ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

SCHOOL OF COMMERCE

Practices and Challenges of Monitoring and Evaluation of Electronic Single Window Project in Ethiopian Ministry of Revenue

A Project Work Submitted to Addis Ababa University, College of Business and Economics, School of Commerce in Partial Fulfillment of the Requirements for the Degree of Master of Arts in Project Management

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Advisor: Solomon Markos (PhD)

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Declaration

I, Jemal Haji, declare that the study entitled “Practices and Challenges of Monitoring and Evaluation of Electronic Single Window Project in Ethiopian Ministry of Revenue” is the result of my own effort and study that all sources of materials used for the study have been acknowledged. I have conducted the study independently with the guidance and comments of the research advisor. This study has not been submitted for any degree in any university. It is conducted for the partial fulfillment of the Master of Art Degree in Project Management.

Jemal Haji

Date: _____

Signature: _____

Letter of Certification

This is to certify that Jemal Haji has conducted this project work entitled "Practices and Challenges of Monitoring and Evaluation of Electronic Single Window Project In Ethiopian Ministry of Revenue" under my supervision. This project work is original and suitable for the submission in partial fulfillment of the requirement for the award of Master of Arts Degree in Project Management.

Solomon Markos (PhD)

Date: _____

Signature: _____

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DEPARTMENT OF PROJECT MANAGEMENT

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Acronyms/ Abbreviations

COVID-19	Corona Virus Disease 2019
CUPIA	Customs UNIPASS International Agency
DFID	Department For International Development
eSW	Electronic Single Window
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit (German Agency for Technical Cooperation)
ICT	Information Communication Technology
INSA	Information Network Security Agency
MCIT	Ministry of Communication and Information Technology
MoR	Ministry of Revenues
M&E	Monitoring and Evaluation
PMBOK	Project Management Body of Knowledge
PMI	Project Management Institute
PRINCE	Projects IN Controlled Environments
SPSS	Statistical Package for Social Sciences
UNDG	United Nations Development Goal
UNIPASS	Universal Pass
UN/CEFACT	United Nations Centre for Trade Facilitation and Electronic Business
WTO	World Trade Organization

ABSTRACT

The purpose of the study was to assess the current practices, challenges and factors affecting the effectiveness of the project monitoring and evaluation of Ethiopian ministry of revenue electronic single window project that faces repeated delays and engagement problems. The Research design adapted is descriptive research with quantitative research approach that employed standard survey questionnaires. The target population were 35 individuals that consisted all employees of the single window program office and the project team members of the consultant organization and the response rate was 91%. Data Analysis was done using SPSS version 27. The findings were analyzed using descriptive statistics such as frequency distribution, percentages, mean and standard deviation. The results were also presented in tables. The research showed that the program management office does not have a standard M&E methods and systematic approaches. The low determination of high decision makers and primary stakeholders have already become a challenging factor to the project success. The issue of inefficient use of budget and running out of schedule have become main lagging factors for effective implementation of the project. The study recommended the Ministry to strengthen the electronic single window program management office to establish M&E system with enabling budget and skilled man power. Continuous trainings and motivations are required for the staff to have commitment in advance. The stakeholders need to be managed for proper engagements.

***Key Words**: Project, challenges, practices, monitoring, evaluation.*

CHAPTER ONE
INTRODUCTION

1.1. Background of the Study

Monitoring and evaluation (M&E) is an old preparation for government organization to inspect new responsibilities in the public part by clarifying the way to bearing a readiness assessment, agree on outcomes to monitor and evaluate, select performance indicators, collect data based on the indicators, use evaluation data to support the results, report the findings, and use them to sustain the M&E within the institute (Clements, 2005:1203, Davidson, 2006; Stem et al. 2005, cited in Bekalu Yibeltal, 2020).

Although monitoring and evaluation are viewed as related, they are distinct functions. Monitoring is viewed as a process that provides information and ensures the use of such information by management to assess project effects – both intentional and unintentional – and their impact. It aims at determining whether or not the intended objectives have been met. Evaluation draws on the data and information generated by the monitoring system as a way of analyzing the trends in effects and impact of the project. In some cases, it should be noted that monitoring data might reveal significant departure from the project expectations, which may warrant the undertaking of an evaluation to examine the assumptions and premises on which the project design is based. Unfortunately, in many projects, the role of this is barely understood and therefore negatively impacts on the projects (Dama Academic Scholarly & Scientific Research Society, 2019).

Many governments in developed and developing countries are now developing, implementing and improving their strategies to transform government services using information and communication technologies (Borras, 2004, cited in Al-Jaghoub et al., 2010). ICT can, on the one hand, increase the efficiency, speed, and transparency in delivery of services and, on the other hand, assist in the generation and dissemination of knowledge (Bhatnagar, 2014). Because of the development and growth of ICT, public service delivery is becoming more efficient and effective in most parts of the world (Al-Jaghoub et al., 2010, cited in Abrham Endalew, 2017).

One of ICT projects being carried out in Ethiopia is electronic single window service project. The federal government of Ethiopia established an electronic single window program office that is

accountable to the ministry of revenue ten years ago to develop a system that enhances the export-import system of the country. This project is delayed and incurred additional costs though it could deliver the first phase of the project with infrastructure and security part still undergoing that questions the monitoring and evaluation practices in the ministry and main stakeholders.

One of the mechanisms used in project management is applying monitoring and evaluation tools and systems to enhance the quality of planning and management. Projects in a third world that are planned with limited resources and technical knowledge should be managed properly and professionally. Among various projects currently running in many organizations are ICT based projects that are taken as driving forces for changes and enabling factors of products and services delivered to users. Hence, this case study tries to assess the practice of project monitoring and evaluation of Ethiopian Ministry of Revenue electronic single window project; identify the factors that affect the effectiveness of project M&E of the program office. The relationship between project success and Project M&E is also intended to be identified.

1.2. Background of the Project

The Ethiopian Ministry of Revenue was established by 'Definition of Powers and Duties of the Executive Organs of the Federal Democratic Republic of Ethiopia Proclamation' (Proclamation No.1097/2018). The powers and duties given to the Ethiopian Revenues and Customs Authority which was formed by merging the former three revenue collection and administration bodies namely the Ministry of Revenue, Federal Inland Revenue Authority and Ethiopian Customs Authority by proclamation No. 587/2008 are vested in the Ministry of Revenues (Federal Negarit Gazeta, 2011).

Ethiopian Ministry of Revenue has initiated an electronic single window service with the help of world bank ten years ago by being driven by the first growth and transformation plan and world trade standards. The eSW system connects more than 50 major cross-border regulatory agencies including all banks, insurance companies, regional investment commissions and regional mining bureaus. It enables traders to submit documentation and receive electronic permits relating to import and export through a single window submission, significantly reducing the time and cost to trade. The eSW product is expected to enable Ethiopia to compete in global trade system and

one of the requirements to join WTO. It helps in ease of doing business by eliminating time, cost, and energy incurred in the industry by many hundred folds.

The project has four subprojects: eSW system development, Network and Modular Data center development, Cyber security management system and phase two eSW system development. The first phase of eSW system development was contracted to CUPIA (the south Korean company), and INSA served serves as technical consultant. Network Infrastructure and modular data center development was given to INSA as a contractor and still under development and rescheduled to be completed at the end of this year. The Cyber security management system is being developed by INSA and the second phase of eSW system is going to be sponsored and developed by CUPIA.

After its initiation, the government established eSW program management office and agreed with world bank and South Korean company to launch the first phase of the project. After delays, the Ethiopian government decided to fully sponsor the project. Being closely followed up by the Prime minister office, the project was organizationally structured with the main actors in the import/export trade as a steering committee of the project. The Project was commenced by three government organizations as ownerships: MoR, INSA and MCIT while MoR is the main owner of the project. The eSW Program office that owns the project mainly runs its functionality until all parts of the project is finalized. It is restructured in human capital, organizational structure, top management responsibility and stakeholder continuous ownership awareness as it could be informed from preliminary assessment from the office director.

1.3. Statement of the Problem

Monitoring and evaluation helps to improve performance and achieve results. More precisely, the overall purpose of monitoring and evaluation is the measurement and assessment of performance in order to more effectively manage the outcomes and outputs known as development results. Performance is defined as progress towards and achievement of results (Zéphirin Diabré, 2002). It is unquestionable that ICT projects which are implemented in a dynamic environment also need attention in M&E system so that they can be successfully completed.

The United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) defines an International Single Window as: A facility that allows parties involved in trade and transport to

lodge standardized information and documents with a single entry point to fulfill all import, export, and transit-related regulatory requirements. If information is electronic, then individual data elements should only be submitted once. In practical terms, the single window aims to expedite and simplify information flows between trade and government and bring meaningful gains to all parties involved in cross-border trade. The single window is generally managed centrally by a lead agency, enabling the appropriate governmental authorities and agencies to receive or have access to the information relevant for their purpose. In some cases, the single window may provide facilities for payment of relevant duties, taxes and fees (Inter-American Development Bank, 2010).

The Federal Democratic Republic of Ethiopia is working on the implementation of the realization of electronic single window project since 2013 that affects more than 40 government organizations along with all importers and exporters of the country (Yodit Tamene, 2017).

A National program has been established to administer single window project (eSW) and projects that are related to international trade facilitation business. This will in turn reduces unnecessary financial and human resource expenditure. Eventually, the reduction of time and cost will increase the competitiveness of the country in an international trade facilitation business and enables authorities to redeploy their financial and human resource effectively. Another prospects of eSW to government is to provide transparency and integrity of information on import, export and transit-related regulatory activities.

From the traders' point of view, the eSW system contributes to a trader to save his/her time and cost that they previously expend. It enables them to submit their declaration and relevant documents, and can receive their licenses, certificates, permits and other documents without going to different government authorities (Ethiopian electronic single window project Initiation Document, 2017).

Even though the steering committee of Ethiopian electronic single window project was constructed inclusive of all the initial 10 stakeholders identified, it has been known that their engagement has been lost. Due to this the duty to oversee was laid only on the shoulders of the committee members in the organization. However, those members with the responsibility to oversee the project were under the pressure of administrative and managerial commitment, which hindered their active involvement and support. Project Organizational structure, as such it is found in the study that the project organizational structure of the ESW project was not structured in a manner that facilitates

successful implementation of the project. Planning and organizing of activities were not efficient, Monitoring and controlling of activities were inadequate and timely, Problems were not detected and solved prior to its occurrence, Conflict management and team building capacity were not strong, Employees were not being delegated of authority to build capacity, Decision making were not participative (Yodit Tamene, 2017).

A project that plays a major role in export-import competition of the country by highly reducing time, cost and effort in the industry has taken more than seven years to launch its first part and still aims to undergoing its other parts to fully implement the technology.

Therefore, from the little known literature on the project status and preliminary information captured from the eSW program office and the project participants, there is a gap of effectively using M&E system in the project from the top management to the team members. This study focuses on assessing factors affecting the proper implementation of Project M&E and effect of Project M&E on the success of Ethiopian electronic single window project. It may pave the way for further researches and help the ministry to have study based information for monitoring and evaluation of the next expansion works of the project.

1.4. Research questions

The study intended to answer the following underlying questions:

1. What are the current practices of Project M&E in Ministry of Revenue?
2. What are the factors affecting effectiveness of M&E in eSW project?
3. What are the main challenges associated with monitoring and evaluating the electronic single window project?

1.5. Objective of the study

1.5.1. General Objective

The aim of this study is to assess the monitoring and evaluation Practices of Ethiopian Electronic Single window Project.

1.5.2. Specific Objectives

- To assess the current monitoring and evaluation practices in MoR
- To identify factors affecting effectiveness of M&E in eSW Project
- To identify the main challenges of monitoring and evaluating single window project

1.6. Significance of the Study

As Ministry of Revenue is one of the Ethiopian public sectors striving for changes to the delivery of public missions, the ICT Projects undertaken are vital to quick, fair and quality service delivery that play roles in the country's growth domestic product. This study is useful in filling gaps of monitoring and evaluation practices and challenges happening in the Ministry.

Furthermore, Ethiopian electronic single window that has attention at very high level was delayed a lot and consumed resources before establishing its first phase. The study will help to improve the monitoring and evaluation practices for the upcoming phases of the project and other expansion of similar projects in public sectors. And can also be a reference for further studies in the field.

1.7. Delimitations of the Study

Almost all public institutions in Ethiopia are aware and undergoing ICT projects in their companies. Although, the study has chosen Ministry of Revenue as time and resource does not allow to cover other projects for sample study, all subprojects (single window system development, infrastructure development and integrated cyber security system development) incorporated in the scope of the project are assumed to be covered.

The study is conceptually limited to the assessment of monitoring and evaluation on M&E planning alignment with project plan, M&E staff competency and human resource development, top management attentive role, stakeholder involvement, and complexity management within timeframe. It considers during and the aftermath of the project lifetime in inception, process, and impacts.

The sample gathering is undertaken in main actors of the project MoR and INSA. Single window is a project staked by more than 50 government institutions and import/export community so that studying a case on such projects can give a picture of other projects in general view.

1.8. Limitations of the Study

A perfect generalization is a challenge as the study is limited within short time in a single organization with some extended stakeholders. Some respondents to the case study may not be available in place as the current COVID-19, and work load are some reasonable factors.

1.9. Organization of the Paper

The study paper is organized into five intertwined chapters from chapter one to chapter five. Chapter one describes the introduction theory of the study while chapter two deals with related literature reviews. Chapter three talks about Research design and methodology. Chapter four discusses data presentation, analysis and interpretation while chapter five concludes and recommends based on the study findings.

CHAPTER TWO
LITERATURE REVIEW

In this chapter, reviews of related written articles, conceptual theories and literatures are included. Topics related with project monitoring and evaluation are compiled in such a way that it helps for the study to have a theoretical and empirical background in the area of the study.

2.1. Theoretical Literature Review

2.1.1. Concepts and Definitions of Monitoring and Evaluation

In order to understand major concepts included in the study, this title reviews definitions and explanations of terms related with project monitoring and evaluation.

Project and Project Management

A project is a temporary endeavor undertaken to create a unique product, service, or result. Projects are temporary, but their deliverables may exist beyond the end of the project. Projects may produce deliverables of a social, economic, material, or environmental nature (PMI, 2017). A project is a temporary organization that is created for the purpose of delivering one or more business products according to an agreed Business Case (PRINCE2, 2009). A project is a sequence of unique, complex, and connected activities that have one goal or purpose and that must be completed by a specific time, within budget, and according to specification (Kulkarni R. et al., 2017).

Project management is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements. Project management is accomplished through the appropriate application and integration of the project management processes identified for the project. Project management enables organizations to execute projects effectively and efficiently (PMI, 2017).

Phases of Project Life Cycle

(Projectmanager.com 2021), a website trusted and viewed by many professionals, has defined phases of project life cycle in the following easy ways.

Project Initiation: This is the starting phase of a project when the project must be proved that it has value and is feasible. This stage includes creating a business case, to justify the need for the project, and a feasibility study to show that it can be executed within a reasonable time and cost.

Project Planning: Occurs after the project has been approved. The deliverable of this phase is the project plan, which will be the guide for the execution and control phases. The project plan must include every component associated with the execution of the project including the costs, risks, resources and timelines.

Project Execution: the majority of the work happens, the project activities and milestones are completed to produce the deliverables to the client's or stakeholder's satisfaction by following the plan created in the previous stage.

Project Monitoring and Control: It involves monitoring the progress and performance of the project to ensure that it stays on schedule and within budget. Quality control procedures are applied to guarantee quality assurance.

Project Closure: The final deliverables are presented to the client or stakeholder. Once approved, resources are released, documentation is completed and everything is signed off on. At this point the project manager and team can conduct a post-mortem to evaluate the lessons learned from the project and learn from the experience.

Monitoring and Evaluation

Monitoring is an important task in the life of a program or project and is a continuous process of regular systematic assessment based on participation, reflection, feedback, data collection, analysis of actual performance (using indicators) and regular reporting. Monitoring tells us where we are in relation to where we want to be, it helps us keep on track by gathering data and evidence, identifying issues and analyzing documents and reports. We monitor for accountability purposes and in order to communicate results to stakeholders and adjust our implementation to better meet expected results and inform decision-making (UNDG Team, 2010).

Monitoring is defined as the concurrent process of tracking the implementation of activities of the project and attaining its planned outputs. It helps to provide real time information of the progress of the project in terms of completing its activities and achieving its immediate outputs, both in

terms of quality and target. Monitoring, thus, is an activity to see if an ongoing project is proceeding on track. It involves the process of systematically collecting data to provide real time information for all stakeholders (managers, funders, participants) on the progress of implementation and the achievement of desired outcomes. An evaluation, helps to systematically assess the impact, effectiveness and the contribution of the project (Kultar Singh et al., 2017).

Monitoring is the routine checking of information on progress, so as to confirm that progress is occurring against the defined direction. Evaluation is used to ensure that the direction chosen is correct, and that the right mix of strategies and resources were used to get there (National AIDS Control Council, 2012).

2.1.2. Common Types of M&E

(toladata.com 2021), a cloud-based platform for monitoring and evaluation, has collected types of monitoring and evaluation with detail descriptions as follows. This paper will use the term category and definition for concept recognition during the case assessment, discussion and conclusion.

Types of monitoring

Process monitoring: This is often referred to as 'activity monitoring.' Process monitoring is implemented during the initial stages of a project as its sole purpose is to track the use of inputs and resources, along with examining how activities and outputs are delivered. It is often conducted in conjunction with compliance monitoring and feeds into the evaluation of impact.

Compliance monitoring: Just as the name suggests, the purpose of compliance monitoring is to ensure compliance with donor regulations, grant, contract requirements, local governmental regulations and laws, ethical standards, and most importantly compliance with the expected results of the project. The need for compliance monitoring could arise at any stage of the project life cycle.

Context monitoring: Context monitoring is often called 'situation monitoring.' It tracks the overall setting in which the project operates. Context monitoring helps us identify and measure risks, assumptions, or any unexpected situations that may arise within the institutional, political, financial, and policy context at any point during the project cycle. These assumptions and risks are external factors and are not within the control of the project, however, context monitoring helps us identify these on time to influence the success or failure of a project.

Beneficiary monitoring: This type of monitoring is sometimes referred to as 'Beneficiary Contact Monitoring (BCM)' and the need for this may arise at any stage of the project cycle. Its primary purpose is to track the overall perceptions of direct and indirect beneficiaries in relation to a project. It includes beneficiary satisfaction or complaints with the project and its components, including their participation, treatment, access to resources, whether these are equitable, and their overall experience of change. Beneficiary monitoring also tracks stakeholder complaints and feedback mechanism.

Financial monitoring: The main purpose of financial monitoring is to measure financial efficiency within a project. It tracks the real expenditure involved in a project in comparison to the allocated budget and helps the project team to form strategies to maximize outputs with minimal inputs. This is often conducted in combination with 'process' and 'compliance' monitoring and is crucial for accountability and reporting purposes.

Organizational monitoring: As the name suggests, organizational monitoring tracks institutional development, communication, collaboration, sustainability and capacity building within an organization and with its partners and stakeholders in relation to project implementation.

Results monitoring: This is where monitoring entwines with evaluation. It gathers data to demonstrate a project's overall effects and impacts on the target population. It helps the project team to determine if the project is on the right track towards its intended results and whether there may be any unintended impacts.

Types of evaluation

Formative evaluation: This is generally conducted before the project implementation phase. But depending on the nature of the project, it may also continue through the implementation stage. Its main purpose is to generate baseline data to investigate the need for the project, raise awareness of the initial project status, identify areas of concern and provide recommendations for project implementation and compliance.

Process evaluation: It is conducted as soon as the project implementation stage begins. It assesses whether the project activities have been executed as intended and resulted in certain outputs. Process evaluation is useful in identifying the shortcomings of a project while the project is still

ongoing to make the necessary improvements. This also helps to assess the long-term sustainability of the project.

Outcome evaluation: This type of evaluation is conducted once the project activities have been implemented. It measures the immediate effects or outcomes of the activities in the target population and helps to make improvements to increase the effectiveness of the project.

Summative evaluation: This occurs immediately after project conclusion to assess project efficacy and the instant changes manifested by its interventions. Summative evaluation compares the actual outcome data with baseline data to determine whether the project was successful in producing the intended outcomes or bringing about the intended benefits to the target population. It provides evidence of project success or failure to the stakeholders and donors to help them determine whether it makes sense to invest more time and money for project extension.

Impact evaluation: Impact evaluation assesses the long term impact or behavioral changes as a result of a project and its interventions on the target community or population. It assesses the degree to which the project meets the ultimate goal, rather than focusing on its management and delivery. These typically occur after project completion or during the final stage of the project cycle. However, in some longer projects, this can be conducted in certain intervals during the project implementation phase, or whenever there is a need for impact measurement.

Real-time evaluation: Real-time evaluation is undertaken during the project implementation phase. It is often conducted during emergency scenarios, where immediate feedback for modifications is required to improve ongoing implementation. The emphasis is on immediate lesson learning over impact evaluation or accountability.

Participatory evaluation: This type of evaluation is conducted collaboratively with the beneficiaries, key stakeholders and partners to improve the project implementation. Participatory evaluation can be empowering for everyone involved as it builds capacity, consensus, ownership, credibility and joint support.

Thematic evaluation: Such type of evaluation focuses on one theme across a number of projects, programs or the whole organization. The theme could be anything, ranging from gender, migration, environment etc.

Cluster or sector evaluation: Just as the name suggests, this evaluation is implemented by larger development and humanitarian sectors, including a group of different organizations, programs or projects that are working on similar thematic areas. It assesses a set of interconnected activities across different projects and entities. As a result, it strengthens partnerships within these key sectors, while improving their coordination, accountability, predictability, and response capacity.

Meta-evaluation: This is used to assess the evaluation process itself. Meta-evaluations could be useful to make a selection of future evaluation types, check compliance with evaluation policy and good practices, assess how well evaluations are utilized for organizational learning and change, etc.

2.1.3. Monitoring and Evaluation Frameworks

Common types of frameworks are conceptual, results and logical frameworks though there is no one perfect framework and no single framework is appropriate for all situations (Nina Franken and Anastasia Gage, 2016). These frameworks are taken to be briefed based on the authors' literature as these are important to brief M&E in the study.

Conceptual framework: A conceptual framework sometimes called a "research framework"— is useful for identifying and illustrating the factors and relationships that influence the outcome of a program or intervention. Conceptual frameworks illustrate causal linkages between the key components of a program and the outcomes of interest.

Results frameworks: Results frameworks sometimes called "strategic frameworks "that illustrate the direct causal relationships between the incremental results of the key activities all the way up to the overall objective and goal of the intervention. This clarifies the points in an intervention at which results can be monitored and evaluated.

Logical Framework

A logic model, sometimes called an "M&E framework," provides a streamlined, linear interpretation of a project's planned use of resources and its desired ends. Logic models have five essential components:

Inputs: The resources invested in a program—for example, technical assistance, computers, condoms, or training

Processes: The activities carried out to achieve the program's objectives

Outputs: The immediate results achieved at the program level through the execution of activities

Outcomes: The set of short-term or intermediate results at the population level achieved by the program through the execution of activities

Impacts: The long-term effects, or end results, of the program—for example, changes in health status. In this context, the term "impact" refers to the health status or conditions that the program is intended ultimately to influence (mortality, morbidity, fertility, etc.), as measured by appropriate indicators. Measuring "impact" in this way, however, should be distinguished from impact evaluation, which is a specific type of evaluation activity that focuses on examining how much of an observed change in outcomes or "impact" can be attributed to the program.

2.1.4. Role of M&E in Project Success

There is also a general agreement that although schedule and budget performance alone are considered inadequate as measures of project success, they are still important components of the overall construct. Quality is intertwined with issues of technical performance, specifications, and achievement of functional objectives and it is achievement against these criteria that will be most subject to variation in perception by multiple project stakeholders (Guru Prakash Prabhakar, 2008).

The success of a project can be determined from the perspective of the means (the project itself) or the end (what it was intended or expected to accomplish) depending on the interests of the stakeholder. Furthermore, regardless of means or ends, expectations of what the project was to achieve and perceptions of whether it achieved them often vary among stakeholders. This makes determination of project success highly contingent upon the expectations and perceptions of different stakeholders, and when the assessment is made (de Wit, 1988, cited in Bannerman P., 2018).

Developing an M&E plan requires a proper understanding of the project, inputs, processes, output and outcomes according to (Cooke, Bill and Uma, 2001).

Project Monitoring and evaluation are considered essential tools to improve the quality of project management, given that the management of a complex project in the short and medium term will

imply corresponding strategies from a technical point of view, which are supposed to respect the criteria of efficiency, durability and safety sustainability (Lim and Mohamed, 1999).

2.1.5. Factors affecting Effectiveness of M&E

From different researches established so far, there were several factors affecting effective monitoring and evaluation projects. These included lack of training of participants, not including monitoring and evaluation budget into project budgets, limited involvement of primary stakeholders and political interference (Kasanga Sammy et al., 2013). Nineteen (19) monitoring and evaluation determinants were identified via the extensive review of journal, conference and academic thesis'. The top five (5) determinants were identified as budgetary allocation for M&E, data quality, technical capacity of the M&E team or department, leadership and monitoring and evaluation information system (MEIS) (Tengan C., Aigbavboa C. and Thwala D., 2018).

Many researchers and references share the factors affecting effectiveness of Project M&E and depict in their studies. This paper adopts some factors to measure as independent variables during the case study with adjustment of terms in context of the objective of the study.

2.1.6. Overview of Theories and Concepts on study variables

Literatures related with variables that are selected to describe the specific objectives of the thesis are reviewed and briefed under the following subtitles. Motivation of employees, human resource development, stakeholder involvement, budget allocation, management role in project M&E and related concepts are reviewed. These variables are measuring instruments for challenges and factors that affect effectiveness of Project M&E as described in literatures below.

Motivation Theory

Herzberg's Two-Factor Theory emanated from a study conducted among accounts and engineers to determine what makes an individual feel good or bad about their job (Saif et al., 2012). Regarding 'satisfiers', Herzberg noted that there were five features of work that bring about satisfaction, namely achievement, recognition, the job itself, responsibility and advancement. At the other end of the spectrum, Herzberg identified institutional politics, the management approach, supervision, pay, relationships at work and working conditions as factors that may demoralize

employees. Organizations are increasingly applying Herzberg's theory to create opportunities for "personal growth, enrichment and recognition" among their employees (Golshan et al., 2011).

Vroom's Expectancy Theory stipulates that behavior is a product of choices that are available to be prioritized. The idea is to derive satisfaction and minimize dissatisfaction in employees. Individual factors such as personality and skills determine performance (Wagner and Hollenburg, 2007). This theory also explains that performance, motivation, and effort are within an individual's motivation and variables such as valence, instrumentality, and expectancy verifies this. The higher the effort in work relates to the higher the performance.

Porter-Lawler Model gives details of the fiber relation that exists between job performance and attitudes which perfectly defines managers. The model also touches on the assumptions of human behavior. The deductions of the model assume that individual behavior is influenced by both internal and external factors, rational and make own choices about their behavior, have different goals, desires and needs (Reuben M. Badubi, 2017).

Abraham Maslow published his theory on human needs, stating that people can be motivated by both economic and noneconomic incentives. He proposed that human needs are arranged in terms of lesser to greater potency (strength), and distinguished between lower order (basic survival) and higher order (psychological) needs. Theories like Maslow's serve to reinforce the notion that the varied needs and desires of workers can become important sources of motivation in the workplace (Jon M. Werner and Randy L. DeSimone, 2011).

The motivation theories discussed above describe reasons that motivate human being and the relationship between satisfaction of workers and job performance. The case study deals with the effect of motivation of M&E staff on success of projects.

Human Capital theory

Human capital can be accumulated in different forms of education, training, migration, and health. Through such forms, employees gain knowledge, skills and abilities in different ways. Firms invest in human capital because these firm view humans as an asset and expect that what the firm has invested will be returned and provide a positive value in the future. In other words, an individual investment in their schooling or training and anticipate that the knowledge, skill earned will be enhanced to their career advancement (Gary Becker, 1964). There is a tremendous paradigm shift

which has occurred in the concept of human capital from the traditional to the present view that changed human resource function by moving from an activity-based process to result-based which is more connected and aligned with business strategy and views human capital as a value creation to be used in strategic management (Phillips, 2005, Cited in Naphat Wuttaphan, 2017).

During the 1960s and 1970s, professional trainers realized that their role extended beyond the training classroom. The move toward employee involvement in many organizations required trainers to also coach and counsel employees. Training and development (T&D) competencies therefore expanded to include interpersonal skills such as coaching, group process facilitation, and problem solving (Jon M. Werner and Randy L. DeSimone, 2011).

As we could understand from historical and developmental perspective of human capital theories, a continuous training, education, coaching and counselling is a very important aspect to get needed knowledge, skills and ability in employees so that they can play major roles for the success of projects/works. For the case study, the researcher needs assessment on human development undertaken for the project to succeed in the process of monitoring and evaluation.

Stakeholders theory

Stakeholder theory suggests that if we adopt as a unit of analysis the relationships between a business, the groups and individuals who can affect or are affected by it then we have a better chance to deal effectively with these three problems. First, from a stakeholder perspective, business can be understood as a set of relationships among groups that have a stake in the activities that make up the business (Freeman, 1984; Jones, 1995; Walsh, 2005). It is about how customers, suppliers, employees, financiers (stockholders, bondholders, banks, etc.), communities and managers interact to jointly create and trade value. To understand a business is to know how these relationships work and change over time. It is the executive's job to manage and shape these relationships to create as much value as possible for stakeholders and to manage the distribution of that value (Freeman, 1984). Second, although effective management of stakeholder relationships helps businesses survive and thrive in capitalist systems, it is also a moral endeavor because it concerns questions of values, choice, and potential harms and benefits for a large group of groups and individuals (Phillips, 2003, Cited in Jeffrey S. Harrison et al., 2010).

From this theoretical narration, effective management of stakeholders is important for the successful survival and thriving of businesses. It is quite necessary to assess the stakeholders' involvement level as many stakeholders are involved in the selected project for the case study.

Management Support

Top management support is an essential factor in project success and has been examined in various studies as one of the critical success factors. Top management support can be viewed in several forms, for example, helping teams in dealing with hurdles, exhibiting commitment to the work and encouraging the subordinates (Kandelousi et al., 2011). Usually top management support results in availability of in time financial resources, allocation of human and other physical resources and also it refers to the delegation of necessary power to project leaders and project team for successful completion of projects. Moreover, top management support is important recommendation in achievement of project success (Belassi and Tukel, 1996; Chae and Poole, 2005; Lin, 2010). In contrast, top management cannot provide even the due support to each and every project in the organization therefore, they must realize the existence to project leaders who are directly involved in day to day activities of project. However, limited research has been conducted on the spirit of the top management support with combination of project leadership (Young and Jordan, 2008).

The importance of top management support is found as glue between project leadership behaviors and project success that can strengthen or weaken the proposed relations. In reality, top management sometime, cannot look after each and every project in the organization; therefore, they have to realize the importance of project leadership in project success. Despite comprehensive views of various scholars, the concept has been lacking in recent researches. Top management can lead a project toward failure or success, but this is better to rationally decide about the fate of a project (Saif Ur Rehman Khan et al., 2014). Top management support is one of the prime factors for achieving the project success. In absence of top management support, the project managers despite having excellent skills may fail at any stage of the project (Meredith and Mantel, 2010, cited in S. Iqbal et al., 2015).

The case study that focuses on assessment of monitoring and evaluation of a project needs to measure the management attention and role during the M&E phases in the project. The above listed concepts from different literatures give a clue on top management role and responsibility for successes and failures of projects.

Complexity and managing projects

When problems fundamentally dynamic are treated statically, delays and cost overruns are common. Traditional project management tools and techniques, based on the assumptions that a set of tasks can be discrete, with well-defined information about time, cost, and resources, and with extensive preplanning and control, are often found inadequate. These traditional approaches that utilize a static approach provide project managers with unrealistic estimations ignoring multiple feedback processes and nonlinear relationships of the project (Jose R. et al., 2018). Time scheduling, activity-plan, risk analysis, quality plan and budgets are significant tools that are needed for effective project management of uncertainty and structural complexity (N. Macheridis, 2014).

Understanding complexity in scope of the projects and applying proper tools, techniques and methods of management, ensures the success of projects. The case study assesses how complexity is managed during M&E in the project.

Budgeting

Monitoring and evaluation (M&E) related activities need to be planned and properly budgeted at the early stages of program implementation planning. In fact, monitoring and evaluation activities are integral part of a program or an intervention/project and the related expenses should also be included in the program's overall budget (Silva Sedrakian, 2016). Understanding the influence of monitoring and evaluation budget and performance of projects will help organizations and government institutions plan better on how to improve project performance and better allocation of resources. Hence, organizations implementing project need to put M&E budget at the center of strategic decision making as this will improve achievement of project performance goals (Lily Chebet Murei, 2017).

The theoretical concepts narrated above stress the importance of financing M&E to enhance the performance of projects. Budget allocation attended in the selected project for the case study is assessed whether it had impact on the success/failure of the project.

2.2. Empirical Reviews

A study based on E-Single Window Implementation: A Case of Jordan Customs Department finds out that challenges such as legislative and regulatory can be overcome through MoUs, establishing a senior steering committee, follow-up team, adopting an integrated risk based inspection approach, financial support, and amendment the regulations to maintain confidentiality and privacy while ensuring exchange information (Aini Aman et al., 2016).

The Case study conducted on Ministry of Mining and Geological Survey of Ethiopia (Ermias H/Mariam, 2017), show that there is limited commitment and knowhow of the management; the monitoring and evaluation activities are performing with a limited expertise and allocated money; there is unscheduled filed visit, the organizations M&E based on following and reporting the activity that are planned for the budget year; the organizations gives feedback for the respected body about the project status based on monitoring data, since there is no planned evaluation the status of the projects may not be appropriately known. They still have a doubt in the system exercising commitments in terms of finance, management, involvement of stakeholders, common understanding of project participants, and involvement of stakeholders and scarcity of experts.

Another case study carried out in Ethiopian Public Health Institution (Samuel Muluye, 2018), shows that the performance of projects in EPHI were significantly affected by management support for M&E factors. Finally, M&E human resource factors, M&E implementation strategies factors, M&E training factors and management support for M&E factors are statistically significant 49 implied that the project performance were affected by M&E human resource, M&E implementation strategies, M&E training and Management support for M&E.

(Ali Mekonnen, 2017) done a case study on Public Health Centers in Ethiopia and concluded as a final point that the challenges that affect Expanded Program for Immunization (EPI) program M&E practice are allocation of insufficient resources for activities, lack of attention and emphasis, poor communication and lack of coordination among team members were the reported as the major challenges where nearly three quarter or more respondents agreed.

(Yodit Tamene, 2017) had done her thesis on factors affecting implementation of eSW and identified four major conclusive factors as Organizational structure, leadership and governance, human capital, and other external factors. Project Organizational structure, as such it is found in

the study that the project organizational structure of the ESW project was not structured in a manner that facilitates successful implementation of the project. Project Leadership and Governance practices have been very weak and inefficient in its practice as such: Planning and organizing of activities were not efficient, Monitoring and controlling of activities were inadequate and timely, Problems were not detected and solved prior to its occurrence, Conflict management and team building capacity were not strong, Employees were not being delegated of authority to build capacity, Decision making were not participative. Project Governance is also found to be among the factors affected successful implementation of the ESW project in that: Effective project management tools and methodology were not employed, Project governance review did not serve as appropriate checkpoint, Project sponsor was fully committed to the project success and Governance failed to keep the project team informed about the project criteria's for success. Project Human Resources also were not considered as a success factor since there were no continuous development, quality human resource and turnover at high.

The findings from the previous case study carried out on the project have been solved partially as the researcher has been informed during a preliminary interview of the program director. In general, the empirical review depicts that stakeholder management, human resource development, management attention, planning and budgeting issues are among factors that positively or negatively influence the project M&E. These measures shall be assessed in this paper when a project attended by more than 50 direct stakeholders and close follow up of the prime minister has been on edge of failure sometime and suddenly turned successful after ups and downs in lifetime.

2.3. Conceptual Framework

A conceptual framework is a structure which the researcher believes can best explain the natural progression of the phenomenon to be studied (Camp, 2001, cited in Dickson A. et al., 2018). It is linked with the concepts, empirical research and important theories used in promoting and systemizing the knowledge espoused by the researcher (Peshkin, 1993, cited in Dickson A. et al., 2018).

Concepts, theories and empirical researches are linked based on the following framework in the study. The framework states the project success and effectiveness dependencies on the factors and challenges affecting the project implementation. The diagram below depicts the interlinks among the variables.

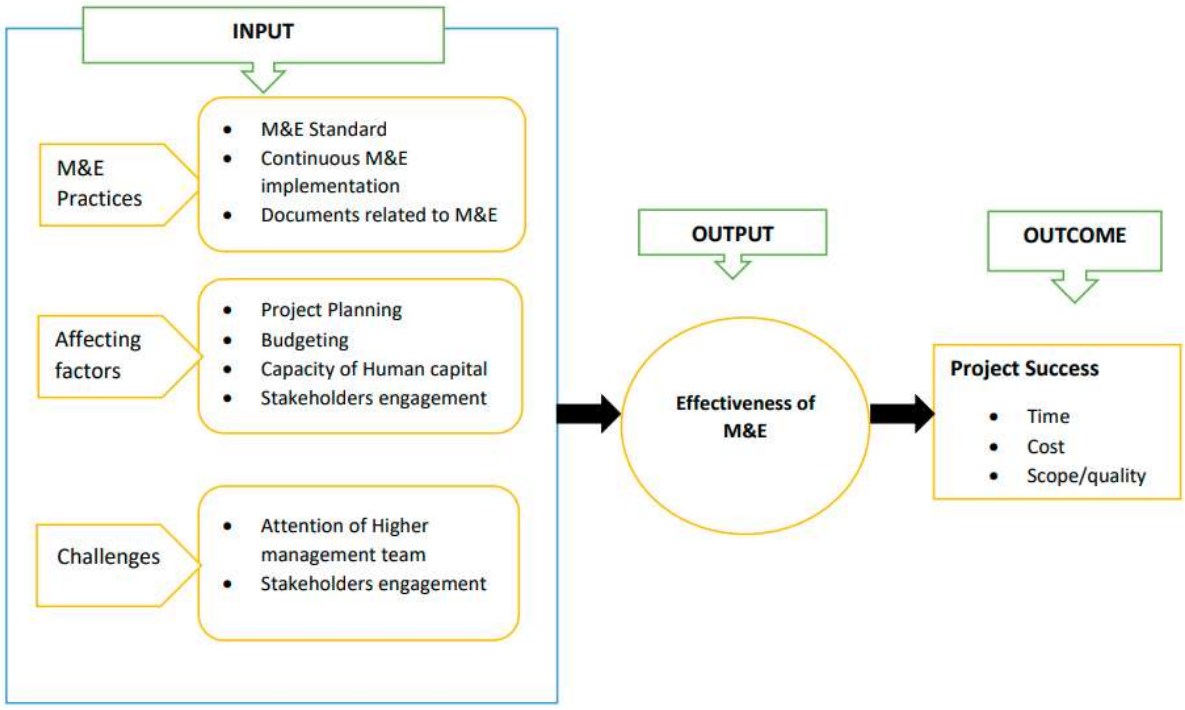

Figure 1: Conceptual Framework

CHAPTER THREE
RESEARCH METHODOLOGY

3.1. Research Design and Approach

Research designs are procedures for collecting, analyzing, interpreting, and reporting data in research studies. They represent different models for doing research, and these models have distinct names and procedures associated with them. Research designs are useful, because they help guide the methods decisions that researchers must make during their studies and set the logic by which they make interpretations at the end of their studies (Creswell & Plano Clark, 2007).

Descriptive research aims to accurately and systematically describe a population, situation or phenomenon. It can answer what, where, when and how questions, but not why questions. (Shona McCombes, 2020, cited in scribbr.com). Quantitative research method is the explaining of an issue or phenomenon through gathering data in numerical form and analyzing with the aid of mathematical methods; in particular statistics (Aliaga and Gunderson, 2002, cited in Oberiri Destiny Apuke, 2017).

Therefore, the study will be conducted through a descriptive research design based on practices on M&E at Ethiopian Ministry of Revenue to accurately describe the study population and the situation of the project. The quantitative research approach is used in this study to describe the study variables.

3.2. Target Population and Sampling Technique

The target population is “the entire aggregation of respondents that meet the designated set of criteria” (Burns and Grove, 1997). To meet the objectives of monitoring and evaluation practices in Ministry of Revenue (MoR), assigned project managers in the ministry, directors of functional works related to the projects, team members who participated in planning and implementation of the project in electronic single window program office, project managers and team leaders from INSA, and available project members and managers from CUPIA will be target population of the study. Since the target population is limited in number, all of them are addressed in the data inquiry so that the highest accuracy is expected from the intended findings. A complete enumeration of all

items in the population is used so that census inquiry is applied for sampling technique. All employees (25 persons) of eSW program office are entirely used. Team participated from INSA are 10 persons who have direct intact with the project. Hence, the total target population is 35.

3.3. Data Collection Methods

3.3.1. Data sources

Primary data will be used by disseminating structured questionnaire to the target population and some interviews for managers of the project for preliminary assessment only. Document reviews such as project plan, project initiation document, contract agreements, timely reports and project charter are used as secondary data sources to undertake this study.

3.3.2. Data Collection Tools

Intended data will be collected from primary sources through field survey using standard questionnaires adopted and modified from articles done by (Jill Mathis et al., 2001; Callistus Tengan et al., 2019; Abraham Kebede, 2018; Njama, 2015; Kassahun Abera, 2019; Habtamu Kelemework, 2018; Bekalu Yibeltal, 2020). The questionnaires were distributed and recollected physically. Interviews were not used for data collection and analysis, but targeted only for preliminary assessment and the overall understanding of the study environment. Secondary sources such as reports, and approved documents are also used for the emphasis.

3.3.3. Measurement

In order to test our hypotheses, we must observe our theoretical concepts at the operational level. Depending on our operational definition, a measurement can give us differing kinds of information about a theoretical concept. However, at the minimal level a measure must provide the ability to detect the presence or absence of the theoretical construct. All levels of measurement give this ability, or they wouldn't be measurements at all (R. Kline, 2008).

Factors affecting effectiveness of M&E and Challenges during M&E Implementation are linkage of M&E Plan to the work plan (Jill Mathis et al., 2001), involvement of primary stakeholders (Kasanga Sammy and et al, 2013), Budget allocation (Callistus Tengan et al., 2019), competency of M&E staff and training (Abraham Kebede, 2018), Management support and Project M&E (Bekalu Yibeltal, 2020), whereas effectiveness of M&E (Njama, 2015; Kassahun Abera, 2019) is

adopted with some improvements to measure the variable. The measurement instruments are adopted with modifications from the above literatures that can describe the objectives of the study for practices, challenges, factors affecting the M&E effectiveness, and M&E effectiveness. Besides, five point Likert scales (strongly disagree, disagree, uncertain, agree, strongly agree) are used to address the objective of the study.

Therefore, Linkage of M&E Plan to the work plan 6 items, involvement of primary stakeholders 6 items, budget allocation for M&E 4 items, Competency of M&E staff and training 5 items, Management support 5 items, M&E Effectiveness 5 items and M&E practices 5 items are used to measure the practices, factors affecting M&E effectiveness, and challenges whereas nominal scales are used for respondents' demographic profile.

3.4. Data Analysis and presentation

Before processing the responses, the completed questionnaires will be checked for consistency, coded and analyzed using the software called Statistical Product and Service Solution (SPSS) latest and available version. Descriptive statistics such as frequency distribution, mean and standard deviation were used to analyze and present the data. Additionally, data presentation is done by the use of percentages, charts and frequency tables.

3.5. Ethical Considerations

Research ethics is important in our daily life research endeavors and requires that researchers should protect the dignity of their subjects and publish well the information that is researched (Fouka & Mantzorou, 2011, cited in Akaranga and Makau, 2016).

The identity of the target individuals participated in this case study and the information gathered were treated confidentially and communicated in such a way. A clear purpose of the research work was introduced to the participants on voluntary basis.

3.6. Reliability and Validity

Reliability is referred to the stability of findings, whereas validity is represented the truthfulness of findings (Altheide and Johnson, 1994, cited in Haradhan M., 2017). Internal consistency evaluates the consistency of results across factors within a test. Cronbach's alpha is the most used internal consistency measure, which is generally founded as the mean of all possible split-half coefficients (Cortina, 1993, cited in Said Taan EL Hajjar, 2018). A Cronbach's alpha value of around 0.70 or greater is widely considered desirable though above 0.45 is acceptable and sufficient (Keith S. Taber, 2016).

In order to ensure the validity and reliability of the case study, variables are broadly discussed and stated in position. Reliability of the measurement instruments is hence supplemented. All the data acquired from the project participants are cross checked and compared. SPSS analysis of the variables on scale reliability is applied in this study.

CHAPTER FOUR
RESULTS AND DISCUSSION

4.1. Introduction

The study tried to assess the practices of Project Monitoring and evaluation in Ethiopian Ministry of Revenue Electronic Single Window project. A total of 35 questionnaires were printed and distributed to all staffs of Electronic Single Window program office and project participants from Information Network Security Agency where 32 of them were responded. The remaining three staffs could not respond to the questionnaires because of high work load on their places and other unknown reasons. Hence, the response rate is 91.43 percent.

The Results and Discussion part could not enclose the updated existing documents from the project management office that appropriates for the strength of the case study findings due to shortage of time and confidentiality concerns.

4.2. General Characteristics of Respondents

The demographic data of the respondents is explained in terms of Age, sex, educational level, work experience and work positions.

Table 1: Demographic Data

General Information	Category	Frequency	Percent
Gender	Male	26	81.3
	Female	6	18.8
Age	20-30 years	10	31.3
	31-40 years	21	65.6
	41-50 years	1	3.1
Educational level	Diploma	1	3.1
	First Degree	19	59.4
	MA/MSc	12	37.5

Work Experience	0-4 years	6	18.8
	5-7 years	3	9.4
	8-10 years	6	18.8
	Above 10 Years	17	53.1
Project Experience	0-2 years	6	18.8
	3-6 years	20	62.5
	7-10 years	6	18.8
Job Position	Director	1	3.1
	Project manager	1	3.1
	Consultant	4	12.5
	Coordinator	2	6.3
	Team leader	2	6.3
	Team Member	21	65.6

Source: Own Survey (2021)

As indicated in table 1, 81.3% of respondents are male while 18.8 are female. This shows that majority of the project participants are male since the number of female is very low. 65.6% of the total population is aged between 31 and 40 while 31.3% is aged between 20 to 30 and only 3.1% is above 41. This data indicates that almost all the staff participating in the project is aged below 40.

The table also indicates that 59.4% of the respondents are first degree holders whereas 37.5% are second degree holders. Even though majority of the project team are first degree holders, second degree holders are also verily participated in the project with a little participation of diploma holder. Work experience of 53.1% of the respondents is above 10 years and project experience of 62.5% respondents is aged between 3-6 years. This indicates most senior staffs have exposure in project works. Most of the respondents (65.6%) are team members of the project while other five positions are also represented in the project system.

4.3. Monitoring and Evaluation Practices in eSW Project

Respondents were asked as if there is no any M&E practice in the project. Their responses are presented based on table 2 as follows.

Table 2: No M&E Implementation at all

Level of Agreement	Frequency	Percent
Strongly Disagree	11	34.4
Disagree	6	18.8
Uncertain	8	25.0
Agree	5	15.6
Strongly Agree	2	6.3
Total	32	100.0

Source: Own Survey (2021)

In the table above, 21.9% of the total respondents (strongly agree 6.3% and agree 15.6%) believe that there is no M&E implementation at all in the project process while 53.2% (Strongly disagree 34.4% and disagree 18.8%) believe that there is M&E Implementation in the project process, and some 25% are uncertain whether there is M&E practice or not. We can understand from the above presentation as there is M&E implementation since the question was negate and not as such clear.

Table 3: M&E Practices

	Level of Agreement in Percent						
Statement	**Strongly Disagree**	**Disagree**	**Uncertain**	**Agree**	**Strongly Agree**	**Mean**	**Standard Deviation**
The outcome of M&E is implemented on time	15.63	25.00	37.50	18.75	3.13	2.69	1.06
The schedule of M&E in the project plan is properly used	15.63	31.25	31.25	18.75	3.13	2.63	1.07
M&E is practiced randomly	3.13	25.00	34.38	37.50	0.00	3.06	0.88
Scope, cost, time and quality are controlled to manage the project success	6.25	18.75	34.38	34.38	6.25	3.16	1.02
Grand Mean							**2.88**

The respondents were asked whether the outcome of M&E is implemented on time. Some 21.88% (strongly agreed 3.13% and agreed 18.75%) believe that the program office implements M&E findings on time whereas 40.63% (strongly disagreed 15.63 and disagreed 25%) believe that the M&E findings are not implemented on required timescale. 37.5% are unaware whether the M&E findings are implemented on time or not. This survey shows that monitoring and evaluation results are not used as a corrective measure on time in the project process.

The other survey questions focus on the schedule of M&E. 46.88% (15.63 strongly disagreed and 31.25 disagreed) of respondents believe that there is no proper use of M&E plan and 28.13% (3.13% strongly disagreed and 25% disagreed) also believe that M&E is practiced randomly. 21.88% of respondents (18.75% agreed and 3.13% strongly agreed) believe that M&E is done within schedule while 37.5% believe that M&E is done randomly. Hence, during the project lifetime the M&E schedule in the plan is not kept and random implementation of M&E practices.

The last survey question was based on the monitoring and evaluation practices for the project constraints (cost, time, scope/quality). 40.63% of respondents (34.38% agreed and 6.25% disagreed) believe that M&E is done focusing on cost, time and scope whereas 25% of the respondents believe that M&E does not focus on the project main constraints. This shows that M&E practice of the project focuses on time, scope and cost though unclear for many project participants (some 34.38%). The average agreement level depicts 35.13% do not believe and 30.47% of respondents believe that there is M&E practices in the project life while 34.38% are uncertain to the information. As the grand mean shows (2.88), there is low experience and transparency in M&E practice.

4.4. Factors affecting effectiveness of M&E and challenges

Linkage of M&E Plan to the Project plan, Involvement of Primary Stakeholders, Budget Allocation, Competency of M&E staff and training and Management support are used in the survey questionnaires to measure factors affecting effectiveness of M&E and the challenges.

4.4.1. Linkage of M&E Plan to the Project plan

Table 4: Linkage of M&E Plan and Project Plan

Statement	Level of Agreement in Percent					Mean	Std. Deviation
	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree		
There is a specific M&E plan incorporated in all phases of the project plan	9.4	9.4	21.9	34.4	25.0	3.56	1.243
The Project Milestone is monitored and evaluated before the report	9.4	9.4	25.0	40.6	15.6	3.44	1.162
The outcome of the project is monitored and evaluated after the project is partially launched for use	6.3	6.3	18.8	53.1	15.6	3.66	1.035
All resources planned for the project includes that of M&E activities	9.4	12.5	46.9	25.0	6.3	3.06	1.014
There is random M&E without proper planning	18.8	25.0	28.1	25.0	3.1	2.69	1.148
M&E had an input for the project success	6.3	3.1	25.0	43.8	21.9	3.72	1.054
Grand Mean							**3.35**

Source: Own Survey (2021)

As we can understand from the table above, 59.4% of respondents (25 strongly agreed and 34.4% agreed) believe that there is a specific M&E plan incorporated in all phases of the project plan and 18.8% do not believe this. The respondents that believe if the Project Milestone is monitored and evaluated before the report are 56.2% (40.6 agreed and 15.6 strongly agreed) whereas 18.8% believe against the point. Monitoring and evaluation for the project outcome after partially launching the product has been done as 68.7% of the respondents have given the evidence while 12.6% disprove this evidence. The majority of the

respondents (46.9) do not know whether the M&E plan has a resource share with the whole project activities or not while some 33.3% believe as if there is. This indicates that the plan is not transparent. M&E had an input for the project success as 65.7% of respondents give their view point to support it while 9.4% is against it. And 43.3% do not believe that random M&E is done without proper planning while 28.1% are not clear of the process at all.

From the data analyzed above, based on the grand mean score of 3.35, the respondents give their data observation as there is a linkage between the Project Plan and M&E Plan throughout the life cycle of the project.

4.4.2. Involvement of Primary Stakeholders

Stakeholder's involvement in projects can positively or negatively affect the project monitoring and evaluation and can curb the challenges that follow. The table below has included survey questionnaires that focus on stakeholder engagement.

Table 5: Stakeholder involvement

Statement	Level of Agreement in Percent					Mean	Std. Deviation
	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree		
Primary Stakeholders are invited for participation on regular project status updates	6.3	12.5	21.9	50.0	9.4	3.44	1.05
The stakeholders are aware of their important role and participate accordingly	6.3	12.5	28.1	43.8	9.4	3.38	1.04
Any decision passed after M&E consults the stakeholders	6.3	12.5	31.3	34.4	15.6	3.41	1.10
Stakeholders do not resist to give a quick feedback on the status of the project	9.4	25.0	37.5	18.8	9.4	2.94	1.11

Stakeholders think that they are positively affected by the project outcome	0.0	9.4	40.6	28.1	21.9	3.63	0.94
Stakeholders participate frequently	3.1	31.3	31.3	28.1	6.3	3.03	1.00
Grand Mean							**3.30**

Source: Own Survey (2021)

The table 5 summarizes the primary stakeholders' involvement survey results. As the grand mean of 3.30 depicts, there is an involvement of primary stakeholders. Even though the stakeholders think that they are positively affected by the project (highest mean of 3.63), their data show that stakeholders do not frequently participate and resist to give a feedback on regular basis from the lowest mean of 2.94. The survey also shows that the project management structure invites, let's know and involves stakeholders for decision making as we can see from the first three questions' responses.

Hence we can understand that the project management system and the owner company tries its best to involve the primary stakeholders while they are rare in positive reply for engagement. These results show the existing and ahead challenges and the factors affecting the project effectiveness.

4.4.3. Budget Allocation

As budget is one of the challenges for M&E effectiveness and major affecting factor, the survey questionnaire included and analysis is provided based on the following table.

Table 6: Budget Allocation

Statement	Level of Agreement in Percent					Mean	Std. Deviation
	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree		
There is a planned budget for M&E	12.5	21.9	15.6	25.0	25.0	3.28	1.397
There is adequate budget for M&E (1-5%)	12.5	25.0	28.1	25.0	9.4	2.94	1.190
Budget is not a constraint to execute M&E	9.4	28.1	43.8	9.4	9.4	2.81	1.061

The allocated budget is used efficiently	15.6	31.3	37.5	9.4	6.3	2.59	1.073
Grand Mean							**2.91**

Source: Own Survey (2021)

As the table above shows, the grand mean of 2.91promotes a limited budget allocation. The highest mean of 3.28 in the survey shows the respondents believe that there is a planned budget for M&E with a polarized data of 1.38 standard deviation that indicates disagreements on the point. The budget is not efficiently used as indicated with the lowest mean of 2.59. Though there is a budget plan consideration, adequacy, constraint and efficient use of budget are challenging issues as the survey shows.

4.4.4. Competency of M&E staff and training

Table 7: Competency of M&E Staff and training

Statement	Level of Agreement in Percent					Mean	Std. Deviation
	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree		
There is a specific training targeted the M&E staff	31.3	18.8	28.1	21.9	0	2.41	1.16
The M&E Staff knows tools, techniques and methods to implement the M&E	21.9	9.4	40.6	25.0	3.1	2.78	1.16
There is a knowledge sharing culture among the team members	15.6	6.3	28.1	40.6	9.4	3.22	1.21
There is enough human skill on M&E	9.4	25.0	46.9	18.8	0	2.75	0.88
The office has a motivation package for a continuous M&E process	9.4	50.0	37.5	3.1	0	2.34	0.70
Grand Mean							**2.7**

Source: Own Survey (2021)

The table 7 depicts that most respondents (50.1%, strongly disagreed and disagreed) don't agree that there is a training targeting M&E capacity building whereas some 28.1% do not have information on it. 40.6% of project participants are unaware whether the M&E Staff knows tools, techniques and methods to implement the M&E or not while 30.3% do not agree that there is

capacity in implementing M&E system. If exists, knowledge sharing culture is good among the team as 50% believe that. 46.9% of respondents are unaware whether there is enough human skill on M&E or not while some 34.4% do not agree that there is enough human skill. 59.4% of project participants believe that there is not motivation package for continuous M&E development process and 37.5% is unclear about it.

The finding of the result shows that, there is no motivation scheme for continuous M&E process and specific training for it as we can see from lower mean values of 2.34 and 2.41 respectively. The grand mean score of 2.7 shows that there is low competency and training practices for the project M&E process.

4.4.5. Management Support for M&E

Table 8: Management support for M&E

Statement	Level of Agreement in Percent					Mean	Std. Deviation
	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree		
There is a full support from the higher decision makers during result and real-time M&E (steering committee)	15.6	31.3	28.1	21.9	3.1	2.66	1.096
The management initiates a planning and execution of M&E when needed	12.5	15.6	31.3	31.3	9.4	3.09	1.174
The M&E recommendations are positively accepted by the top management team (steering committee)	6.3	18.8	43.8	31.3		3.00	0.880
There is a integration of top management to decide on	12.5	15.6	43.8	25.0	3.1	2.91	1.027

outcomes from the M&E							
Stakeholders are parts of major decision makers	3.1	6.3	37.5	40.6	12.5	3.53	0.915
Grand Mean							**3.04**

Source: Own Survey (2021)

Most respondents (46.9%, strongly disagreed and disagreed) as shown in table above, do not agree that there is a full support from the decision makers during the result and real-time M&E. The management initiates the planning and execution of M&E when need as agreed by 40.7% (agreed and strongly agreed) respondents and some 31.3% of respondents are unaware of it. Most respondents (43.8%) are unaware of whether the M&E recommendations are positively accepted or not whereas some 34.3% believe that it is positively accepted. Most respondents do not know that if there is an integration of top management to decide on outcomes from the M&E or not while some 28.1% agree on it. 53.1% of respondents believe that stakeholders are parts of major decision makers while 37.5% are unaware of it.

In finale, an integration and full support from the top decision makers is low as mean scores of 2.91 and 2.66 respectively show whereas deciding role of stakeholders and planning initiation of top management is recorded good (mean value of 3.53 and 3.09 respectively). These results show the existing and ahead challenges and the factors affecting the project effectiveness.

4.5. Effectiveness of M&E

Table 9: Effectiveness of M&E

Statement	Level of Agreement in Percent					Mean	Std. Deviation
	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree		
The M & E activities are carried out within schedule	15.6%	25.0%	34.4%	25.0%	0%	2.69	1.030
The cost of M & E is always within the budget	15.6%	15.6%	50.0%	18.8%	0%	2.72	0.958
Results from M & E are relevant and useful	6.3%	6.3%	25.0%	56.3%	6.3%	3.50	0.950
The M & E objectives are largely achieved	12.5%	12.5%	31.3%	40.6%	3.1%	3.09	1.088

The M & E responsibilities and duties are clearly outlined	15.6%	21.9%	18.8%	37.5%	6.3%	2.97	1.231
Grand Mean							**2.99**

Source: Own Survey (2021)

As we can see from the table above, 40.6% (strongly disagreed and disagreed) of respondents do not believe that M&E activities are carried out within the stated schedule while 25% believe that the schedule is kept. 34.4% of respondents are unaware of the activity period at all. This indicates that the M&E activities are not done within schedule and even unclear.

50% of the respondents are not aware whether the cost of M&E is used effectively or not that indicates non transparent activities or unknown M&E practice. If used seriously, the data shows that results of M&E are relevant and useful for the project as 62.6% of the participants (strongly agreed and agreed) responded positive. 43.7% of respondents (strongly agreed and agreed) indicated that there is an achievement in M&E objectives while 31.3% do not know it. 43.8% (strongly agreed and agreed) believe that responsibilities and duties are clearly outlined in M&E Planning whereas 37.5% do not agree (strongly disagreed and disagreed) on it.

The mean scores (2.72 and 2.69 respectively) show that the project M&E activities are rarely in schedule and within budget whereas achieving objectives and relevance in M&E to the project scored mean value of higher than the others (3.09 and 3.50 respectively).

In summary, the data shows that even if the scheduling and effective use of budget is unclear and not properly used, there is initiation in planning, achievement in objective and agreement on results application that may summarize effectiveness of M&E is to some extent at the beginning level (grand mean of 2.99 score).

4.6. Reliability Test Results

Table 10: Reliability test

Interrelated variables	Reliability Statistics		
	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Linkage of M&E Plan to the Project Plan	0.772	0.779	6
Involvement of primary stakeholders	0.788	0.792	6
Budget Allocation	0.731	0.731	4
Competency of M&E staff and training	0.762	0.753	5
Management support	0.882	0.881	5
M&E Practices	0.774	0.766	5
Effectiveness of M&E	0.912	0.914	5

Source: Own Survey (2021)

As the table above shows, the interrelated variables correlation result is above 0.7. This proves that the questionnaires collected based on their respective major measurement instrument are interrelated and desirable that makes it acceptable.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1. Introduction

The purpose of this study was to assess the practices and challenges in monitoring and evaluation of Electronic Single Window Project of Ethiopian Ministry of Revenue. The results and discussion section has explained and presented the raw data from the survey. This chapter presents the summary of the main findings, conclusion of the study and recommendations based on the findings.

5.2. Summary

The responses collected from 32 participants are analyzed and presented in detail in the previous chapter. There is M&E implementation experience in the program office as 53.2% respondents had positive response. The overall survey result shows that there is no good M&E practices and not transparent process although there is M&E planning considerations (59.4% respondents).

Regarding the factors affecting the effectiveness of M&E, 3.35 mean value of the respondents show that there is a linkage between the Project Plan and M&E Plan throughout the life cycle of the project. Project management system and the owner company tries its best to involve the primary stakeholders while they are rare in positive reply for engagement. Though there is a budget plan consideration, adequacy, constraint and efficient use of budget are challenging issues as the survey shows (mean score of 2.91). There is rare (mean score of 2.7) continuous capacity development and competent staff in the program office and the project lifetime regarding the M&E activities. Management support in M&E planning and execution is low and the activities in terms of their support is mostly not transparent and clear.

The effectiveness of M&E is at beginning level due to ineffective use of budget and less practice of M&E within planned schedule. The good point is the corrective findings from M&E are implemented and used for meeting objectives of the overall project.

The main challenges that are identified in Monitoring and evaluation practices of the program office begins from proper planning with appropriate resource and schedule. The stakeholder

engagement is challenging factor as it delays the performance of project. Though the management has good attention for the project, they are not on table to support whenever needed. The human skill in M&E challenges the effectiveness of the technique used.

5.3. Conclusions

As the survey results explained in detail, M&E Practices is not well known. From planning to implementation and evaluation, electronic single window project is poor in developing M&E system. Project initiation documents, design and implementation plans, and report mechanisms are focused only on technical activities than managing projects with standard tools and techniques that need their own resource, schedule and special supports.

The main factors affecting effectiveness M&E were identified and a detail survey quests were carried out with supportive findings as planning, skill development, budget allocation, management attentive support and involvement of stakeholders. There is a planning initiative that starts at a time and not followed in principle with random M&E taking place when initiated with concerns to solve some issues raised. Budget allocation is not a concern in the project though the project management system does not target it to use for M&E system so that the effective use of budget was raised as issue alongside with resource planning. No attention is given to capacity development for the team to scale up their knowledge to support the M&E system establishment that had negative factor for the M&E system. There is a stakeholder engagement structure and attention though the feedback and participation from the stakeholders themselves is very unsatisfactory. Management supports for monitoring and evaluating the project processes is very poor unless needed by the steering committee themselves. This kills structurally managing the project.

The challenges in implementing M&E system in the project are actually linked to the factors discussed above and may not be independently discussed. The gap of managing the project in principle as planned and equal understanding of the detail process in the project lifecycle challenges the overall team. M&E process is one of project management processes that everyone should be aware and skillful in helping the system.

5.4. Recommendations

Based on the findings, discussions and conclusions, the researcher recommends the following points for the running phase of the eSW project and the future expansion phases carried out by the program office in the Ministry of Revenue.

- A well-functioning M&E system that clearly standardized with frameworks, approaches and methods should be established and equipped with secured budget and M&E professionals that work on monitoring and controlling of the project from the inception to the outcome impact.
- Timely decisions, scheduled meetings and integration of top management (steering committee) should be a part of project management system.
- Stakeholders should have regular engagement plan with the project M&E by fully participating in decision makings and giving enthusiastic feedbacks.
- Continuous human development should be structurally implemented by training individuals, knowledge sharing, participation of M&E team in all phases of the project.
- Since the study variables are limited, further study is needed on Program management office structure and adapted methodology of the project management that impacts M&E system.

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Appendix

Questionnaire

Dear respondent,

This questionnaire is designed to collect data for the study entitled 'Practices and Challenges of Monitoring and Evaluation of Electronic Single Window Project In Ethiopian Ministry of Revenue' for the partial fulfillment of Masters of Arts in Project Management. The objective of this study is to identify challenges and factors affecting effectiveness of monitoring and evaluation in electronic single window project. To fulfill this objective, your honest response to this questionnaire is essential. Your honesty and co-operation in responding to the questions will highly be appreciated. All information provided will be treated with utmost confidentiality and used purely for academic purposes.

Note: In order to ensure the confidentiality of your response, please do not include your name.

T**hank you in advance for your valuable time and honest cooperation!!**

If you have any question, please contact:

JEMAL HAJI: - manofcen.haji4@gmail.com

General Instruction and information:

Section I includes general information of respondents; Section II includes questions about the project M&E case study. Please attempt to answer all the questions.

Section I: General information of Respondents

Indicate your answer by providing a check mark ☑ on the information that describes you.

1. Age: 20-30 years ☐ 31-40 years ☐

   41-50 years ☐ above 50 years ☐

2. Gender: Male ☐ Female ☐

3. Educational level: Diploma ☐ Degree ☐

   MSc/MA ☐ PhD ☐ Others ☐

4. Work experience: 0-4 years ☐ 5-7 years ☐

   8-10 years ☐ above 10 years ☐

5. Experience on projects: 0-2 years ☐ 3-6 years ☐

   7-10 years ☐ above 10 years ☐

6. Position in the Program Office/ related stakeholder/ your company:

   Director ☐ Project Manager ☐ Supervisor ☐

   Consultant ☐ Coordinator ☐ Team leader ☐

   Team member ☐ end user ☐ other ☐

Section II: Monitoring and Evaluation (M&E) System

Instruction: Please, read each question and give appropriate answer regarding the monitoring and evaluation system of the project. Give your response to the sentences indicated in the following table (Put 'x' mark in the level of agreement columns to indicate to what extent the sentence in the statement column hold true).

Attention for scaling:

Strongly Disagree	Disagree	Uncertain	Agree	Strongly agree
1	2	3	4	5

S.N	Statement	Level of Agreement				
		1	2	3	4	5
1.	**Linkage of M&E Plan to the Project plan**					
1.1	There is a specific M&E plan incorporated in all phases of the project plan					
1.2	The Project Milestone is monitored and evaluated before the report					
1.3	The outcome of the project is monitored and evaluated after the project is partially launched for use					
1.4	All resources planned for the project includes that of M&E activities					
1.5	There is random M&E without proper planning					
1.6	M&E had an input for the project success					
2.	**Involvement of Primary Stakeholders**					
2.1	Primary Stakeholders are invited for participation on regular project status updates					
2.2	The stakeholders are aware of their important role and participate accordingly					
2.3	Any decision passed after M&E consults the stakeholders					
2.4	Stakeholders do not resist to give a quick feedback on the status of the project					

2.5	Stakeholders think that they are positively affected by the project outcome					
2.6	Stakeholders participate frequently					
3.	**Budget Allocation**					
3.1	There is a planned budget for M&E					
3.2	There is adequate budget for M&E (1-5%)					
3.3	Budget is not a constraint to execute M&E					
3.4	The allocated budget is used efficiently					
4	**Competency of M&E staff and training**					
4.1	There is a specific training targeted the M&E staff					
4.2	The M&E Staff knows tools, techniques and methods to implement the M&E					
4.3	There is a knowledge sharing culture among the team members					
4.4	There is enough human skill on M&E					
4.5	The office has a motivation package for a continuous M&E process					
5.	**Management support**					
5.1	There is a full support from the higher decision makers during result and real-time M&E (steering committee)					
5.2	The management initiates a planning and execution of M&E when needed					
5.3	The M&E recommendations are positively accepted by the top management team (steering committee)					
5.4	There is a integration of top management to decide on outcomes from the M&E					
5.5	Stakeholders are parts of major decision makers					
6.	**M&E Practices**					
6.1	The outcome of M&E is implemented on time					
6.2	The schedule of M&E in the project plan is properly used					

6.3	M&E is practiced randomly					
6.4	No M&E implementation at all					
6.5	Scope, cost, time and quality are controlled to manage the project success					
7.	Effectiveness of M&E					
7.1	The M & E activities are carried out within schedule					
7.2	The cost of M & E is always within the budget					
7.3	Results from M & E are relevant and useful					
7.4	The M & E objectives are largely achieved					
7.5	The M & E responsibilities and duties are clearly outlined					