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PROJECT MANAGEMENT MASTERS PROGRAM

Assessing The Practice And Challenges Of Monitoring And Evaluation Case Study Of Metal And Engineering Corporation Of Ethiopia

BY:

Ammanuel Abera

A Thesis Submitted in Partial Fulfillment of the Requirements for the Award of a Master's Degree in Project Management

Advisor: Dejene Mamo (Ph.D.)

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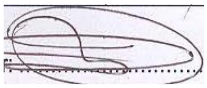
Dejene Mamo (Ph.D.)	 July 19,2023
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DECLARATION

I, Ammanuel Abera, declare that this thesis entitled "Assessing the Practice and Challenges of Monitoring and Evaluation Case Study of Metal and Engineering Corporation of Ethiopia" is my original work, prepared under the guidance of the research advisor. All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

Ammanuel Abera

Signature & Date

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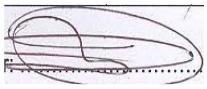
ENDORSEMENT

This thesis has been submitted to St. Mary's University, School of Graduate Studies for examination with my approval as a University advisor.



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ACRONYMS

- METEC Metal And Engineering Corporation Of Ethiopia
- SPSS Statistical packages for social science
- PMI Project management institute
- PMBOK Project management body of knowledge
- WBS work breakdown structure
- M&E Monitoring and Evaluation
- RBM Result Based Management
- UNDP United Nation Development Program

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Abstract

The general objective of this research is to assess the practice and challenges of project monitoring and evaluation practice in the case of Ethiopian Metal Engineering Corporation of Ethiopia. To achieve this objective descriptive survey was used as a research design and mixed research approach (Qualitative and quantitative) was followed. To collect the relevant data primary data collection means; questionnaire and interview were used. The research employed purposive or judgmental sampling techniques to select 93 respondents involved in this research. The primary data gathered through the questionnaire was analyzed using the SPSS-25 and the results were presented using tables, frequencies and percentages. There is somehow an established Monitoring and evaluation System and plan in the Bishoftu automotive manufacturing industry offices it is an industry which I selected to study on. The industry does implement Result based management however there is also challenges that the faces such as bureaucratic, political and technical challenges to implement Monitoring and evaluation. Know a day's Metal and Engineering Corporation of Ethiopia (METEC) have changed its name to ETHIO ENGINEERING GROUP and the industry is in a big reform but still the employees complain on lack of proper implementation of monitoring and evaluation tools in the organization. The study recommends that the enterprise develop proved monitoring and evaluation system, employ skilled personal or provide trainings for the existing Mechanical staff and build capacity and expertise.

Chapter one

Introduction

1.1. Background of the study

The success of any organization is reflected up on its monitoring and evaluation practice which is in turn highly dependent on strategies to implement. The impact of the right strategies will automatically reflect in the results.

Monitoring and Evaluation is a group of processes and activities geared towards improving performance and also important part of the project cycle and good management practice is monitoring and evaluation (Olive, 2002).monitoring and evaluation are different concepts but they are closely linked and balancing. To facilitate decision making Monitoring is used and it is a non-stop gathering of data on specified indicators to know whether an intervention (project, program or policy) is being implemented based on the design, activity schedules and budget Shapiro (1999). Whereas, Evaluation is used to evaluate the design, impact and implementation in terms of distribution, effectiveness, efficiency, and sustainability of outcomes and impacts and it is the periodic and systematic gathering of data (McCoy, Ngari, &Krumpe, 2005).

Monitoring primarily focuses on improving the performance of the project you are working on. You gather information which tracks the progress of your current project and use that to help you make decisions which improve the performance of your project. Monitoring is a periodically recurring task already beginning in the planning stage of a project or program. Monitoring allows results, processes and experiences to be documented and used as a basis to steer decision-making and learning processes. Monitoring is checking progress against plans. The data acquired through monitoring is used for evaluation.

Evaluation on the other hand reviews and assesses how previous projects have performed, and that information is used to help you make decisions about the future. The information you gather supports you in ‘big picture’ or strategic planning. Evaluation is assessing, as systematically and objectively as possible, a completed project or program (or a phase of an ongoing project or program that has been completed). Evaluations appraise data and information that inform strategic decisions, thus improving the project or program in the future.

Monitoring and Evaluation can help an organization extract relevant information from past and ongoing activities that can be used as the basis for programmatic fine-tuning, reorientation and future planning.

Monitoring and evaluation (M&E) is a critical part of result based management (RBM). RBM is a method used based on visibly defined results to measure methodologies and tools used to achieve project/program management (IFRC, 2011). Results-based monitoring is used to compare how well a project, program, or policy is being implemented compared to expected results and it is a nonstop process of collecting and analyzing information and monitoring and evaluation systems are designed to address the "so what" questions. So what is the reality that outputs have been produced? So what activities done? So what activities generated from the activities? A real outcomes and goals of government actions gained from results-based system (World Bank, 2011). According to UNICEF (2003), Monitoring and Evaluation contains decision to improve, reorient or discontinue the evaluated intervention or policy and it has been a key performance management tool for planning, decision making and economic policy management.

Monitoring and evaluation is used by National and international policy makers and funding agencies and it tells decisions that involve change of organizations strategic plans or management structures as well as challenge the decision making process. In management of project scope, time, cost, quality, human resources, communication and risks Monitoring, Evaluating and controlling is significant and it is the principal factor for project success (Kamau& Mohamed, 2015). In Africa M&E there is insufficient human and financial resource which limits monitoring and evaluation systems and make institutionalized and systematized slowly. So it needs much work in the continent to adapt methods and approaches for M & E (CLEAR-AA, 2019). According to Kambuwa and Wallis (2002), there is a gap between appropriate policies of government and project execution in South Africa. So, for better accountability it is important to apply participatory implementation and institutionalize processes since it provides a vital evaluative connection between policy development and project implementation.

METEC is an Ethiopian arms and machinery industry founded in 2010.Being the state largest military industrial complex, The Metals and Engineering Corporation (METEC) is one of the institutions established by the Federal Democratic Republic of Ethiopia (FDRE) to enable the realization of the government's Growth and Transformation Plan (GTP) and to accelerate the ongoing transition of Ethiopia into industrialization and becoming a middle-income country. Since the establishment of METEC as a public enterprise by the Council Of Ministers regulation number 183/2002, METEC has been working tirelessly towards the realization of its vision, mission and objectives. Know a day metal and Engineering Corporation of Ethiopia METEC have changed its name Ethio-Engineering Group

It is responsible for the production of military equipment and civilian products. METEC was once responsible for constructing the $4 billion Grand Ethiopian Renaissance Dam project on the River Nile, expected to be Africa's biggest hydroelectric project, but was ousted from the contract in August 2018.Kinfe Dagnew, a Brigadier General in Ethiopia's army and former chief executive of METEC plays a significant role in the organization. The company was assigned development of Grand Ethiopian Renaissance Dam and sugar factory, as well as the Jinka Sugar Bag factory. On 12 November 2018, all assigned project canceled due to fail to complete, and government arrested Kinfe Dagnew, CEO of METEC,

Manufacturing industry in Ethiopia have been given due attention by the government with the target of increasing per capita specially industries like automotive and steel manufacturing is playing a great role by substituting imported products. Even if Bishoftu automotive manufacturing did not start manufacturing its own vehicles it will assemble different kind of vehicles and manufacture different kind of car parts.

METEC is comprised of 15 semi-autonomous, and integrated manufacturing companies that are operating in more than nine different sectors. In addition to supporting key stakeholders in the public sector, the METEC companies were established for developing their respective private sector value chains and accelerating the technological capacity of the country.

Most researches done in Ethiopia about project monitoring and evaluations tried to show how organizations practice monitoring and evaluations in projects, challenges faced during monitoring and evaluations and how confront challenges faced in the process and mechanisms to cope up with. Besides those issues this research uniquely focuses on result based management because Results-based management (RBM) is an approach that has been adopted by many international organizations so this research tries to assess how this fact fits within the Bishoftu automotive manufacturing industry.

1.2. Statement of the problem

Monitoring and Evaluation (M&E) is used as a means to learn from past practices, to improve planning, service supply and allocation of resources for government officials, development managers, the public and private sector and civil society and to reveal outcomes for stockholders (International Finance Corporation(IFC), 2008). Monitoring and evaluation helps an organization to extract useful information for reorientation and future planning from past and continuing activities and it is difficult to know the advancement and achievement of work without effective planning, monitoring and evaluation (UNDP, 2009).

Currently, in Ethiopia to bring concrete change in community livelihoods there is high demand for achieving development projects results and demonstrates effective M&E to maximize organizational performance and this leads for having actual project M & E practice in place for quality of performance in any organizational activities and sustainable improvement (Bido, 2014).

Manufacturing industries are one of the youngest sector in Ethiopia and in the other developing Countries. According to Industrial Statistical Report of CSA for the year 2014 indicates that FDRE Metals and Engineering Corporation puts in a leading position based on the size of their capacity; which incorporate different manufacturing firms to accomplish various government strategic plan.

1.3. Research Objective and/or Research questions

1.3.1. General Objective

The general objective of this research is to assess monitoring and evaluation practices of the projects under Bishoftu automotive manufacturing industry.

1.3.2. Specific Objective

- To explore what kind of monitoring approach is being exercised in Bishoftu automotive manufacturing industry.
- To know if the organization implements result based management in projects held by Bishoftu automotive manufacturing industry.
- To determine the challenges of conducting proper monitoring and evaluation in Bishoftu automotive manufacturing industry.

1.3.3. Basic Research Question

The study plans to answer the following basic research questions. These are;

- What are the current Monitoring and Evaluation practice metal and Engineering Corporation of Ethiopia of?

- Does the organization apply result-based management in metal and Engineering Corporation of Ethiopia?

- What are the main challenges of M&E in metal and Engineering Corporation of Ethiopia?

1.4. Significance of the Study

This study will provide a unique contribution to our understanding of monitoring and assessment processes, which should be useful to academics and researchers as well as scholars. The research helps the company in gathering knowledge about its monitoring and evaluation procedures, identifying any gaps or difficulties they may be encountering, and formulating corrective actions to address and enhance these issues. The study may be take on by any government to plan and formulate its project policies to improve the overall performance and the result of study will assist the enterprise to recognize the significance of monitoring and evaluation of Government funded projects. This study can be helpful for the enterprise to upgrade monitoring and evaluation in practice and delivered to individual projects with the purpose of improving monitoring and evaluation already implemented, with the purpose of refining performance and the accountability in terms of resources and the direction and whether projects are within track. Further the enterprise may use this study as a strategic change for identify, select, professionally develop, evaluate, and monitor its project by generating meaningful discussions at the right levels of the company.

1.5. Scope of the Study

This study is descriptive and it studies assessment of monitoring and evaluation practices in the case of metal and Engineering Corporation of Ethiopia (METEC). The company's staffs who participate on the Metal and engineering project related activities, planning, M&E, and contract administration metal and engineering project management members are the focus of this study. Thus, the study is mainly comprises concerned bodies from the METEC head office which is found in BIshoftu since the monitoring and evaluation responsibility is solely the duty of these parties. In relation to study variables, the research basically focused on assessing the monitoring and evaluation practice of metal and Engineering Corporation of Ethiopia (METEC) project performance specifically Bishoftu automotive manufacturing industry.

1.6. Limitation of the Study

To done the research suitably the researcher may faces some challenges. These are firstly to study deeply time management may restrain on gathering further information and in analyzing and giving conclusive decision at the right time, the commitment of the employees to fill the questionnaires successfully and also return the questionnaires to the researcher, the researchers knowledge gap on research, constraints of budget, constraints of to obtaining prosperous information and documents relevant to the study and the industry found in Bishoftu it may not be easy for transportation.

1.7. Operational Definition of Key Terms

For the purpose of this study, the following terms are defined depending on the definitions given by UNDP (2009) and (IFRC, 2011).

- Evaluation= is finished or uncompleted activities independent assessment to decide either whether they are achieving the intended objective and contributing to decision making. • Monitoring= is a continuing process towards achieving their goals and objectives by which stakeholders obtain consistent response on the growth being made.

- Project= is finished by a specific time, within budget, and according to specification and is unique, complex, and linked activities that have one goal or purpose

- RBM = is a method used based on visibly defined results to measure methodologies and tools used to achieve project management.

1.8. Organization of the research paper

This research paper is organized into five chapters. The first chapter deals with background of the study, statement of the problem, objectives of the study, research questions to be addressed, and significance, scope and limitations of the study. The second chapter presents review of conceptual as well as empirical literatures relevant to objectives of the study. Whereas, chapter three distinctively deals with the research methodology implemented, chapter four presents findings and discussion. Finally, chapter five presents conclusion and recommendations.

Chapter Two

Review of Related Literature

2.1. Theoretical Review

2.1.1. Mechanical Projects

This chapter elaborates reviewing of previous research findings. This chapter comprises of the concept of theoretical review of Project Monitoring and Evaluation, Monitoring and Evaluation Practice, Monitoring and Evaluation system, Monitoring and Evaluation project/ Program Cycle Management, Monitoring and Evaluation Framework and Indicator, Monitoring and Evaluation Practice/Process Challenges and Concept of Result based management. Finally, it deals with empirical review and conceptual frameworks of the study.

Industry in the mechanical engineering and automotive industry has its own specific product development process – but complex project management is common to all of them. Companies often have to manage globally distributed teams of development specialists. Product Development – High Demands on the PM Environment. In addition to project management, quality management is a critical issue in product development. Concepts such as Advanced Product Quality Planning (APQP)

The document released by the MoFED (2008) noted that project monitoring and evaluation are closely interrelated and tend to be used as a particular phrase and they are synergistic and crucial project management tools.

Monitoring and evaluation helps an organization to extract useful information for reorientation and future planning from past and continuing activities and it is difficult to know the advancement and achievement of work without effective planning, monitoring and evaluation (UNDP, 2009)

According to PMI (2013), the success of a project should be measured in terms of completing the project within its scope, in time, on budget, to the required quality, with the right amount of resources and also the constraint of risk as aggraded up on, between the project manager and senior managers. Project success should be referred to the last baselines approved by the authorized stakeholders.

In order for a project to be successful, the project team should Select appropriate processes required to meet the project objectives, Use a defined approach that can be adapted to meet requirements, Establish and maintain appropriate communication and engagement with stakeholders, Comply with requirements to meet stakeholder needs and expectations, and Balance the competing constraints of scope, schedule, budget, quality, resources, and risk to produce the specified product, service, or result (PMI, 2013).

Mostly monitoring and evaluation terms have their own differences even they are used interchangeably to indicate they are complementary processes. As IFRC (2011), Monitoring and Evaluation is the basis for project functioning, reorientation and future planning and enables an organization to have important information from the past experience and existing continuous activities. Without appropriate standardize project, programs and plans, resource allocations, good intentions, large programs and projects, and lots of financial resources are not enough to ensure that development results will be achieved (UNDP, 2009).

M&E improve quality of project interventions, enhance learning and strengthens project implementation. Project M&E is important to different people because for project managers and their stakeholders (including donors/government) it shows the extent of achieving the intended goals, for funders or development partners M & E maintains greater transparency 9 and accountability in the use of project resources. And for improving decision–making M&E process information developed is vital (Abalange, 2016).

2.2.1. Project Monitoring

Monitoring is a contentious gathering analyzing of information to go in line with the plan and helps to recognize progress, adjust strategies and advise decisions for project/program management (IFRC, 2011).

Monitoring can be defined as is a continuing process towards achieving their goals and objectives by which stakeholders obtain consistent response on the growth being made and Evaluation is finished or uncompleted activities independent assessment to decide either whether they are achieving the intended objective and contributing to decision making (UNDP, 2009).

Monitoring needs a regular observation of projects gathering project information regularly and on time and distribute to the project stakeholders in the project under focus (Mulwa&Nguluu, 2003).

Monitoring is generally tends to emphasis mainly on gathering information for program management of a continuing activities and process but evaluation emphases on outcomes and takes a broader and long term view of the entire program and is consist of less frequent programmatic reviews (Janus, 2016)

According to IFRC, 2011 project/program generally monitors a variety of things according to its specific informational needs and it classifies as follows.

- **Compliance monitoring:** it ensures agreement of regulation and laws of government and donors rules and predicted results, grant and contract requirements, and ethical standards (IFRC, 2011).

o **Process (activity) monitoring:** It examines how activities, process of practices, inputs and outputs are done efficiently in time and resources and it is usually conducted in mixture with compliance monitoring and feeds into the impacts of the evaluation. This type of monitoring is commonly used in most of the data collected during project implementation according to Odhiambo (2013).

o **Results monitoring:** It examines whether the project/program achieves the intended planned results (outputs, outcomes, impact) and if there is any unintended impact (positive or negative) and it is in combination with evaluation (IFRC, 2011). 10

o **Organizational monitoring:** It is usually done in mixture with the monitoring processes of the larger, implementing organization and is monitors organizational growth capacity building and sustainability in the project/program and with its partners (IFRC, 2011).

o Beneficiary monitoring: It includes project/program beneficiary satisfaction or complaints. It also called beneficiary contact monitoring (BCM) it often comprises a stakeholder complaints and feedback mechanism (IFRC, 2011).

o Financial monitoring: It is often conducted in combination with compliance and process monitoring and is about expenditures of inputs and activity (IFRC, 2011).

o Context (situation) monitoring: comprises the field as well as the larger political, funding, institutional, and policy context that influences the project/program (IFRC, 2011).

2.2.2. Project Evaluation

Project monitoring is finished or uncompleted activities independent assessment to decide either whether they are achieving the intended objective and contributing to decision making and to know whether achieving stated objectives and it must provide information that is trustworthy and valuable in the decision making process of both receivers and donors (UNDP, 2009).

On the other hand, evaluation refers to separate studies of overall evaluation judgments, importance of an intervention and it describes how is the existing things are to inform decisions and future investments and planning (Peersman, Rogers, Guijt, Hearn, Pasanen, & Buffardi, 2016).

Based on different criteria there are different types of evaluation. Based on the time, there are five main types of evaluation. (Odhiambo, F.O. 2013).

2.2.2.1. Types of Evaluation

Four types of evaluation are commonly distinguished based on periods of evaluation each presented below:

Midterm evaluations: it happens in the midway of the implementation and it is formative in purpose and is necessary For Secretariat-funded projects/ programs that run for longer than 24 months (IFRC, 2011). 11

Ex-post evaluations: it is conducted to assess long term influence and sustainability sometimes after implementation (IFRC, 2011). Summative evaluations: It conducted to assess effectiveness and impact after at the end of project/program implementation. May be according to specific assessment needs it may be conducted independent or external is not necessarily needs (Shapiro, 2004).

Final evaluations: are conducted to know whether it achieves the intended objectives at the end of project implementation (often externally) and are summative in purpose (IFRC, 2011).

2.2.2.2. Monitoring and Evaluation system

M&E of projects helps to collect the right data at the right time and for decision making process and it guide project implementations the demand for M&E systems increases from time to time and recognized as central management functions for organizations and monitoring and evaluation system permit the systematic and effective collection, analysis and use of M&E information for policies, practices and processes (Pasanen&Shaxson, 2016).

According to European commission civil society fund in Ethiopia (2017), a well-functioning M&E system able to integrate the more formal together with informal monitoring and communication.

Umhlaba Development Services, (2017), shows a good monitoring and evaluation system consists of four interlinked parts

1. Planning: deciding and plan for monitoring and evaluation system deciding how to collect and analyze this information and document a plan and identifying information to direct the project strategy, confirm effective operations and meet external reporting requirements (UDS, 2017).

2. Implementing: collecting and management information which comes from following outputs, outcomes and impacts are being attained and checking project operations in informal or formal approaches (UDS, 2017)

3. Participation: It requires the participation of stockholders to be analyzed and discussed critically once information has been collected. Similarly, this may happen in structured or unstructured ways (UDS, 2017) 12

4. Communication: The consequences of monitoring and evaluation need to be speaks to the people who need to and at the end the results develop the project strategy and operations from M&E both the communication processes and information (UDS, 2017).

2.2.2.3. Monitoring and Evaluation Practice

The best practices associated with monitoring and evaluations are the following:

Monitoring and Evaluation Plan: is essential part of monitoring and evaluation and the project must have M&E plan for clear identification of project objectives for which performance can be measured (Palestinian Academic Society for the Study of International Affairs [PASSIA], 2004 & McCoy,Ngari & Krumpe, 2005).

Coherent Framework: it should be support Monitoring and evaluation by identifying the logic behind project elements and performance measurement, how they are elated and the underlying assumptions. Logic Framework Approach (LFA) is best practices that have been adopted because of its structured approach and used as a tool to aid both the planning and the monitoring and evaluation functions during implementation (Aune, 2000 & FHI, 2004). Vann open (1994) as cited by Aune (2000) argues that the logic framework approach (LFA) enables planners to measure the criteria for success during planned stage and to think the project from the beginning in terms of measuring performance.

Monitoring and Evaluation budget: it should be clear and sufficient for monitoring and evaluation. Monitoring and evaluation budge is defined as the overall project budget which helps the monitoring and evaluation to give due recognition it plays in project management (McCoy et al., 2005). M&E budget should be 5% to 10% of the total budget according to many authors (Kelly &Magongo, 2004).

Schedule of Monitoring and Evaluation: to give due attention to the schedule of monitoring and evaluation, there should be activities of the monitoring and evaluation of the project included under the project schedule (Handmer&Dovers, 2007; & McCoy et al., 2005).

Stakeholder Involvement: there should be involvement of all stakeholders (beneficiaries, implementation staff, donors, wider communities) in the monitoring and evaluation process. Participatory approach to monitoring and evaluation is viewed as an empowerment tool or the beneficiaries and other stakeholders of project who in most cases are not consulted in this function. On

upward accountability there is a lot of emphasis it is also demonstration of downward accountability i.e. accountability to the beneficiaries (Aune, 2000).

Inputs: In order to produce the desired outputs, the different inputs of the project need to be monitored effectively. As identified by the log frame approach, the following are the recommended practices for monitoring each of the inputs. This includes: Financial Resources Project budget should be complied with financial resources which the project budget with the project activities having cost attached to them, with assessment of what has been spent on project activities with what must have been spent in the budget as per planed expenditure (Crawford & Bryce, 2003).

Human Resources There should be clear job apportionment of expertise and if there is skill gap the organization should give training and for projects with staff there is need for constant and intensive onsite support to the outfield staff that are sent out in the field to carry out project activities on their own (Reijeret,P.,Chalimba,M.&Nakwagala,A.A. 2002). Activities

There are activates which are very important for the practicality of monitoring and evaluation system these are described below.

Project schedule It is used to compare the planned schedule with the actual schedule to recognise if the project is within the or over the schedule and it supports processes or activities to be done on the project (Crawford & Bryce, 2003).

Outputs For monitoring outputs of the project, it is important to use a mix of both qualitative and quantitative indicators.

A) Quantitative indicators: are outputs that are quantify in terms of numbers, such as number of people reached, trainings carried out, materials distributed (Hughesd‟Aeth,2002).

B) Qualitative Indicators: it is outputs that are qualify and describe situations and give an in-depth understanding of issues by using methods like focus groups discussions, observation, and interviews. To the success of the development projects and to get 14 clear and in depth understanding both qualitative and quantitative methods are suggested for precise goals and outputs of evaluation (Hughes-d‟Aeth,2002)

C) Outcomes and goals: with both qualitative and quantitative data outcomes and goals are best evaluated and data gained from project should register and kept strongly not only until the end of the project and even longer (Muzinda, 2007).

Midterm and End of Project Evaluations: there is usually evaluation in the midterm and at end of project implementation and to determine the impact and the contribution of the project and to know if the project achieves its goal impact assessment should be scheduled after the project has ended (Gyorkos, 2002).

Capture and Documentation of Lessons: lessons gained from project implementation should be captured and documentation and should exposed to stakeholders with the implementing staffs (Reijeret et al., 2002).

Dissemination of Monitoring and Evaluation Findings: Monitoring and evaluation findings should be distributed to the stakeholder and to the implementing staffs and should include under the project plan (McCoy et. al., 2005).

2.2.2.4. M&E and the project/ Program Cycle Management

According to IFRC (2011), the common Stages and crucial activities in Project/program Planning, Monitoring, Evaluation and Reporting (PMER) provided here.

Log frame and indicators: This involves the project/program objectives, indicators, means of verification, assumptions and the operational design.

M&E planning: This is a plan to monitor and evaluate log frame's objectives and indicators in the project/program.

Baseline study: This happens before the beginning of the project/program to measure the first conditions (appropriate indicators).

Midterm evaluation and/or reviews: These are significant reflection events to assess and notify on-going project/program implementation.

Final evaluation: This take places after the project/program ended to know if it is achieved its intended objectives and what difference this has made after the completion.

Dissemination and use of lessons: lessons should capture in the project/program and reporting, reflection and learning should occur throughout the whole project/program cycle and should disseminate. According to Patrick Gudda cited by Habitamu (2017), the following project M&E process mechanisms & tool are required for most of project management cycle works:

Initial Needs Assessment: during project initiation process initial need assessment is necessary through: situational analysis and SWOT Analysis Context monitoring & evaluation; Cost/Benefit Analysis, positioning matrix Analysis and baseline assessment assessed through technical/financial

evaluation, Mid-term/process monitoring & evaluation; during project implementation; assessed through: Project work breakdown structure (WBS), Gantt chart, milestone chart, network diagrams (PERT, CPA) and Earned Value Management.

Real Time Evaluation (RTEs): evaluation is taken place during emergency desires mostly on distressed projects by using root cause assessment, Meta evaluation and sunk cost technique. at the end of the a project; Summative Evaluation is taken place through project work breakdown structure (WBS) and earned value management.

2.3. An Empirical literature Review

Hidaya (2011) in his research claims that mechanical projects need expert management since they are complex and subject to a variety of obstacles and restrictions, including financial limitations, time constraints and material limitations, Multiple tasks are carried out concurrently in mechanical projects, yet they are all still connected and integrated. To manage and regulate these actions, we thus need to follow up thoroughly and effectively. We also need to collaborate.

The research carried out by Abebe (2015) made clear the significance of planning, monitoring, and controlling projects in mechanical projects. This research also emphasized how important it is to assess progress reports and provide feedback on the outcomes of that assessment. The monitoring and assessment of a mechanical project cannot be limited to only project cost. time and quality monitoring.

2.3. Conceptual framework of the Study

Based on different literatures reviews, the researcher developed the conceptual framework shown on the diagram below. Monitoring and evaluation system contains input activities, process and outputs which are clearly stated in the figure below. It is the sum total of all those interrelated activities.

M&E system of the firm starts with collecting data on the income of the project, expense of the project and problems encountered during the implementation of the project. The total quantity of work executed multiplied by the rate of that specific work item provides with the income of the project. Project schedule & milestones, Projects duration agreement and project's financial report are also going to be collected. Expense of the project includes direct material cost, direct labor cost, direct equipment costs for the work item executed. It also includes cost and office overhead costs of the project too. All the above data is collected on a weekly basis. The evaluation part will be conducted at a weekly meeting that is held at the head office of the company. The existence of resources wastage, schedule deviation, project cost variation (material, labor and equipment costs variation),

Comparison of planned VS actual work performed and project status regarding time, project cost, project scope and expected standard quality are also issues that are going to be discussed during the process. Details of the calculation of quantity of work executed is also part of the weekly report of projects. After all the analysis is completed, physical progress report, project financial status report, current project status details regarding time, cost and scope, report on material usage, report on quality of work performed are all the outputs of the system.

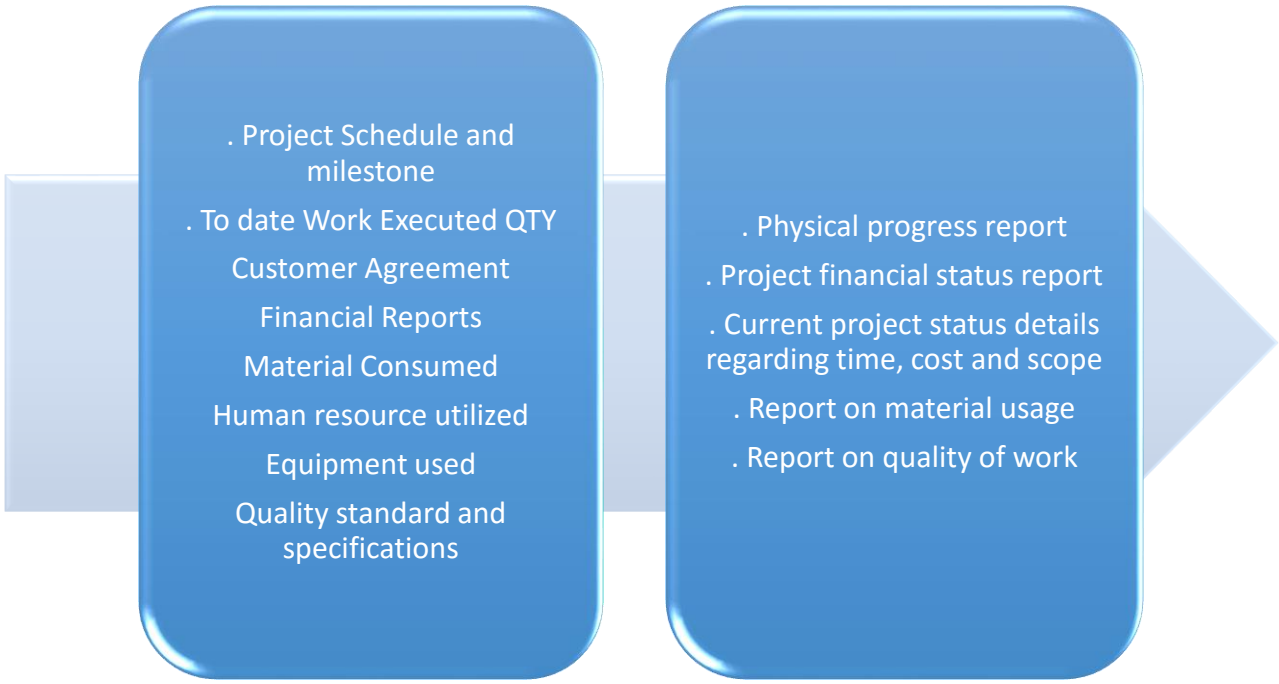

Figure 2.1: Conceptual framework, source: developed by the researcher

Chapter Three

Research Methodology

3.1. Research Design

This chapter describes the methodologies employed in this thesis. The components of this include the study design, the population and sampling, the data gathering tool, the data collection process, the data analysis, and ethical issues.

Descriptive research designs were used to conduct this research. Descriptive research is usually designed to collect data that describe characteristics of objects (such as persons, organizations, products, or brands), events, or situations. The study was employed survey strategy which is popular in business research because it permits the researcher to gather quantitative and qualitative data on various types of research questions. Indeed, in descriptive research surveys were commonly used to collect data about people, events, or situations. According to Cresswell (2003) descriptive study design allows a researcher to gather information, summarize, present data and interpret it for the purpose of clarification.

The approach of this research was mixed methods approach of quantitative and qualitative because it brings a better understanding of the project and evaluation practices in METEC than using single method approach.

3.1.1. Population and Sampling

3.1.1.1. Target Population

As I mentioned earlier metal and Engineering Corporation of Ethiopia (METEC) have changed his name to Ethio-Engineering Group and from different industries that are found in this large and national level organization I have selected Bishoftu Automotive manufacturing industry.

Bishoftu Automotive Engineering Industry is an Ethiopian manufacturing and assembly center for heavy armament, tanks and military vehicles. It is one of the organizations of the Ethiopian Defense Industry supporting the Ethiopian National Defense Force. Not only military vehicles but also city bus, pickups and different heavy and small duty cars.

The total employee of this industry is 1252 and 752 is directly interact with monitoring and evaluation who is found in different staff such as Top management, supply chain management, finance office, sales, light and heavy duty track work shop, Body and frame workshop and center of training office.

3.1.1.2. Sampling Techniques

According to Williams (1997) it needs to select part of the elements from the population under consideration to make the research more manageable.

A judgmental / purposive sampling technique was applied to select samples from the target populations based on the criteria of the person's knowledge of monitoring & evaluation, experience and background of project management. Because purposive sampling enables to gain the needed information by limit to specific kinds of people because either they are the single ones who have it, or they obey to some criteria set by the researcher Uma, S. & Roger B., (2016).

3.1.1.3. Sample Size Determination

The total target populations of the research were 752. The researcher used a sample calculating formula from the total population based on Yamane (1967) formula. Yamane's formula is applicable for determining sample size if the population is known and if the population is finite. Based on this reason researcher employed this scientific formula for determining sample size out of 752 total populations.

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

$$n = \frac{752}{1+(752*0.1^2)} = 93$$

Where:

n= corrected sample size,

N = population size, and

e = Margin of error (MoE), e = 0.1

Therefore, the total sample size was 93 based on the calculation and desired accuracy with Confidence Level of 90%.

3.1.2. Types, Sources and Methods of Data Collection

3.1.2.1. Data Sources and Types

For this study, primary and secondary data was the main source of data. Primary data was collected from a sample of organization staffs who participate on the project related activities planning, M&E, Quality and control Management and top management members of the Bishoftu Automotive manufacturing industry through closed ended questionnaires and semi structured interview and the secondary data was documents, articles, and related literatures.

3.1.2.2. Data Collection Instruments

In this study both qualitative and quantitative data collection methods was used.
A structured questionnaire was employed in the quantitative data collection instrument and it has three parts. Socio-demographic characteristics such as sex, age, work experience, and academic qualification of participants is the first part of the questionnaire. The second part is Monitoring and Evaluation (M&E) system (practice). The third part is Monitoring and Evaluation (M&E) project/program cycle management. These two instruments presented below. For this research the questionnaire used is adapted from Muluken T., (2017).

Monitoring and Evaluation (M&E) practice

11 item scale measuring Monitoring and Evaluation (M&E) system (practice). The instrument uses a 5-point Likert scale which is 1 for Strongly Disagree, 2 for Disagree, 3 for Neutral, 4 for Agree, and 5 for Strongly Agree. For the total 11 items, the Cronbach alpha for the total score was 0.82.
Examples of items from the instrument comprises

(a) The monitoring and evaluation system contributes to achieve the project objective.

(b) Bishoftu Automotive manufacturing industry has a written monitoring and evaluation plan that guides project execution for every project.

(c) Bishoftu Automotive manufacturing industry has allocate enough time and set schedule for monitoring and evaluation.

(d) Frequency of data collection (M&E) indicated in the plan.

(f) Disseminating or reporting the M&E findings.

Monitoring and Evaluation (M&E) project/program cycle management

Monitoring and Evaluation (M&E) project/program cycle management had 15 questions The instrument uses a 5-point Likert scale which is 1 for Strongly Disagree, 2 for Disagree, 3 for Neutral, 4 for Agree, and 5 for Strongly Agree. The Cronbach alpha for the total score was .0.76

Area of project monitoring contains 2 items, Method (tools) of monitoring and evaluation contains 5 items, Monitoring and evaluation for project success contains 1 item and Monitoring and evaluation challenge contains 10 items. Cronbach alpha for Area of monitoring and evaluation, .0.89; and Evaluation technical challenge, 0.68; for Method of Monitoring and Evaluation bureaucratic challenge and, 0.78; for Method of Monitoring and Evaluation political challenge 0.82.

Also Qualitative methods of data collection used by interviewing Bishoftu Automotive Manufacturing industry top management and core process group.

3.1.3. Reliability and Validity Testing

The instrument's consistency is a sign of its dependability in selecting the necessary data. I checked the validity and reliability of the data using the Statistical Package for Social Science (SPSS), and I found that every response was, in some way, reliable and valid (Cronbach alpha). A Cronbach alpha analyzed data in which is:

$0.9 \leq \alpha \leq 1.0$ Excellent
$0.8 \leq \alpha \leq 0.9$ Good
$0.7 \leq \alpha \leq 0.8$ Acceptable
$0.6 \leq \alpha \leq 0.7$ Questionable
$0.5 \leq \alpha \leq 0.6$ Poor
$0.0 \leq \alpha \leq 0.5$ Unacceptable

Table 1. Reliability spss Testing Result

Questions related to	No. of items in the original subscale	Cronbach Value of alpha	Internal consistency
M&E practice.	11	0.89	Good
Project cycle management/mechanism	15	0.82	Good
M and E Technical	5	0.78	Acceptable

challenge			
M and E Bureaucratic	3	0.78	Good
M and E Political challenge.	2	0.82	Good

3.1.4. Procedures of Data Collection

The researcher first got a letter from St. Mary's University school of Graduate Studies and then went to the selected organization Bishoftu automotive manufacturing industry. Further, after due permission, the researcher made communication with the respondents and give detail about the objectives of the study to them. The researcher guaranteed respondents that the information provided by them would be kept confidential. Then, the researcher distributed the questionnaire after getting informed consent.

Besides, as far as the explanation exists in the questionnaire, the researcher described the necessary guides. And the researcher also leaves phone number for respondents if they have any question. Finally, the researcher collected the distributed questionnaire from respondents and in a moment of time, the researcher were checked the questionnaire to see if all the items were answered properly or not.

3.1.5. Methods of Data Analysis

3.1.5.1. Data Analysis Techniques

Statistical Package for Social Science (SPSS) is used to analyses the survey results and descriptive statistic like mean, percentage, standard deviation, frequency was used to calculate summations, averages and percentages of the data.

For the analysis of qualitative data, grouping similar kinds of information together in categories, relating different ideas and themes to one another and coding techniques for finding and marking the underlying ideas in the data is used (Rubin and Rubin, 1995). Therefore based on this the researcher analyzed the qualitative data collected through interview.

3.2. Ethical Consideration

During the research process the researcher was kept ethical considerations of confidentiality and privacy. Their names were not exposed in the questionnaire and the research report it is assured by written guarantee. A verbal and written description of the study was given to the participants, and informed consent was got before the survey. Participants are participated in this study voluntarily and also the researcher assured for the respondents that their response will kept confidentially and only be used for the purpose of this study.

Chapter Four

Results and Discussion

4.1. Results

This chapter is about data presentation and discussion of the research findings. It presents the results of demographic characteristics of respondents, Monitoring and Evaluation practices, challenges, project cycle management and result based management. Finally, it deals with the discussion of the research findings with previous research studies.

Major findings of the study are there is medium level of monitoring and evaluation practice in the industry. Bishoftu Automotive manufacturing industry does implement monitoring and evaluation and project cycle management as tool of M&E and result based management. But it shows that there is a low level of implementation all monitoring and evaluation tools.

4.1.1. Response Rates

From 90 sample respondents 3 were interviewed and closed ended questionnaires were distributed for 93 respondents. Almost all respondents were filled the questionnaire and respond correctly. That means 93 (100%) of the respondent were correctly filled and returned.

Table 2: response rate of the respondent

Respondent	Number	percent
Correctly responded	93	100%
Total	Total 93	100%

4.1.2. General information about the Respondents

The respondents of the study have diverse demographic characteristics. The demographic information of the participants is the first part of the survey questionnaire. This part involves the use of a variety of statistical procedures including basic descriptive statistics (e.g. tables and percentages) and includes information such as sex, age, academic qualification, job position and work experience. The survey was conducted on a total of 93 top managements and employees.

Table 3: Demographic profiles of the respondents

Variables	Category	No. of respondent	Percent (%)
Sex	Male	73	78%
	Female	20	22%
	Total	93	100.0%
Age	21-30	52	56%
	31-40	30	32.2%
	41-55	11	11.8%
	Total	93	100.0%
Marital status	Married	47	50.5%
	Single	46	49.5%
	Divorce	0	0
	Total	93	100.0%
Qualification	PhD	0	0
	Masters	3	3.2%
	BA/BSc	78	83.8%
	Diploma	12	13%
	Total	93	100.0%
Position	Top level management	3	3.2%
	Middle level management	7	7.5%
		20	21.5%
	Coordinator/officer	63	67.8%

	Expert		
Experience	0-5 6-10 11-15 >15	42 28 15 8	45.1% 30.1% 16.1% 8.7%
	Total	93	100.0%

Source: Survey Data

From Table 3 above, the majority of the employees are male (73)78% while female are represented by (20)22%. This shows both in the management level and non-management positions the number of female employees is by far less than male employees. The majority of respondents 56% are within the age group of 21-30 years followed by those in the age group of 31-40 years at 32.2% and follow by 41-55 years at 11.8% only. This may shows the majority of the employees are matured.

And from all participant (3.2%) have master's degree and 83.8% have a first degree followed by 13% diploma and this might indicate the enterprise are good in recruiting employees who have knowledge to execute activities with the Industry.

The survey result shows that the highest number takes experts and mechanics (67.8%) followed by 21.5% coordinator/officers, 7.5% middle management and the least 3.2% was top level management. It point out experts and mechanics employees greater proportion of the organization and greater numbers of employees are experts.

The study discovered that respondents who work with the service between 0- years are 45.1%, 30.1% had worked between 6-10 years 16.1% had worked 11-15 years, 8.7% had worked 15 years and above. It indicates the enterprise has experienced employees and good enough to handle and make employees last for many years.

4.1.3. Monitoring and Evaluation Practice

M & E practices is part of design programs and ensures that there is logical reporting; the process that demonstrates accountability and interconnects results, it calculates efficiency and effectiveness, assures effective resource distribution and stimulates learning that is continuous along with enhancing better decision making IFAD (2008).

In relation with the actual practice of monitoring and evaluation at Project, the respondents were asked kindly to indicate their levels of agreement on several parameters of the kinds of monitoring & evaluation practiced in the Bishoftu automotive manufacturing industry.

The responses were stretched from 1 for Strongly Disagree, 2 for Disagree, 3 for Neutral, 4 for Agree, and 5 for Strongly Agree. As shown in Table 4 the Frequency, Mean, mode, standard deviation and percentage were used to analyze the study data. According to the researchers assumption the mean value interpretation is that above three= agree, 3= neutral and below three= disagree.

Table 4: Practice of monitoring and evaluation

No.	Items	Rating scales					Mode	Mean scored	St. deviation
		Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**			
1.	The monitoring and evaluation system contributes to achieve the project	**8(8.6%)**	**0**	**14(15.1%)**	**39(41.9%)**	**32 (34.4%)**	**4**	**3.93**	**1.130664**
2.	The scope and purpose of the monitoring and evaluation system is clear.	**16(17.2%)**	**8(8.6%)**	**11(11.8%)**	**37(39.8%)**	**21(22.6%)**	**4**	**3.41**	**1.385661**
3.	METEC has a written monitoring and evaluation plan that guides project execution for every project	**8(8.6%)**	**22(23.7%)**	**26(28.0%)**	**31(33.3%)**	**6(6.5%)**	**4**	**3.05**	**1.087134**
4.	Adequate budgets are assigned for monitoring and evaluation	**27(29.0%)**	**0**	**25(26.9%)**	**29(31.2%)**	**12(12.9%)**	**4**	**2.98**	**1.41801**
5.	METEC has allocate enough time and set	**0**	**29(31.2%)**	**46(49.5%)**	**12(12.9%)**	**6(6.5%)**	**3**	**2.94**	**0.838809**

	schedule for monitoring and evaluation								
6.	Project stakeholders clearly identified in the plan.	**21(22.6%)**	**0**	**14(15.1%)**	**43(46.2%)**	**15(16.1%)**	**4**	**3.33**	**1.385745**
7.	Frequency of data collection (M&E) indicated in the plan.	**19(20. 4%)**	**8(8.6%)**	**34(36.6%)**	**32(34.4%)**	**0**	**3**	**2.84**	**1.112637**
8.	An enterprise exercise an activity implementation compared to schedule quantitative and qualitative outputs. Outcome and goals achieved.	**8(8.6%)**	**16(17.2%)**	**36(38.7%)**	**12(12.9%)**	**21(22.6%)**	**3**	**3.23**	**1.228271**
9.	Disseminating or reporting the M&E findings	**8(8.6%)**	**5(5.4%)**	**6(6.5%)**	**68(73.1%)**	**6(6.5%)**	**4**	**3.63**	**0.99766**
10.	Capturing and documenting the lessons learned	**5(5.4%)**	**25(26.9%)**	**31(33.3%)**	**20(21.5%)**	**12(12.9%)**	**3**	**3.09**	**1.10399**
11.	Creating a knowledge repository implemented by the enterprise.	**14(15.1%)**	**16(17.2%)**	**23(24.7%)**	**31(33.3%)**	**9(9.7%)**	**4**	**3.05**	**1.227985**
Aggregate mean		μ=3.22							

Source: Survey Data

As shown table 4 question no. 1 respondents were questioned the monitoring and evaluation system contributes to achieve the project and the majority of respondents 39(41.9%) agreed plus 32(34.4%) strongly agreed and 14(15.1%) kept neutral and the remaining 8(8.6%) strongly disagreed with the statement. Most of respondents agreed on the issues and the mean value 3.93 and the mode value 4 also ensure that. For the achievement of the projects monitoring and evaluation has a big role.

As shown table 4 question no. 2 in the above indicates, respondents were questioned if the scope and purpose of monitoring and evaluation is clear and the majority of respondents 37(39.8%) agreed plus 21(22.6%) strongly agreed and 11(11.8%) kept neutral and the remaining 8(8.6%) disagreed plus 16(17.2%) with the statement. Most of respondents agreed on the issues and the mean value 3.41 and the mode value 4 also ensure that the concern of scope and purpose of monitoring and evaluation is somehow clear but still questionable 24 employee still question is there a clear monitoring and evaluation system.

As shown table 4 question no. 3 respondents were questioned Bishoftu automotive manufacturing industry has a written monitoring and evaluation plan that guides project execution for every project and the majority of respondents 31(33.3%) agreed plus 6(6.5%) strongly agreed and 26(28.0%) kept neutral and the remaining 22(23.7%) disagreed plus 8(8.6%) with the statement. Most of respondents agreed on the issues and the mean value 3.05 and the mode value 4 also ensure that Bishoftu automotive manufacturing industry has a written monitoring and evaluation plan that guides project execution for every project still 30 respondents disagreed this indicate the plan for monitoring and evaluation is still questionable.

As shown table 4 question no. 4 respondents asked that Adequate budgets are assigned for monitoring and evaluation majority of respondents 29(31.2%) agreed plus 12(12.9%) strongly agreed and 25(26/9%) kept neutral and the remaining 27(29.0%) strongly disagreed with the statement. Most of respondents agreed on the issues and the mean value 2.98 and the mode value 4 also ensure that Bishoftu automotive manufacturing industry have adequate budget for monitoring and evaluation but there is also 25 people kept neutral which is some of the employees agreed by budget sufficiency and other kept neutral.

As shown table 4 question no. 5 respondents asked that Bishoftu automotive manufacturing industry has allocate enough time and set schedule for monitoring and evaluation. Majority of the respondent kept neutral 46(49.5%) and 12(12.9%) agreed plus strongly agreed 6(6.5%) and the remaining 29(31.2%) strongly disagreed with the statement. Most of respondents kept neutral on the issues and the mean value 2.94 and the mode value 3 also ensure that Bishoftu automotive manufacturing industry has allocate enough time and set schedule for monitoring and evaluation.

As shown table 4 question no. 6 respondents asked that Project stakeholders clearly identified in the plan majority of respondents 43(46.2%) agreed plus 15(16.1%) strongly agreed and 14(15.1%) kept neutral and the remaining 21(22.6%) disagreed with the statement. Most of respondents agreed on the issues and the mean value 3.33 and the mode value 4 also ensure that Project stakeholders is identified in the plan

As shown table 4 question no. 7 respondents were questioned Frequency of data collection for monitoring and evaluation indicated in the plan Majority of the respondent kept neutral 34(36.6%) and 32(34.4%) agreed and the remaining 8(8.6%) disagreed plus 19(20.4%)strongly disagreed with the statement. Most of respondents kept neutral on the issues and the mean value 2.84 and the mode value 3 also ensure that most employs kept neutral on the Frequency of data collection for monitoring and evaluation. This shows there is a neutral agreement on Frequency of data collection for monitoring and evaluation.

As shown table 4 question no. 8 respondents were questioned An industry exercise on an activity implementation compared to schedule quantitative and qualitative outputs. Outcome and goals achieved. Majority of the respondent kept neutral 36(38.7%) and 12(12.9%) agreed plus 21(22.6%) strongly agreed and the remaining 16(17.2%) disagreed plus 8(8.6%) strongly disagreed with the statement. Most of respondents kept neutral on the issues and the mean value 3.23 and the mode value 3 also ensure that most employs kept neutral on the activity implementation compared to schedule quantitative and qualitative outputs. Outcome and goals achieved. This shows there is not a neutral acceptance for activity implementation compared to schedule quantitative and qualitative outputs. Outcome and goals achieved

As shown table 4 question no. 9 respondents were questioned Disseminating or reporting the M&E findings majority of respondents 68(73.1%) agreed plus 6(6.5%) strongly agreed and 6(6.5%) kept neutral and the remaining 5(5.4%) disagreed plus 8(8.6%)strongly disagreed with the statement. Most of respondents agreed on the issues and the mean value 3.63 and the mode value 4 also ensure that Disseminating or reporting the M&E findings is reported when its necessary.

As shown table 4 question no. 10 respondents were questioned Capturing and documenting the lessons learned Majority of the respondent kept neutral 31(33.3%) and 20(21.5%) agreed plus .12(12.9%) strongly agreed and the remaining 25(26.9%) disagreed plus 5(5.4%) strongly disagreed with the statement. Most of respondents kept neutral on the issues and the mean value 3.09 and the mode value 3 also ensure that Capturing and documenting the lessons learned is responded neutrally.

As shown table 4 question no. 10 respondents were questioned creating a knowledge repository implemented by the industry majority of respondents 31(33.3%) agreed plus 9(9.7%) strongly agreed and

23(24.7%) kept neutral and the remaining 16(17.2%) disagreed plus 14(15.1%)strongly disagreed with the statement. Most of respondents agreed on the issues and the mean value 3.05 and the mode value 4 also ensure that creating a knowledge repository implemented by the industry.

Data Analysis B

According to interview results Projects Plan, Monitoring and Evaluation in Bishoftu automotive manufacturing industry presented below:

Project Plan

Project offices prepare project plan based on the project life time based on an excel work sheet provided by the GOV office nationwide.

Detailed annual budget (Fiscal year, Hamle 1- Sene 30) project physical works, time (month), and budget (monthly) will be filled in the format with (%) indicators for each physical work breakdowns for each month including the finance requirement over the project life.

Finally it will be approved by the stakeholders. This kind of approach is not effective because all the plans descend from the higher government staffs which may not have clear image about the industry

Project Monitoring

The project monitoring is conducted by the project office, all the monthly detailed physical works accomplished will be recorded and financial expenditures will also be collected. The outcome will be checked against the project plan and the excel worksheet automatically indicates the performance in %, and then differences will indicated to identify the reasons occurred during project implementation. If there are differences, the project office will identify the reasons for not meeting the planned target of physical works and financial plan and will include in the monthly report which is officially reported to the top management, executive board of directors and a newly assigned Ethio-engineering group head management.

If there is a major delay in the project performance evaluation will be conducted immediately by the project office and Department heads at the presence of the top management where directives will be given for correction.

Project Evaluation

The evaluations of projects are conducted every 3 months, based on the 3 months cumulative average performance of the project reported by Bishoftu automotive manufacturing industry. All stake holders will discuss the relevant issues related to the underperformance of the project and give instruction to compensate for the delays if occurred and financial deficit if it over budget.

4.1.4. Monitoring and Evaluation and Project Cycle Management

In describing the level of Project Monitoring & Evaluation and project cycle management at Bishoftu automotive manufacturing industry the respondents were asked to indicate their levels of agreement. The responses were stretched from 1 for Strongly Disagree, 2 for Disagree, 3 for Neutral, 4 for Agree, and 5 for Strongly Agree. As shown in Table 5 the Frequency, Mean, mode, standard deviation and percentage were used to analyze the study data. According to the researchers assumption the mean value interpretation is that above three= agree, 3= neutral and below three= disagree.

Table 5: Monitoring and Evaluation and project Cycle Management

No.	Items	Rating scales					Mode	Mean scored	St. deviation
		Strongly Disagree	Disagree	Neutral	Agree	Strongly agree			
1.	Situation (context) analysis for the need assessment process of the project	**11(11.8%)**	**19(20.4%)**	**21(22.6%)**	**36(38.7%)**	**6 (6.5%)**	**4**	**3.07**	**1.153789**
2.	Cost – Benefit analysis (CBA) to evaluate the project performance from contractor profit perspective	**0**	**15(16.1%)**	**21(22.6%)**	**45(48.4%)**	**12(12.9%)**	**4**	**3.58**	**0.912743**
3.	Process (activity) monitoring (day to day supervision) to track the progress of the project during implementation	**0**	**7(7.5%)**	**19(20.4%)**	**61(65.6%)**	**6(6.5%)**	**4**	**3.70**	**0.700631**

4.	Milestone trend charts and phase evaluation to determine the project performance or to validate semi deliveries, Process	**6(6.5%)**	**25(26.9%)**	**26(28%)**	**26(28%)**	**10(10.8%)**	**4**	**3.09**	**1.113792**
5.	The Logical framework of RBM approach application to monitoring and evaluation process.	**0**	**25(26.9%)**	**22(23.7%)**	**40(43.0%)**	**6(6.5%)**	**4**	**3.29**	**0.939249**
6.	Is there logical framework approach (log frame) in its project planning stages so as to help M&E activities accordingly?	**0**	**26(28%)**	**32(34.4%)**	**18(19.4%)**	**17(18.3%)**	**3**	**3.27**	**1.06695**
7.	Baseline data is collected prior to the start of project operation.	**0**	**16(17.2%)**	**33(35.5%)**	**35(37. 6%)**	**9(9.7%)**	**4**	**3.39**	**0.886368**
8.	For your M&E plans there are indicators that are clearly linked to the objectives of The program/projec t.	**19(20.4%)**	**14(15.1%)**	**16(17.2%)**	**33(35.5%)**	**11(11.8%)**	**4**	**3.03**	**1.07691**

9.	There are implementation indicators set for (Inputs, Activities and outputs).	**7(7.5%)**	**23(24.7%)**	**15(16.1%)**	**32(34.4%)**	**6(6.5%)**	**4**	**3.29**	**1.229887**
10.	There are separate indicators for outcome and impact	**0**	**18(19.4%)**	**33(35.5%)**	**19(20.4%)**	**23(24.7%)**	**3**	**3.50**	**1.069576**
11.	Ex-ante evaluation (at the beginning of the project).	**9(9.7%)**	**13(14.0%)**	**37(39.8%)**	**31(33.3%)**	**3(3.2%)**	**3**	**3.06**	**0.997894**
12.	Mid-term(interim) evaluation	**0**	**14(15.1%)**	**33(35.5%)**	**23(24.7%)**	**23(24.7%)**	**3**	**3.59**	**1.024022**
13.	Summative evaluation (at the end of the project).	**0**	**11(11.8%)**	**39(41.9%)**	**30(32.3%)**	**13(14.0%)**	**3**	**3.48**	**0.879883**
14.	Ex-post evaluation (after the end of the project).	**0**	**17(18.3%)**	**51(54.8%)**	**22(23.7%)**	**3(3.2%)**	**3**	**3.11**	**0.734987**
15.	Impact evaluation	**11(11.8%)**	**0**	**31(33.3%)**	**26(28.0%)**	**25(26.9%)**	**3**	**3.58**	**1.227604**
Aggregate mean		μ=3.33							

Source: Survey Data

As shown table 5 question no. 1 respondents were questioned the Situation (context) analysis for the need assessment process of the project and the majority of respondents 36(38.7%) agreed plus 6(6.5%) strongly agreed and 21(22.6%) kept neutral and the remaining 19(20.4%) disagreed plus 11(11.8%) strongly disagreed with the statement. Most of respondents agreed on the issues and the mean

value 3.07 and the mode value 4 also ensure that there is a Situation (context) analysis for the need assessment process of the project.

As shown table 5 question no. 2 respondents were questioned the Cost – Benefit analysis (CBA) to evaluate the project performance from contractor profit perspective and the majority of respondents 45(48.4%) agreed plus 12(12.9%) strongly agreed and 21(22.6%) kept neutral and the remaining 15(16.1%) disagreed with the statement. Most of respondents agreed on the issues and the mean value 3.58 and the mode value 4 also ensure that there is a Cost – Benefit analysis (CBA) to evaluate the project performance from contractor profit perspective

As shown table 5 question no. 3 respondents were questioned the Process (activity) monitoring (day to day supervision) to track the progress of the project during implementation and the majority of respondents 61(65.6%) agreed plus 6(6.5%) strongly agreed and 19(20.4%) kept neutral and the remaining 7(7.5%) disagreed with the statement. Most of respondents agreed on the issues and the mean value 3.70 and the mode value 4 also ensure that there is a Process (activity) monitoring (day to day supervision) to track the progress of the project during implementation

As shown table 5 question no. 4 respondents were questioned the Milestone trend charts and phase evaluation to determine the project performance or to validate semi deliveries, Process and the majority of respondents 26(28%) agreed and kept neutral on this specific question plus 10(10,8%) strongly agreed and the remaining 25(26.9%) disagreed plus 6(6.5%) strongly disagreed with the statement. Most of respondents agreed and kept neutral on the issues and the mean value 3.09 and the mode value 4 also ensure that there is a uncertain approach on the Milestone trend charts and phase evaluation to determine the project performance or to validate semi deliveries, Process.

As shown table 5 question no. 5 respondents were questioned the The Logical framework of RBM approach application to monitoring and evaluation process. and the majority of the respondents 40(43.0%) agreed plus 6(6.5%) strongly agreed and 22(23.7%) kept neutral and the remaining 25(26.9%) disagreed with the statement. Most of respondents agreed on the issues and the mean value 3.29 and the mode value 4 also ensure that there is a The Logical framework of RBM approach application to monitoring and evaluation process.

As shown table 5 question no. 6 respondents were questioned Is there logical framework approach (log frame) in its project planning stages so as to help M&E activities accordingly Majority of the respondent kept neutral 32(34.4%) and 18(19.4%) agreed plus 17(18.3%) strongly agreed and the remaining 26(28%) disagreed Most of respondents kept neutral on the issues and the mean value 3.27 and the mode value 3 also ensure that most employs kept neutral logical framework approach (log frame) in its project planning stages so as to help M&E activities.

As shown table 5 question no. 7 respondents were questioned the Baseline data is collected prior to the start of project operation and the majority of respondents 35(37.6%) agreed and plus 9(9.7%) strongly agreed and 33(35.5%) kept neutral on this specific question the remaining 16(17.2%) disagreed with the statement. Most of respondents agreed on the issues and the mean value 3.39 and the mode value 4 also ensure that there is a Baseline data collected prior to the start of project operation.

As shown table 5 question no. 8 respondents were questioned for your M&E plans there are indicators that are clearly linked to the objectives of the program/project. And the majority of respondents 33(35.5%) agreed and plus 11(11.8%) strongly agreed and 16(17.2%) kept neutral on this specific question the remaining 14(15.1%) disagreed plus 19(20.4%) strongly disagreed with the statement. Most of respondents agreed on the issues and the mean value 3.03 and the mode value 4 also ensure that there is enough monitoring and evaluation plans linked to objectives of the project.

As shown table 5 question no. 9 respondents were questioned if there are implementation indicators set for (Inputs, Activities and outputs). And the majority of respondents 32(34.4%) agreed and plus 6(6.5%) strongly agreed and 15(16.1%) kept neutral on this specific question the remaining 23(24.7%) disagreed plus 7(7.5%) strongly disagree with the statement. Most of respondents agreed on the issues and the mean value 3.29 and the mode value 4 also ensure that there is an implementation indicators set for (Inputs, Activities and outputs).

As shown table 5 question no. 10 respondents were questioned the if There are separate indicators for outcome and impact and the majority of respondents 33(35.5%) kept neutral 19(20.4%) agreed and plus 23(24.7%) strongly agreed the remaining 18(19.4%) disagreed with the statement. Most of respondents kept neutral on the issues and the mean value 3.50 and the mode value 3 also ensure that there are separate indicators for outcome and impact

Finally in all the Mid-term (interim) evaluation, Summative evaluation (at the end of the project). Ex-post evaluation (after the end of the project) and Impact evaluation is determined on the interview clearly from the top management conformed that this Mid-term (interim) evaluation, Summative evaluation (at the end of the project). Ex-post evaluation (after the end of the project) and Impact evaluation all have been ensured with agreement that shows Bishoftu automotive industry have an exemplary evaluation and monitoring tools.

Table 6: Technical challenge

No.	Items	Rating scales					Mode	Mean scored	St. deviation
		Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**			
	Technical challenges of monitoring and evaluation.								
1.	Lack of appropriate M & E approach and tool	**8(8.6%)**	**16(17.2%)**	**39(41.9%)**	**0**	**30 (30.3%)**	**3**	**3.30**	**1.316987**
2.	Lack of appropriate M & E approach and tool	**8(8.6%)**	**37(39.8%)**	**25(26.9%)**	**0**	**23(24.7%)**	**4**	**3.37**	**1.436436**
3.	Poor monitoring and evaluation planning quality	**31(33.3%)**	**27(29.0%)**	**5(5.4%)**	**30(32.3%)**	**0**	**1**	**2.36**	**1.249217**
4.	Lack of M&E process reliability and inclusiveness	**8(8.6%)**	**14(15.1%)**	**44(47.3%)**	**27(29.0%)**	**0**	**3**	**2.96**	**0.890183**
5.	Lack of team skill and Ability	**12(12.9%)**	**0**	**30(32.3%)**	**36(38.7%)**	**15(16.1%)**	**4**	**3.58**	**0.912743**

Source: Survey Data

According to the above table 6 question no. 1 respondents were questioned if there is Lack of appropriate M & E approach and tool and the majority of respondents 39(41.9%) kept neutral and 30(30.3%) strongly agreed and remaining 16(17.2%) disagreed plus 8(8.6%) strongly disagree with the statement. Most of respondents stay neutral on the issues and the mean value 3.30 and the mode value 3 also ensure that there is neutral acceptance on Lack of appropriate monitoring and evaluation approach and tool.

According to the above table 6 question no. 2 respondents were questioned if there is Lack of appropriate monitoring and evaluation approach and tool the majority of respondents 37(39.8%) disagree plus 8(8.6%) strongly disagree 25(26.9%) kept neutral and 23(24.7%) strongly agreed Most of respondents disagreed on the issues and the mean value 3.37 and the mode value 4 also ensure that there is no Lack of appropriate monitoring and evaluation approach and tool

According to the above table 6 question no. 3 respondents were questioned if there is Poor monitoring and evaluation planning quality majority of respondents 31(33.3%) strongly disagree plus 27(29.0%) disagree 5(5.4%) kept neutral and 30(32.3%) agreed Most of respondents disagreed on the issues and the mean value 2.36 and the mode value 1 also ensure that there is no

Poor monitoring and evaluation planning quality.

According to the above table 6 question no. 4 respondents were questioned if there Lack of M&E process reliability and inclusiveness and the majority of respondents 44(47.3%) kept neutral and 27(29.0%) agreed and remaining 14(15.1%) disagreed plus 8(8.6%) strongly disagree with the statement. Most of respondents stay neutral on the issues and the mean value 2.96 and the mode value 3 also ensure that there is neutral acceptance on Lack of M&E process reliability and inclusiveness.

According to the above table 6 question no. 5 respondents were questioned if there is Lack of team skill and Ability the majority of respondents 36(38.7%) agree plus 15(16.1%) strongly agree 30(32.3%) kept neutral and 12(12.9%) strongly disagreed Most of respondents agreed on the issues and the mean value 3.58 and the mode value 4 also ensure that there is Lack of team skill and Ability.

Table 7: Bureaucratic challenges

No.	Items	Rating scales					Mode	Mean scored	St. deviation
		Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**			
	Bureaucratic challenge of Monitoring and evaluation								
1.	Lack of management support	**0**	**25(26.9%)**	**23(24.7%)**	**35(37.6%)**	**10(10.8%)**	4	3.32	0.990842
2.	Lack of appropriate budget	**7(7.5%)**	**26(28.0%)**	**20(21.5%)**	**30(32.3%)**	**10(10.8%)**	4	3.10	1.155915
3.	Lack of M&E process Transparency	**7(7.5%)**	**26(28.0%)**	**35(37.6%)**	**15(16.1%)**	**10(10.8%)**	3	2.94	1.087134
Aggregate mean		μ=3.12							

Source: Survey Data

According to the above table 7 question no. 1 respondents were questioned if there is Lack of management support the majority of respondents 35(37.6%) agree plus 10(10.8%) strongly agree 23(24.7%) kept neutral and 25(26.9%) strongly disagreed Most of respondents agreed on the issues and the mean value 3.32 and the mode value 4 also ensure that there is Lack of team skill and Ability.

According to the above table 7 question no. 2 respondents were questioned if there is Lack of appropriate budget the majority of respondents 30(32.3%) agree plus 10(10.8%) strongly agree 30(32.3%) kept neutral and 26(28.0%) disagreed and 7(7.5%) strongly disagreed Most of respondents agreed on the issues and the mean value 3.10 and the mode value 4 also ensure that there is Lack of appropriate budget assigned for monitoring and evaluation.

According to the above table 7 question no. 3 respondents were questioned if there is Lack of M&E process Transparency the majority of respondents 35(37.6%) kept neutral and 15(16.1) agree plus 10(10.8%) strongly agree and the rest 26(28.0%) disagreed and 7(7.5%) strongly disagreed Most of respondents agreed on the issues and the mean value 2.94 and the mode value 3 also ensure that there is neutral response on Lack of M&E process Transparency

Table 8: political challenge

No.	**Items**	Rating scales					**Mode**	**Mean scored**	**St. deviation**
		Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**			
	Political challenge of M&E								
1.	Government interference	**24(25.8%)**	**7(7.5%)**	**42(45.2%)**	**20(21.5%)**	**0**	**3**	**2.62**	**1.092603**
2.	Management influence	**14(15.1%)**	**7(7.5%)**	**42(45.2%)**	**20(21.5%)**	**10(10.8%)**	**3**	**3.05**	**1.155004**
Aggregate mean		**μ=2.835**							

Source: Survey Data

Table 8 question no. 1 indicates the majority of the respondents 42(45.2%) stay neutral on the idea of political challenge is there in Bishoftu automotive manufacturing industry and they consider government

interference as political challenge is neutral but, 20(21,5%) agreed in the statement that there is a government interference on the industry that may hinder monitoring and evaluation process and the rest 7(7.5%) disagreed plus 24(25.8%) strongly disagreed on the issue. The mean value is 2.65 confirms the majority of the respondents idea.

Table 8 indicates question no. 2 the majority of the respondents 42(45.2%) stay neutral on the idea of political challenge is there in Bishoftu automotive manufacturing industry and they consider management influence as political challenge is neutral but, 20(21,5%) agreed plus 10(10.8%)strongly agreed in the statement that there is a management influence on the industry that may hinder monitoring and evaluation process and the rest 7(7.5%) disagreed plus 14(15.1%) strongly disagreed on the issue. The mean value is 3.05 confirms the majority of the respondents idea.

The interview result of the industry indicates government the project execution process as whole and monitoring and evaluation in particular. Because the enterprise is government organization so priority gives for political agenda than project monitoring and evaluation. This ensures that government interferences, management influence and stack holder influence were the political challenge of the Bishoftu automotive manufacturing industry.

Chapter Five

Summary of Major Findings, Conclusion, and Recommendations

5.1. Summary of Major Findings

As discussed in previous chapters, this research papers primary aims to assess the monitoring and evaluation practices of METEC in selected organization Bishoftu automotive manufacturing industry. Thus this chapter presents the summary of the results of the study presented in chapter four, make conclusions and finally forward recommendations.

This part is a direct description on the assessment of project monitoring and evaluation practices and challenges at Bishoftu automotive manufacturing industry.. As discussed in the previous chapters, the industry implements project monitoring and evaluation using established project monitoring & evaluation project management system tools for monitoring the day to day progress follow up.

Bishoftu automotive manufacturing industry as project oriented enterprise does have established M&E system policy and approach in which all project office would follow accordingly.

For the concept of result based management the enterprise have awareness. RBM has also been materialized in all workshops as well. In the industry before start of project implementation, baseline assessments of the project were carried out and for measuring project performance objectively at the beginning and end of the project enterprise did verify performance indicators (input as well as output indicators)

Independent/ external evaluation and the internal evaluation system also very rarely practiced in the enterprise and it does not contribute for accountability and corrective action in the existing project. To evaluate project performance and for the purpose of calculating the profit the enterprise used a cost benefit analysis.

There is neutral practicing of survey data, focus group discussion and conducting interview had in Bishoftu automotive manufacturing industry. Staffs in the enterprise have cleared on role of monitoring and evaluation is significant for project success but I doubt that this understanding did seen in workshops and did not implemented accordingly in the place where it should be implemented.

Bishoftu automotive manufacturing industry faces the technical, bureaucratic and political challenge of monitoring and evaluation.

5.2. Conclusions

The objective of this paper is to assess the practice of Project Monitoring and Evaluation process at Bishoftu automotive manufacturing industry Projects. The study has conducted through survey questioners and interview to assess Bishoftu automotive manufacturing industry has been carrying out the monitoring and evaluation practice for the projects for this paper. The data was collected from 93 respondents using questionnaire and 3 respondents using interview which are working of Bishoftu automotive manufacturing industry which have been linked with the project activity.

Project monitoring and evaluation practice is significant which can indicates the main problem of a given project and the instrument used to overcome the problem and to prevent the problems of project before happens. According to this study, the industry try to follows standardizes monitoring and evaluation system. The industry does consider project monitoring and evaluation have significant impact for project success. But still there is a gap on actively practicing and implementation of project monitoring and evaluation tools.

Result based management practiced in the industry even the concept is not known by the enterprise staffs worked in project related activity staffs. As the industry is project oriented & profit making the organization was not improve the capacity of monitoring and evaluation expertise. The projects were not detailed at the level it required and the scope of project design/ planning including M&E and baseline assessment was not performed.

The project stakeholders in the enterprise are not participated effectively throughout the project process this may indicates there is not M&E transparency and accountability. The enterprise implements area of monitoring and evaluation explained by performance and compliance test at very low level. All technical, bureaucratic and political challenges were confronted during practicing usual and traditional method of monitoring and evaluation.

5.3. Recommendation

- The finding and conclusion of the paper had indicated that there is problem of practicing monitoring and evaluation in the industry. Based on the result of this study, the researcher gives the following recommendations.
- The industry for the success of the projects needs to set precise monitoring and evaluation system and institutionalized the system on the formal structure by establishing a separate unit of monitoring and evaluation, allocating of appropriate budget, assigning the needed human resources.
- To have standardized M&E system for Bishoftu automotive manufacturing industry as well as for related organizations M&E should institutionalized as a separate organization in the national level. .
- As M&E have its own impact for the success of the project, the industry should establish its own formats, standards and framework for conducting monitoring and evaluation.
- To full fill the current gap of monitoring and evaluation practice conduct trainings for its staff on the topics such as quality data management, result based management, result oriented approach, about M & E frameworks, base line data and indicators.
- The findings of the study also shows the Bishoftu automotive manufacturing industry projects not give a chance for involvement of stakeholder and communities in monitoring and evaluation therefore for the success of the project the relevant stakeholder must be participated in project monitoring and evaluation planning and execution
- The enterprise develops a culture of monitoring and evaluation like external/independent evaluation.
- For the purpose of accountability and transparency all the step/stage of monitoring and evaluation and area of monitoring and evaluation by supporting legal and regulatory structure must be exercised in the industry at the regular basis.
- The industry should use coping strategies like early planning of monitoring and evaluation at the design stage of the project and strengthen the documentation with modern technology.

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Appendix

ST. Marry University

Department of project management

Direction: The purpose of this questioner is to collect data about "The assessment on the practice and challenges of Monitoring and Evaluation project practices a case on Metal and engineering corporation of Ethiopia'' (METEC) for the partial fulfillment of MA degree in Project Management. The information you provide will be used only for academic purpose and kept confidential. Therefore, I kindly request you to provide reliable information of the quality of the research work.

Thank you in advance for your cooperation!

(Ammanuel Abera)

General Direction

No need to write your name

Read question and put (√) mark

Part one: The profile /background of respondents

1. Sex:_____

2. Age:_____

3. Marital status:_____

4. Current academic qualification:_____

5. What is your work experience:_____

6. Position in the organization:_____

Part Two: Questions related with Monitoring and Evaluation (M&E) practice.

Please answer by put tick "√" in the table boxes for each given statement using the following scale.

1= Strongly Disagree; 2= Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree

No	**Questions related with Monitoring and Evaluation (M&E) system (Practice).**	Scales				
		5	4	3	2	1
1.	The monitoring and evaluation system contributes to achieve the project Objective.					
2.	The scope and purpose of the monitoring and evaluation system is clear					
3.	METEC has a written monitoring and evaluation plan that guides project execution for every project					
4.	Adequate budgets are assigned for monitoring and evaluation					
5.	METEC has allocate enough time and set schedule for monitoring and evaluation					
6.	Project stakeholders clearly identified in the plan.					

7.	Frequency of data collection (M&E) indicated in the plan.					
8.	An enterprise exercise an activity implementation compared to schedule, Quantitative and qualitative outputs, Outcomes and goals achieved.					
9.	Disseminating or reporting the M&E findings					
10.	Capturing and documenting the lessons learned					
11.	Creating a knowledge repository implemented by the enterprise.					

Part Three: Questions related with Monitoring and Evaluation (M&E) project/program cycle management

No	Which of the following M&E project/program cycle management or Mechanisms are utilized at Metal and engineering corporation of Ethiopia?	Scales				
		5	4	3	2	1
1.	Situational (context) analysis for the needs assessment process of the project					
2.	Result – Based analysis (RBA) to evaluate the project performance from Customer profit perspective.					
3.	Baseline assessment for the measurement of initial conditions (appropriate Indicators) before the start of the project.					

4.	Process (activity) monitoring (day to day supervision) to track the progress of the project during implementation					
5.	Milestone trend charts and phase evaluation to determine the project performance or to validate semi deliveries					
6.	The Logical framework of RBM approach application to monitoring and evaluation process.					
7.	Is there logical framework approach (log frame) in its project planning stages so as to help M&E activities accordingly					
8.	For your M&E plans there are indicators that are clearly linked to the objectives of the program/project					
9.	There are implementation indicators set for (Inputs, Activities and outputs)					
10.	Baseline data is collected prior to the start of project operation					
11.	Ex-ante evaluation (at the beginning of the project)					
12.	Mid-term (interim) evaluation					

13.	Summative evaluation (at the end of the project)					
14.	Ex-post evaluation (after the end of the project)					
15.	Impact evaluation					

	Monitoring and evaluation for project success					
1.	Monitoring and evaluation have contribution for project success					
	Monitoring and evaluation challenge					
	1. Technical challenge					
1.	Lack the appropriate M&E approach & tools					
2.	Lack of Data availability					
3.	Poor M&E planning quality					
4.	M&E process' reliability, inclusiveness, timeframe, validity and substantial					

5.	Lack of team skills and ability					
2.	**Bureaucratic challenge**					
	Lack of management support					
	Lack appropriate Budget					
	Lack M&E process transparency					
3.	**Political challenge**					
	Government interference					
	Management /implementer influence					
.	**Other Challenges**					

Interview Guide Questions Presented to METEC Top Management and Core Process Group.

Sample Interview Questions

Interview Introduction:

Thank you for giving me the time. The purpose of the interview is to collect data about "The assessment of Monitoring and Evaluation project practices in a case on metal and Engineering Corporation of Ethiopia (METEC) for the partial fulfilment of MA degree Business Management. The information you provide will be used only for academic purpose and kept confidential. Therefore, I kindly request you to provide reliable information for the quality of the research work.

Thank you in advance for your cooperation

(Ammanuel Abera)

General Direction:

 No need to write your name

 Read each question and put (√) on the given space/ box.

Part I: Background of the respondent (if necessary)

Sex/ Gender: _____

Age: ____

Marital status: _____

Educational level: _____

Work experience: _____

Job Category /Current position: _____

Part II: Questions related with Monitoring and Evaluation

1. Does your organization have an established Monitoring and evaluation System and plan?
2. How do you evaluate the organization Monitoring and Evaluation system in general as top management and an M&E Practitioner?
3. Do your Projects Complete as per the planned Time, Cost and Quality?
4. What are the challenges of Monitoring and Evaluation Practices in your organization?