



Measuring Project Management Maturity: The Case of Non-Governmental Organizations (NGO) in Ethiopia

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Addis Ababa, Ethiopia

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**A Project Work Submitted to the School of Graduate Studies of AAU in
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ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
MASTER OF ARTS DEGREE IN PROJECT MANAGEMENT

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Governmental Organizations (NGOs) in Ethiopia**

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DECLARATION

I, the undersigned, declare that this project work called “Measuring Project Management Maturity: The Case of Non-Governmental Organizations (NGOs) in Ethiopia” is my own work, and it has not been submitted anywhere for any award. Where other sources of information have been used, they have been duly acknowledged.

Yilma Muluken

December 2018
Date

CERTIFICATION

This is to certify that Yilma Muluken Akalu has carried out his research work on the topic entitled “Measuring Project Management Maturity: The Case of Non-Governmental Organizations (NGOs) in Ethiopia.” The study is an original work and is suitable for the submission for reward of MA Degree in Project Management.

Worku Mekonnen (PhD)

Project Work Advisor

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ABSTRACT

Project management maturity level refers to a state that provides perfect condition to achieve organization's objectives. Project management maturity has direct impact on project performance. The objective of this project work was to measure the project management maturity level of Non-Governmental Organizations (NGOs) working in Ethiopia in different locations. Mixed qualitative and quantitative approach, applied descriptive design, survey questionnaire, interviews, desk review, focus groups discussions, a five-level project management maturity model and the ten Project Management Body of Knowledge areas were used. The overall project maturity level was found to be 2.9 which indicated the presence of organizational standards and institutionalized project management processes. It was found that five PM knowledge areas called integration management (3.2), time management (3.1), human resource management (3.0), procurement management (3.3), and stakeholder/partner management (3.6) were in a better maturity level than other five knowledge areas, namely scope management (2.4), cost management (2.2), quality management (2.4), communication management (2.8), and risk management (2.8). All ten knowledge areas were found relevant to improve the performance of NGOs' projects; however, knowledge areas which had a serious attention or follow up from donors and government were relatively mature than those knowledge areas that received less attention. As a result, all knowledge areas weren't implemented adequately and equally. The PMI maturity model hasn't included some features of development projects and DAC's criteria. The existing project management maturity levels can be applied to NGOs with some modifications. Key suggestions were 1) to apply all 10 knowledge areas equally in all projects; 2) to develop a comprehensive PMM framework for NGOs which can include all 10 knowledge areas, additional characteristics of development projects, and DAC's criteria; 3) to improve the scope, cost and quality management as a priority; 4) to develop a roadmap and improve the current PM maturity level based on findings; 5) share findings to other NGOs for learning and scale up; and 6) to conduct further research for wider/national level recommendations and impact.

Key words: Project maturity, NGO, project maturity models, project management, Ethiopia.

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LIST OF ABBREVIATIONS/ACRONYMS

AARP	American Association of Retired Persons
AIMES	Annual Impact Monitoring and Evaluation System
APA	American Psychological Association
CCRDA	Consortium of Christian Relief and Development Association
DAC	Development Assistance Committee
FGD	Focus Group Discussion
INGO	International Non-Governmental Organization
GDPR	General Data Protection Regulation
NGO	Non-Governmental Organization
OECD	Organization for Economic Co-operation and Development
PAQS	Performance Accountability Quality Scale
PM	Project Management/Momager
PMBOK	Project Management Body of Knowledge
PMD Pro	Project Management for Development Professionals
PMMM/ PM3	Project Management Maturity Model
PM4NGOs	Project Management for Non-Governmental Organizations
SNNPR	Southern Nations, Nationalities and Peoples' Region
MPCM	Maturity by Project Category Model
NGOs	Non-Governmental Organizations
OPM3	Organizational Project Management Maturity Model
PWS	Price Waterhouse Cooper
SPSS	Statistical Packages for Social Sciences

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1. INTRODUCTION

1.1. Background of the Study

All kinds of organizations, whether they be government agencies, private companies, charitable institutions or other collectives, spend time and effort to define their short, medium and long term objectives and the strategies that help them to be achieved (Demir & Kocabaş, 2010). Project management is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements (PMI, 2017). All companies desire to achieve maturity and excellence in project management. Projects are critical to the success of any organization (Kerzner, 2001). Project management has a strong link with an organization's strategies. Therefore, good strategic planning and good project management are key factors for the desired changes to occur. High performance organizations have almost twice as much total success compared to low performing organizations. A high-performance strategy will allow to obtain enormous benefits, including a significant cut in losses due to cost overruns (MPCM, 2018).

In today's difficult economic times, organizations are constantly faced with the challenges of fiercely competitive and changing environments driven by regulatory modification and organizational restructuring. Environmental forces - competitive, economic, technological, political, legal, demographic, and cultural - create challenges and opportunities for organizations. In order to stay competitive, today's organizations have been moving from operations and business as usual, to project management as part of their competitive advantage strategy. Organizations that execute projects successfully employ effective Project Management (PM) practices as a tool to drive change. Given the strategic impact that projects have on business, organizations must follow effective PM processes that capitalize on innovation; measure progress, value, and risks; and confirm the right projects can be delivered in alignment with organizational strategy (PWC, 2012).

The Project Management Maturity Model provides best practices to assess the maturity level of organization's project management processes; map a logical path to improve organization's processes; set priorities for short-term process improvement actions; discern the need for a project management office and assess where it fits in an organizational structure; track progress against project management improvement plan; and build a culture of project management excellence (Crawford, 2014).

An immature organization would display characteristics such as process improvisation, approved processes being ignored, reactive as opposed to proactive decisions, unrealistic budget and schedule constraints, quality sacrificed for schedule, and no objective measure of quality. In contrast, the characteristics of a mature organization include inter-group communication and coordination, work accomplished according to plan, practices consistent with processes, processes updated as necessary, well-defined roles/responsibilities, and formal commitment from management (Langston & Ghanbaripour, 2016).

International Development Projects that include agriculture/rural development, education, health, nutrition, population, small-scale enterprise, and infrastructure are people and process intensive projects in developing countries funded by donors and lenders (Archibald & Prado, 2014). The need to address a wide range of problems adversely affecting vulnerable groups prompted the emergence and growth of non-governmental organizations globally (Alex, 1997). The term non-governmental organization normally refers to organizations that are neither a part of a government nor for-profit businesses. Usually set up by ordinary citizens, NGOs may be funded by governments, foundations or businesses (Green, 2018). Non-government organizations can be both local and international primarily engaged in development activities, relief and rehabilitation

work. The famine of 1970s and 1980s has largely contributed for the influx and emergence of NGOs in Ethiopia (Rahmato, Bantirgu, & Endeshaw, 2008).

Ethiopia's 2009 Proclamation number 621/2009 has established determined permissible issue areas and activities, dictated organizational structures, and announced new NGO monitoring mechanisms. Most importantly, it re-classified NGOs working in Ethiopia into three categories. Type 1- Ethiopian charities and societies, type 2 - Ethiopian resident charities and societies, and type 3 - foreign charities and societies. To implement the legislation, the government has established Charities and Societies Agency (CSA) having three objectives – 1) to enable and encourage Charities and Societies to develop and achieve their purposes in accordance with the law; 2) to create a situation in which the operation of Charities and Societies is transparent and accountable; 3) to ensure that Charities and Societies operate legally.

However, there is no scientific evidence informing the project management maturity level and a road map to improve the PM maturity level of NGOs in Ethiopia. Hence, this project work will focus on using project management maturity model for assessing the project management practices and PM maturity level of NGOs in Ethiopia. The findings will provide insight to project management practices and recommendations to improve the existing practices of NGOs.

1.2. Statement of the Problem

The current maturity models are unlikely to ever be the 'silver bullet' that one might hope for (Morris & Pinto, 2004). There is no generally agreed definition of what a mature project based organization looks like (Cooke-Davies T. J., 2004). One of the criticisms of applying the current models in organizations is the focus on explicit project management knowledge areas rather than intangible assets, which are less obvious but nevertheless contribute to a mature project

management capability (Jugdev & Thomas, 2002). Another problem with many models is the complexity of their frameworks, which may prevent potential users to implement them on the basis of time and cost commitment (Crawford L. , 2011). The research on new design for calculating Project Management Maturity (PMM) concluded that the enterprise, whatever its nature, the adoption and development of its own maturity model that is adapted to the methodology it uses is important. It will be the most appropriate structure to accomplish the mission. This model will serve to measure the maturity of project management in the company and improve it (Tahria & Omar, 2015).

International Development (ID) projects carried out by Non-Governmental Organizations (NGOs) are considered one of the pillars for providing assistance to developing countries, but these projects are reported to have high failure rates and their performance is often considered not satisfactory (Golinia, Kalchschmidta, & Landonib, 2015). Over many years ago, NGOs have been always stuck in some concepts such as inputs, outputs, outcomes, impact and sustainability. This process requires a comprehensive understanding of how performance is managed and measured by NGOs and what aspects of performance lead to successful financial performance, efficiency and effectiveness (Ramadan & Borgonovi, 2015). In international development, despite the professionalization of NGOs on numerous projects carried out, very few studies address the competencies of project managers in non-governmental organizations (NGOs) as opposed to the significant body of studies conducted for private sector projects (Din, 2016). In general, there are not many models and frameworks for assessing the performance of NGOs as much as the frameworks available for the private sector. Moreover, the reliance on the traditional financial-based indicators of performance, like return on assets, liabilities or profitability ratios cannot be applied to NGOs (Herman & Renz, 1997).

In the past, the work of NGOs was based mainly on ethical-social motivation and technical professionalism. Nowadays and in the future, the ethical-social motivation and technical professionalism are not sufficient since NGOs need to evaluate how the limited financial and non-financial resources can be efficiently and effectively utilized. The concept of NGOs performance has been defined in different theoretical frameworks and used for different managerial processes (Ramadan & Borgonovi, 2015).

Despite the acceptance of project maturity models into the accepted bodies of project management knowledge, evidence as to the extent of use and impact of the models is very limited. Many organizations pay attention to improving their project management skills when the need for project management becomes critical. This lack of foresight frequently creates an environment in which the project management systems and infrastructure are not in place to support the needs of the practicing project management community. Project management maturity assessment and gap identification are the basis for learning and change at organizational and societal level.

NGOs in Ethiopia have been contributing to Ethiopian development through implementing different projects at national and woreda level; however, there is no information the research area about its PM maturity level, learning and evidence based changes across years. Absence of this relevant information has led the organizations not to improve its system adequately at different levels.

There are different models developed and applied to assess the project management maturity level of different organizations mainly business organizations, but its applicability to NGOs and extent of the application of project management knowledge areas have not been tested and published in

Ethiopia. There has not been learning and testing of PMMM in Ethiopian NGOs. Cognizant of this fact at international and national level, this research was conducted to minimize the problem.

1.3. Research Questions

Basic research questions:

- 1) What is the PM maturity level of NGOs in Ethiopia?
- 2) Why are PM knowledge areas applied?
- 3) How the existing PM maturity model appropriate to NGO sector?

1.4. Objective of the Study

The objectives of this project work included:

- 1) To measure the project management maturity level of NGOs in Ethiopia which will provide the basis to understand how project management maturity model can be used to improve project management process;
- 2) To assess whether and to what extent the processes, practices under each of PMBOK's project management knowledge areas are being applied in NGOs in Ethiopia;
- 3) To identify strengths and areas to improve to move to more mature levels of performance and do it in more effective and efficient ways; and

1.5. Significance of the Study

A project management maturity model will be a roadmap showing the organization how it can systematically move to more mature levels of performance and do it in more effective and efficient ways. After an objective assessment, NGOs in Ethiopia will understand its project management maturity level, identify strengths & weaknesses, can set its goals for increasing the capability of

its processes; track progress against its project management improvement plan; build a culture of project management excellence; and demonstrate better contribution at woreda and national level. Hence, there will be a trust among community, government and NGOs.

Findings and recommendations will help developing assessment approach and frameworks suitable to NGO sector. The financial investment in PM tools, practices, and processes will be easy to justify as it will be informed by scientific evidence. Better understanding of the financial and organizational benefits of using PM tools and practices in the organization.

1.6. Scope of the Study

Technically, it will cover 10 PM knowledge areas (project integration, scope, time, cost, quality, resource, communications, risk, procurement, and stakeholder management) and 5 PM processes (Initiating maturity, planning maturity, executing Maturity, controlling maturity, and closing maturity). Geographically, it covers Somali, Gambella, Oromia, Amhara, Tigray, and SNNPR regional states where selected six NGOs have been implementing in its respective projects. The purpose was not to apply inferential statistics and make a generalization about NGOs in Ethiopia rather it was intended to explore the research topic as a first research in some NGOs that have been working closely in partnership and consortium.

1.7. Limitation of the Study

Some project managers who are new to the organization lack comprehensive understanding of the organizations' project management system. Some project managers who had been managing the project from the start to the closure level left the organizations due to project completion that limits

detail data collection; however, this gap was covered by approaching program managers who are permanent staff of the organization.

The 10 knowledge areas as of PMBOK have not been implemented in the organization fully with proper definitions of key terminologies that affect respondents not to comprehend and respond properly. To minimize its impact, some important terminologies have been explained in the questionnaire to make the survey understandable.

There were no previous relevant studies in the research area that made the research unable to compare results. There are no specific frameworks developed to assess NGOs that forces this research to use generic PMMM. This study requires a substantial amount of time and effort from participating organizations in which all respondents may not provide accurate information. To minimize it, different mechanisms will be applied including asking appropriate date and time, and explaining the relevance of the research findings to the respondent organization.

1.8. Organization of the Study

The first chapter of this paper discussed the introduction; followed by the literature review section. Then the third chapter is the methodology and the fourth chapter being the presentation, analysis and interpretation of data. Finally, the fifth chapter presents the summary and recommendation.

2. LITERATURE REVIEW

This chapter contains the literature review which presents the definition of project management maturity, project management knowledge areas, project management process groups, project management in NGOs, theoretical framework and empirical evidences collected from different sites. This served as a framework for research work.

2.1. Definitions of Project Management Maturity

Project management maturity refers to the progressive development of an enterprise-wide project management approach, methodology, strategy and decision making process. Project Management Maturity Model (PMMM) is a formal tool developed by PM Solutions and used to measure an organisation's project management maturity. Once the initial level of maturity and areas for improvement are identified, the PMMM provides a roadmap, outlining the necessary steps to take toward project management maturity advancement and performance improvement. Any model selected to measure project management maturity must point out a logical path for progressive development (Crawford, 2014).

Maturity models have their origin in the field of total quality management (Cooke-Davies T. , 2002). A project management maturity model can be a roadmap showing an organization how it can systematically move to more mature levels of performance and do it in more effective and efficient ways. After an objective assessment, an organization can set its goals for increasing the capability of its processes (Crawford, 2014).

The concept of maturity to an organization refers to a state where the organization is in a perfect condition to achieve its objectives. Project maturity would then mean that the organization is perfectly conditioned to deal with its projects (Andersen & Jessen, 2003). There is a growing base

of research that supports a relationship between higher levels of maturity and improved organizational performance. There is a dramatic and steady increase in the extent to which the modern enterprise adopts and relies upon project management to secure a competitive advantage. As project management becomes the dominant way that work is accomplished, organizations strive to become good at delivering projects successfully (Herbsleb, Zubrow, Goldenson, Hayes, & Paulk, 1997).

The Project Management Institute's A Guide to the Project Management Body of Knowledge (PMBOK® Guide) is an excellent point of reference for starting an examination of project management capability. It is already an accepted standard, and a great deal of "best practices" information focuses on the knowledge areas outlined in the Guide. Unfortunately, the Guide presents a huge mass of knowledge to deal with. Measuring an organization's effectiveness in any one area requires that the area be broken down further into major components that relate the area to the successful implementation of project management (Crawford, 2014).

Project management maturity models are important assessment tools for the profession. Maturity models identify organizational strengths and weaknesses as well as provide benchmarking information. They capture explicit, codified practice (know-what), but do not include the intangible assets of project management (know-how). Some have made the claim that project management maturity models can lead to a competitive advantage for firms. In the context of the strategy domain, it is concluded that PMMs can result in a temporary competitive advantage but not a sustained competitive advantage. Clearly, a sustained competitive advantage is rooted in a combination of know-what and know-how (Jugdev & Thomas, 2002).

According to the PM Solutions, Project Management Maturity levels are defined as follows:

Level 1: Initial Process

Although there is a recognition that project management processes exist, there are no established practices or standards, and individual project managers are not held to specific accountability by any process standards. Documentation is loose and ad hoc. Management understands the definition of a project, that there are accepted processes, and is aware of the need for project management. Metrics are informally collected on an ad hoc basis.

Level 2: Structured Process and Standards

Many project management processes exist within the organization, but they are not considered organizational standards. Documentation exists on these basic processes. Management supports the implementation of project management, but there is neither consistent understanding and involvement nor an organizational mandate to comply for all projects. Functional management is involved in the project management of larger, more visible projects, and these are typically executed in a systematic fashion. There are basic metrics to track project cost, schedule, and technical performance, although data may be collected or correlated manually. Information available for managing a project is often a mix between summary-level data and detail-level data.

Level 3: Organizational Standards and Institutionalized Process

All project management processes are in place and established as organizational standards. These processes involve clients and internal customers as active and integral members of the project team. Nearly all projects use these processes with minimal exception—management has institutionalized the processes and standards with formal documentation existing on all processes and standards. Management is regularly involved in input and approval of key decisions and

documents and in key project issues. The project management processes are typically automated. Each project is evaluated and managed in light of other projects.

Level 4: Managed Process

Projects are managed with consideration as to how they performed in the past and what is expected for the future. Management uses efficiency and effectiveness metrics to make decisions regarding a project and understands the impacts on other projects. All projects, changes, and issues are evaluated based upon metrics from cost estimates, baseline estimates, and earned value calculations. Project information is integrated with other corporate systems to optimize business decisions. Processes and standards are documented and in place to support the practice of using such metrics to make project decisions. Management clearly understands its role in the project management process and executes it well, managing at the right level, and clearly differentiating management styles and project management requirements for projects of different sizes and complexities. Project management processes, standards, and supporting systems are integrated with other corporate processes and systems.

Level 5: Optimizing Process

Processes are in place and actively used to improve project management activities. Lessons learned are regularly examined and used to improve project management processes, standards, and documentation. Management and the organization are focused not only on effectively managing projects, but also on continuous improvement. The metrics collected during project execution are used to both understand the performance of a project and to make organizational management decisions for the future. Management focuses on continuous improvement.

According to (MPCM, 2018), project performance has been classified into three:

Low Performance: PM is almost unknown subject and isolated initiatives. It corresponds to levels 1 and 2 of maturity.

Medium Performance: It deploys standards. The results are below the possible. It corresponds to level 3 of maturity.

High Performance: standards work, deliver results, and are optimized. It matches levels 4 and 5 maturity.

2.2. Project Management Knowledge Areas

Project management body of knowledge describes that the overall knowledge with in the profession of project management and includes tools and techniques used to manage project management process and practices. There are ten knowledge areas according to the PMBoK guide (PMI, 2017) as described below.

1. Project integration management: Project integration management includes the processes and activities to identify, define, combine, unify, and coordinate the various processes and project management activities within the project management process groups.

2. Project scope management: Project scope management includes the processes required to ensure that the project includes all the work required and to complete the project successfully. Managing the project scope is primarily concerned with defining and controlling what is and is not included in the project.

3. Project time management: Project time management includes the processes required to manage the timely completion of the project. Plan schedule, define and sequence activity, resource

and duration estimation, develop and control schedule are the processes required in project time management.

4. Project cost management: Project cost management includes the processes involved in planning, budgeting, financing, funding, managing, and controlling costs so that the project can be completed within the approved budget.

5. Project quality management: Project quality management includes the process and activities of the performing organization that determine quality policies, objectives, and responsibilities so that the project will satisfy the needs for which it was undertaken. It works to ensure that the project requirements, including product requirements, are met and validated.

6. Project resource management: Project resource management includes the processes that organize, manage, and lead the project team and other resources. The project team is comprised of the people with assigned roles and responsibilities for completing the project.

7. Project communications management: Project communications management includes the processes required to ensure timely and appropriate planning, collection, creation and distribution, storage, retrieval, management, control, monitoring and the ultimate disposition of project information.

8. Project risk management: Project risk management includes the processes of conducting risk management planning, identification, response planning, and controlling risk on a project. The objectives of project management are to increase the likelihood and impact of positive events, and decrease the likelihood and impact of negative events in the project.

9. Project procurement management: Project procurement management includes the processes necessary to purchase or acquire products, services, or results needed from outside to the project

team. The organization can be buyer or seller of the products, services, or results of a project. It includes the contract management and change control processes required to develop and administer contracts or purchase orders issued by authorized project team members.

10. Project stakeholder management: It includes the processes required to identify the people, groups, or organizations that could impact or be impacted by the project, to analyse stakeholder expectations and their impact on the project, and to develop appropriate management strategies for effectively engaging stakeholders in project decisions and execution.

2.3. Project Management Process Groups

According to the PMBOK guide (PMI, 2017), there are five PM process groups employed to meet project objectives.

1) Initiating Process Group. The process(es) performed to define a new project or a new phase of an existing project by obtaining authorization to start the project or phase.

2) Planning Process Group. The process(es) required to establish the scope of the project, refine the objectives, and define the course of action required to attain the objectives that the project was undertaken to achieve.

3) Executing Process Group. The process(es) performed to complete the work defined in the project management plan to satisfy the project requirements.

4) Monitoring and Controlling Process Group. The process(es) required to track, review, and regulate the progress and performance of the project; identify any areas in which changes to the plan are required; and initiate the corresponding changes.

5) Closing Process Group. The process(es) performed to formally complete or close a project, phase, or contract.

These five Process Groups are independent of the application areas, Individual processes in the Process Groups are often iterated prior to completing a phase or a project. The number of process iterations and interactions between processes varies based on the needs of the project.

2.4. Project Management in NGOs

It is important to remember that each development organization is unique. Furthermore, within a single organization, projects will vary considerably in terms of value, complexity and risk. Even in situations where two projects seem to be similar, the environments in which projects are implemented are unpredictable and field realities can vary significantly from the scenarios anticipated in plans made. The Five Principles of PM in the Development Sector are **1) balanced** – projects should be managed in a balanced way, **2) comprehensive** - project management *disciplines* should be applied consistently and deliberately in all work of the project, **3) integrated** - all aspects of project management should be aligned and coordinated to ensure that all elements of project design, planning, monitoring and implementation run smoothly, **4) participatory** - include a variety of stakeholders in all phases of the project, and **5) iterative** – revisit and repeat project management processes through the life of the project to confirm that the project designs, project plans and intended results are still relevant (PMD Pro, 3013).

Successful project managers and their teams in non-governmental organizations are true heroes, delivering benefits to external stakeholders whose lives may very well depend on them. The World Bank classifies NGOs as either operational NGOs, which are primarily concerned with development projects, or advocacy NGOs, which are primarily concerned with promoting a cause. Although usually out of sight and out of mind, one doesn't really have to look far to see their work.

They are involved in dozens of critical needs, including human rights, fighting human trafficking, refugee matters, providing life's necessities such as clean water in regions where they are essentially non-existent, women's issues, disaster relief, education, sustainable development, conflict resolution and much more. A common NGO mission is to support social and economic growth priorities. Organizations such as PM4NGOs, APMG International and the Project Management Institute provide special emphasis for NGOs. NGOs Have the Same Project Issues with Unique Twists Return on investment (ROI) is, or should be, on the mind of every project manager to "gain maximum value from every penny donated by individuals and donor organizations." (Green, 2018).

Measurement of the progress/maturity of NGOs

The nature of the working environment of NGOs forces them to assess and enhance their strategies and performance. In fact, the working environment of NGOs is dynamic and risky and the overall effectiveness of these organizations requires meeting the various demands of stakeholders through building realistic performance measurement and management systems. To guarantee success, NGOs first must develop and implement effective systems of managing and measuring their performance. NGOs are required to manage and evaluate their performance from multiple perspectives, considering the projects/programs performance, the agenda of donors, the needs of beneficiaries and the internal effectiveness (Ramadan & Borgonovi, 2015).

(Carman, 2007) saw that the most utilized performance indicators by NGOs incorporate efficiency, effectiveness, fundraising, costs, audits and beneficiaries' satisfaction. (Teelken, 2008) used four performance indicators to evaluate NGOs operations: efficiency, effectiveness, economy and efficacy. Measuring performance in NGOs should look at inputs, outputs, outcomes and impact (Benjamin & Misra, 2006).

After a deep examination of the literature, Ramadan and Borgonovi sum up the most used performance indicators in NGOs and their definitions as presented in the table 1 below.

Table 1: Summary of the Performance Measures in NGOs Literature

Performance Measures	Description
Fundraising efficiency	The ability of an NGO to access to funding
Financial transparency	Preparing reports and submitting them to the concerned stakeholders
Programs/Projects financial efficiency	The best use of the funds or financial resources to achieve the required or the planned outputs. (This measures the relationship between the financial inputs and the outputs)
Programs/ Projects non- financial efficiency	The best use of the non-financial resources to achieve the required or the planned outputs. (This measures the relationship between the non-financial inputs, such as time, staff, expertise and the outputs)
Outcomes performance (effectiveness)	To what extent have the outcomes of an NGO's program been achieved?
Impact performance	The long-term consequences of an NGO's program including positive or negative effects.
Partnership	The level of networking with partners, their relevance and satisfaction.
Quality	The quality of services provided by an NGO.

Source: Adapted from Ramadan and Borgonovi, 2015

2.5. Empirical Evidences

Antonio and Daniel did a survey with an objective to investigate whether a higher maturity level would go hand in hand with a higher project performance level. They concluded that 1) a higher maturity level for an organization enhances overall project performance (not in just one project, but in the overall portfolio of projects); 2) most organizations are not satisfied with their current maturity level; 3) project failures are often a consequence of aspects that are organizational and over which project managers have little influence; 4) organizational structure has a big influence in overall project performance; 5) staff development and professional certification enhance overall project performance; 6) a systematic approach to change management in projects is fundamental for superior performance; 7) the extent to which project management software is used is correlated to maturity levels; 8) staffing projects with a majority of internal resources as against external resources is a better guarantee of success (Antonio Nieto-Rodriguez; Daniel Evrard, 2004).

Common sense suggests that organizations are more likely to deliver successful projects if they have systems in place that reflect a mature project environment based on a culture of continuous improvement. The basis for achieving consistent excellence in project management is assisted by mature organizational systems and processes (Langston & Ghanbaripour, 2016).

Researchers explore the nature of PM capacity in NGOs and develops a framework for PM capacity in NGOs. This theoretical framework was then explored using four case studies conducted at Local and International NGOs in Sri Lanka. The study identified three levels of PM Capacity: Team PM Capacity, Organizational PM Capacity and Collaborative Social PM Capacity, a Capacity that has not yet been identified in the literature which supports adaptation to the complex, uncertain environments in which some NGOs operate (Y.Nanthagopan, N.L.Williams, & S.Page, 2016). MPCM did a research with a sample size of 301 respondents, and found that 42

organizations (14%) were high performance, 30% of organizations medium performance, and 56% low performance. Their results speak for themselves. And certainly, those 42 organizations are much better than others and have a lot of rewards (MPCM, 2018).

A PM maturity survey has been conducted in Brazil using the site www.maturityresearch.com. In 2012 survey, 434 organizations and 8,680 projects participated. Key performance indicators showed that the overall average maturity level 2.60 (scale 1 to 5), total success 49.7%, partial success 35.2%, failure 15.1%, delay, 28%, and cost overrun 15% (Prado, Archibald, & Neto, 2014)

Overall, with the mean maturity level of 2.42 out of 5, the results show that PM tools and methods have not yet been used effectively in Kazakhstan. The results also suggest that PMM in Kazakhstani organizations is gradually moving from Level 2 to Level 3. This shows that the organizations ensure that each project is run with its own processes and procedures to a minimum specified management standard set in the organizations. However, it also implies that there is limited consistency or coordination between different projects. Finally, the study finds that, as PMM moves to Level 3, the organizations strive for having their own centrally controlled PM processes where all their individual projects would flex. All in all, the findings of the study add value to the existing PM body of knowledge in Kazakhstan and serve as a background asset to be used in facilitating the projectivization of organizations in Kazakhstan (Narbaev, 2015).

A survey of 126 organizations reveals the median level of project management maturity is level 2 out of 5. Additionally, this research compares project management maturity between four major industries: professional, scientific and technical services; information; finance and insurance; and manufacturing. The research concluded that with few exceptions, there is not a significant difference in project management maturity between industries (Grant & Pennypacker, 2016).

Performance Measurement and Management Frameworks in NGOs

Authors have developed performance measurement frameworks for the NGO sector. In general, there are not many models and frameworks for assessing the performance of NGOs as much as the frameworks available for the private sector (Herman & Renz, 1997). (Ritchie & Kolodinsky, 2003) proposed a framework for assessing the financial performance of NGOs. The framework involves fundraising efficiency, public support, expenses and cost efficiency. Similarly, Standards for Charity Accountability of the Better Business Bureau proposed a framework for measuring NGOs performance in which the performance measures include the financial aspect, effectiveness and governance. In their model, the financial aspect is not only represented by fundraising efficiency but involves also managing and producing clear and accurate financial statements and budgets. Another framework has been offered by AARP (American Association of Retired Persons) which is the biggest NGO membership institution for people who exceed the age of fifty in USA (Datar, Leonard, Epstein, & Goodwin, 2007). The AARP foundation's framework consists of the following measures: resources and stewardship, people, social impact value, organization leadership and integration.

(Buckmaster, 1999) proposed the Outcome Measurement framework highlighting inputs, processes, outputs and outcomes as performance measures of NGOs. The outcome measurement is composed of a series of stages starting with the determination of the program or the intervention's objectives, then the identification of the outcomes' indicators, involving the stakeholders to take part in the evaluation process and finally communicating the information to influence the organizational learning capability. Also, (Poole, Nelson, Carnahan, Chepenik, & Tubiak, 2000) developed the Performance Accountability Quality Scale (PAQS) that gives a structure for getting experts feedbacks concerning the performance measurement in NGOs. The

PAQS consists of twenty-one components that represent seven performance measurement indicators: resource, activities, outputs, outcomes, goals, indicators and evaluation plan.

(Epstein & Buhovac, 2009) developed the Input-Impact framework. Their framework considers mission and vision of NGOs as a priority. Moreover, it recognizes strategy, organizational structure and systems to be part of the inputs. The input-impact framework evaluates inputs, activities, outputs (internally and externally), outcomes and impacts. Finally, the authors saw that there is a causal linkage map among the performance measures. (Lampkin, et al., 2006) created the Common Outcome Framework. In this framework, the authors developed performance measures composed of the program-based measures (satisfaction and participation), community-based measures (community building and socio-economic change), participant based measures (knowledge, behaviors and status) and the organization-based measures (finance, structure and management). The Annual Impact Monitoring and Evaluation System (AIMES) is an alternate performance measurement and management framework proposed by (Henderson, Chase B, & Woodson, 2002). The Logical framework approach is a highly effective strategic planning and project management methodology with wide application. It comprises an integrated package of tools for analyzing and solving planning problems and for designing and managing their solutions. The product of this analytical approach is the logframe (the matrix), which summarizes what the project intends to do and how, what the key assumptions are, and how outputs and outcomes will be monitored and evaluated (Dillon, 2018). The European Commission (EC) has required the use of Logical Framework Approach (LFA) as part of its Project Cycle Management system since 1993. Knowledge of the principles of LFA is therefore essential for all staff involved in the design and delivery of EC development assistance (GmbH, 2005).

2.6. Theoretical Frameworks

Many PM frameworks, methodologies and approaches have been developed. Among the most popular are the “Project Management Body of Knowledge” (PMBOK) from Project Management Institute; the “IPMA Competence Baseline” (ICB) from International Project Management Association; the “Projects IN a Controlled Environment” (PRINCE2) from the Office of Government Commerce in UK; and Project Management for Development Professionals by PM4NGOs.

Project Management Maturity Models (PMMMs) provide structured framework for measuring, benchmarking and strategy to improve project management practices (Yazici, 2009). It is important to make the point that the research has shown that there is a strong relationship between maturity and success, i.e., the more mature the area is in the use of good PM practice, the better their performance indicators will be (Prado, Archibald, & Neto, 2014).

Any model selected to measure project management maturity must point out a logical path for progressive development. It may not be so important to know you are a Level 2 organization; what is important is to know what specific actions must be implemented to move the organization forward. What is most important is that the organization has a vision and is moving to improve the capability of project management with precisely targeted efforts. Improving PM is a series of smaller steps, not giant leaps, and many organizations will never need to realize Level 5 maturity. Many organizations will achieve significant benefit by reaching the “repeatable process” level. In effect, a good model for the measurement of project management maturity creates a strategic plan for moving project management forward in an organization. PM Solutions’ approach to minimizing the time for advancing an organization’s project management maturity is to first perform an exceptionally detailed gap analysis between the organization’s current practices and

its desired level of maturity. Then, working with the executive leadership of the organization, PM Solutions charts a roadmap of improvement initiatives and detailed implementation and change management plans for improvement activities (Crawford, 2014).

The project management knowledge areas are varied. The approach described by (Crawford, 2014) is to use the 10 knowledge areas identified in the PMI Body of Knowledge. (Cooke-Davies & Arzymanow, 2003) discuss a model in which 10 domains are used as the basis for the model. A very different approach is described by Andersen and Jessen in which 12 areas are suggested with 4 each identified within 3 top level dimensions – attitude, knowledge and action (Andersen & Jessen, 2003). Building upon the potential value of the project management maturity models, literature has focused attention upon the methods used to conduct project management maturity assessments (Seidman & McCauley, 1996).

Capability Maturity Model Integration (CMMI)

CMMI applies to organizations that undertake software development, systems engineering and product development using a single tool to assess maturity or capability, and provides direction while developing more sophisticated processes (Pane & Sarno, 2015). There are five maturity levels used in the ‘staged’ representation of CMMI:

1. **Initial:** Processes are unpredictable, poorly controlled and reactive
2. **Managed:** Processes are characterized for projects and are often reactive
3. **Defined:** Processes are characterized for the organization and are proactive
4. **Quantitatively managed:** Processes are measured and controlled
5. **Optimizing:** There is a focus on process improvement

Organizational Project Management Maturity Model (OPM3)

Another important model used in the project management discipline is OPM3. Developed by a team of volunteers from the PMI between 1998 and 2013, it is suitable for organizations of any size, location or practice environment. It aims to enumerate the level of maturity of projects and practices, based on best practices as a methodology for assessment (PMI, 2017). It is aligned specifically to the widely recognized PMBOK methodology. OPM3 compares organizational activities with a large number of standardized best practices, measuring them in project, program and portfolio management contexts by examining capabilities and related outcomes. Organizations are then classified into four levels of maturity development, not five as embedded in CMMI and P3M3, for each process area in each domain (J.A. & N., 2013):

1. *Standardize*: Structured processes are adopted
2. *Measure*: Data is used to evaluate process performance
3. *Control*: Control plan developed for measures
4. *Continuously improve*: Processes are optimized

OPM3 is by far the most sophisticated of the identified maturity models in the discipline of project management, but also the most resource intensive (Backlund, Chronéer, & Sundqvist, 2014).

Kerzner Project Management Maturity Model (K-PMMM)

Kerzner put-forth his Project Management Maturity model in 2002 based on knowledge areas of PMBOK. K-PMMM does not measure maturity for program and portfolio management, but it works for Project Management Maturity of organization using five levels of maturity, namely

common language, common processes, singular methodology, benchmarking, and continuous improvement (Kerzner H. , 2002).

Level 1 - Common language: “In this level, the organization recognizes the importance of project management and the need for a good understanding of the basic knowledge on project management and the accompanying language/terminology (Kerzner H. , 2002)”.

Level 2 - Common processes: “In this level, the organization recognizes that common processes need to be defined and developed such that successes on one project can be repeated on other projects. Also, included in this level is the recognition of the application and support of the project management principles to other methodologies employed by the company (Kerzner H. , 2002)”.

Level 3 - Singular methodology: “In this level, the organization recognizes the synergistic effect of combining all corporate methodologies into a singular methodology, the center of which is project management. The synergistic effects also make process control easier with a single methodology than with multiple methodologies (Kerzner H. , 2002)”.

Level 4 - “Benchmarking: This level contains the recognition that process improvement is necessary to maintain a competitive advantage. Benchmarking must be performed on a continuous basis. The company must decide whom to benchmark and what to benchmark (Kerzner H. , 2002)”.

Level 5 - Continuous improvement: “In this level, the organization evaluates the information obtained through benchmarking and must then decides whether this information will enhance the singular methodology (Kerzner H. , 2002)”.

Maturity Increments IN Controlled Environments (MINCE)

MINCE was presented by MINCE2 Foundation in 2007. The focus of MINCE maturity model is towards organization's ability to adapt to environmental and market changes. The use of MINCE maturity model provides following insights in organization (Meisner, 2007)):

- Maturity of organization
- Skill levels of organization's staff
- Effectiveness of organization's projects
- Ability to adapt to change
- How does organization benefit from past lessons?

The framework of MINCE uses six towers to measure organizational maturity. These towers are: I. People – it considers focus of people and how people tend to close gaps that naturally exist in organization). II. Methods and Techniques – it provides structure needed to focus the organization for optimized results III. Customer – it includes focus of customers on performance of organization. IV. Realization – It measures how effectively organization comes to results and how difficulties are overcome to achieve the results. V. Knowledge – it measures extent of actual knowledge available to people working in organization. VI. Supporting services – it measures how does organization support its people. It also measures the focus of organization for achieving excellence in projects (Meisner, 2007).

(Farrokh & Mansur, 2013) made comparison of different maturity models by using i) Structure ii) Multi-dimensional and iii) Theoretical base iv) KPA/KPI aspects of maturity model as criteria of comparison. The criterion of Farrokh and Mansur (2013) is adopted to make comparison of five shortlisted PMMMs

Table 2: Comparison of Project Management Maturity Models

Maturity Model	Structure		Multi-dimensional	Theoretical base	Ideology
	Staged	Continuous			
OPM3	No	Yes	Yes	Yes	PMI-PMBOK
CMM	Yes	Yes	No	No	CMM
K-PMMM	Yes	No	No	Yes	PMI-PMBOK
P3M3	Yes	No	Yes, but limited	No	CMM
MINCE	Yes	No	No	No	EFQM

Source: Adopted from Farrokh and Mansur, 2013

The Project Management Maturity Model developed by PMSolutions utilizes the PMBOK® Guide's ten knowledge areas. The model has five distinct levels of maturity and examines an organization's implementation across the ten project management knowledge areas (Figure 1). Each maturity level represents a discrete organizational capability based on summary-level characteristics.

There are no universally-accepted methodologies or well-defined processes for impartially measuring PM practices in any one organization or across different industries. Lack of diversified approaches to project management capability assessment has created a challenge to compare the approaches mainly in an NGO world. Hence, this research will apply what has been used in different organizations widely called PM maturity model by Crawford which is indicated

in his book called Project Management Maturity Model 3rd edition (Crawford J. K., 2014).

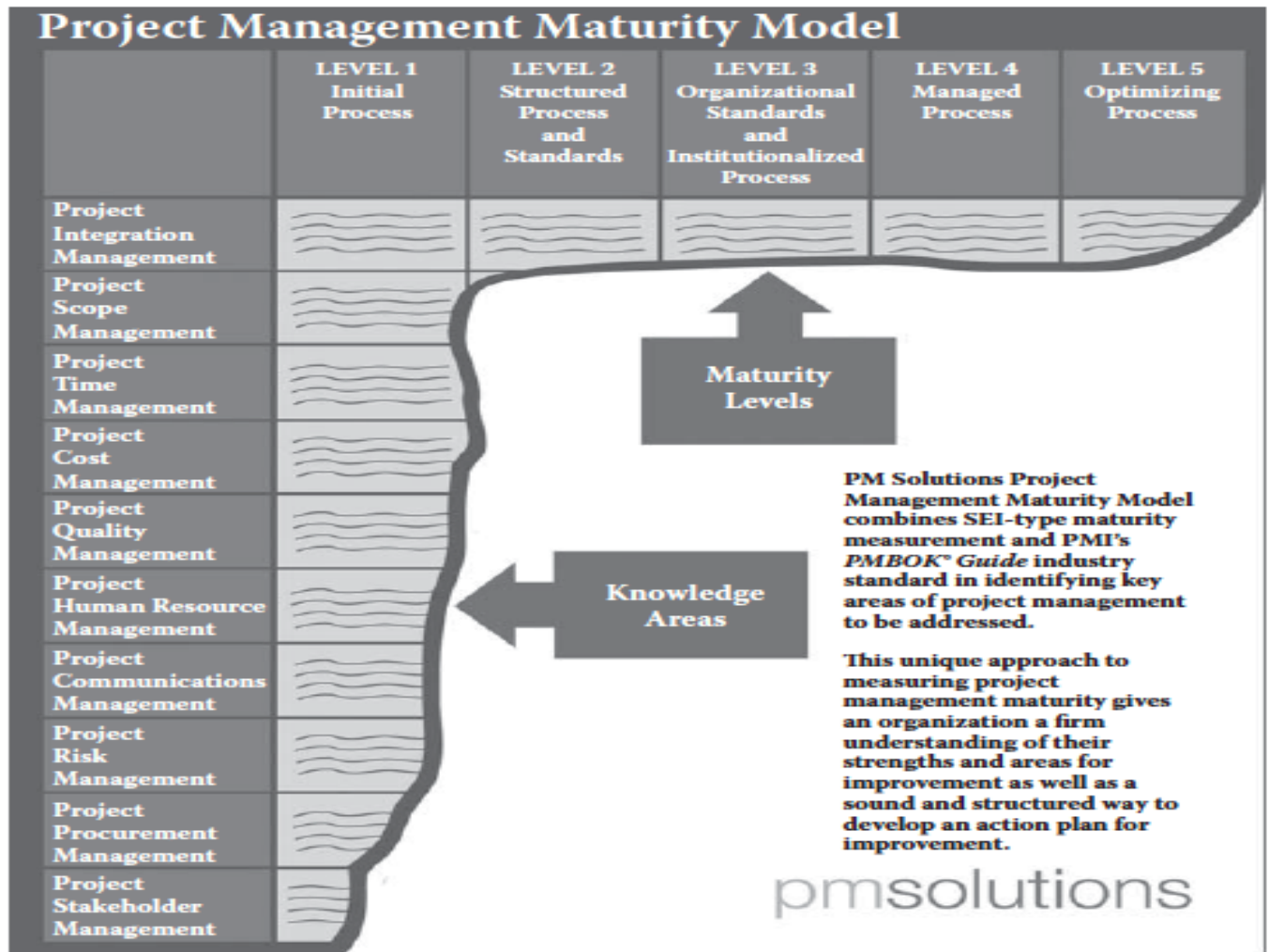


Figure 1: Project Management Maturity Model adopted from PM Maturity Model

3. RESEARCH METHODOLOGY

This section presents the methodology applied in the project work which included areas description, approach, sampling, analytical model, instrument and analysis.

3.1. Area Description

Ethiopia lies on the Horn of Africa. Its topography ranges from deserts to tropical forests. The country has a population of 102,374,044 with GDP per Capita \$1,900 (World Atlas, 2018). The project work covers six regional states, namely Oromia, Amhara, SNNPR, Tigray, Somali and Gambella in which projects were found and managed at woreda and national level.

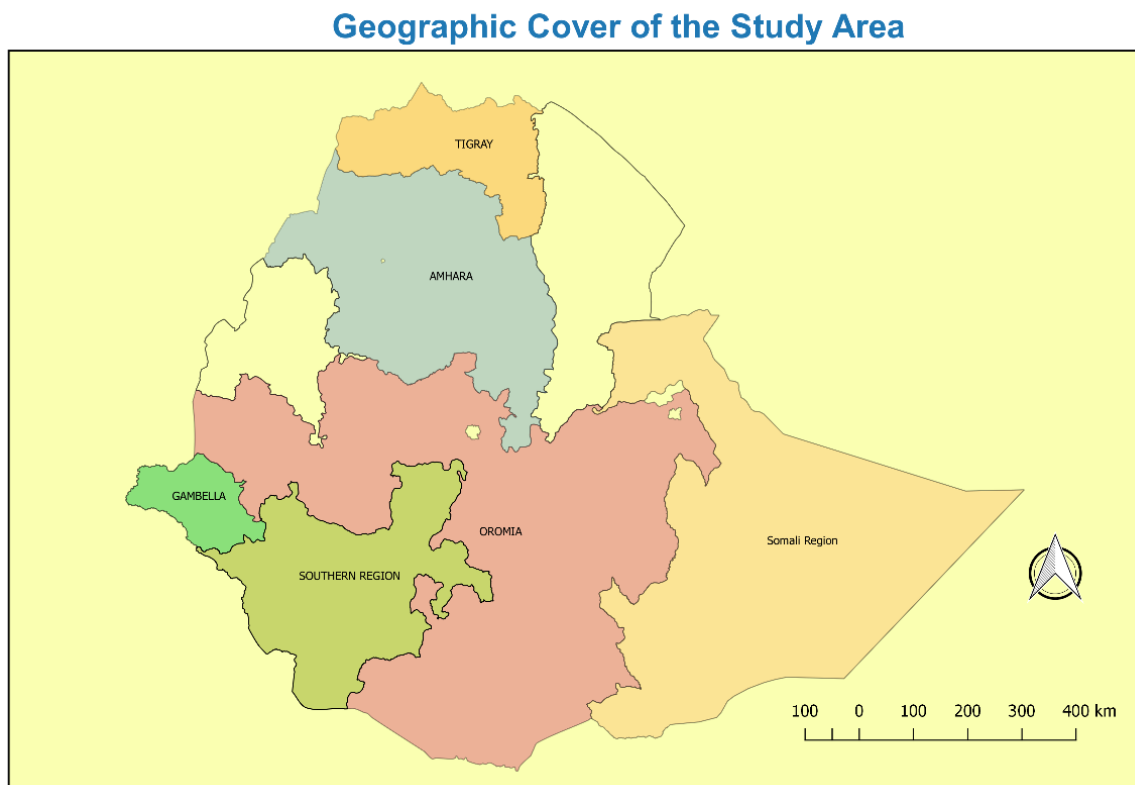


Figure 2: Geographic Distribution of Project Work Areas

There were three relatively recent phenomena that hold significance in the trajectory of the NGO sector in Ethiopia. The two occasions had to do with the famines that hit the country in mid-seventies and eighties that forced the Imperial and Derg regimes, respectively, to allow entry of northern INGOs in significant numbers to help with the huge global relief effort. The third development spurt for NGOs in general and LNGOs in particular followed the 1991 regime change that occasioned a relative opening up of political space (Rahmato, Bantirgu, & Endeshaw, 2008).

3.2. Approach and Design

The research used a mixed approach that incorporated elements of both qualitative and quantitative approaches.

The research applied descriptive research design intended to provide a valid representation of the PM maturity level and its factors relevant to the research questions. It was also an applied research design aimed at finding a solution for an immediate problem facing NGOs in Ethiopia.

3.3. Population and Sampling Method

Population: Population of the study was a group of international and local non - governmental organizations working closely in partnership and consortium in six regional states of Ethiopia. Reasons for identifying these NGOs were 1) researcher's familiarity with each organization, 2) easier access to data and people for interview, 3) to begin with few NGOs for the concept and application of PMMM in Ethiopia hasn't been experienced, and 4) the researcher has been committed to provide a continuous support to each NGO to improve its PMM level.

Sample frame: The sample frame was a list of 12 NGOs disaggregated by international and national NGOs. The list was collected from funding and partnership department.

Sample size: A total of six out of twelve NGOs were sampled of which three were local NGOs. A total of 24 respondents (4 respondents from each NGO) participated in the survey. One person from head office/head of programme, and 3 persons from project management working in the field were respondents of the research.

Sampling: Random method using lottery system was applied.

3.4. Data Collection, Ethics and Instruments

A pilot test was conducted to confirm the validity of the assessment method. Some clarification sentences were included in the survey questionnaire based on the pilot test findings. The data were collected from project and program managers of each organization in the months of September and October 2018 through the survey questionnaire, desk review, and face to face interviews.

The GDPR (General Data Protection Regulation) that set a global data protection standard was applied. In addition, it was agreed not to indicate the names of NGOs and respondents but agreed to use codes. As part of research ethics and GDPR, any information collected from organizations will not be given to the third party except by the written consent of respondents at individual and organizational level.

Survey questionnaire: Survey data were collected from twenty-four respondents who represented six NGOs based on the attached questionnaire (appendix 2).

FGD: The research conducted a total of 6 FGDs - one FGD per NGO based on the unstructured questions (appendix 1).

KII: It focused on the financial management and recruitment processes/systems with six heads of programmes.

Desk review: The study reviewed organizations' long term country strategy, project proposals, baselines, training reports, project reports, project mid-term and final evaluations.

3.5. Data Analysis and Reporting

Organizational PM maturity levels were defined as a 1 to 5 point Likert Scale, with a 1 being the lowest level of PM maturity and a 5 being the highest level. The scores for each deliverable was averaged to determine one score for each PM Knowledge Area and PM Process. The scores then were combined and analyzed to calculate an overall PM maturity level.

SPSS V20 software was applied for descriptive statistical analysis. The qualitative data were analyzed using recursive abstraction method and triangulated with quantitative data.

The research report followed APA (American Psychological Association) style.

3.6. The Model Applied

The theoretical framework reveals that PM maturity has become an important concept in evaluating PM capabilities within organizations. Such an evaluation is often based upon some type of PM3 that assesses different levels of PM maturity. As many models exist today, different kinds of benefits from using them have been identified, but also obstacles and disadvantages (Backlund, Chronéer, & Sundqvist, 2014). This research applied the PM Solutions Project Management Maturity Model. The PM Solutions model was developed by a team of highly experienced project managers and has been used it to conduct maturity assessments in several organizations.

Once the initial level of maturity and areas for improvement are identified, the PMMM provides a roadmap, outlining the necessary steps to take toward project management maturity advancement and performance improvement. It also provides a comprehensive, straightforward, and easy-to-follow plan for advancing organizational project management maturity (pmsolutions, 2018).

4. RESULTS AND DISCUSSION

4.1. Characteristics of the Respondents

It is well known that project management and its performance depends on personal, technical, managerial and leadership Skills which is affected by several factors including level of education, academic background/qualification, age, work experience, training on project management and others. Table 3 supported by narrative explained the findings in relation with respondents.

Table 3: Characteristics of the Respondents

Variable	Response	Percentage (n=24)
Level of Education*	MSc/MA	83
	BSc	17
Qualification/profession	Agriculture	50
	Social Science	33
	Engineering	17
Age **	30 - 40	50
	40 - 50	50
Sex	Male	83
	Female	17
Work experience in the current organization	> 10 years	33
	6 - 9 years	17
	2 - 5 years	33
	< 1 year	17
Have you got training on project management?	Yes	67
	No	33

Source: Own survey result, 2018

* NGOs usually hire graduates and post graduates. PhD is considered as over qualified for the PM role.

** NGOs usually hire project and program staff who have long years of experiences.

As shown in table 3, about 83% of the respondents were post graduates who could understand and respond the questions properly on the organizational culture, system and its project management experiences. Because of their research skill, post graduates could explain the PM situation better than first degree holders which helped the findings reliable. PhD holders were considered as overqualified for the role and therefore were not part of the respondents. The academic background/qualification of respondents were 50%, 33% and 17% from agriculture, social science and engineering categories respectively. As an agriculture dependent country, having more of project managers from agricultural background contributed to better performance, and most of the projects surveyed were agriculture related projects. The technical and conceptual understanding of the project are among the required PM competency areas. Social science graduates could explain more of social dynamics, integration management, stakeholder management, human resource management, communication management and overall project management from communities' perspective. Engineers were able to explain more of scope, time, cost, quality and risk management. Hence, the multidiscipline perspectives of PM team were in place.

Age of the respondents were from 30 to 50 years. NGOs hired graduated staff who had some years of experience. As a result. it was not possible to find respondent who was less than 30 years old. Similarly, people more than 50 years old were considered as less flexible and low energy to accomplish projects constrained by time, cost and performance. In addition, older people don't apply to project management role which is a short-term contract and risky. As evidenced from the discussion, respondents whose age were around thirties could explain the ground reality as they had been working as frontline project managers. Respondents whose age were around fifties could explain the project management systems, processes, risks, lessons and challenges based on their long years of experience. The age range provided the opportunity to collect comprehensive

information from frontline to head office respondents that led the findings be well informed in a comprehensive way. Similarly, the working experiences of respondents within the current organization ranged from less than a year to more than 10 years that gave opportunity to capture diversified perspectives and lessons. Respondents worked more than 10 years in a given organization were able to explain their organizational PM experiences from more than three projects. However, few project managers worked less than a year (17%) were not conversant enough during FGD, and were also not able to understand 10 PM knowledge areas and 5 processes. This was mainly due to the fact that these project managers were hired after the project got approval by project sponsor and they were not part of the project identification and planning process of the projects they were managing at the time of data collection.

Majority of the respondents (83%) were male as female project managers were not available in the market as compared to male project managers, and the project locations were remote and marginalized which were not female friendly. As a result, the gender perspective in relation with PM maturity level was not explained. However, given the significant changes that have taken place in the last 25 years in terms of increasing female participation rates in the workforce and rethinking what constitutes male and female roles, one should operate on the assumption that there is no significant difference in job productivity between men and women (AAU School of Commerce, 2014). Hence, the analysis considered gender equality.

It was fortunate to get 67% of the respondents who got basic project management training that enabled them to understand and respond the project management terminologies and experiences though not as indicated in the PM body of knowledge. Hence, the concept of project maturity, integration management and quality management required time to explain what it means and how to manage it as these areas were not practiced properly. It was observed that respondents who took

training could understand and respond in a better way than those who didn't take the PM training.

There was a need to provide PM training to all who were involved in the PM as project management by its nature is multidisciplinary that involves different functions and departments.

4.2. PM maturity Level of NGOs in Ethiopia

Table 4: Maturity Level

No	PMI Knowledge Areas	Project Management Maturity Levels					Average
		1	2	3	4	5	
		Initial process	Struct. process	Org. standards	Managed process	Optim. process	
1	Project Integration Management			3.2			3.2
2	Project Scope Management		2.4				2.4
3	Project Time Management			3.1			3.1
4	Project Cost Management		2.2				2.2
5	Project Quality Management		2.4				2.4
6	Project Human Resource Management			3.0			3.0
7	Project Communications Management		2.8				2.8
8	Project Risk Management		2.8				2.8
9	Project Procurement Management			3.3			3.3
10	Project Stakeholder Management			3.6			3.6
	Overall average/maturity level						2.9

Source: Own survey result, 2018

As depicted in the table 4, the overall average PM maturity level was found 2.9 which is characterized by the presence of organizational standards and institutionalized project management in which all processes and standards are applied for all projects, repeatable with the summary and detailed information. Five knowledge areas called integration management, time management, human resource management, procurement management, and stakeholder/partner management were found in a better maturity level than others.

Project Integration Management

Project integration management was analyzed in terms of project charter development, project management plan, project management guide, monitoring, change control and project closure.

Table 5: Project Integration Management vs PM Maturity Levels

Project Integration Management factors	PM Maturity Levels					Score	Average
	1	2	3	4	5		
	Initial process	Struct. process	Org. standards	Managed process	Optim. process		
Develop project charter	2	1	2	1	0	14	2.3
Develop project management plan	0	0	2	4	0	22	3.7
Direct and manage project work	0	0	2	4	0	22	3.7
Monitor and control project work	0	0	3	2	1	22	3.7
Perform integrated change control	2	2	1	1	0	13	2.2
Close project or phase	0	0	3	3	0	21	3.5
Average	0.7	0.5	2.2	2.5	0.2	19.0	3.2

Source: Own survey result, 2018

As shown in table 5, the average score for project integration management maturity was 3.2 which was contributed mainly by project management plan, direct & manage project work, and monitoring and controlling.

Desk review and interviews with project/program managers revealed that the fund raising and proposal development processes have incorporated most components of integration management. Project proposal and grant management were among the requirements of donors which were the sources of funding for NGOs. There was no funding without project proposal/charter. Each project must be closed after the grant is done. The long term strategic plan, internal processes of sample NGOs and government's requirement have enhanced NGO's integration management. However, it was observed that integration control was not strong.

Project Time Management

Time management maturity level was measured based on factors including plan schedule management, activity definition, activity sequencing, estimate activity resource, estimate activity duration, schedule development and control.

Table 6: Project Time Management vs PM Maturity Levels

Project Time Management Factors	PM Maturity Levels					Score	Average
	1	2	3	4	5		
	Initial process	Struct. process	Org. standards	Managed process	Optim. process		
Plan schedule management	0	1	3	2	0	19	3.2
Activity definition	0	1	2	3	0	20	3.3
Activity sequencing	0	2	1	3	0	19	3.2

Project Time Management Factors	PM Maturity Levels					Score	Average
	1	2	3	4	5		
	Initial process	Struct. process	Org. standards	Managed process	Optim. process		
Estimate activity resource	0	1	3	1	1	20	3.3
Estimate activity duration	0	1	2	2	1	21	3.5
Schedule development	0	0	3	2	0	17	2.8
Schedule control	2	0	3	1	0	15	2.5
Average	0.3	0.9	2.4	2.0	0.3	18.7	3.1

Source, Own survey result, 2018

As indicated in table 6, time management maturity level was found to be 3.1 (organizational standards). All projects have end dates agreed with donors. To meet this requirement, NGOs applied Gantt chart as a time management tool. If NGOs were not able to deliver the project results and utilize the allocated fund timely, donors request to pay back which has a reputational risk and affect future donor relation and fund raising. To this effect, the time management was improved. However, as informed by the focus group discussion, there were times when projects' end dates were extended based on the written agreement with respective donors. This process is called No Cost Extension (NCE). About 10% of projects completed on time without NCE. Donors require justification why to extend the project end date, and reasons for the delay. These processes have contributed to improve the time management of NGOs in a sense a project completed with NCE were considered as timely completed project. However, if the original completion dates were considered, there were significant time slippage. There was no any practice on the application of critical path that could help improving the time management.

Human Resource Management

Factors considered to measure the maturity level of human resource management were HRM plan, acquire project team, develop and manage project team.

Table 7: Project Human Resource management vs PM Maturity Levels

Project Human Resource Management Factors	PM Maturity Levels					Score	Average
	1	2	3	4	5		
	Initial process	Struct. process	Org. standards	Managed process	Optim. process		
Plan HRM	0	1	4	1	0	18	3.0
Acquire project team	0	1	4	1	0	18	3.0
Develop project team	0	1	5	0	0	17	2.8
Manage project team	0	0	4	2	0	20	3.3
Average	0.0	0.8	4.3	1.0	0.0	18.3	3.0

Source, Own survey result, 2018

As depicted in table 7, the maturity level of human resource management was found to be 3.0 which was encouraging and might be due to the projects' need to be staffed properly to start and close the project timely. The project proposal also requires planning human resources. Project by its nature is a multidisciplinary which should be implemented in team. There were team building experiences via staff retreat where it conducted out of the usual work place, Hence, this requirement enhanced the human resource management.

Project Procurement Management

Its maturity level was measured based on procurement plan management, how to conduct, control and close procurement. The result is shown in table 8.

Table 8: Project Procurement Management vs PM Maturity Levels

Project Procurement Management Factors	PM Maturity Levels					Score	Average
	1	2	3	4	5		
	Initial process	Struct. process	Org. standards	Managed process	Optim. process		
Plan procurement management	0	1	4	1	0	18	3.0
Conduct procurements	0	1	3	2	0	19	3.2
Control procurements	0	1	3	1	1	20	3.3
Close procurements	0	1	2	2	1	21	3.5
Average	0.0	1.0	3.0	1.5	0.5	19.5	3.3

Source, Own survey result, 2018

As shown in table 8, the maturity level of procurement management was found the second highest maturity level (3,3) next to project stakeholder/partnership management. All six NGOs had procurement policy and guidelines. Three INGOs had detail procurement plan for the whole project life prepared during the start of the project which is the usual process and instituted. Procurement and financial management are required by donors and government for the sake of accountability and transparency which are among the principles of development organizations. Procurement and asset disposal systems are also requirements of donors and Ethiopian Charities and societies Agency. All interview respondents confirmed that procurement had high impact on the project quality and timely completion on top of the donors and governments follow up. Hence, NGOs were implementing it properly that led to a better maturity level as compared to other knowledge area.

Project Stakeholder/Partnership Management

NGOs had good experiences in stakeholder and partnership management. Partnership required formal agreement or memorandum of understanding among NGOs before the transfer of project budget. Its maturity level was measured by the system and process in place to identify, plan, manage and control of stakeholders and partners. The result is indicated in table 9.

Table 9: Project Stakeholder Management vs PM Maturity Levels

Project Stakeholder Management Factors	PM Maturity Levels					Score	Average
	1	2	3	4	5		
	Initial process	Struct. process	Org. standards	Managed process	Optim. process		
Identify stakeholders/partners	0	0	3	2	1	22	3.7
Plan stakeholder management	0	1	3	2	0	19	3.2
Manage stakeholder engagement	0	0	1	3	2	25	4.2
Control stakeholder engagement	0	0	3	3	0	21	3.5
Average	0.0	0.3	2.5	2.5	0.8	21.8	3.6

Source, Own survey result, 2018

As shown in table 9, stakeholder management was found the highest maturity level (3.6). All three INGOs surveyed were implementing projects through local NGOs via partnership principle and agreements. There were several project stakeholders identified in the survey including government, donors, beneficiary communities, other NGOs who had different power and interest on the projects. Donors could deny funding and government could deny working license. Hence,

this knowledge area got priority attention. Stakeholder analysis followed by agreed communication/reporting were found strong as confirmed by FGDs.

Project Scope Management

Factors considered to measure the maturity level of scope management were scope plan management, requirement collection, scope definition, WBS, validation and control of scope. The result is shown in Table 10.

Table 10: Project Scope Management vs PM Maturity Levels

Project Scope Management Factors	PM Maturity Levels					Score	Average
	1	2	3	4	5		
	Initial process	Struct. process	Org. standards	Managed process	Optim. process		
Plan scope management	1	3	2	0	0	13	2.2
Collect requirements	1	1	4	0	0	15	2.5
Define scope	1	1	3	1	0	16	2.7
Create WBS	1	2	2	1	0	15	2.5
Validate scope	2	2	2	0	0	12	2.0
Control scope	2	2	1	0	1	14	2.3
Average	1.3	1.8	2.3	0.3	0.2	14.2	2.4

Source, Own survey result, 2018

As indicated in table 10, scope management maturity level was found at a maturity level of 2.4 called structured process and standards. The scope of development projects including NGOs are qualitative in nature which makes difficult to develop its detail plan and control mechanism. The concept of scope was usually applied while developing Terms of Reference (ToR) for project evaluation. There were no strong and clear policy and guidelines for scope management at project

level though there were guidelines to monitor and evaluate quality at program level. Lack of clear guidance and experience on scope management contributed to low maturity level.

Project Quality Management

The project quality maturity level was measured based on factors including plan quality management, perform quality assurance and quality control. The result is shown in table 11

Table 11: Project Quality Management vs PM Maturity Levels

Project Quality Management Factors	PM Maturity Levels					Score	Average
	1	2	3	4	5		
	Initial process	Struct. process	Org. standards	Managed process	Optim. process		
Plan quality management	2	1	3	0	0	13	2.2
Perform quality assurance	2	1	1	2	0	15	2.5
Quality control	2	1	1	1	1	16	2.7
Average	2.0	1.0	1.7	1.0	0.3	14.7	2.4

Source: Own survey result, 2018

As shown in table 11, the maturity level of project quality management was 2.4 which was relatively lower. The quality of development projects including NGOs are qualitative in nature which makes difficult to develop its detail plan and control mechanism. The concept of quality was usually applied while developing proposals, community participation and project evaluations. There were no strong and clear policy and guidelines for quality management at project level though there were guidelines to monitor and evaluate quality at program level.

Project Cost Management

Factors considered to measure the maturity level of cost management were cost estimation, budgeting and budget determination. The result is shown in table 12.

Table 12: Project Cost Management vs PM Maturity Levels

Project Cost Management Factors	PM Maturity Levels					Score	Average
	1	2	3	4	5		
	Initial process	Struct. process	Org. standards	Managed process	Optim. process		
Cost estimating	0	3	3	0	0	15	2.5
Cost budgeting	0	2	4	0	0	16	2.7
Determine budget	0	2	3	1	0	17	2.8
Average	0.0	2.3	3.3	0.3	0.0	16.0	2.7

Source: Own survey result, 2018

All six NGOs had the experiences of cost estimation and budgeting based on standard templates as it is part of the project proposal for funding. However, there was limited scope management, work breakdown structure, activity sequencing, duration and resource estimation. Donors set total fund amount for each project during the call, and there was no adequate time between the call and proposal submission. Due to this fact, NGOs estimated project cost based on previous experiences/expert judgement and sometimes rough estimation without detail process as it had to be. This led them to have over and underestimation of the project cost. As a result, the maturity level of cost management was found low.

Project Risk Management

Factors considered to measure the maturity level of risk management were risk plan management, risk identification, qualitative & quantitative risk analysis, risk responses and control. The result is shown in table 13.

Table 13: Project Risk Management vs PM Maturity Levels

Project Risk Management Factors	PM Maturity Levels					Score	Average
	1	2	3	4	5		
	Initial process	Struct. process	Org. standards	Managed process	Optim. process		
Plan risk management	1	0	5	0	0	16	2.7
Identify risks	1	0	4	1	0	17	2.8
Perform qualitative risk analysis	1	1	3	1	0	16	2.7
Perform quantitative risk analysis	1	1	3	1	0	16	2.7
Plan risk responses	1	1	3	1	0	16	2.7
Control risks	0	2	3	0	1	18	3.0
Average	0.8	0.8	3.5	0.7	0.2	16.5	2.8

Source: Own survey result, 2018

Risk management knowledge area was found at the maturity level of 2.8. There was a risk management processes and systems in all six NGOs. There were multiple risks including security/social unrest, drought, price variation, staff turnover, lack of funding etc., In addition, as revealed during the FGD and document review, risk registers were in place though were not being updated as risk happened that led to low risk control. As a result, the risk management maturity level was not strong enough. The actual experience focused on qualitative not quantitative risk analysis.

Project Communication Management

Plan communications, manage, and control of communications were considered to measure the maturity level of communication. Detail information is shown in table 14.

Table 14: Project Communication Management vs PM Maturity Levels

Project Communication Management Factors	PM Maturity Levels					Score	Average
	1	2	3	4	5		
	Initial process	Struct. process	Org. standards	Managed process	Optim. process		
Plan communications management	0	2	3	1	0	17	2.8
Manage communications	1	1	2	2	0	17	2.8
Control communications	1	2	2	0	1	16	2.7
Average	0.7	1.7	2.3	1.0	0.3	16.7	2.8

Source: Own survey result, 2018

As presented in table 14, the maturity level of communication management was 2.8. There were communication guideline and plan in all six NGOs, but the system of INGOs were stronger than local NGOs which in turn contributed to lower average maturity level. The downward reporting and accountability to beneficiaries was not strong as confirmed by interviewees and evaluation reports.

The objective of communication strategy was to provide orientation to project stakeholders, and particularly partners, in designing and implementing communications and visibility actions to better communicate the activities and results of the project in Ethiopia with the overall objective of ensuring that main stakeholders were aware of the project approach and funders. The document was to be used mainly to guide and inform their communication activities. Project implementing partners should be aware of their obligations to deliver with regards to communications stated in

the contract agreements and ensure donors' visibility in all their communications activities. As a result, upward communication was relatively stronger.

4.3. Extent of PM Knowledge Areas Application

This section explains the extent of each PM knowledge area application based on its respective contributing factors.

4.3.1. Project Integration Management

Table 15: Project Integration Management Results

No	Variable	Frequency (n=24)	Percentage
1	Are all the projects executed in your organization in professional manner within planned time and cost?		
	Yes	12	50
	No	12	50
2	Do you use the project charter?		
	Yes	12	50
	No	12	50
3	Does the overall change controls manage actual changes when they occur?		
	Yes	16	67
	No	8	33
4	Who has the responsibility to approve project?		
	Country Director	24	100
5	Who has responsibility in project planning, execution, and control?		
	Project manager	24	100
6	Does all project process management apply to all projects?		
	Yes	16	67
	No	8	33

Source: Own survey result, 2018

There were project proposals which were equivalent to project charter in all organizations but there were some slight variations across organizations on the contents of the project charter mainly on authorization of the PM. Table 15 depicted that about 50% of respondents confirmed about the

execution of all the projects in their respective organization were in professional manner within planned time and cost, others, during FGD confirmed the existence of cost and time slippage. All projects have proposal/charter, but there were differences around contents of the charter that led to a difference in responses. For example, some NGOs indicated the project manager's authority whereas others didn't. The most change control areas were project site caused by security risks, cost due to price variation and time caused by different reasons. Generally, change management in these knowledge areas were found encouraging. Consistency was managed well as the country director was the only responsible person to approve projects; however, there were slight differences in project management processes across projects as different projects were managed by different project managers.

4.3.2. Project Scope Management

Table 16: Project Scope Management Results

No	Variable	Frequency n=24	Percentage
1	Do you use all the scope management processes and apply to projects?		
	Yes	24	100
	No	0	0
2	Do you provide standard scope management documents for stakeholders/partners		
	Yes	0	0
	No	24	100

Source: Own survey result, 2018

There was scope management process in all organizations and in all projects (table 16). However, scope was explained in terms of objectives and goals which were started at the project design stage

and reviewed during midterm and final evaluation. The scope definition depends on the donor's scope definition explained in the call. Work breakdown structures were explained in terms of project results including outputs. Requirements were not presented in detail as seen from the sample project proposals areas. Monitoring reports indicated that the focus was more of output than scope monitoring and control. There was no any organization that developed guidelines and standards to develop, implement, monitor and control project scope. This area needs attention and correction measures. Respondents confirmed that there was no any provision of standard scope management documents for stakeholders/partners.

4.3.3. Project Schedule Management

All organizations used Gantt chart and detail implementation plan as time management tool. In addition, they used logframe milestones for big projects. To measure changes against time, there was a culture of baseline and end line survey which were also donors' requirement. The planned schedules were available for project teams and other visitors in hard and soft copies. As a result, its maturity level was found in a better position which is 3.1 (table 4). However, as shown in the project proposals reviewed, activity sequencing and duration were not strong and in detail which contributed for not completing some projects on time. FGD confirmed that delay was also contributed by procurement processes.

4.3.4. Project Cost Management

As compared with other knowledge areas, the maturity level of project cost management was found at the lowest level which was 2.2 (table 4). This might be due to lack of proper cost estimation, no system/tool to control costs, and budgeting was based on experiences/expert judgements. The interview respondents confirmed that the cost ceiling for each project was given by donors, and the role of NGOs was to identify activities and allocate budget until it reached the donor's budget

level. Financial reports indicated lots of over and under spent. And in some cases, projects had been completed before it achieved its purpose due to lack of budget. In addition, price fluctuation was one of the challenges of cost management. The expenditure variation (the difference between actual expenditure vs planned budget and was the only tool used to monitor cost of the project. There was no evidence to ensure that scope changes affected cost estimates that needed approved by management.

3.3.5. Project Quality Management

Table 17: Project Quality Management Results

No	Variable	Frequency n=24	Percentage
1	Is there software based systems / tools that you currently use to manage your project quality?		
	Yes	8	33
	No	16	67
2	Are quality goals methods and systems established for each project?		
	Yes	0	0
	No	24	100
3	Are quality assurances processes established and recognized by your organization?		
	Yes	4	17
	No	20	83
4	Are there performance/quality standards used to identify and measure project's output quality?		
	Yes	0	0
	No	24	100

Source: Own survey result, 2018

The experiences of project quality management across organizations were not satisfactory comparing with other knowledge areas (see table 4 to compare the maturity level of all ten knowledge areas). Table 17 indicated major reasons for low quality management experiences. It included – 1) only two INGOs (33%) experienced software based tool to manage project quality though not in a comprehensive way; 2) only one INGO used quality assurances processes established during planning phase which had no mechanism to control and assure during implementation; 3) there was no any quality methods and systems established for each project rather projects follow a generic and incomplete quality management system; and 4: there was no performance/quality standards used to identify and measure project’s output quality. Document review revealed the implementation of different trainings and infrastructure build; however, there were no any quality indicators and control system whether the right interventions were made. NGOs surveyed perceived that a project is quality when it is done on time, cost and satisfies beneficiaries; however, project beneficiaries in most cases were farmers in remote areas who have limited quality information. In addition, beneficiaries had limited concern about the quality as the project was implemented by aid money, and they appreciated by the assistance they received. So, ethics, moral and internal accountability mechanism is required for projects implemented by aid.

3.3.6. Project Human Resource Management

Table 18: Project Human Resource Management Results

No	Variable	Frequency n=24	Percentage
1	Are your project management practices and process consistent across divisions and functional groups?		
	Yes	24	100
	No	0	0

No	Variable	Frequency n=24	Percentage
2	Are project management training courses identified and training provided?		
	Yes	16	67
	No	8	33
3	Do you have defined roles and responsibilities for all project members?		
	Yes	20	83
	No	4	17
5	Do you have a defined skill level for project manager?		
	Yes	20	83
	No	4	17

Source: Own survey result, 2018

The experiences of human resource management across surveyed NGOs were found in good condition, and its maturity level was 3.0 (table 4). All the project management practices and process were consistent across divisions and functional groups. As shown in table 18, about 67% of the respondents confirmed that project management training courses were provided and improved its PM skill. Majority of the project managers had a clear and defined roles and responsibilities. All the human resource management practices including human resource planning, acquire, develop and managing project team was instituted in all surveyed NGOs. Based on the discussion held with human resource coordinator and project managers, all the required systems/tools were in place and there was no any problem associated with it (see table 18 for detail information).

Project Communication Management

Project communication implementation level was examined based on shared lessons learnt and documentation to inform another project. The result is shown in table 19.

Table 19: Project Communication Management Results

No	Variable	Frequency n=24	Percentage
1	Does project manager share lessons learned with project members?		
	Yes	20	83
	No	4	17
2	Are final reports, lessons learned and experiences well organized and utilized for other projects?		
	Yes	12	50
	No	12	50

Source: Own survey result, 2018

As depicted in table 19, 83% responded that project managers shared lessons learned with project staff; and 50% of respondents confirmed that project reports were documented and utilized for another project. There was a communication with donors, government and NGOs via email and hard copies from the proposal development up to project closure. There were communication guidelines and schedule specially for financial and narrative reports. However, there was no detail guideline on how to plan, manage and control downward communications with communities which might led to low maturity level (2.8 as of table 4). Memorandum of Understanding (MoU), project launching workshop, midterm and final evaluations were among communicated documents. Evaluation reports, case stories, video clip and joint monitoring visits were mechanisms to share lessons learned. However, communication with beneficiaries in were not found strong as confirmed by FGDs which affected the principle of transparency and downward accountability. This area needs improvement.

Project Risk Management

Project risks and its impact on the project were mentioned frequently in the evaluation documents and FGDs. There was no any project that didn't face risk.

Table 20: Project Risk Management Results

No	Variable	Frequency n=24	Percentage
1	Are the areas of risk identified and mitigated for each project?		
	Yes	20	83
	No	4	17
2	Is there a defined process to measure deliverables?		
	Yes	24	100
	No	0	0
3	Are there standard documents provided of risk management for project members and customers?		
	Yes	16	67
	No	8	33
4	Is the risk analysis done for each project?		
	Yes	12	50
	No	12	50

Source: Own survey result, 2018

All organizations did risk analysis and mitigation plan starting from the project design. Risks were analyzed quantitatively with probability (high, medium and low probability) and level of impact (high, medium and low impact). Those risks with high probability and high impact got attention by project team and senior management. There was no mitigation plan for risks categorized as low impact and low probability. There was a defined process to measure deliverables mainly project output supported by indicators.

Table 20 indicated that 83% of the respondents confirmed the presence of risk identification and mitigation measure for each project; all respondents confirmed the presence of defined process to measure deliverables; 67% confirmed the presence of standard documents of risk management; and 50% confirmed the presence of risk analysis for each project. However, as observed in the risk matrix of sample projects, most risks were generic and not project specific. Technical risks were not analyzed in detail. Most risks identified were political, financial and staff turnover risks which were beyond the control of the project. In addition, there was no strong system in all organizations surveyed to forecast risks and develop immediate mitigation plan for emerging risks. As a result, the risk management and maturity level was found at lower level (2.8 as of table 4) compared with other knowledge areas.

Project Procurement Management

Table 21: Project Procurement Management Results

No	Variable	Frequency n=24	Percentage
1	Is there a written formal working procedure and format for procurement works?		
	Yes	24	100
	No	0	0
2	Is the procurement management applied to all projects?		
	Yes	24	100
	No	0	0
3	Does the procurement department take a lead on planning, requisitioning items?		
	Yes	20	83
	No	4	17

Source: Own survey result, 2018

As depicted in table 21, all respondent organizations had a written working procedure and format for procurement activities, and procurement management process applied to all projects. In most cases (83%), the procurement department took a lead on planning and requisitioning items. In some cases, program department developed procurement plan and submitted to logistics department. Procurement plan, implementation, control and closing processes went well. There were no major problems in procurement except some delays in tendering processes. This might be the reason to have a better maturity level (3.2 as of table 4).

Project Stakeholder Management

Table 22: Project Stakeholder Management Results

No	Variable	Frequency n=24	Percentage
1	Is the stakeholder management process required to identify stakeholders that could impact or be impacted by the project?		
	Yes	24	100
	No	0	0
2	Is the relevant information available for all identified stakeholders?		
	Yes	20	83
	No	4	17

Source: Own survey result, 2018

Table 22 indicated that all stakeholder management process required to identify stakeholders that could impact or be impacted by the project, but only 83% of the respondents confirmed the availability of information to all stakeholders.

There were stakeholder/partners' management principles and process required to identify the people, groups or organizations that could be impacted by the project. Identification of

stakeholders was mainly via stakeholders' analysis, partners' capacity assessment criteria, and alignment with mission and objectives. Group of people to be reached by the project was identified based on communities' level of vulnerability and disaster; however, the relevant information available for these groups of people were limited which is called lack of downward accountability. Major consortium projects had quarterly standard meetings with various leaders and experts of stakeholders. There were partnership managers responsible to manage the relationship and communication throughout the project life. As a result, the maturity level of stakeholder management was found to be 3.6 (table 4).

4.4. Appropriateness of the Existing PM Maturity Model to NGO Sector

Based on the literature review and survey findings, there were many PM models recommended and appropriate for business and development projects. The models developed for business projects can also be applied to NGOs, but would be better if it includes the Development Assistance Committee (DAC's) Evaluation Criteria which are recommended by Organization for Economic Co-operation and Development (OECD) for development projects including NGOs. The DAC Network on Development Evaluation is currently exploring how the DAC Evaluation Criteria can be adapted to the new development landscape and the 2030 Agenda. The five criteria - relevance, effectiveness, efficiency, impact, and sustainability have been applied widely in evaluations of development programs and projects (OECD, 2018). In addition, some criteria like community empowerment, transparency, accountability, value for money and grant management can be included while measuring maturity level of projects operated by NGOs.

5. SUMMARY, CONCLUSION AND RECOMMENDATION

5.1. Summary and Conclusion

Project management maturity level refers to a state that provides a condition to achieve organization's objectives. Project management maturity has direct impact on project performance. The overall project maturity level was found to be 2.9 which indicated the presence of organizational standards and institutionalized project management processes. The maturity level of each PM knowledge area was 3.2 for project integration management, 2.4 for scope management, 3.1 for time management, 2.2 for cost management, 2.4 for quality management, 3.0 for human resource management, 2.8 for communications management, 2.8 for risk management, 3.3 for procurement management, and 3.6 for stakeholder management.

The long term strategic plan, internal processes of sample NGOs and government's requirement have enhanced NGO's integration management. There was no funding without project proposal/charter and each project must be closed formally after the grand it completed.

There was scope management process in all organizations and in all projects. However, scope was explained in terms of objectives and goals in qualitative terms. The scope definition depends on the donor's scope definition explained in the call. There was no any organization that developed guidelines and standards to develop, implement, monitor and control project scope.

All projects had beginning end dates agreed with donors. To meet this requirement, NGOs applied Gantt chart as a time management tool. If NGOs were not able to deliver the project results and utilize the allocated fund timely, donors request to pay back which in turn has a reputational risk and affect future fund raising. To this effect, the time management was an important area. However, there were times when projects' end dates were extended based on the written agreement

with respective donors. This process is called No Cost Extension (NCE). It was only about 10% of projects which was completed on time without NCE.

The maturity level of project cost management was found at the lowest level which might be due to lack of proper cost estimation, no system/tool to control costs, and budgeting was based on experiences, expert judgements and rough estimates without following the detail process as expected. The cost ceiling for each project was given by donors, and the role of NGOs was to identify activities and allocate budget until it reached the donor's budget level. Financial reports indicated lots of over and under spent.

The experiences of project quality management across surveyed organizations were not satisfactory comparing with other knowledge areas. The quality of development projects including NGOs are qualitative in nature which makes difficult to develop its detail plan and control mechanism. There was no any quality methods, standards, systems and indicators established for each project to ensure quality. Sampled NGOs perceived that a project is quality when it is done on time, cost and satisfies beneficiaries. Ethics, moral and internal accountability mechanism is required to ensure quality for projects implemented by aid.

The human resource management across surveyed NGOs were found in good condition. All the project management practices and process were consistent across divisions and functional groups. Project management training courses were provided and improved its PM skill. Majority of the project managers had a clear and defined roles and responsibilities. All the human resource management practices including human resource planning, acquire, develop and managing project team was instituted. Human resource planning was a requirement before funding. There were team building experiences.

The objective of communication strategy was to provide orientation to project stakeholders, and particularly partners, in designing and implementing communications and visibility actions to better communicate the activities and results of the project in Ethiopia with the overall objective of ensuring that main stakeholders were aware of the project approach and funders. Project managers documented and shared lessons learned with project staff and for another project. There was a communication with donors, government and NGOs via email and hard copies from the proposal development up to project closure. However, there was no detail guideline on how to plan, manage and control downward communications with communities.

All six NGOs had procurement policy and guidelines. Three INGOs had detail procurement plan for the whole project life prepared during the start of the project. Procurement and financial management guidelines were required by donors and government for the sake of accountability and transparency. Procurement and asset disposal systems are also requirements of donors and Ethiopian Charities and societies Agency. There were no major problems in procurement except some delays in tendering processes. Hence, NGOs were implementing procurement properly that led to a better maturity level as compared to other knowledge areas.

NGOs had good experiences in stakeholder and partnership management. There were stakeholder/partners' management principles and process required to identify the people, groups or organizations that could be impacted by the project. Partnership required formal agreement or memorandum of understanding among NGOs before the transfer of project budget. All three INGOs surveyed were implementing projects through local NGOs via partnership principle and agreements. There were several project stakeholders identified in the survey including government, donors, beneficiary communities, other NGOs who had different power and interest on the projects.

All sampled NGOs did risk analysis and mitigation plan starting from the project design. Risks were analyzed quantitatively with probability (high, medium and low probability) and level of impact (high, medium and low impact). Those risks with high probability and high impact got attention by project team and senior management. There was no mitigation plan for risks categorized as low impact and low probability. Most risks were generic and not project specific. Technical risks were not analyzed in detail. Most risks identified were political, financial and staff turnover risks which were beyond the control of the project. In addition, there was no strong system in all organizations surveyed to forecast risks and develop immediate mitigation plan for emerging risks. The actual experience focused on qualitative not quantitative risk analysis.

All knowledge areas had not been implemented adequately and equally. Knowledge areas which had a serious attention and follow up from donors and government were relatively mature than those knowledge areas that received less attention. Project integration, time, human resource, procurement and stakeholder management were found in a better maturity level than others due the attention given to these knowledge areas. Knowledge areas supported by guidelines, principles, and tools were found more mature than others which hadn't adequate guidelines and policies.

The existing PM models can be applicable to projects in Ethiopia implemented by development actors including NGOs. However, due to some characteristics of development projects that made it different from business projects, there is a need to incorporate it in the current business project maturity models and make the model comprehensive. The maturity level of NGOs' projects can be improved significantly by improving some knowledge areas that got lesser attention which includes project scope, cost, quality management.

5.2. Recommendation

- All ten knowledge areas were found relevant to improve the performance of NGOs' projects. Hence, it is advisable to apply all 10 knowledge areas equally in all projects with relevant additional guidelines and tools;
- The PMI maturity model hasn't included some features of development projects like community empowerment. Hence, it is advisable to develop a comprehensive framework that includes all 10 knowledge areas, additional characteristics of development projects, and DAC's criteria;
- There is a need to further improve the scope, cost and quality management of development projects keeping in mind its qualitative nature. External independent project evaluations revealed that most projects were found relevant, but sustainability and quality were questionable which might be caused by poor quality and unable to meet the scope requirements;
- Develop a roadmap to improve the level of PM maturity based on the findings;
- Share the research process and findings to other NGOs and development projects for learning and scale up; and
- Further research guided by inferential statistics is recommended for wider/national level understanding and recommendations.

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APPENDIX

Appendix 1: Interview and FGD Questions

- Do you have information and experiences on different PM maturity assessment models?
Which one is more appropriate to NGO sector?
- What are existing PM practices and emerging issues in different cycles of the PM?
- What are the practical PM strengths contributed to the success of your project?
- What are the real weaknesses affecting the project implementation?
- What are external factors affecting project management in NGO sectors?
- How is the financial system works? Was there over and under spent? Why?
- How is the staff recruitment process and transparency?
- Is your organization interested to apply PMM models?
- Do you have any recommendation to improve project performance?

Appendix 2: Survey Questionnaire

Dear respondent, thanks for your willingness to fill the survey questionnaire. The information is confidential and for academic purpose, and to improve project management in the organization. You will receive the assessment report.

Date of response: _____

Organization: _____

Position of the respondent: _____

Level of Education: _____

Qualification/profession: _____

Age: _____

Sex: _____

Work experience in the current organization: _____

Have you got training on project management? _____

I. Project Integration Management (PIM)

Project Integration Management includes the processes and activities to identify, define, combine, unify, and coordinate the various processes and project management activities within the Project Management Process Groups. In the project management context, integration includes characteristics of unification, consolidation, communication, and interrelationship. These actions should be applied from the start of the project through completion. PMI includes making choices about resource allocation, balancing competing demands, examining any alternative approaches, tailoring the processes to meet the project objectives, and managing the interdependencies among the Project Management Knowledge Areas.

Table 1: Project Integration Management Questions

No.	Project integration management questions	Answer with comment (TICK)
1	Are all the projects executed in your organization in professional manner within planned time and cost?	Yes: ____ No: ____ Comment: _____

2	Do you use the project charter? It is a document that formally authorizes the existence of a project and provides the project manager with the authority to apply organizational resources to project activities.	Yes: ____ No: ____ Comment: _____ _____
3	Does the overall change controls manage actual changes when they occur?	Yes: ____ No: ____ Comment: _____ _____
4	Who has the responsibility to approve project?	Country director: _____ Head of Programs: _____ Comment: _____ _____
5	Who has responsibility in project planning, execution, and control?	Not sure /Not applicable ____ Project manager: _____ Comment: _____ _____
6	Does all project process management apply to all projects?	Yes: ____ No: ____ Comment: _____ _____

II. Project Scope Management

Project scope management includes the processes required to ensure that the project includes all the work required to complete the project successfully. Managing the project scope is primarily concerned with defining and controlling what is and is not included in the project.

Table 2: Scope Management Questions

No.	Questions	Answer with comment (TICK)
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1	Do you use all the scope management processes and apply to projects?	- Do you collect project requirements? Yes: __, No: __ - Do you define project scope clearly? Yes: __, No: __ - Do you practice Work Breakdown Structure (WBS)? Yes: __, No: __ - Do you verify project scope? Yes: __, No: __ - Do you control project scope during implementation? Yes: __, No: __ Comment: _____
2	Do you provide standard scope management documents for stakeholders/partners	Yes: ____ No: ____ Comment: _____
3	How is the scope of project determined?	- Direction from management. Yes: __, No: __ - Developed from donors. Yes: __, NO __ - Consultation with communities? - Consultation with partners. Yes: __, No: __ - Others, specify _____
4	How is the scope change and scope control process going on?	- Lead by management decision. Yes __, No: ____ - Request by communities. Yes __, No: ____ - Request by project partners. Yes __, No: ____ - Request from donor. Yes: __, No: ____ - Guided by project implementation team. Yes: __, No: __ - Other, specify _____

III. Project Schedule Management

Project Schedule Management includes the processes required to manage the timely completion of the project

Table 3: Project Schedule Management Questions

No.	Questions	Answer with comment
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1	What type of documents do you use for time management?	• Milestone plans. Yes: ___, No: ___ • Gantt chart. Yes: ___, No: ___ • System plans. Yes: ___, No: ___ • Master schedule plan. Yes: ___, No: ___ • Other, if so describe. _____
2	What type of tools/ techniques do you use for time management process?	• Project management software. Yes: ___, No: ___ • MS Excel. Yes: ___, No: ___ • List of tasks. Yes: ___, No: ___ • Other, describe. _____
3	Is the baseline schedule maintained for each project?	Yes: _____ No: _____ Comment. _____
4	Is the planned schedule available for all project teams via web or email?	Yes: _____ No: _____ Comment. _____

IV. Project Cost Management

Project Cost Management includes the processes involved in planning, estimating, budgeting, financing, funding, managing, and controlling costs so that the project can be completed within the approved budget.

Table 4: Cost Management Questions

No.	Questions	Answer with comment
1	What systems / tools do you currently use to manage your project cost - practices for resource planning, cost estimation and budgeting?	• Project management software - MS Project. Yes __, No __ • MS Excel – X, for small projects. Yes ___, No ___ • Earned Value Management. Yes ___, No ___ • Forecasting. Yes ___, No ___ • Other, _____
2	How are project costs assigned?	• By project. Yes ___, No ___ • By tasks and time - Yes ___, No ___ • By department. Yes ___, No ___

		• By WBS (Work Breakdown Structure). Yes ____, No ____ • Other, _____
3	What method do you use for tracking costs?	• Project manager maintains a spreadsheet. Yes ____, No ____ • Financial management software. Yes ____, No ____ • Variance analysis. Yes ____, No ____ • Other,
4	Are scope changes and cost estimates approved by management?	• Yes: ____ • No. ____ • Comment: _____

V. Project Quality Management

Project Quality Management includes the processes for incorporating the organization's quality policy regarding planning, managing, and controlling project and product quality requirements to meet stakeholders' objectives. Project Quality Management also supports continuous process improvement activities as undertaken on behalf of the performing organization.

Table 5: Quality Management Questions

No.	Questions	Answer with comment
1	Is there software based systems / tools that you currently use to manage your project quality?	• Quality management and control tools. Yes: _____. No: ____ • Seven Basic Quality Tools. Yes: _____. No: ____ • Maintain organizational quality standards. Yes: _____. No: ____ • Quality metrics and audits. Yes: _____. No: ____ • Project review and evaluation Yes: _____. No: ____ • Process analysis. Yes: _____. No: ____ • Not applicable. Yes: _____. No: ____ • Other, explain. _____
2	Are quality goals methods and systems established for each project?	• Yes. ____ • No. ____

		• Comment.
3	Are quality assurances processes established and recognized by your organization?	• Yes. ____ • No. ____ • Comment.
4	Are there performance/quality standards used to identify and measure project's output quality?	• Yes. ____ • No. ____ • Comment

VI. Project Resource Management

Project Resource Management includes the processes to identify, acquire, and manage the resources needed for the successful completion of the project. These processes help ensure that the right resources will be available to the project manager and project team at the right time and place. It includes how to estimate, acquire, manage, control and utilize physical and team resources.

Table 6: Project Resource Management Questions

No.	Questions	Answer with comment
1	Are your project management practices and process consistent across divisions and functional groups?	• Yes. ____ • No. ____ • Comment: _____
2	What systems / tools do you currently use to plan HR management in your projects?	• Organizational charts and position descriptions. Yes: __, No: ____ • Networking. Yes: __, No: ____ • Organizational theory. Yes: __, No: ____ • Expert judgment. Yes: __, No: ____ • Meetings. Yes: __, No: ____

		• Other, describe: _____
3	Are project management training courses identified and training provided?	• Yes: ____ If yes, list major trainings _____ • No • Comment: _____
4	Do you have defined roles and responsibilities for all project members?	• Yes. ____ • No. ____ • Comment: _____
5	Do you have a defined skill level for project manager?	• Yes. _____. If yes, list major skills • No. ____ • Comment: _____

VII. Project Communications Management

Project Communications Management includes the processes necessary to ensure that the information needs of the project and its stakeholders are met through development of artifacts and implementation of activities designed to achieve effective information exchange.

Table 7: Communications management results

No.	Questions	Answer with comment
1	What kind of techniques and tools do you use to plan communications?	• Communication requirements analysis. Yes. ____, No. ____ • Communication technology. Yes. ____, No. ____ • Communication methods standard Excel template (who will take to who, when, how often) for all projects ____, No. ____ • Meetings ____, No. ____ • Other, if so describe _____
2	Does project manager share lessons learned with project members?	• Yes _____ • No _____ • Comment _____

3	Are final reports, lessons learned and previous experiences well organized, documented and utilized for other projects?	• Yes_____ • No _____ • Comment _____
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VIII. Project Risk Management

Project Risk Management includes the processes of conducting risk management planning, identification, analysis, response planning, response implementation, and monitoring risk on a project. The objectives of project risk management are to increase the probability and/or impact of positive risks and to decrease the probability and/or impact of negative risks, to optimize the chances of project success.

Table 8: Risk Management Questions

No.	Questions	Answer with comment
1	When is project risk analyzed?	• o Before all field exploration. Yes ____, No ____ • After every project phase. Yes ____. No. ____ • After accomplishing every key event. Yes ____. No. ____ • After reaching every milestone. Yes ____. No. ____ • After every progress evaluations. Yes ____. No. ____ • Other, describe _____
2	Are the areas of risk identified and mitigated for each project?	• Yes _____ • No _____ • Comment _____
3	Is there a defined process to measure deliverables?	• Yes _____ • No _____ • Comment _____

4	What methods or tools do you use to manage and control risk?	• Monte Carlo analysis - Modelling and simulation. Yes __, No __ • Decision tree analysis. Yes __, No __ • Scenario analysis. Yes __, No __ • Gantt charts. Yes __, No __ • SWOT analysis. Yes __, No __ • Other, Describe _____
5	Are there standard documents provided of risk management for project members and customers?	• Yes, _____ • No _____ • Comment _____
6	Is the risk analysis done for each project?	• Yes, _____ • No _____ • Comment _____

IX. Project Procurement Management

Project procurement management includes the processes necessary to purchase or acquire products, services, or results needed from outside the project team. Project procurement management includes the management and control processes required to develop and administer agreements such as contracts, purchase orders, memoranda of agreements (MOAs), or internal service level agreements (SLAs).

Table 9: Procurement Management Questions

No.	Questions	Answer with comment
1	Is there a written formal working procedure and format for procurement works?	• Yes ____ • No _____ • Comment _____
2	Is the procurement management process applied to all projects?	• Yes ____ • No _____ • Comment _____

3	Does the procurement department take a lead on planning, requisitioning items?	• Yes ____ • No ____ • Comment _____
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X. Project Stakeholder Management

Project stakeholder management includes the processes required to identify the people, groups, or organizations that could impact or be impacted by the project, to analyze stakeholder expectations and their impact on the project, and to develop appropriate management strategies for effectively engaging stakeholders in project decisions and execution. The processes support the work of the project team to analyze stakeholder expectations, assess the degree to which they impact or are impacted by the project, and develop strategies to effectively engage stakeholders in support of project decisions and the planning and execution of the work of the project.

Table 10: Stakeholder Management Questions

No.	Questions	Answer with comment
1	Is the stakeholder management process required to identify the people, groups or organizations that could impact or be impacted by the project?	• Yes ____ • No ____ • Comment _____
2	What tools do you use to identify stakeholders in your project?	• Stakeholder analysis. Yes ____, No ____ • Standard form in meetings with various experts Yes __, No __ • Expert judgment. Yes ____, No ____ • Meetings. Yes ____, No ____ • Other, describe _____
3	Is the relevant information available for all identified stakeholders?	• Yes ____ • No ____ • Comment _____

4	Who has a responsibility to plan, manage, control, and make decisions in stakeholder management process?	• Country director. Yes __, No __ • Head of Programs Yes __, No __ • Project Manager. Yes __, No __ • Partnership manager/officer. Yes __, No __ • Other, describe _____
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Appendix 3: Assessment of the Maturity Level of each Knowledge Area

Please score/rate for each question under the heading of the main project management body of knowledge areas indicated in the table 11 below. To guide your decision, the definition of each maturity level has been given as follows:

Level 1: Initial process

- Ad hoc process and management awareness

Level 2: Structured process and standards

- Basic processes, not standard on all projects, used on large, highly visible projects
- Management supports and encourages use

Level 3: Organizational standards and institutionalized management

- All processes, standards for all projects, repeatable
- Summary and detailed information

Level 4: Managed process

- Process integrated with corporate process
- Management uses data to make decisions specific

Level 5: Optimizing process

- Process to measure project effectiveness and efficiency
- Process in place to improve project performance
- Management focuses on continuous improvement

Table 11: Project Management Maturity Level Scoring

No.	PMI knowledge areas	PM solutions maturity levels				
		1	2	3	4	5
		Initial process	Struct. process	Org. standards	Managed process	Optim. process
1	Project Integration Management					
1.1	Develop project charter					
1.2	Develop project management plan					
1.3	Direct and manage project work					
1.4	Monitor and control project work					
1.5	Perform integrated change control					
1.6	Close project or phase					
2	Project Scope Management					
2.1	Plan scope management					
2.2	Collect requirements					
2.3	Define scope					
2.4	Create WBS					
2.5	Validate scope					
2.6	Control scope					
3	Project Time Management					
3.1	Plan schedule management					
3.2	Activity definition					
3.3	Activity sequencing					
3.4	Estimate activity resource					
3.5	Estimate activity duration					
3.6	Schedule development					

No.	PMI knowledge areas	PM solutions maturity levels				
		1	2	3	4	5
		Initial process	Struct. process	Org. standards	Managed process	Optim. process
3.7	Schedule control					
4	Project Cost Management					
4.1	Cost estimating					
4.2	Cost budgeting					
4.3	Determine budget					
5	Project Quality Management					
5.1	Plan quality management					
5.2	Perform quality assurance					
5.3	Quality control					
6	Project Human Resource Management					
6.1	Plan HRM					
6.2	Acquire project team					
6.3	Develop project team					
6.4	Manage project team					
7	Project Communications Management					
7.1	Plan communications management					
7.2	Manage communications					
7.3	Control communications					
8	Project Risk Management					
8.1	Plan risk management					
8.2	Identify risks					
8.3	Perform qualitative risk analysis					

No.	PMI knowledge areas	PM solutions maturity levels				
		1	2	3	4	5
		Initial process	Struct. process	Org. standards	Managed process	Optim. process
8.4	Perform quantitative risk analysis					
8.5	Plan risk responses					
8.6	Control risks					
9	Project Procurement Management					
9.1	Plan procurement management					
9.2	Conduct procurements					
9.3	Control procurements					
9.4	Close procurements					
10	Project Stakeholder Management					
10.1	Identify stakeholders					
10.2	Plan stakeholder management					
10.3	Manage stakeholder engagement					
10.4	Control stakeholder engagement					