven effectiveness and flexibility in attaining project goals and objectives.

Studies have confirmed that application of modern project management methods and techniques has a great effect on public institutions. Arnaboldi *et al* (2004) observed that application of project management strategy in public sector was as a result of pressure on governments to abandon bureaucratic organization in favor of leaner structures.

Various publications have discussed that front-end planning is a key element to overall project success (Ryan *et al.* 2008; Shiferaw *et al.* 2012; and Samset & Volden 2015). In addition, many case studies have been made and results published corroborating that implementing project management does create value for the organization (Crawford & Helm 2009; Mengel *et al.* 2009; Turner *et al.* 2010; and Lawani, & Moore 2016).

The investigation carried out on Project management practice in nigerian public sector revealed that application of PM tools and techniques is an essential management approach that tends to achieve specified objectives within specific time and budget limits through optimum use of resources Olateju et al., 2011. Furthermore the study noted that there is lack of in-depth knowledge of PM tools and techniques in public sector institutions sampled, also high cost of application was also observed by the respondents. The study recommended among others that PM tools and techniques should be applied gradually especially in old government institutions where resistance to change is perceived to be high.

Correspondingly, Abbasi & Al-Mharmah (2000) sightseen the project management tools and techniques used by the public sector in Jordan by surveying different industrial public firms. The study found out that the use of project management tools and techniques among the public sector companies was considerably low, but when practiced efficiently would result in tangible benefit in all aspects of planning, scheduling and monitoring the time, cost and specifications of projects. Moreover in Nigeria, the implementation of modern project management tools, methods and techniques is still not well established in public sector, this results into failure of public institutions and their contractors in performing their duties concerning the budget, specifications and deadline.es of the projects awarded. Studies have recognized social and political systems, cultural blocks and lack of financial support as barriers to successful project planning and execution in Nigerian public sector (Idoro & Patunola-Ajayi, 2009).

Similarly numerous empirical studies of project management success factors suggested planning as one of the major contributors to project success (Murphy et al., 1974; Slevin & Pinto ,1987; Aronson, & Lechler, 2009). All the project managers are required to prepare a solid project plan and follow this plan all the way to success. (Dvira, Razb & Shenharc, 2002)

There are some related studies to this research for instance, Karangwa Justin,2016 "Influence of project management processes on project success in Rwandan health sector" which indicated the positive correlation between project initiation and planning, execution, monitoring and evaluation with absence of closure stage on success of projects; and suggested effective monitoring and controlling should be improved.

Nyakundi.N.2015, conducted a study on the influence of project management process on outcome by taking samples from public sector infrastructure projects at Telkom Kenya Limited. Accordingly, the finding revealed that execution had the least influence whereas initiation and planning, monitoring and evaluation and closure stage indicated the highest influence on the outcome. Recommendation had made in that project outcome should be evaluated from the customer acceptance and satisfaction perspective as well as that of the business objectives of the organization.in addition, he suggested that effective project initiation and planning activities to be applied to all public sector projects.

Approaching to the study areas, specifically there is no adequate published works are available in relation to the effect of project management practice on project success on selected public projects found in Jimma town. Thus, the existence of such limited researches on this particular case study area and the researcher motives to put contribution by examining the effect of project management practice on project success on selected public projects found in Jimma town initiated the researcher to raise the issue under reflection. Therefore, this study was tried to fill the current gaps by assessing the effect of project management practice on project success on selected public projects found in Jimma town.

1.3. Objectives of the Study

1.3.1. General Objective

The general objective of the study is to examine the effect of project management practice on project success on selected public projects found in Jimma town, Ethiopia.

1.3.2. Specific Objectives

- To examine the effect of project planning process on project success on selected public projects found in Jimma town
- To investigate the influence of project execution on project success on selected public projects found in Jimma town.
- To investigate the effect of monitoring and controlling of projects on project success on selected public projects found in Jimma town.
- To investigate the effect of project closure process on project success on selected public projects found in Jimma town

1.4. Basic Research Questions

1. How does project initiation and planning affect project success on selected public projects found in Jimma city?
2. What is the effect of project execution process on project success on selected public projects found in Jimma town?
3. What is the influence of monitoring and controlling on project success on selected public projects found in Jimma town?
4. How does project closure processes affect project success on selected public projects found in Jimma town?

1.5 Significance of the Study

A study on project management practices are important aspect of development research. Thus, the importance of this research can be pointed out from different beneficiaries view: Firstly, the study provide additional insights to the existing stock of knowledge on the effect of project management practices on project success on selected public projects by providing empirical evidences in addition to drawing some conclusions and recommendations in identifying wrong project management practices followed by

providing remedies. Thus, it will give signal to the project management practitioners of the organization to take corrective action. And then, it gives the researcher the opportunity to gain deep knowledge in modern practice of project management. Finally it will help as a source of reference and a stepping stone for those researchers who want to make further study on the area afterwards.

1.6 Scope of the Study

This study tried to examine the effect of project management practice on project success on selected public projects found in Jimma town. The scope of the study was limited to selected public projects found in Jimma town in considering project management determining variables and or factors like project initiation and planning, execution, monitoring and control and project closure. Therefore, the conceptual boundary is limited to the variables like project initiation and planning, execution, monitoring and control and project closure in order to characterize their effect on the success of projected on the selected public projects found in Jimma town.

1.7. Organization of the thesis

The thesis is composed of five chapters. It starts with introduction, including the background, statement of the problem, objective, scope and limitation and significance of the study. Chapter two provides an overview of the literature review on the subject matter and explained empirical studies. Chapter three provides the description of the study area and the methodology used in the study. Chapter four presents results and discussion of the study and finally last chapter present summary, conclusion and recommendations.

2. REVIEW OF RELATED LITERATURES

This chapter presents concepts, theories, and empirical studies of Project Management Practice on Project Success.

2.1 Concept and Definition of terminologies

2.1.1. The concept of Project Management Practices

According to Barriere (2003) project management practices have become a universal tool for optimal performance for any organization that seeks professionalism. Ibbs (2002)

Identified professional project management practices as the skills and science of planning, designing, and managing activities throughout the project lifecycle processes. Professional project management concept has been found to be in practice before the Second World War. Its emergence can be traced back to the early fifties, when it was implemented on a large scale project (Peters 1981).

The current state of project management practices in developing African countries remain very critical due to the advancement of technology, the increasing complexity of projects and the scarcity of human capital (Crawford *et al.,* 2006). According to Birkhead, *et al.,* (2000) there have been urgent needs for the development of project management practices in developing countries due to the changing nature and emergence of new technologies and the relaxation of trade regulations, which have resulted in a highly competitive marketplace.

The success of a project would normally be measured by the extent to which the predetermined targets set by the Client are attained, additionally whether it achieves the function intended to meet adequately and if it solves an identified problem within the stipulated time, cost and quality standards(Kerzner, 2013). To meet the purpose, effective project planning control will be required through the application of project management systems (Muchungu, 2012).

Effective performance of the PM is a critical factor towards understanding and improving the related managerial practices required (Goodwin, 1993). Developing countries are therefore called to draw lessons from the developed countries to ensure that project management practice concepts are employed to the latter. Ofori (2007) argues that developing measures for effective adaptation of these concepts, an approach that needs to be done includes; being vigilance in identifying new advancements, use of the new concepts or procedures to suit the conditions of different countries and monitoring of the outcomes using the measures mentioned. On the other hand, Loo, (2002) identified the following areas for improvement in project management practices for developing countries namely: technical areas, improve scope management, improve budget management, implement standard project management practices, integrate project control measure, organizational learning, project reviews and audits, effective resource planning, training for managers and staff, empower teams and effective planning.

Kezner (2002) notes that implementation is the fourth phase of project management cycle, which integrates the projects product or services into the existing organization. The most widely employed approach to project success is the satisfaction of the golden triangle of cost, time and scope. However, several authors (De Wilt, 1998; Shenhar et al, 1997; Pinto & Slevin 1988) suggest that there could be diverse criteria for the project success.

2.1.2. Project Management Cycles or Processes

According to the PMI's PMBOK, projects are temporary endeavors undertaken to meet unique goals and objectives within a definite scope, timeframe and budget. The project therefore follows a logical sequence made up of five stages namely; Initiation, planning, execution, monitoring and controlling and the closure stage (PMI, 2013). On the other hand, Projects In a controlled environment, version 2 (PRINCE2) is a process-based structured project management methodology that is logical organized and follows a defined sequence. This methodology stipulates that projects must have organized and controlled start, middle and end. The processes in PRINCE 2 define the key inputs, outputs, activities and specific objectives (ILX Group, 2015).

Project activities are undertaken to realize targeted project goals in a determined schedule with finite resources. While project management mainly focuses on the triple constraints of cost, budget and time; there exist organizational constraints that impact the project management processes. Therefore, improving the management of the constraints will enable organizations to achieve their business goals. The UC Santa Cruz ITS PMG adopted a project methodology comprising of five project management phases. At the definition phase where the project dimension is determined and a project proposal prepared based on rough estimates and Go/No Go decision is made. The second stage is planning which involves scoping where a project plan is drawn detailing timelines, the budget and required resources. At launch, a specific project governance structure is established. The project team holds a kick-off meeting where members are assigned responsibilities and deliverables. The managing is the fourth stage that involves project execution by implementing tasks defined. In this stage, effective communication and regular reporting of the project status is critical in managing the expectations of the relevant stakeholders. The last stage is project closure which requires appropriate sign off,

knowledge transfer and documentation. While the description is sequential, in practice, the phases can overlap or run simultaneously (ITS Project Management Group, 2014).

Project success can be determined if the success criteria are defined from the start and based on three steps. First, the project completion success can be based on the triple constraint of time, cost and scope. Secondly, success can be defined by how well a product or service is received by the intended final user. Service uptime, reliability and customer satisfaction are some metrics that can be used to measure success. Finally, project success can be determined by using a criterion that measure the value a product or service brings to an organization and the strategic or financial benefits it brings (PM Stack Exchange, 2014).

Several researchers such as Pinto and Slevin (1988) have identified a set of best practices in project processes that enhance and secure project success. These include: project mission-clarity of goals and strategic objectives; top management support-for resource allocation and provision of authority; project schedule and plan-detailed breakdown of roles and responsibilities; client involvement-active consultation and communication with all stakeholders; personnel-constitution of qualified and competent project team; technical tasks-availability of required tools, expertise and training; client acceptance- successfully pushing final product or service into the market; monitoring and feedback-timely dissemination of control information during the execution phase of the project; communication-sharing the necessary network and date to relevant stakeholders during execution; and problem solving-timely resolution and mitigation of arising issues and risks. (Cleland & Gareis, 2006; Cooke-Davis, 2001) concurred that indeed, these practices guarantee effective and successful projects and project management. The International Standards Organization (2012) embarked on the development of international project management standards; ISO 21500:2012. These are viewed in two perspectives: as five process groups comprising of initiating; planning; implementing; controlling and closing, or ten subject groups namely integration; stakeholders; scope; resource; time; cost; risk; quality; procurement; and communication (Rehacek, 2014).

Project outcomes can vary in the degree of expected results and only few are completed without trade-offs. Therefore, success may be in seen in a perspective in terms of satisfying the internal or external customer by considering critical success factors (CSFs). One of the factors to consider is the organizational project management maturity and the compliance of the project within policy and guidelines. The main focus is at organizational policy, guidelines per project cycle and per project as well as periodical

project phase review. The second factor the view that project success is determined primarily by customer satisfaction, while secondary success is defined by internal benefits accrued. The CSFs determines requirements for meeting desired deliverables. Key performance indicators (KPIs) can be used to measure the effectiveness of the processes measured periodically to assess their influence on desired outcome (Kerzner, 2003). In the same breadth, the author argues that projects that fail to satisfy the triple constraints and fail to yield the desired benefits are considered to have failed. The summative failure thus consists of the actual failure to meet the triple constraint as well as not satisfying the intended user.

2.2 Theoretical Literature Review

2.2.1. The Effect of Project Initiation and Planning on Project Success

Project initiation is the creation of sound guideline for management of a project by identifying key elements and determining the steps to be followed to achieve objectives. At initiation, the timelines are defined and the persons responsible for each action are identified (UK Government, 2010). The end result of initiation is a project proposal that acknowledges an existing problem, a proposed solution and how it will be executed. The output of this stage is a project charter whose purpose is to outline the business case, the approval and committed resources (PMI, 2013). This is the stage where stakeholders are identified; briefed on the scope and objectives and their expectations are taken into account.

Project planning on the other hand is the establishment of a predetermined course of action within a predicted environment (Kerzner, 2003). Kerzner further asserts that the planning process must be systematic, flexible, disciplined and capable of accommodating input from diverse functions. The planning process is most effective when it iterated and occurs throughout the life of the project. Indeed, every phase of the project processes require substantial planning. Subsidiary plans for each stage are integrated into the overall project plan. The final comprehensive plan will defines the project's execution, its monitoring and control and closure (PMI, 2013). Well prepared plans include subsets that explain the management of scope, requirements, schedule, cost, quality, risk, resources, process improvement and stakeholders. The final aspect of planning is the element of communication that ensures stakeholders remain informed and updated on the project progress to facilitate their effective participation.

In many organizations, project management teams are bestowed with diverse responsibilities. The most significant tasks include planning, estimating, scheduling and executing the plan. These activities are iterative and continuous throughout the life of the project (Perminova, Gustafsson, & Wikstrom, 2008). Formal planning has a direct impact on project success (Divr & Lechler, 2004). They considered that a thoroughly prepared plan is a foundation for project success. Indeed, a clear and comprehensively defined project plan can reduce risks, failure and the cost of the project (Lewis, 2010).

Project initiation and planning is a critical phase in project management. It starts with a joint meeting of project stakeholders to clearly understand objectives, deliverables and criteria of project success (Jacob & MClleland, 2001)**.** During project selection, the need and viability for the project is defined and justified. At this stage, the desired outcomes and benefits are specifically outlined, quantified and agreed upon. The project plan is drafted detailing activities to be executed to meet the triple constraints as well as the expected goals and benefits (Havard University School of Managemnt, 2007). The resulting plan provides details on how the desired outcomes and benefits will be delivered; the management of key stakeholders; determines the required resources and their availability. Besides, the plan also provides details of risks involved and the mitigation plan; the monitoring and controlling procedures and metrics. Finally, the closure process is pre-determined and all parties must approve the project closure process and checklist. It consists of the activities and documentation that signify the formal end to a project.

2.2.2. The Effect of Project Execution on Project success

The execution stage involves the implementation of project activities. Thus, it is the process of leading and performing work as described in the management plan and effecting changes approved to realize the set objectives. This stage is characterized by continuous performance of project activities, change requests, monitoring and control, risk, quality, communication and stakeholder management (Desmond, 2004). In a typical telecommunication environment, the execution involves signing of service contracts, down payment, holding internal and external kick off meetings, and initiating the procurement processes.

During implementation, a number of factors affect the direction of the project. The PMI (2013) outlines the key aspects in this phase. First, the inputs in this stage include the plan, the change requests, business environmental aspects and organizational policies and

assets. Secondly, the available tools and techniques applied during execution influence the progress of the project. These include the project management information systems, stakeholder and project team meetings, communication channels and monitoring and control activities. In the course of execution, deliverables are assessed and measured; change requests are affected and documented; project documents are updated to reflect progress and change requests. The project team directs the project activities and manages the various organizational and technical interfaces existing within the project.

Successful project execution is an organizational priority. Various researchers have shown that several project success factors can impact a project at all phases. In the execution phase, project success is related to the project's timely completion, on budget and within agreed quality (Kerzner, 2003). However, the understanding of project success has been altered to include limitation to minimum changes in the scope of the activities, shift in the corporate culture and acceptance of project results by clients (Alexandrova, 2012). Shenhar, Levy, & Dvir (1997) postulated that project success is measured in four dimensions, one of which is project efficiency during execution and immediately after completion. The researchers pointed out that shorter product life cycle and time-to-market increased an organization's competitive advantage. Further, they affirmed that impact of project management on the performance of an organization can be viewed in two broad dimensions of the commercial success of projects and the future potential created.

2.2.3. The Effect of Monitoring and Controlling on Project Success

Project monitoring is the systematic and regular collection and analysis of data over a period of time to identify and measure changes. Monitoring involves the collection of data prior to and during project implementation (United Nations Environment Program, 2008). The primary purpose of monitoring is to document the implementation process, facilitate decision making, and provide feedback for plan review and lessons learnt. According to PRINCE 2, project control is project management function that comprises of monitoring, evaluating and comparing actual versus planned results (ILX Group, 2015). It tracks the project progress towards achieving the stated objectives within project constraints; identifies deviations; evaluates alternative courses of action and takes remedial actions (Larson & Gray, 2011).

Project monitoring and control have increasingly become key functions of project management as projects grow bigger and more complex. It is the process of tracking, analyzing and reporting progress with respect to objectives. This task helps stakeholders

to understand the current state of the project, activities undertaken, the budget, schedule and scope forecasts. Monitoring and control cycle consists of: making a plan; implementing the plan; monitoring and recording the actual output; report the actual output, the planned parameters and the variations and finally; take corrective action on the variations (Shrenash, Pimplikar, & Sawant, 2013). This phase of the project provides an understanding of the project's progress so that appropriate corrective action can be taken when the project's performance deviates significantly from the plan. In traditional project management, control would involve identification of deviations from the project plan and put things back on track. However, the adaptive project management approach identifies changes in the business environment and adjusts the plans accordingly.

This task is carried out throughout the life of the project by taking measurements that help the project team understand progress. This stage has an impact on the business objectives and acceptance of the eventual project outcome in terms of quality. By applying the Deming cycle or the Plan-Do-Check-Act cycle philosophy (American Society of Quality, 2015) to this project stage, the project team ensures project specifications and constraints are adhered to as closely as possible. Indeed, this philosophy is affirmed by the theory of constraints (TOC) as applied by organizations and project managers, who work towards continually improving their ability to meet project commitments of budget, time and quality through the nature of project planning, project scheduling, project visibility and control, resource behaviour and multiple project synchronization (Avraham Goldratt Institute, 2009). The TOC contribution requires a project manager to understand the system process and the organization's goal (Gupta & Boyd, 2008). The performance of an organization requires that improvement is seen as a long term and continuous process to improve and sustain high quality project results and therefore ensure project success in all dimensions.

2.2.4. The Effect of Project Closure Process on Project Success

Projects are temporary endeavors and must come to an end at some point. There are key objectives of project closure. Key amongst them are: checking the extent to which the deliverables have been met; confirming customer satisfaction; securing formal acceptance and sign off for deliverables; spelling out the support, maintenance and warranty issues where applicable; preparing a report with recommendations and documenting lessons learnt (ILX Group, 2015).

Projects may end normally after successful completion or maybe terminated pre-maturely. There are several reasons that my lead to project termination and these include political, technical, force majeure or business reasons. Normal project closure occurs when a project is completed and the aims have been met, perhaps with some modification of scope, budget and schedule. Some projects may end prematurely due to insufficient funds, reduced scope; loss of senior management support; negative cost/benefit analysis; low return on investment (ROI); changed organizational priority or due to a natural calamity (Larson & Gray, 2011). Some projects may face closure due to political instability; changes in the regulatory environment; technological obsolescence; change in competitive factors; higher priority if competing projects or intellectual property issues.

The project closure involves a number of steps that result in contractual and administrative closeout. Contractual closeout mainly involves the settling of the final terms of engagement. The parties confirm that work was done accurately and according to or beyond the client's satisfaction. According to Shenhar *et al.* (1997), the second dimension of project success centered on the impact of the project on customer. In their observation, meeting performance measures, functional requirements and technical specifications determines the level of customer satisfaction. Documents prepared throughout the project life are filed for future reference. The administrative closure involves obtaining formal acceptance of the product or service from clients. An official sign-off is required as an acknowledgement by the customer and is filed as part of the project documentation. This is stage where the project team evaluates the outcome of the project against the project objectives and reviews benefits achieved. Lessons learned are shared with those who might benefit from them (UK Government, 2010). The lessons learnt range from why certain corrective actions were taken, unforeseen risks occurred, and what mistakes were made that could have been avoided. The project closeout may involve activities such as closeout meetings, resource reallocation reports, compliance documents, supplier notifications, final payments and collection of receivables (Mantel, Meredith, Scott, & Sutton, 2006).

Project termination can lead adversely damage an organization's reputation, market devaluation, low employee productivity and possible litigations for breach of contractual obligations (Hurley & Jimmerson, 2009; Belassi & Tukel, 1996). Terminated projects may not only lead to direct loss of revenue, but can also attract contractual penalties for late delays, loss of market share and strategic advantage. However, in certain

circumstances, termination of projects due to technology changes or changes in the competitive environment may cut down losses or ensure survival of an organization.

2.3. Empirical Review

In this section empirical evidence supporting the study of the effect of project management practice on project success on selected public projects found in Jimma town has been presented. According to Nyakundi.N.(2015), a study on the influence of project management process on outcome by taking samples from public sector infrastructure projects at Telkom Kenya Limited. Accordingly, the finding revealed that execution had the least influence whereas initiation and planning, monitoring and evaluation and closure stage indicated the highest influence on the outcome. Recommendation had made in that project outcome should be evaluated from the customer acceptance and satisfaction perspective as well as that of the business objectives of the organization.in addition, he suggested that effective project initiation and planning activities to be applied to all public sector projects.

In addition Zhang, (2007) to Planning of analyzing and managing risk events can more proactively improves projects 'adaptability, robustness and flexibility which results in projects success). A project manager who manages risks well in predefinition of project and maintains mitigation strategies are the one who takes the project leads towards success. More over as previously established, plan risk management is viewed as the key to successful implementation of project planning, thus ultimately leading to the project success (Raz & Michael, 2001).

Numerous empirical studies of project management success factors suggested planning as one of the major contributors to project success (Murphy et al., 1974; Slevin & Pinto, 1987; Aronson, & Lechler, 2009). All the project managers are required to prepare a solid project plan and follow this plan all the way to success. (Dvira, Razb & Shenharc, 2002)

Previous studies suggested that organization should improve the performance by focusing the planning (Lemma, 2014). Culture has significant effect on performance and is strongly related with project success (Ahmed, 2012). Recent studies suggest that organization which implements such management practices that include planning, risk management and culture fit have strong organizational culture which positively affects project management plan (Ahmed, 2012).

In Nigeria, the implementation of modern project management tools, methods and techniques is still not well established in public sector, this results into failure of public institutions and their contractors in performing their duties concerning the budget, specifications and deadlines of the projects awarded. Studies have recognized social and political systems, cultural blocks and lack of financial support as barriers to successful project planning and execution in Nigerian public sector (Idoro & Patunola-Ajayi, 2009).

Studies have confirmed that application of modern project management methods and techniques has a great effect on public institutions. Arnaboldi *et al* (2004) observed that application of project management strategy in public sector was as a result of pressure on governments to abandon bureaucratic organization in favour of leaner structures. The authors studied the projects carried out at Italian Treasury Ministry using project management methodology and discover that proper implementation of project management concepts and methods will help in avoiding project failure, continuous communication and the definition of project control system. They however stated that, project management methods needed to be modified and specifically tailored towards the needs of public institutions. In their study White & Fortune (2002) examined the current project management practice in public sector in UK by collecting data from 236 project managers in some public institutions. The study asked the respondents to judge the effectiveness of the project management methods, tools, and techniques they had used on the project success. The result of the study revealed that 41% of the reported projects were judged to be completely successful (using time, budget and specification), though some drawbacks were reported. Similarly, Abbasi & Al-Mharmah (2000) explored the project management tools and techniques used by the public sector in Jordan by surveying 50 industrial public firms. The study found out that the use of project management tools and techniques among the public sector companies was considerably low, but when practiced efficiently would result in tangible benefit in all aspects of planning, scheduling and monitoring the time, cost and specifications of projects.

2.4. Conceptual frame work

Based on the previous studies four critical factors can affect projects success. These variables are project initiation and planning, project execution process, monitoring and controlling and project closure processes expected to affect the Project success. The above relationship is diagrammatically presented in figure below which displays how the

independent and dependent variables relate as conceptualized by the researcher. The directions of the arrows show the interrelationships between the variables of the study

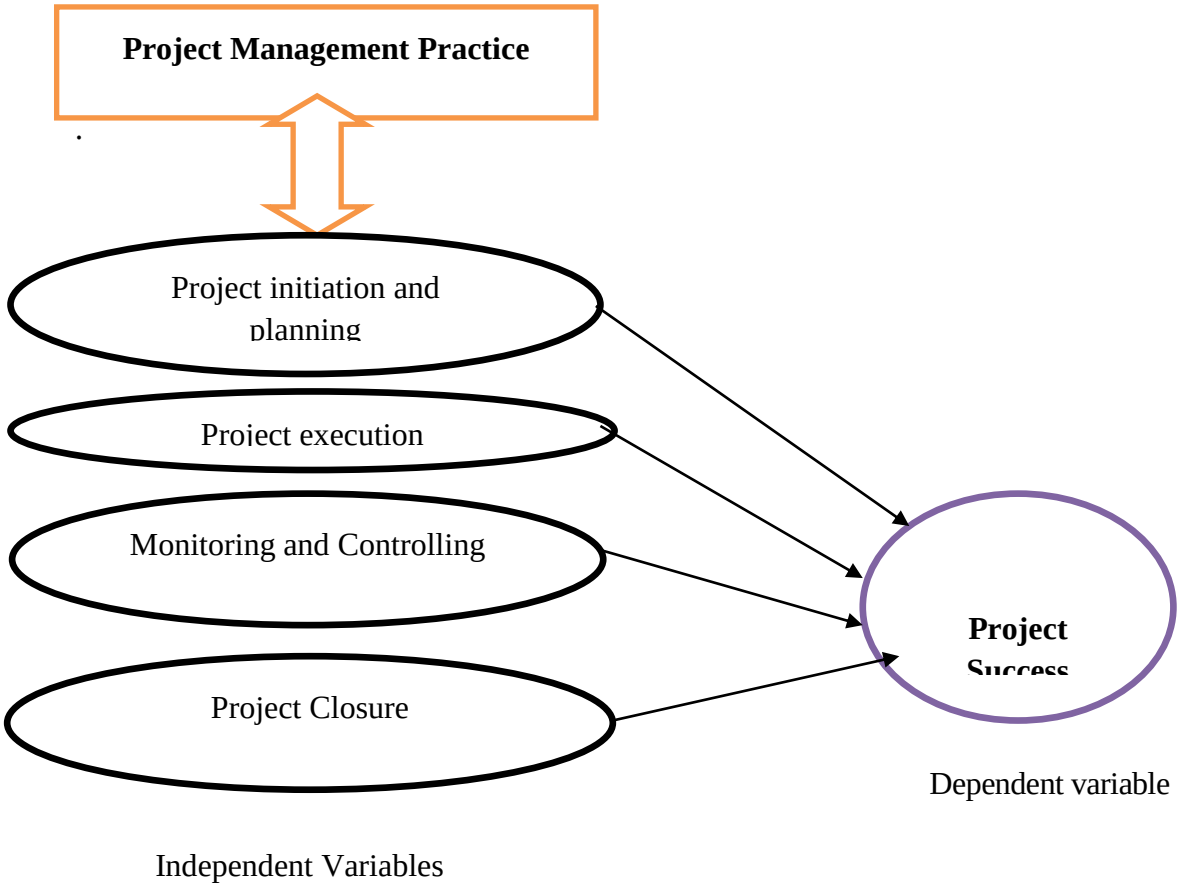

Figure 1.Conceptual Frame work.

Source: Literature review, (2023)

3. RESEARCH DESIGN AND METHODOLOGY

This chapter briefly describes the study area, data source, sampling technique, method of data collection and analysis.

3.1 Description of the Study Area

The study area, Jimma Town is located at 352 km away from Addis Ababa in south-western direction. It is located between 7.40º north latitude and 36.50º east longitude. It is situated at the center and is accessible to all parts of the south western part in all direction. The map of the study area is shown in Figure 2.

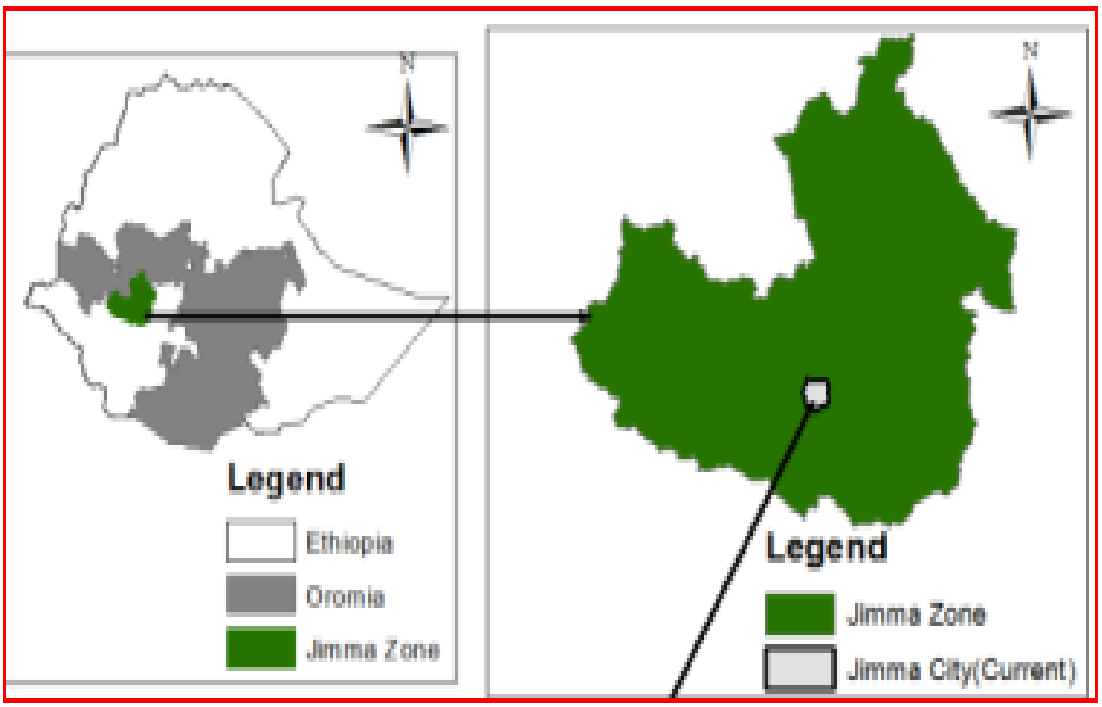

Figure 2: Map of the study area

Source: wakjira et.al, 2019

3.2 Research Design

The study focused to assess the effect of project management practice on selected public projects found in Jimma town. In the study, cross-sectional research design with both quantitative and qualitative components that enhance the researcher to investigate the problem under study.

3.3 Research Approach

Both qualitative and quantitative approach was designed to investigate the problem under study. Employing mixed approach uses to neutralize the biases of applying any of a single approach (Creswell, 2008). Qualitative research is a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem. And also it involves emerging

questions and procedures; data typically collected in the participant's setting, data analysis inductively building from particulars to general themes, and the researcher making interpretations of the meaning of the data (John, Creswell, 2009). Quantitative research is a means for testing objective theories by examining the relationship among variables.

These variables, in turn, can be measured, typically on instruments, so that numbered data were analyzed using statistical procedures. So, the researcher used this quantitative and qualitative approach to investigate the effect of project management practice on project success on selected public projects found in Jimma town.

3.4 Target Population

A population is the entire group of individuals, events or objects having common evident features. A target population is that population to which a researcher wants to take a broad view of the results of a study (Coolican, 2013). This study targets, Eight public sectors found in Jimma town i.e. Jimma town Municipality , Jimma town Health Office , Jimma City Education Office, Jimma Town Water Supply and Sewerage Service Enterprise, Jimma town Women and children Affairs office, Jimma town youth and Sport Office , Jimma city Culture and Tourism Office and Jimma town finance and Economic Development Office which is selected on the basis of their frequency in under taking different contracts management practices relative to other organizations found in Jimma town and this organizations comprises total of 253 professional employees having direct and indirect concern and relation with their office project management practice and its project success. (Source: Jimma town Municipality and each office HR).

3.5 Sampling Technique

The study used stratified simple random sampling techniques in order to study the effect of Project management practice on Project success on selected public projects found in

Jimma town. Stratified simple random sampling technique greatly enhances the likelihood of the proper representation of strata in the sample. Paula et al. (2001) noted that, under stratified random sampling the researcher can have more precise information inside the sub populations about the variables of the researcher's study. This leads the researcher to choose stratified random sampling for the current study.

3.5.1. Sample Size

Sampling is the process of systematically choosing a sub-set of the total population that the researchers are interested in surveying. Regarding to these Paula et al. (2001) noted that, sampling refers to drawing a sample or selecting a subset of elements from a population. The design of a sampling strategy is an important issue for a research study and it can be a powerful tool for accurately measuring opinions and characteristics of a population. The usual goal in sampling is to produce a representative sample.

As it is stated by Paula et al. (2001), a perfect representative sample would be a mirror image of the population from which it will be selected.

Depending up on Taro Yamane (1973) the sample size was calculated as follows to represent the total population or universe 155, which is the total number of professional employees managed under the selected eight public Sectors found in Jimma town at 95% confidence level.

It is calculated as follows:

$$n = \frac{N}{1+N(e)^2}$$

$$n = \frac{253}{1 + (253)(0.05)^2}$$

$$n = 154.977 = \mathbf{155}$$

Where, n=Sample size, N= Population, e= standard error

Therefore the total sample size representing population is 155 employees which were used to assess the effect of project management practice on Project success on selected public projects s found in Jimma town. For the convenience of the study the calculated 155 number of samples were collected from professional employees working and managed under the selected eight public sectors found in Jimma town as follows in the following table.

Table 1: Number of Professional employees, their organization and Sample size from each stratum

S.No	Name organization	Number of Employees	Proportionate sample size from stratum $n_h = (N_h/N_s)n$
1	Jimma Town Municipality	62	(62/253)*155= 38
2	Jimma Town Health Office	36	(36/253)* 155= 22
3	Jimma City Education Office	26	(26/253)* 155= 16
4	Jimma Town Water Supply and Sewerage Service Enterprise	43	(43/253)* 155= 26
5	Jimma town Women and children Affairs office	12	(12/253)* 155= 7
6	Jimma Town youth and Sport Office	18	(18/253)* 155= 11
7	Jimma city Culture and Tourism Office	24	(24/253)* 155= 15
8	Jimma Town finance and Economic Development Office	32	(32/253)* 155= 20
	Sum total	253	155

Sample size from each stratum, was calculated by number of employees in relative to the total number of employees found , managed and representing the Eight selected public sectors found in Jimma town and sample for each stratum is obtained by multiplying sample size (155) which is obtained from the total population.

3.6. Data Source, Methods of Data Collection and analysis.

3.6.1. Data Source

The study was used both quantitative and qualitative data which were collected from primary and secondary sources through different techniques. Primary data was collected using self-administered questionnaire and semi-structured instruments to collect data from professional employees working in the selected eight different public Sectors and key informant interviews with the project management undertaking committees.

Secondary data relevant to the research work was collected from the purposively selected public projects s found in Jimma town like Jimma town Municipality , Jimma town Health Office , Jimma City Education Office, Jimma Town Water Supply and Sewerage Service Enterprise, Jimma town Women Affairs, Jimma town youth and Sport Office , Jimma city Culture and Tourism Office and Jimma town finance and Economic Development Office documents such as office records and reports, journals, manuals, books, and files from internet or web pages. Both primary and secondary sources was considered to collect qualitative and quantitative data that complement and/or supplement to each other and diverse information from different sources, so as to make the data and the results of the research will be reliable.

3.6.2. Methods of Data collection and analysis

Data was collected mainly from primary source. Questionnaires was employed for the collection of primary data from the selected employees working Jimma town Municipality, Jimma town Health Office, Jimma City Education Office, Jimma Town Water Supply and Sewerage Service Enterprise Jimma town Women Affairs, Jimma town youth and Sport Office, Jimma city Culture and Tourism Office and Jimma town finance and Economic Development Office. The questionnaire composed of three different sections. Sections I consisted of questions related to the socio-demographic characteristics of respondents, section II consists of questions related to project management practices considered as the independent variables namely project initiation and planning, project execution process, monitoring and controlling and project closure processes under the dependent variable called Project success and the section III consists of interview questions conducted with project management undertaking committees found under the eight selected public organization There was both close and some open ended questions however; most of the questions was stated in a five-point likert scales

ranging from strongly disagree to strongly agree where 1 stands for (strongly disagree); 2 (disagree); 3(neutral); 4 (agree) and 5(strongly agree).

Once the questionnaires were collected by the researcher, it was coded and feed into the SPSS computer software for analysis. Initially screening of data was done using sort functions. Quantitative data collected was analyzed using descriptive statistical techniques such as frequencies, mean, standard deviation. Qualitative data was categorized and reported in emergent themes. Measures of central tendency for summary statistics of the variables were tested. The findings were presented by the use of frequency distribution tables that give record of the number of times a score or a response occurs. Descriptive statistics gave the profile of the target population, i.e. frequencies and percentages, means, standard deviations, whereas inferential statistics were used ANOVA/T test, Pearson correlation and the Multiple Regression Analysis Model so as to determine effect of project Management practice on project success. Multiple regressions and correlation as a form of inferential statistical analysis was used in determining the relationship between the dependent and independent variables.

The model will be used:

$$PS = \beta 0 + \beta 1\, PIP + \beta 2 PEP + \beta 3 MC + \beta 4 PC + e$$

Where;

PS = Project Success

β0 = Constant term

β1.... β5 = Regression Coefficient to be estimated

PIP = Project initiation and planning

PEP = Project execution process

MC = Monitoring and controlling

PC = Project closure

e = stochastic term

All the above statistical tests was done using the Statistical Package for Social Sciences (SPSS) version 20.Significant levels measured at 95% confidence level, with significant differences recorded at $p < 0.01$.

3.7. Validity and Reliability

3.7.1. Validity test

Harper and Thompson (2011) note that in order for data collection tools to provide useful results, the questions must be both valid and reliable. According to Creswell (2009), the usual procedure in assessing the content validity of a measure is to use a professional or expert in a particular field which helps in discovering question content, correction in the wording and the sequencing problems before the actual study as well as exploring ways of improving overall quality of study. For the sake of this study, the researcher will use the opinions of experts in the field of study especially university research instructors specifically the main advisor and the co-advisor to establish the validity of the research instrument. Also the researcher was used opinions of experts of the organization for the questionnaires whether they are correctly processed or not. This facilitated the necessary revision and modification of the research instrument thereby enhancing validity.

3.7.2. Reliability test

Reliability of the data collection instrument is the consistency of measurement and frequently assessed using a test–retest reliability method (Cooper and Schinder, 2014). Reliability enables the researcher to identify the ambiguities and inadequate items in the research instrument; where the instrument reliability is the dependability, consistency or trustworthiness of a test. The scores were tested using Cronbach's Alpha for the data to be reliable for those questionnaires raised by likert scale. According to George &Mallery (2003), it is recommended that if a Cronbach's coefficient of measurement scale exceeds 0.70 is acceptable as an internally consistent so that further analysis can be carried unless it is unacceptable. They indicated the alpha in the following rule of thumb concerning reliability coefficient: Alpha > 0.9 – Excellent, Alpha > 0.8 – Good, Alpha > 0.7 – Acceptable, Alpha > 0.6 – Questionable, Alpha > 0.5 – Poor and Alpha < 0.5 – Unacceptable. Based on Cronbach's Alpha researcher found it reliable.

3.8. Study variables

The study dependent variable is project success , while the independent variables is project management practice of the eight selected public organizations i.e. project initiation and planning, project execution process, monitoring and controlling and project closure processes that was measured using 5-point Likert Scale.

3.8.1. Independent variables

In this study, the independent variable (project initiation and planning, project execution process, monitoring and controlling and project closure processes) are the activities included as project management practice of the eight selected public organizations Each independent variables extracted from the stages of project management practice of the eight selected public organizations from the literature review and also the established relationship of these independent variables with project success. Those variables have effect on project success of the selected public organization are the domain considered as first-order independent variables.

3.8.2. Dependent variable

The dependent variable is project success. The project success measured and computed by project management practice of the eight selected public organization was considered as dependent variable.

Table 2: Summaries of Dependent and Independent Variables

No	**Name of variable**	**Symbol**	**Measurement**
1	Project Success	Ps	Ordinal level
2	Project initiation and planning	PIP	Ordinal level
3	Project execution process	PEP	Ordinal level
4	Monitoring and controlling	MC	Ordinal level
5	Project closure	PC	Ordinal level

3.9. Research Work Plan and Budget

The detail of tentative work plan and estimated budget requirements is indicated in the table below

Table 3: Work Plan

Phases	**Duration**	**Description**
Phase 1	From Jan 1 to February 28	Submitting the final Proposal
Phase 2	From mid- March to Mid-April	Gathering the intended data
Phase 3	From Mid- April to end of mid- May	Organization & analyzing the data
Phase 4	From Mid- May 1 up to 30	Final submission of the research paper

Table 4: Budget Required for the Research

No	Activity/ Item description	Unit Measure	Quantity	Estimated Price in Birr	
				Unit	Total
1	Stationary materials				
1.1	Double "A" Paper	Pack	2	200	400
1.2	Clipboard	No	2	35	70
1.3	Folder	Piece	1	25	25
1.4	Writing Pad	No	1	38	38
1.5	Stapler	No	1	80	80
1.6	Staples	Packet	1	15	15
1.7	Pencil	No	1	10	10
1.8	Eraser	No	2	5	10
1.9	Correction Fluid	No	2	20	40
1.10	Pen	No	5	10	50
1.11	Flash (4 GB)	No	1	240	240
1.12	Re-writable CD	No	2	50	100
	Sub-total				978
2	Per Diem Payment				
2.1	For two assistant coordinators and organizers	Day	10	100	1000
	Sub-total				1,000
3	Secretarial Service				
3.1	Typing	Page	120	3	360
3.2	Photocopy service	Page	360	1	360
3.3	Binding the final paper	Pad	4	10	50
3.4	Internet cost	Package(mb)	50hrs	.20cents/min	600
	Sub-total				1,370
4	Transportation Fee				
4.1	From office to office	Trip /Lump sum	Variable		200
	Sub-total				200
5	Contingencies 2%	-	--	-	70.96
	Grand Total				3,618.96

4. RESULTS AND DISCUSSION

This section presents the results of an analysis of the collected data during fieldwork.

In this chapter the analysis of the data is presented. The data was analyzed by using descriptive method; by measuring numerical values and converting them to percentages. The analysis process was done in such a way that 'disagree' responses were merged with 'strongly disagree'. Likewise, 'strongly agree' responses were analyzed together with 'agree' responses. Therefore, results are expressed cumulatively as a negative and positive response respectively while the neutral results are expressed as they are.

After conducting the descriptive analysis, inferential analysis was used to show results. Data analysis was verified against the literature reviewed and recorded electronically according to the variables being investigated.

4.1. Response Rate

The sample population consisted of 8 selected projects of the town under investigation. A total of 155 questionnaires were distributed, data was successfully collected from 149 respondents representing a response rate of 96.13% (Table 4.1). Fowler (1993) recommends 75% as a rule of the thumb for minimum responses.

Table 5: Response Rate of Questionnaires

Responses	No of Questionnaires	Percentage
Administered questionnaire	155	100.0%
Unreturned	6	3.87%
Functional questionnaires	149	96.13%

Source: Own Survey, 2023

4.2. Demographic Profile

4.2.1. Gender

It was felt important to identify the gender of the respondents in order to know how representative sample was and to observe their perception about effect of project management practice towards project success in light of gender. In view of this,

respondents were asked to indicate their gender and also gender distribution is one indicator on whether data collected is genuine. The distribution in this study indicates what is expected hence gives credibility to the data. As it is listed below in chart 4.1, it was found 115(77.18%) of the respondents were male while 34(21.1%) of the respondents were females. This tentatively implies that majority of the employees are male.

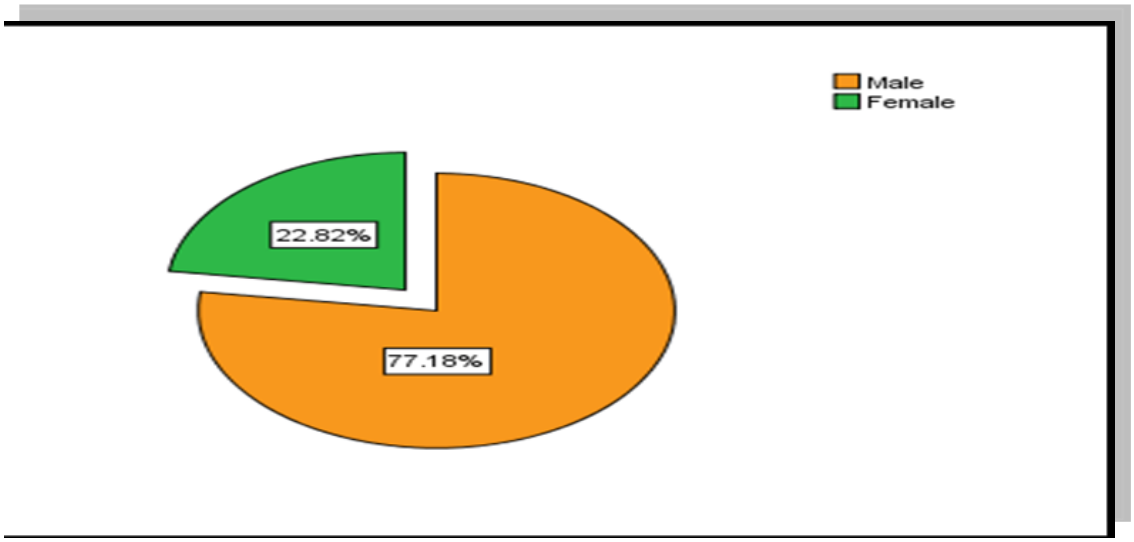

Figure 3: Gender of the respondents

Source: Own survey data,(2023).

4.2.2. Age Distribution of Respondents

With reference to the age group of the respondents, 13.4% (20) of them are in the range of under 25 year, 68.5% (102) of them are in the age bracket of 25 to 35 years, 10.1% (15) of the respondents are between 36 to 45 years of age and 8.1% (12) respondent age is in between 46-55 year . Based on the results, majority of the respondents is inside the age range of 25 to 35 years which is 102 respondents having 68.5%. The table 4.2 indicates the expected age distribution in the selected organizations of Jimma town where majority of the workforce falls under productive age group. This data shows that feedback received was credible.

Table 6: Age Distribution of Respondents

		Frequency	Percent	Cumulative Percent
Valid	Under 25	20	13.4	13.4
	25-35	102	68.5	81.9

	36-45	15	10.1	91.9
	46-55	12	8.1	100.0
	Total	149	100.0	

Source: Own survey data(2023).

4.2.3. Service year of respondents or seniority in their organization

Service year of the respondents was put into account by the researcher. Based on the results, 47.7% (71) of the respondents have worked for more than five years in their organization, 20.8% (31) of the respondents have an experience of more than three years and less than five years i.e. Greater than 3 up to less than five years, 29.5% (44) of the respondents have worked for one up to three years, and the remaining 2% (3) of them for of the respondents have worked in the organization for less than a year. Therefore, the result showed that the majority of the respondents have a work experience of more than five years in the organization. Since, most of the respondents have worked in the firm for over five years they provided responses based on a wider knowledge base of the company's operations as they are experienced with their jobs on projects for more than five years. This indicates they were being able to respond to the question items appropriately.

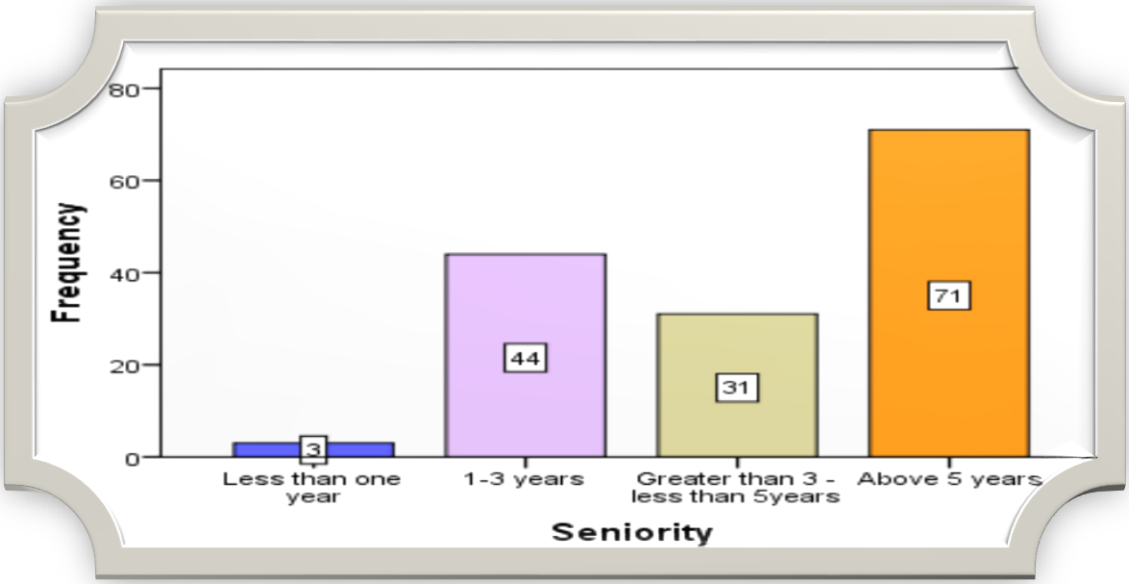

Figure 4: Seniority

Source: Own survey data (2023).

4.2.4. Respondents Experience in Currently assigned position

The respondents were also requested by the researcher to indicate how long they had been working on the currently assigned position or the experience they have on the existing working position they hold in their respective organization accordingly in the table below.

Table 7: Respondents experience in the current position

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	< 1 year	47	31.5	31.5	31.5
	1-3 years	62	41.6	41.6	73.2
	Greater than 3 less than 5yrs	21	14.1	14.1	87.2
	Above 5 years	19	12.8	12.8	100.0
	Total	149	100.0	100.0	

Source: Own survey data, 2023

It was found from the above table 4.3 that, 31.5%(47) respondents working in the current position for less than one year, 41.6%(62) respondents working in the current position for one up to three year, 14.1% (21) respondents working in the current position for greater than three year up to five years i.e. Greater than 3 - less than 5years and 12.8% (19) respondents working in the current position for more than five years. This indicates more than 68.5% (142) experiencing on the existing position for more than one year and above

4.2.5. Education Level of Respondents

The education level of the respondents was sought by the researcher in order to establish whether there is a significant relationship between the level of education and project success, it was found that, 0.7% (1) of the respondents have a diploma, 69.8% (104) bachelor's degree and 22.1% (33) of the respondents have a Master's degree. This indicates that the respondents in this study have high level of academic qualification. The results would therefore, be of assistance in understanding and responding the questionnaire properly and effectively.

Table 8: Educational Qualification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	College Diploma	12	8.1	8.1	8.1
	BA/BSc Degree	104	69.8	69.8	77.9
	Master Degree	33	22.1	22.1	100.0
	Total	149	100.0	100.0	

Source: Own survey data(2023).

4.3. Descriptive Results

In this section a descriptive analysis is presented, which demonstrates the perception of the sample and agreement in relation to project success determining factor statements. Moreover, each dimension of the project success determinants were presented in the following section, with its associated statements mean, standard deviation and relative importance. Subsequently, an explanation into the sample agreement and success in regards to the different dimensions and their subsequent statements were provided later through these dimensions of project success determinants. A specific scale was used in the process of analyzing questionnaire statements, which was divided into five levels that relate to the weights of the questionnaire (Sekaran, 2004).

Table 9: Descriptive Statistics Project initiation & planning

	SD	D	N	A	SA	Mean	Std. D
There is adequate and comprehensive project management	4	5	11	66	63	4.20	.915
Percentage	**3%**	**3%**	**7%**	**44%**	**42%**		
The sector determined, documented, and managed each stakeholder requirements to meet project objective	25	37	32	43	12	2.87	1.234
Percentage	**17%**	**25%**	**21%**	**29%**	**8%**		
The sector developed a detailed description about the output of the project	7	29	59	45	9	3.13	.956
Percentage	**5%**	**19%**	**40%**	**30%**	**6%**		
The sectors effectively subdivided project deliverables into smaller components for easy management and outsourcing	1	9	44	69	26	3.74	.841
Percentage	**1%**	**6%**	**30%**	**46%**	**17%**		
There are clear policies, procedures, and documentation for project schedule	7	29	59	45	9	3.14	.957
Percentage	**5%**	**19%**	**40%**	**30%**	**6%**		
There is effective cost breakdown and anticipated supply requirements for the project	21	49	19	52	8	2.85	1.201
Percentage	**14%**	**33%**	**13%**	**35%**	**5%**		
The sectors effectively estimated time required for project activities	30	35	30	44	10	2.79	1.254
Percentage	**20%**	**23%**	**20%**	**30%**	**7%**		
The sectors developed an approximation of the monetary resources needed to complete project before the beginning of the project	7	15	20	76	31	3.73	1.050

Percentage	**5%**	**10%**	**13%**	**51%**	**21%**		
There is clear job description among employee and management in the sector	16	34	27	67	5	3.07	1.116
Percentage	**11%**	**23%**	**18%**	**45%**	**3%**		
The sector developed appropriate project communication approaches and plans to communicate with its stakeholders	56	50	33	10	0	1.98	.933
Percentage	**38%**	**34%**	**22%**	**7%**	**0%**	3.15	
Average mean							

Source: Own survey data(2023).

Table 4.5, shows the sampled sectors in Jimma town sample respondents 129(86%) of the respondents' responded their sector have adequate and comprehensive project management (positively responded). And 4(3%) of respondents responded that the organization doesn't have adequate & comprehensive project management (negatively responded) and remain 11(7%) respondents do not make any specification regarding their viewpoints (Indifferent).

About 55(37%) of the respondents explained that the sector they are working in meets project objectives with good documentation, determined work to manage stakeholders. Those who were against this idea comprised about 42% of the total respondents and the remaining 32(21%) stayed neutral or they didn't want to express their point of view on the matter.

Detailed description about the output of the project is carried out according to 54(36%) of the respondents. 36(24%) of the respondents replied that the sector they are working in doesn't have a detailed description about the output of the project. The remaining 59(40%) of the respondents stayed neutral on the question raised concerning detailed description of project output.

For easy management the sectors sub divide the activities in to their smaller components according to the response collected from 95(63%), in the other hand about 10(7%) of the

respondents responded that their sector doesn't decompose the activities in to their smaller parts. The remaining 44(30%) shows no view point on this regard.

Question was raised regarding there are clear policies, procedures, and documentation for project schedule and accordingly about 54(36%) of the respondents responded positively. 36(24%) of the respondents replied that the sector they are working in doesn't have clear policies, procedures, and documentation for project schedule. The remaining 59(40%) of the respondents didn't show their concern regarding the question raised.

From the above table it is inferred that about 60(40%) of the respondents responded that there is effective cost breakdown and anticipated supply requirements for the project. To the contrary, majority of the respondent 70(47%) responded that there is no effective breakdown. Those who don't want to show their view comprised about 13% of the total respondents.

Their sector effectively estimated time required for project activities according to 54(37%) of the respondents and 65(43%) of the respondents responded no effective estimated time required for the project activities. The remaining 20% of the respondents stayed neutral on this matter.

From the above table about 107(72%) of the respondents agreed to the point raised concerning sectors develop an approximation of monetary resources needed for the project & about 22(15%) of them were against this idea. Only 20(13%) of the respondents stayed neutral i.e they didn't agree or disagree for the question raised.

There is no clear job description among employee and management in the sector they work in for 50(34%) of the respondents. Clear job description was given for everybody according to 72(48%) of the respondents and 27(18%) of them didn't show their viewpoint on the matter raised by the study.

For the question raised whether the sector developed appropriate project communication approaches and plans to communicate with its stakeholders or not, & majority of them disagreed with total response of 106(72%). Also those agreed to the point comprises of the least figure and the remaining 33(22%) of them stayed neutral.

From the above results the study revealed that there is a problem communication approaches, clear job description of employees and also there is a problem concerning

effective time required for the project. Effective budget breakdown is also one of the problems facing those selected sectors even if they are good at comprehensive project management. It doesn't mean all of the items associated with project initiation fall into problem but, the sectors are good at effectively sub dividing project activities into smaller parts.

Table 10: Descriptive Statistics Project execution process

	SD	D	N	A	SA	Mean	St. D
The work defined in the project management plan and approved changes is lead and performed properly	21	49	19	52	8	2.85	1.201
Percentage	**14%**	**33%**	**13%**	**35%**	**5%**		
There is continuous audit on quality requirements and results from quality control	30	35	30	44	10	2.79	1.254
Percentage	**20%**	**23%**	**20%**	**30%**	**7%**		
There is effective human resource planning and project team establishment	25	37	32	43	12	2.87	1.234
Percentage	**17%**	**25%**	**21%**	**29%**	**8%**		
The sectors improved competencies, team member interaction, and overall team environment to enhance project performance	7	29	59	45	9	3.13	.956
Percentage	**5%**	**19%**	**40%**	**30%**	**6%**		
The sectors effectively tracked team member performance, provided feedback, resolved issues, and managed related changes to optimize project performance	0	4	58	61	26	3.73	.777

Percentage	**0%**	**3%**	**39%**	**41%**	**17%**		
The sector has good project information system in Accordance with the communications management plan.	1	0	56	66	26	3.78	.752
Percentage	**1%**	**0%**	**38%**	**44%**	**17%**		
The company effectively obtained, selected, and Awarded resource suppliers.	32	47	33	25	12	2.58	1.225
Percentage	**21%**	**32%**	**22%**	**17%**	**8%**		
The sectors communicate and work with stakeholders to meet their needs/expectations throughout the project life cycle.	19	35	26	61	8	3.03	1.174
Percentage	**13%**	**23%**	**17%**	**41%**	**5%**		
Average mean						3.095	

Source: Own survey data (2023).

Also respondents were asked to show their view regarding the project execution process dimension of reliability and they responded as the above table 4.8. For the question raised whether the work defined in the project management plan and approved changes is lead and performed properly or not about 63(40%) of the respondents agreed with the question. For the same question about 70(47%) of the respondents said the approved changes were not performed properly. Those stayed neutral from showing their view comprised 13% of the total responses.

For the question regarding there is continuous audit on quality requirements and results from quality control majority of the respondents disagreed with the question and 54(37%) of the total respondents only agreed with same question. The remaining 30(20%) of the respondents stayed neutral i.e they are not sure whether the organization perform properly on the approved changes.

Respondents were asked if the organization they work in have effective human resource planning and project team establishment or not, majority of the respondents responded the organization does not have it and about 55(37%) of the total respondents answered that

there is good establishment of human resource. The remaining 21% stayed neutral on the matter.

From the total respondents 54(36%) of them agreed that the sectors have improved competencies while, only 36(24%) of the respondents said there is no improved competencies, team member interaction, and overall team environment to enhance project performance. Respondents with indifferent views comprise 59(40%) of the total 149 respondents.

Effective tracking of staff performance, giving feedback and managing related issues of project was carried out according to 87(58%) of the respondents. Only 4(3%) of the respondents said there is no effective tracking of performance and other issues related with their project work. The remaining 58(39%) them didn't respond to the question raised i.e stayed neutral.

Responses collected form 1(1%) showed that here is no good project information system in the sectors according to the planned communication. In the contrary, about 92(61%) of the respondents agreed to good project information is given according to the planned communication. The rest of the respondents didn't show their interest on the question raised.

Regarding project execution respondents were asked about company effectively obtained, selected, and awarded resource suppliers turns out to be disagreed by 79(53%) of the respondents and 37(25%) of the respondents responded with positive view about award giving. The remaining 33(22%) of them didn't show positive or negative view on this question.

There is no communication and working with stakeholders to meet expectations throughout project life cycle according to 54(36%) of the respondents and 69(46%) of the respondents agreed that there is a communication between the sectors and stakeholders to carryout project. 26(17%) of them stayed neutral on this matter.

Table 11: Descriptive Statistics Monitoring & Controlling

	SD	D	N	A	SA	Mean	Std. D
Progress of the project is effectively and regularly tracked, reviewed, and reported against the performance objectives defined in the project management plan by the sectors.	7	8	13	79	42	3.95	1.005
Percentage	**5%**	**5%**	**9%**	**53%**	**28%**		
The sectors properly monitored status of project activities to update project progress and manage changes to the schedule baseline to achieve the plan.	21	49	19	52	8	2.85	1.201
Percentage	**14%**	**33%**	**13%**	**35%**	**5%**		
There is effective monitoring and recording of results of executing the quality activities.	30	35	30	44	10	2.79	1.254
Percentage	**20%**	**23%**	**20%**	**30%**	**7%**		
There is effective communication monitoring and control throughout the entire project life cycle to ensure the information needs of the project stakeholders are met.	9	10	49	63	18	3.48	.997
Percentage	**6%**	**7%**	**33%**	**42%**	**12%**		
There is effective monitoring of overall project stakeholder relationships and adjustment	2	9	10	57	71	4.25	.922

strategies and plans for engaging stakeholders.							
Percentage	**1%**	**6%**	**7%**	**38%**	**48%**		
The sectors monitored specific project results to determine if they comply with relevant environmental standards and identified possible corrective actions	4	7	35	65	38	3.85	.950
Percentage	**3%**	**5%**	**23%**	**44%**	**26%**		
There is effective monitoring of key influences of Finance and corrective measures were taken if negative trends are recognized. The sectors has appropriate claim prevention mechanisms	31	65	22	21	10	2.42	1.164
Percentage **Average mean**	**21%**	**44%**	**15%**	**14%**	**7%**	3.37	

Project success can be seen if there is good monitoring and controlling process in place. Accordingly, 15(10%) of the respondents disagreed that Progress of the project is effectively and regularly tracked, reviewed, and reported against the performance objectives defined in the project management plan by the sectors. Majority of the respondents agreed to the same question raised with a total response of 121(81%) & only 13(9%) of the respondents stayed indifferent.

The sectors properly monitored status of project activities to update project progress and manage changes to the schedule baseline to achieve the plan were disagreed by 70(47%) of the respondents. 60(40%) of the respondents agreed for proper monitoring of project activities and the remaining 19(13%) stayed neutral. There is effective monitoring and recording of results of executing the quality activities according to 54(37%) and majority of them i.e 65(43%) didn't agreed with effective monitoring & recording of results of executing the quality activities in their sector. 81(54%) of the respondents agreed with

needs of stakeholders are met with effective communication and about 19(13%) of them didn't agree. The remaining 49(33%) of the respondents remain neutral. Majority of the respondents agreed on effective monitoring of overall project stakeholder relationships and adjustment strategies and plans for engaging stakeholders and only 11(7%) of them disagreed on this issue. The issue of compliance with environment was raised for respondents and about 103(70%) of them agreed their sector comply with environmental standards. Those who didn't show their viewpoint comprised 23% of the total respondents. Corrective measures and appropriate claim measures were not taken seriously according to the majority of the respondents and 31(21%) of the respondents agreed that the sectors they are working in takes corrective measures and their sector has appropriate claim prevention mechanisms. Project monitoring and evaluation of the selected sectors depends on personnel performance, regular reporting to stakeholders, with effective monitoring process, up to date information and taking corrective measures when some issues arise in project life cycle. Those sectors lack this and it implies that the organization is not performing those matters to its fullest potential.

Table 12: Descriptive Statistics Project closure

	SD	D	N	A	SA	Mean	Std. D
It controls and certifies that both contracting parties have honored their contractual responsibilities	0	12	61	56	20	3.56	.825
Percentage	**0%**	**8%**	**41%**	**38%**	**13%**		
It controls and certifies activities involved in evaluating degree of successful contract execution	1	8	44	70	26	3.75	.829
Percentage	**1%**	**5%**	**30%**	**47%**	**17%**		
The Project was evaluated after closing	1	20	60	51	17	3.42	.887
Percentage	**1%**	**13%**	**40%**	**34%**	**11%**		
It ensures the achievement of expected results	1	15	60	50	23	3.53	.897
Percentage	**1%**	**10%**	**40%**	**34%**	**15%**		
The Lesson learned were compiled for the future project	0	9	51	70	19	3.66	.776
Percentage	**0%**	**6%**	**34%**	**47%**	**13%**		
It terminates contracts effectively	0	4	69	14	62	3.90	.991
Percentage	**0%**	**3%**	**46%**	**9%**	**42%**		
Overall, the project was well completed	0	4	62	56	27	3.71	.791
Percentage	**0%**	**3%**	**42%**	**38%**	**18%**		
Average mean						3.65	

Source: Own survey data, 2023

The sector they work in controls and certify that both contracting parties have honored their contractual responsibilities according to 76(51%) of the respondents.12 (8%) of the total respondents disagreed with the question raised regarding keeping promises &

abiding with the agreement. The remaining 61(41%) of the respondents kept their point of view on this issue.

Certifying those who accomplish their task on time and based on quality was agreed by 96(64%) of the sample respondents. On the other hand those who were against this idea comprised of 6% from the total 149 respondents and the remaining respondents i.e 44(30%) stayed neutral.

According to 68(45%) of the respondents the Project is evaluated after closing but, for the 21(14%) them the project is not evaluated after closing. Some of them also stayed neutral or they didn't show whether their sector is evaluated or not after closing.
Project closure ensures the achievement of expected results according to 73(49%) of the total respondents. 16(11%) of them disagreed with the achievement of expected result after closure. Those respondents who can make difference on the issue either by agreeing or disagreeing didn't show their viewpoint.

Lesson learned were compiled for the future project according to 89(60%) of the respondents and only 9 of them responded their sector do not compile documents for future project. The rest 51(34%) did not make any specification about their attitudes (Indifferent).
About 76(51%) of the respondents responded that their respective sectors terminates contracts effectively (positively responded). On the other hand, 4(3%) of the total respondents disagreed with the effective termination of project contracts (negatively responded). The rest 69(46%) did not make any specification about their attitudes (Indifferent).

According to majority of the respondents the overall, the project was well completed and 4(3%) of the respondents disagreed with project well completed overall. The remaining respondents remain indifferent.

The above table implies that the sector organization gives attention for the well completed project, effective contract termination; record keeping for future project and achievement of expected results were performed well.

4.4. Multiple linear regression assumptions

Before joining regression analysis, it is essential to test assumptions of multiple linear regression analysis Model (Keith, 2006; Pallant, 2005). Therefore, each assumption result was discussed below:

4.4.1. Normality test

Another important diagnostics test conducted in this study is the normality assumption (i.e. the normally distributed errors). The normality assumption is about the mean of the residuals is zero. Moreover, Normality tests are used to determine whether a data set is well-modeled by a normal distribution or not, or to compute how likely an underlying random variable is to be normally distributed (Gujarati, 2009). Therefore, the researcher used histogram for testing the normality of the data. According to Fidell (2001), if the residuals are normally distributed around its mean of zero, the histogram should be a bell-shaped and regression standardized residual plotted between 3.3 and –3.3. So that, from chart below, it can be noted that the data conforms to the normality assumption (Stevens, 2009). As we can understand from the histogram and p-p plot depicted below, the residuals seem normally distributed and the residuals are distributed with a mean of 0 and standard deviation of 0.995 which is approximately 1. Thus, the model fulfills the assumption of being normally distributed. Moreover, in the normal probability plot it is expected that our points will lie in a reasonably straight diagonal line from bottom left to top right which would suggest no major deviations from normality.

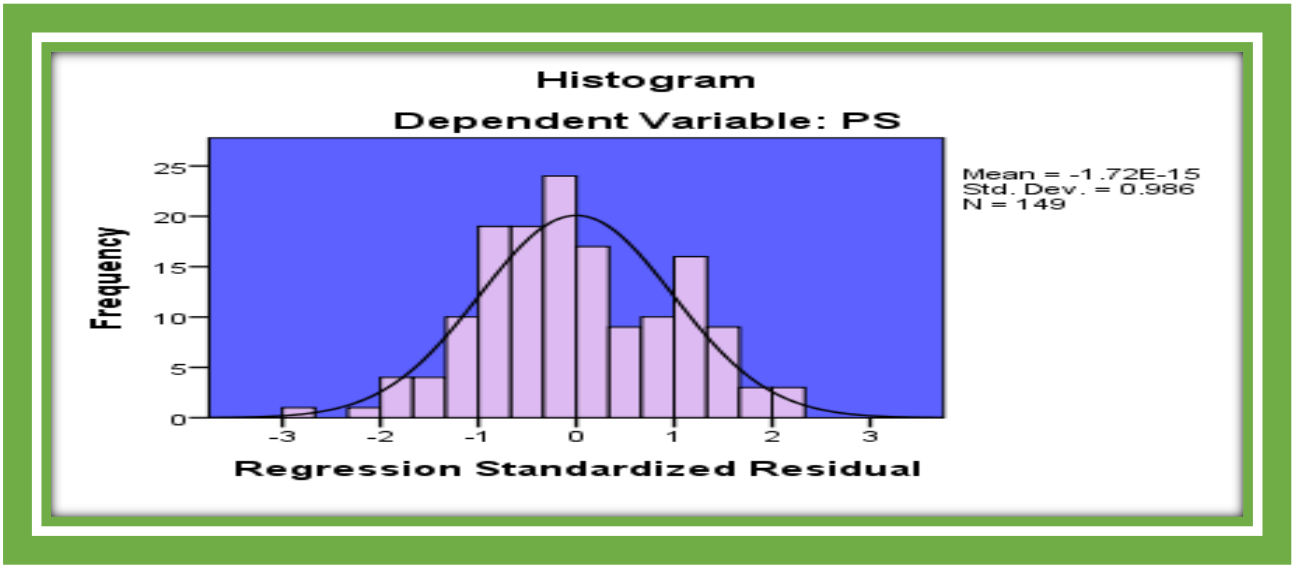

Figure 5 : Normality test

Source: Own survey data, 2023

4.4.2 Linearity test

This is slightly different from simple linear regression as we have multiple explanatory variables.

Multiple regressions can accurately estimate the relationship between dependent and independent variables, when their relationship is linear in nature (Keith, 2006). If linearity is violated, all the estimates of the regression including regression coefficients, standard errors, and tests of statistical significance may be biased (Keith, 2006). This can be best checked by p-p plot residual as shown in the appendixes. When, p-p residual look at straight line, the relationship between the dependent and independent variables is linear. Therefore, there is no linearity problem on the data used for this study.

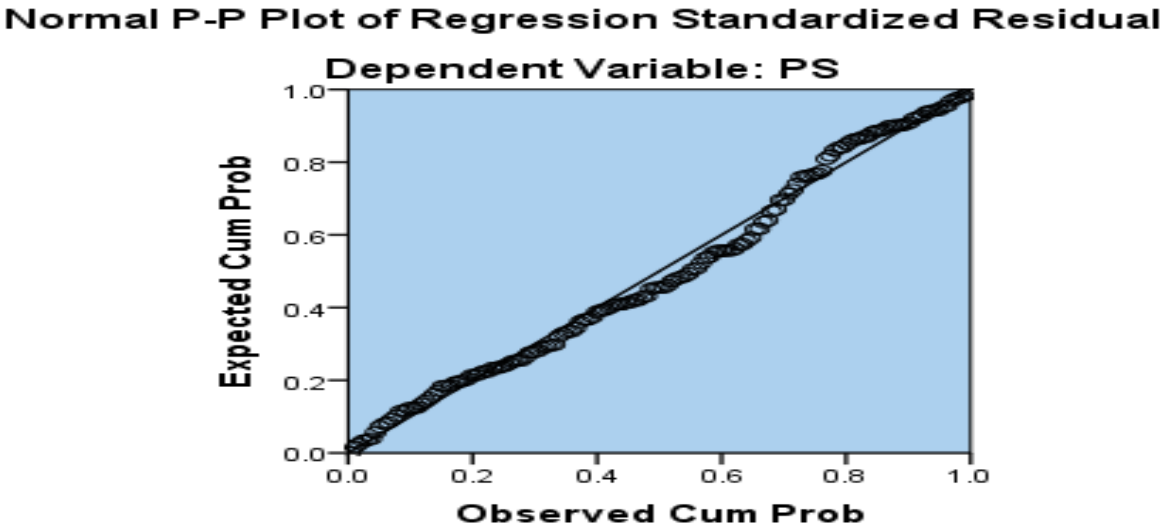

Figure 6: Linearity test

Source: Own data survey, 2023

4.4.3 Autocorrelation test

For any two observations the residual terms should be uncorrelated (or independent). This eventuality is sometimes described as a lack of autocorrelation. The researcher used and tested this with the Durbin–Watson (DW) test, which tests for serial correlations among errors. A value substantially below 2 (and especially a value less than 1) means that the data is positively auto correlated, i.e. on average a data element is close to the subsequent data element. A value of d substantially above 2 means that the data is negatively auto correlated, i.e. on average a data element is far from the subsequent data element. Thus the DW test from the appendix shows Sig. F Change 1.732 which means the data is positively auto correlated.

Table 13: Table 4.5 Durbin Watson Autocorrelation test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.820[a]	.672	.663	.24137	1.732

a. Predictors: (Constant), PC, PIP, MC, PEP

b. Dependent Variable: PS

Source: own data survey, 2023

4.3.4 Multicollinearity Test

If an independent variable is an exact linear combination of the other independent variables, then we can infer that the model suffers from perfect collinearity. According to Gujarati (2003), Multicollinearity test helps to identify the correlation between explanatory variables and to avoid double effect of independent variable from the model. When independent variables are multicollinear, there is overlap or sharing of predictive power. This may lead to the paradoxical effect, whereby the regression model fits the data well, but none of the explanatory variables (individually) has a significant impact in predicting the dependent variable. For this purpose, variance inflation factor (VIF) and tolerance test were employed to check whether or not multicollinearity problem exists in explanatory variables (network quality, service quality and product availability). If the value of VIF is less than 10, there is no Multicolinearity between the explanatory variables and on the other hand VIF greater or equal to 10 is an indicator of a serious Multicolinearity problem. In addition, Tolerance is an indicator of how much of the variability of the specified independent is not explained by the other independent variables in the model and is calculated using the formula for each variable. If this value is very small (less than .10), it indicates that the multiple correlation with other variables is high, suggesting the possibility of multicollinearity (Keith, 2006; Shieh, 2010).

Table 14: Collinearity Statistics

Model	Collinearity Statistics	
	Tolerance	VIF
Project Initiation & Planning	.246	4.067
Project execution process	.258	3.872
Monitoring & Controlling	.385	2.596
Project Closure	.933	1.072

a. Dependent Variable: PS

Source: own data survey, 2023

As exposed in collinearity Statistics the above table13, the value of VIF of all independent variables was found to be smaller than 10 and similar purpose tolerance is used for test multicolinearity by having less than 0.1. In this study the tolerance value for each independent variable is well above 0.1. Therefore, all the results confirm that multicolinearity assumption is maintains.

4.3.5 Heteroscedasticity test

Heteroscedasticity statistics checked is used to measure model fitness. The variance of the residuals for every set of values for the independent variable should be equal and violation is called heteroscedasticity. This means that investigators assume that errors are spread out consistently between the customer service of telecom. Scatter plot of more than 3.3 or less than -3.3 indicates a heteroscedasticity problem (Tabachnick & Fidell, 2007). Therefore, as shown in appendix the data did not violate heteroscedasticity assumption and instead it was homoscedastic.

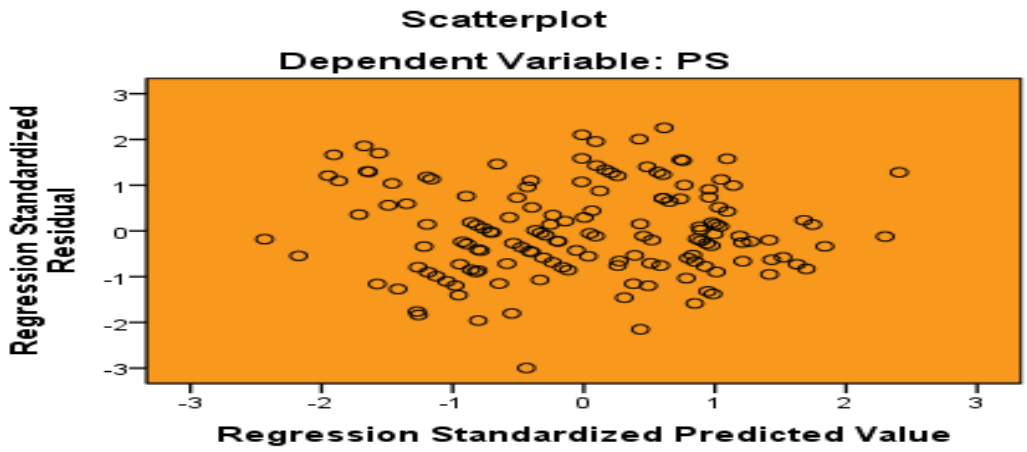

Figure 7: Heteroscedasticity test

Source: Own data survey, 2023

4.3.6 Sample size test

With a small sample, one can obtain a result that does not generalize other target population. If results do not generalize to other samples, then it is little scientific value. To test sample size researcher uses a formula given by (Pallant, 2005, p. 142). This formula used to test sample size problem by taking into account the number of independent variables as follow:

$N > 50+8m \quad = \quad N > 50+8(5) \quad = \quad 155>90$

Where; m = number of independent variables (network quality, service quality and product availability N- valid sample size

Based on the above equation result, valid sample size 155 is greater than 90 and this result showed that the data conforms to the sample size assumption.

4.5 Correlation Analysis

Correlation is a statistical tool to determine the strength of relationship between two suitability variables. To find the association of the independent variables with dependent variable, Pearson product moment of correlation coefficient was used. The ranges of r value from -1 to +1, which used to describe a direction relationship between two variables. Among them, minus means the relationship between two variables is negative, and if the greater the absolute value of correlation coefficient, the stronger the relationship. It shows that if one variable becomes bigger and another variable will become too smaller. A plus sign means a positive relationship between two variables; a

variable tends to directly become bigger with another variable, or smaller and smaller with this variable (direct relation). When correlation coefficient equal to 0, it means that there is no relationship between two variables.

Table 15: Correlations

		PS	PIP	PEP	MC	PC
PS	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	149				
PIP	Pearson Correlation	.735**	1			
	Sig. (2-tailed)	.000				
	N	149	149			
PEP	Pearson Correlation	.659**	.848**	1		
	Sig. (2-tailed)	.000	.000			
	N	149	149	149		
MC	Pearson Correlation	.747**	.747**	.734**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	149	149	149	149	
PC	Pearson Correlation	.348**	.108	.131	.237**	1
	Sig. (2-tailed)	.000	.189	.112	.004	
	N	149	149	149	149	149

**. Correlation is significant at the 0.01 level (2-tailed).
Source: Own survey data, 2023

The results of Pearson correlation revealed that project initiation & planning was positively and significantly associated with project success ($r = 0.735$, $\rho < 0.01$). Further, project execution process was positively and significantly correlated to project success ($r = 0.659$, $\rho < 0.01$). Moreover, monitoring & controlling was positively and strongly correlated with project success ($r = 0.747$, $\rho < 0.01$) and also there is a positive correlation between project closure & project success ($r = 0.348$, $\rho < 0.01$). This implies that all of the variables have a linear relationship with the project success in the organization. Especially, project initiation & planning, project execution process and monitoring & controlling have a strong positive relation with the project success compared with project closure.

4.6. Model Summary

Table 4.8 gives the regression model summary results. It presents the R value which is the measure of association between the dependent and the independent variables, the R Square which is the coefficient of determination measuring the extent at which the independent variables influence the dependent variable as well as the Adjusted R Square which measures the reliability of the regression results.

Table 16: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	D.Watson
1	.820[a]	.672	.663	.24137	1.732

a. Predictors: (Constant), PC, PIP, MC, PEP

b. Dependent Variable: PS

Source: Own survey data, 2023

The findings show that R which is the multiple correlation coefficients that shows quality of the prediction of the dependent variable by the independent variable is 0.820. This is a good indication since it points to a strong correlation. The R-Square which is the coefficient of determination shows that the three independent variables in the model explain 67.2% of customer satisfaction. Subsequently, from the Adjusted R Square it is evident that after adjusting the model for inefficiencies the independent variables can explain 66.3% of project success.

4.7. Significance Level (ANOVA)

Analysis of the variance (ANOVA) was used to make simultaneous comparisons between means; thus, testing whether a significant relation exists between dependent and independent variables. ANOVA indicates a significant F statistics implying that the model was fit for the estimation.

The results presented in table 4.9 gives the ANOVA results which shows the reliability of the model developed in explaining the relationship between the study variables. The significance of the model was tested at 5% level with a 2-tailed test.

Table 17: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.159	4	4.290	73.631	.000[b]
	Residual	8.389	144	.058		
	Total	25.548	148			

a. Dependent Variable: PS

b. Predictors: (Constant), PC, PIP, MC, PEP

Source: Own survey data (2023).

From the table 4.9, the F statistic is 73.631 with a distribution F (4,144), and the probability of observing a value greater than or equal to 73.631 is less than 0.001 as given by the significance value of 0.000 which is less than the critical value at 5% level in a 2-tailed test. This therefore, reveals that the regression model developed is statistically significant and the variation in the results is insignificant that cannot result to a much difference in case of a change in the study units (population). Therefore, the model can be relied up on to explain the effects of the specific factors on project success of selected sectors in Jimma.

4.7 Results of Regression Analysis

Multiple regression analysis was conducted so as to determine the relationship between project success and the four variables. The regression equation becomes:

Project success = $a + bx_1PIP + bx_2PEP + bx_3MC + bx_4PC + e$

Table 18: Regression result

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model 1	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	.645	.184		3.504	.001		
PIP	.353	.074	.460	4.779	.000	.246	4.067
PEP	-.026	.063	-.040	-.421	.674	.258	3.872
MC	.308	.062	.382	4.966	.000	.385	2.596
PC	.181	.042	.213	4.302	.000	.933	1.072

a. Dependent Variable: PS

Source: Own survey data, 2023

As clearly shown on Table 4.10 above, the project success is positively associated with project initiation & planning(.353),monitoring & controlling(.308), and project closure (.181) .The multiple regressions model with all four predictors produced R^2=.672,F=73.631,p=0.000.Since the p-value is less than α=.05,wecanconcludethatthe predictors did contribute to the multiple regressions model. The larger the value of R and R^2 display that there is strong relationship among observed and predicted value. In our case R is 0.820 and R^2 is 0.672 indicating there is strong relation of the dependent variable and the independent variables.

Compared to the other variables project execution process resulted in negative association with project success with the result of -.026 & it is insignificant according to the responses and project initiation & planning have strong association.

The finding that resulted in negative association of execution with project outcome was resulted from less attention of the project review and personnel performance review. Also according to the findings of this study, identification of changes to improve delivery of future projects leads to this kind of association.

There are some studies conducted by different researchers that substantiate the above reason. According to Nyakundi, 2015 the fact that project outcome is affected more in project initiation than execution. Compared with each other initiation contributes about 66% and execution 44% respectively according to the finding found by this researcher. Also the finding revealed that of the 4 stages, project execution had the least influence on the project outcome.

The multiple regressions model with all three predictors produced R=.820, F= 73.631,p<.001. Therefore, the final model for the multiple regressions is,

Project success=.645 +.353PIP -.026PEP+.308MC + .181PC + e

B0: not analyzed (generally, it is the mean for the response when all of the independent Variables (x) take on the value 0.), project success be.645.

Project initiation & planning in the selected sectors have positive significant effect on project success $\beta = 0.353$, with $p<0.001$, the existing project closure of the company had the least significant effect on the project success with $\beta = 0.181$, with $p<0.001$, also monitoring & controlling have a positive significant effect on the project success like that

of the other variables with a significance result of $\beta = 0.308$, with $P<0.001$.The other variable i.e project execution process have a negative significance with project success resulted $\beta = -.026$, with $P<0.001$. From the result of multiple regressions analysis presented in table 4.6, the researcher concluded that project initiation & planning has stronger effect on project success than the other independent variables.

5. SUMMARY AND CONCLUSIONS

This chapter presents summary, conclusion and recommendations on the effects of project management practice on project success of selected sectors in Jimma town based on; project initiation & planning, execution, monitoring and controlling, and project closure. The relationship of each of the objective and the literature data from the study is briefly presented as the researcher concludes and gives recommendations for further research.

5.1. Effects of Initiation and Planning on Project Outcome

Deliverables and milestones are reasonable and attainable were responded by 41% of the respondents that they are not sure whether to agree or to disagree with project outcome can be influenced by this question. Also 27% of the respondents are not sure on individual responsibilities and performance standards are well known to affect the outcome. About 32 (86%) of the respondents agreed with the question there is well defined mission, core value, clear objective and WBS of the organization. Project plan outlines all projects stages up to closure were agreed by 65% of the respondents and only 16% of them disagreed with the same question.15 (41%) of the respondents were not sure about deliverables and milestones are reasonable and attainable by the projects.

When asked to indicate the extent to which planning and initiation influenced project outcome; 40.54% answered to very great extent, 32.43% answered to great extent, 24.32% responded to a moderate extent, while 2.7% indicated to little extent.

5.2. Effects of execution on project success

The study revealed that most of the organizations had a strategic plan. Also the study proven that all of the organizations had mission statement, a vision and core principles. In addition, the study reputable that project plan is the device which is majorly cast-off while planning for the organization. The findings further portrays that the project goal relates to the overall organizational goal and it is well coordinated by the project team. It can also be deduced that strategic planning ensures employees and other stakeholders are working toward common goals, establishes agreement around intended outcomes/results, and assesses and adjust the organization's direction in response to a changing environment. Finally, the study designated that strategic planning for project management put into reflection best practices in an organizational culture must exist, that values and fosters best practices.

5.3 Effects of monitoring and controlling on project success

The sectors properly monitored status of project activities to update project progress and manage changes to the schedule baseline to achieve the plan was disagreed each by 47% of the respondents. 86% of the respondents agreed with effective monitoring of overall project stakeholder relationships and adjustment strategies and plans for engaging stakeholders and about 14% of them didn't agree. Majority of the respondents didn't agree on effective monitoring and recording of results of executing the quality activities. From the findings, it can be summarized that majority of the organizations/projects employ monitoring plan and monitoring tools. Also the study established that majority of the respondents indicated that they followed the monitoring plan in most cases. The study goes further to demonstrate that M&E Officer monitors the project and that they provided feedback to the beneficiaries after monitoring. Finally, the study illustrates that written reports were mostly used to give feedback to the beneficiaries.

5.4. Effects of Closure on Project success

This part outlines a number of significant project closure activities namely: checking the extent to which the deliverables have been encountered; approving customer satisfaction; securing formal acceptance and sign off for deliverables; spelling out the support, maintenance and warranty issues where applicable; preparing a report with recommendations and documenting lessons learnt (ILX Group, 2015). These activities need to be well spelt out during project initiation.

The study findings broadly agree that the practices have been incorporated in the organization's processes. The study sought to measure the standards used to govern project outcome at closure. The respondents moderately agreed that project well completion on time and on budget is an acceptable indicator. This finding is consistent with the NTCP diamond model; especially on the pace dimension (Shenhar & Dvir, 2007) .The outcomes show that respondents strongly agreed that projects signed off and recognized by clients as well as those closed effectively and payable are indictors of progressive project outcome. Mantel et al (2006) indeed pointed the important closeout activities such as closeout meetings, resource reallocation reports, compliance documents, supplier notifications, final payments and collection of receivables form part of a successful project closure. Certainly, the respondents strongly agreed that customers prepared sign acceptance forms; issue certificate of

completion and are informed on the guarantee, support and maintenance. When clients sign project completion documents, it is an indication of project well executed and perceived value delivered (Steinfort & Walker, 2007). This is usually mad possible if the criteria for measuring desired
outcome is agreed upon in advance

5.3 Conclusions

On the basis of the study findings, the following conclusions were arrived at proposing the adoption and application of modern project management practices.

The results indicate significant relationship between project management processes and project outcome. The nature of public sector projects whose end user level of satisfaction is high requires effective and efficient project processes. Therefore, project initiation and planning influences project outcome.

From the study findings, it can be concluded that the execution process impacts the outcome of the project. It was established that execution activities are conducted according to the project plan of the 4 stages, the findings indicated that project closure had the least influence on the project outcome. Also the project execution process result from regression was negatively associated with outcome

The research results showed that monitoring and control has a significant influence on project outcome according to the correlation analysis and also initiation & planning has a strong significant effect on success of project based on regression model. The respondents further suggested the strengthening the existing tools to achieve desired project outcome. On this basis, the study concludes that monitoring and control influences project outcome to a large extent.

Finally, the study concludes that the project closure process have the greatest influence on project outcome. The study established that perceived indicators of positive project indicators include project completion on time and within budget. The respondents strongly agreed that customer acceptance and satisfaction and settlement of final account is a strong measure of positive project outcome. The regression model indicated that the closure process had the largest magnitude.

6. RECOMMENDATION

Based on the findings of the research the followings are recommended

- Project outcome can be good if there is communication between stakeholders and even within the organization itself. The study suggests the introduction of effective monitoring tools; training of staff on use of monitoring tools; use of effective communication and improved reporting and documentation in order to improve the monitoring and control process.
- Project execution in the donor and government funded projects needs much attention to see project outcomes. The result showed on regression resulted in negative association with outcome so, the projects should work on project execution to have a good project outcome.
- The study recommends that during project initiation stakeholders and all the team members of the project should be involved to enhance the success of a project. A lot of emphasis should be laid down when formulating the business case to ensure all the activities are enlisted because knowing responsibility helps employees to perform their job.
- Most of the respondents did not know about deliverable milestones and it is suggested that the organization should clearly indicate the projects deliverable milestones for successful completion of projects.

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APPENDIX

QUESTIONNAIRE

JIMMA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF ACCOUNTING & FINANCE

Dear employees working in eight different public sectors found in Jimma town.

I am post graduate students in Jimma University College of Business and Economics**.** This questionnaire is part of the research project conducted for the fulfillment of the requirements of Master of Arts in project Management and Finances designed to collect information and or data about **the effect of Project management practice on Project success on selected public projects found in Jimma town**. As your responses to the statements below are of great importance to my project work, hereafter I kindly request you to answer the questions carefully and genuinely. This information will be used only for academic purpose and your responses will be treated confidential.

General Instructions

- There is no need of writing your name.
- In all cases where answer options are available please tick **(□)** inside the bracket the appropriate box.
- For questions that demands your opinion, please try to honestly describe as per the questions on the space provided

Eyuel Mesera
+251-926-90-96-18

Section I: Participants Information or Demographic Data

1. What is the name of your organization or sector?

_____

2. Please state your gender or Sex: A. Male [ ] B. Female [ ]

3. Please indicate your age category?

A. Under 25 [ ] B. 25-35 [ ] C. 36-45 [ ]

D. 46-55 [ ] E. Above 55 [ ]

4. Job title or current position _____

5. State the number of years you have worked in the organization (seniority):

A. Less than 1 year [ ] B. 1-3 years [ ]

C. Greater than 3- 5years [ ] D. above 5 years [ ]

6. How long have you worked on your current job position?

A. Less than 1 year [ ] B. 1-3 years [ ]

C. Greater than 3- 5years [ ] D. above 5 years [ ]

7. Please indicate the level of your education

A. College Diploma [ ] B. BA/BSc Degree [ ]

C. Master Degree [ ] D. PHD [ ]

8. Your field of study _____

Section II: Questions related to Project Management practices

Please indicate the extent to which you agree with each statement below by putting a "(√)"mark in the appropriate column in the table below against each of the response scales.

Instructions: 1= **strongly disagree (SD); 2= Disagree (D); 3= Neutral (N); 4 = Agree (A); and 5 = Strongly Agree (SA)**

S.No	**Questions or components**	SD	D	N	A	SA
A	**Project initiation and planning**					
1	There is adequate and comprehensive project management					
2	The sector determined, documented, and managed each stakeholder requirements to meet project objective					
3	The sector developed a detailed description about the output of the project					
4	The sectors effectively subdivided project deliverables into smaller components for easy management and outsourcing					
5	There are clear policies, procedures, and documentation for project schedule					
6	There is effective cost breakdown and anticipated supply requirements for the project					
7	The sectors effectively estimated time required for project activities					
8	The sectors developed an approximation of the monetary resources needed to complete project before the beginning of the project					
9	There is clear job description among employee and management in the sector					
10	The sector developed appropriate project communication approaches and plans to communicate with its stakeholders					
B	**Project execution process**					

1	The work defined in the project management plan and approved changes is lead and performed properly					
2	There is continuous audit on quality requirements and results from quality control					
3	There is effective human resource planning and project team establishment					
4	The sectors improved competencies, team member interaction, and overall team environment to enhance project performance					
5	The sectors effectively tracked team member performance, provided feedback, resolved issues, and managed related changes to optimize project performance					
6	The sector has good project information system in Accordance with the communications management plan.					
7	The company effectively obtained, selected, and Awarded resource suppliers.					
8	The sectors communicate and work with stakeholders to meet their needs/expectations throughout the project life cycle.					
C	**Monitoring and controlling**					
1	Progress of the project is effectively and regularly tracked, reviewed, and reported against the performance objectives defined in the project management plan by the sectors.					
2	The sectors properly monitored status of project activities to update project progress and manage changes to the schedule baseline to achieve the plan.					
3	There is effective monitoring and recording of results of executing the quality activities.					
4	There is effective communication monitoring and control throughout the entire project life cycle to ensure the information needs of the project stakeholders are met.					
5	There is effective monitoring of overall project stakeholder relationships and adjustment strategies and plans for engaging stakeholders.					
6	The sectors monitored specific project results to determine if they comply with relevant environmental standards and identified possible corrective actions					
7	There is effective monitoring of key influences of Finance and corrective measures were taken if negative trends are recognized. The sectors has appropriate claim prevention mechanisms					
D	**Project closure**					
1	It controls and certifies that both contracting parties have honored their contractual responsibilities					

2	It controls and certifies activities involved in evaluating degree of successful contract execution					
3	The Project was evaluated after closing					
4	It ensures the achievement of expected results					
5	The Lesson learned were compiled for the future project					
6	It terminates contracts effectively					
7	Overall, the project was well completed					
F	**Project success**					
1	The project progressed within the allocated time period.					
2	The project executed within the budgeted cost for each activates. The project run at the proper quality level set by the company and standards					
3	The project progressed with minimum or mutually agreed upon scope changes					
4	The project implemented without disturbing the main work flow of the organization					
5	The project implemented without changing the corporate culture					

Section III: Open ended questions

1. What strength can you mention in relation to the project you are involved in?

   _____
   _____
   _____
   _____
   _____
   _____
   _____

2. What challenges can you mention in relation to the project you are involved in?

   _____
   _____
   _____
   _____
   _____
   _____
   _____

3. What recommendation can you give in relation to the project you are involved in?

   _____
   _____
   _____
   _____
   _____
   _____
   _____

----------Thank You Very Much for Your Time----------