# FACTORS INFLUENCING THE SUCCESSFUL IMPLEMENTATION OF THE LIVELIHOOD PROJECTS: THE PERCEPTION OF PROJECT MANAGERS IN THE NOT FOR PROFIT ORGANIZATIONS IN KENYA

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### **DECLARATION**

This research report is my original work and has not been presented for the award of any degree
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### **DEDICATION**

This research report is dedicated to my wife Beverlyn Owano, my children John Bruno and Talia Blessings and my mother Alice Okeyo for their support, belief and constant presence during my studies.

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### ABBREVIATIONS AND ACCRONYMS

- **CPM** Critical Path Method
- **IPMA** International Project Management Association
- NGO Non-Governmental Organization
- **PERT** Program Evaluation and Review Technique
- **PMBOK** Project Management Body of Knowledge
- PMI Project Management Institute
- WBS Work Breakdown Structure

#### **ABSTRACT**

A number of problems undermine livelihood projects success. Many projects around the world also keep failing, resulting in loss of millions of dollars for organizations. This study aimed at collecting information that would identify the factors that would be critical to project success as perceived by the not for profit organizations in Kenya. This study adopted a cross-sectional study design where data was collected once within a period of one month and analysed. The study population was drawn from NGOs operating in Kenya and implementing livelihood related projects across the country with a size of 143 NGO's representatives. Data was collected using semi-structured questionnaires with A Likert scale system of measurement on a continuum ranging from 1-5 where 1 corresponds to strongly disagree and 5 corresponds to strongly agree. The results revealed that 78.8% of project success could be accounted for by single rating for main project success indicators including competency factors, project management and external factors. However, an attempt to test competitiveness of the three domains of project success measurement outcomes revealed that factors related to project management was the most competitive (Communality=0.947) followed closely by external factors (Communality=0.917) and competency factors (Communality=0.791) as per the rating of participants. This implies that project management related indicators were most valued in the evaluation of project success. Within competency domain as a measure of project success, it emerged that competency of project team as a measure of project success would generate three factor group categories namely: leadership, planning and technical skills; communication, management and technical skills competencies; planning, external and internal management skills in the order of superiority. Management aspects of project success identified three factor groups namely: planning, monitoring and communications aspects; risk, monitoring and communication aspects of project management; communication, monitoring of project activities, managing risk associated with the project in that order. External factor aspects of project success also identified two main factor groups namely: political, technological, economic, environmental and social factors and political, economic and social factor domains in the context of project success. This study has brought on board a critical model for project managers to apply in ensuring project success

### CHAPTER ONE INTRODUCTION

### 1.1 Background of the Study

According to Jaspars, S. (2006) Livelihood projects are those that seek to increase the incomes and agricultural productivity of poor small-scale farmers. In response to addressing food crisis, the projects provide farmers with seeds and fertilizer to restore agricultural production (Eldis, 2010). To reduce the risks associated with rain fed farming, the projects also supports rehabilitation and development of new irrigation systems, reservoirs and rainwater harvesting structures (Chambers and Conway, 1991). Livelihood projects help farmers gain access to support services that enable them to improve marketing of their produce. The projects also aim to strengthen local government institutions and support capacity building for farmers and their organizations.

Livelihoods projects fully involve the people whose livelihoods are affected. A livelihoods approach identifies projects based on the priorities and goals defined by people themselves and support their own livelihoods strategies. It builds on people's strengths, and in emergencies, people are assisted in becoming less vulnerable and more resilient to the impact of disasters. Livelihood projects recognize multiple influences on people at different levels, and seek to understand the relationships between these influences and their joint impact upon livelihoods (Creti, 2005). This includes influences at the macro level (national and international) and at the micro-level (community and household). It also recognizes the multiple actors (from the private sector to national level ministries) influencing livelihoods. It acknowledges the multiple livelihood strategies that people adopt to protect and secure their livelihoods and multiple livelihood outcomes. The complexity of multiple involvements of various actors calls for sound project management for these projects to be successful (Donnges, 2009).

Interest in project management has grown considerably over the last few years, with academics and practitioners alike demonstrating keen interest. Project management offers organizations the means to be efficient, effective, and competitive in a shifting, complex, and unpredictable environment. As a result of the surging interesting the field of Project management professional organizations such as the Project Management Institute (PMI) and the International Project Management Association (IPMA) have been founded.

The specific nature of project management makes it a professional and scientific specialization that differs from traditional management by the generally limited, temporary, innovative, unique, and multidisciplinary nature of projects. Project management is therefore widely recognized to require its own tools and techniques (Munns & Bjeirmi, 1996). It would be an oversimplification to speak of project management as a group of specific tools and techniques that one simply has to apply toward the attainment of specific management objectives. Certainly, it is true that project scheduling problems as well as planning techniques such as program evaluation and review technique (PERT) and critical path method (CPM) have preoccupied investigators and practitioners for decades. These people have shared a deep conviction that the development of better scheduling techniques would lead to better project management and, thus, project success (Belassi &Tukel, 1996; Fortune and White, 2006).

Despite such scientific activity and the tireless efforts of practitioners, projects' results continue to disappoint stakeholders (Zwikael & Globerson, 2006). Today, as in the past, experienced project managers are all too familiar with many cases of projects that are considered failures. Without entering into a detailed discussion and listing failed projects, it can be said that, from a professional point of view, it is important to understand the success and failure of projects. It is no secret that project managers continue to be evaluated, in their practice, according to the outcomes of the projects they manage, and that their careers and the success of their organizations depend on performance in these projects. From a scientific perspective, project success undoubtedly remains a central concern, and much has been written and said about this specific issue (Cooke-Davies, 2002).

Various project management scholars define the success of a project in various ways. There seems to be no unified treatment and definitions of project success although there is a consensus about the importance of this aspect for the project management practice. As the understanding of the project success has evolved and matured (Jugdev & Müller, 2005), various project managers need to recognize the complexity and ambiguity that surrounds it, both in terms of its definition and its measurement (Baccarini, 1999; Fowler & Walsh, 1999; Hyväri, 2006; Ika, 2009; Jugdev & Müller, 2005; Thomas & Fernandez, 2008). Kerzner (1992) defines the critical success factors as those components that are required to establish an environment where projects are "managed consistently with excellence". Typically, the satisfaction of clients is identified as the main factor of project success. Stakeholders 'satisfaction becomes increasingly important due to the

competitive character of the marketplace and uncertainty of the environment. This definition seems to resonate with Ika (2009) who notes that what is really important in project success is whether project stakeholders are fully satisfied by its results. Good schedules and correctly utilized budgets will not matter if the final project outcomes do not meet the expectations and goals.

Given the specific ambiguity surrounding project success (Belassi & Tukel, 1996), this issue presents significant problems for investigators. If studies of project success are popular, they have not led to a consensus on, a definition of, nor a means for measuring such success. The second issue stems from the fact that project success is dependent on one's perception and perspective. This leads Ika (2009) to conclude that there is probably no such thing as "absolute success" in project management: there is only the "perceived success of a project." They also point out that how we evaluate success probably changes over time. All of the stakeholders in any given project can hardly be said to hold the same point of view on this matter (Lim & Mohamed, 1999). Project success and project failure are therefore not necessarily opposite or contradictory notions (Fincham, 2002)

This ambiguity would appear to present a serious hurdle to investigators, and it has provoked lively debate. As indicated by Soderlund (2004), there is also a rising tide of criticism of the research that has been conducted on project management in general and on project success in particular. In this respect, the research is often criticized for being underdeveloped and not founded on a solid theoretical and conceptual framework. There have been many calls for an assessment of what has actually been achieved by the research on project management, a profession that continues to flourish (Kloppenborg and Opfer, 2002a, 2002b).

Project success has therefore been measured in a variety of ways. Although the conventional measurement of project success has focused on tangibles, the current thinking is that, ultimately, project success is best judged by the stakeholders, especially the primary sponsor (Turner & Zolin, 2012). Shenhar and Dvir (2007) suggested a model of success based on five dimensions namely project efficiency, team satisfaction, impact on the customer, business success, and preparing for the future. According to Cooke-Davies (2002) there is a difference between project success and project management success. Project management success is the traditional measure of project success, measured at project completion, and is primarily based on whether the output is delivered to time, cost, and functionality (Atkinson, 1999). This is similarly referred to as project efficiency by Shenhar and Dvir (2007). Project success is based on whether

the project outcome meets the strategic objectives of the investing organization. This study therefore intended to establish the critical success factors that would improve livelihood projects management in the not for profit organizations in Kenya.

#### 1.2 Statement of the Problem

A number of problems undermine projects success. They are described as the notorious and critical implementation problems, some amenable to change and others virtually intractable. Many projects around the world also keep failing, resulting in loss of millions of dollar for organizations. These persisting challenges have led many project management professionals to attempt to identify the critical factors that need to be to produce a successful project management outcome. Despite these problems being identified in the practice of project management, very little research and information is also available on the critical success factors that thrive within the field of project management and are essential for determining the success of Livelihood projects implemented by the not for profit making organizations in Kenya as perceived by various project stakeholders. There exist literatures on critical success factors for specific type of projects or specific country situations, and very little empirical research on critical success factors for specific agricultural and livelihood projects. The most critical success factors that were of concern in this study were competency factors related to the project team, the project management factors, and the external environment factors. Therefore this study aimed to determine how the competency factors related to project team, project management, and external environment factors influence the livelihood project success as perceived by the project managers in not for profit organizations in Kenya.

### 1.3 Purpose of the Study

The purpose of this study was to determine the factors influencing the successful implementation of the livelihood projects as perceived by the Project Managers in the Not for Profit Organizations in Kenya.

### 1.4 Objectives of the Study

The objectives of this study were: -

- To determine the extent to which the competency factors of the project team influence the successful implementation of the livelihood projects as perceived by the Project Managers of Not for Profit Organizations in Kenya
- 2) To determine the extent to which the project management factors influence the successful implementation of livelihood projects as perceived by the Project Managers of Not for Profit Organizations in Kenya
- 3) To assess the extent to which the external factors influence the successful implementation of livelihood projects as perceived by the Project Managers of Not for Profit Organizations in Kenya

### 1.5 Research Questions

The following questions were answered towards the achievement of the study's objectives

- 4) How does the competency factors of the project team influence the successful implementation of the livelihood projects as perceived by the Project Managers of Not for Profit Organizations in Kenya?
- 1) How does the project management factors influence the successful implementation of the livelihood projects as perceived by the Project Managers of Not for Profit Organizations in Kenya?
- 2) How does the external factors influence the successful implementation of the livelihood project as perceived by the Project Managers of Not for Profit Organizations in Kenya?

### 1.7 Significance of the Study

This study aimed at collecting information on critical success factors that would undermine the performance of Livelihood projects as perceived by the not for profit organizations in Kenya. The study findings therefore contributes to the project management body of knowledge by addressing the gap of lack of information on the critical success factors with regard to the implementation of the livelihood projects in Kenya. This may be achieved through publications in wider readership and disseminations in public forums. Project managers may use the findings of this study to ensure effective project management for success.

### 1.8 Basic Assumptions of the Study

The study was carried under the following assumptions: That there are critical success factors that determine the success of livelihood projects implemented by the not for profit organizations. It assumed that the respondents willingly and honesty gave correct information. In addition, the respondents answered the questionnaires accurately and without major personal bias. That the respondents were knowledgeable to assess, evaluate and comment on critical success factors within their projects. Similarly, it is assumed that the instruments used were appropriate to measure the critical success factors of the livelihood projects within the not for profit projects. Finally, the sample chosen for the study was a fair representation of the entire targeted population. The study also assumed that all projects undergo similar Project Life Cycle, which refers to a series of prescribed standardized activities, which are necessary to fulfill project goals or objectives.

### 1.9 Limitations of the study

This study should have been conducted in all the not for profit organizations in Kenya implementing livelihood projects since there are very few empirical studies on critical success factors of livelihood projects. However due to time and financial constraints, geographic delimitations a smaller sample was employed. In addition, the not profit organizations that were surveyed represented only those that implement livelihood projects; therefore, the study can only be generalized within the study population. Since the study was conducted through the use of survey, there were possibility that there could be a problem of question interpretation with different respondents having different understanding leading to a false conclusion or provision of insufficient data for further analysis. However, this was not a major issue during piloting and was corrected by ensuring that the participants understood the questions before answering.

### 1.10 Delimitation of the Study

This study was delimited to the scope of the not-for-profit organizations, which have implemented livelihood projects for the past two years. The study was delimited to project managers and coordinators of the not-for-profit making organizations because they are the main stakeholders implementing livelihood projects.

### 1.11 Definition of Significant Terms used in the Study

**Implementation of Livelihood Projects** is defined as a set of activities, involved in securing water, food, fodder, medicine, shelter, clothing and the capacity to acquire above necessities working either individually or as a group by using endowments (both human and material) for meeting the requirements of the self and his/her household on a sustainable basis with dignity.

**Perception of Project Managers** is defined as the belief or opinion of the project managers with regard factors that influence the successful implementation of the livelihood projects.

Competency of the Project Team is the knowledge, trait, skills, motives, attitude, value or other personal characteristic important in ensuring project success. These can be hard skills, where technical ability is required, or soft skills, where interpersonal skills are needed. The hard skills include project scope management, time management, cost management, risk management, procurement management, communications management, quality management, and integration management. The soft skills include leadership, communications, verbal and written skills, attitude, and the ability to deal with ambiguity and change. Effective project managers must have both hard skills and soft skills

**Project Management Factors** are those factors related to planning, organization, monitoring and control of all aspects of project, with motivation of all included to achieve project goals on safe manner, within agreed schedule, budget and performance criteria. If the success factors are not present or taken into consideration, one can largely expect that problems will be experienced which act as barriers to overall project successful outcome

**External factors** are those factors related to the external environment which constantly react with the project as it is brought into reality and has impact on its success. These include the latest state-of-the-art technology in which the project is based, its customers and competitors, its geographical, climatic, social, economic and political settings. These factors can affect the planning, organizing, staffing and directing which constitute the project manager's main responsibilities.

**Project Life Cycle** is the sequence of phases that a project goes through from its initiation to its closure and is characterized by initiation, planning, execution and termination phases. The phases have a definite start, end, and control point and are constrained by time.

### 1.12 Organization of the Study

The research report is organised into five chapters. Chapter one describes its background, statement of problem, the study's purpose, objectives of the study, research questions, and the significance of the study. Chapter one also contains the basic assumptions, limitations and delimitation of the study, definitions of significant terms used in the study and organization of the study. Chapter two of the report describes the literature reviewed, which consists of an introduction and a review of literatures based on the themes or objectives of the study, the theoretical and conceptual frameworks and an explanation of the relationships among the variables in the conceptual framework and finally gaps identified in the reviewed literatures.

Chapter three, the methodology section, outlines the research design, target population, sample size and sampling procedures and the data collection instruments used in the research. It also has the pilot testing, reliability and the validity of the instruments, data collection procedures and the data analysis techniques used. This chapter also contains the ethical considerations and the operational definition of the variables. Chapter four contains the data analysis, interpretation, and presentation and discussion sections. Chapter five contains findings, discussions, conclusions, recommendations and suggestions for future or further studies.

### CHAPTER TWO LITERATURE REVIEW

#### 2.1 Introduction

This chapter provides a review of literature regarding the study. The first section discusses the concept of project success and how competency of the project team result in project success. The chapter also discusses the theoretical and conceptual frameworks as well as summary of literature and the research gaps that this study reviewed in the literature.

# 2.2 Successful Implementation of Livelihood Projects the Perception of the Project Managers in Not for Profit Organisations

The concept of success in projects has been widely discussed in management literature and has been central to the literature of project management (Freeman and Beale, 1992; Hurbard, 1990). The dimensions' criteria upon which one appreciates success and the factors of success themselves have been the focus of more study (Lim and Zain, 1999; Shenar et al., 1997; Ashly et al., 1987). Success can indeed be evaluated only when the evaluation dimensions are adequately defined. For the project manager, evaluation dimensions generally correspond to the traditional constraints. That is to say, a project is usually considered a success if its implementation complies with the usual constraints of time, cost and the client's terms of reference or "quality". Here one can identify the influence of the construction and engineering sectors; sectors upon which project management has structured itself for the past centuries. In these professions, success is judged primarily through the assessment of the technical quality of outputs and through the evaluation of the management performance whose dimensions are objective, perfectly defined and well-accepted. The classical project manager does not view his project beyond the scope of his professional duties and responsibilities (Shenhar and Dvir, 2007).

The definition of project success is ambiguous, Prabhakar (2008). According to Baccarini (1999) the literatures of project management provide no consistent interpretation of project success. Project Management Body of Knowledge PMBOK (2013) states that a project is successful if it achieves the objective outcome within the constraints of scope, time, cost, quality, resources, and risk as approved between the project managers and senior management. This is the traditional view of project management as used by Munns and Bjeirmi (1996). It implies the successful achievement of time, cost and quality objectives, as well as the quality of the project

process (Erling et al., 2006). Turner (2004) and Ika et al., (2012) identify time, within budget and to specification especially for information technology projects as the standard for judging success of projects. But Erling et al (2006) further states that the overall project success deals with the wider and longer term impact of the project, which means both project management success and project product success. It therefore implies that project management can be determined at the end of the project, which means in many cases, success criteria will be determined months or years after finishing the project, especially public projects. Hence, determining if a project is successful is difficult if viewed from the above two success criteria (Erling et al 2006; Milosevic and Patanakul, 2005)

# 2.3 Competency of the Project Team and successful implementation of Livelihood Projects the perception of the Project Managers

A core competency is the knowledge, trait, skill, motive, attitude, value or other personal characteristic important in performing a job. A core competency can be a hard skill, where technical ability is required, or a soft skill, where interpersonal skills are needed. Effective project managers must have both hard skills and soft skills (Allam et al., 2010). The Project Management Body of Knowledge (PMI 2013) identifies the hard skill competencies of effective project managers, supporting each of the nine knowledge areas, including project scope management, time management, cost management, risk management, procurement management, communications management, quality management, and integration management.

Soft skills are also important attributes of an effective project management. Numerous soft skills have been found to positively impact the effectiveness of successfully managing a project. For example, one study identified six "soft skill" core competencies as leadership, communications, verbal and written skills, attitude, and the ability to deal with ambiguity and change (Stevenson and Starkweather, 2010). In another study, optimism was found to have a positive effect on project outcomes by facilitating better collaboration and problem-solving (Smith, Bruyns, Evans, 2011).

Whereas competence is the ability to perform a specific task, action or function successfully, competency is rooted in knowledge but encompasses the understanding of clinical, technical, and communication skills. It also refers to solving problems through the use of clinical judgment (Muzio et.al, 2007). Competency is also described as having knowledge, skills, personal

qualities and experience (Milošević, Martinelli, & Waddell, 2007). Competencies are used to create unique standards within disciplines and specialties. This encompasses educators, learners, and practitioners. It creates an environment that fosters empowerment, accountability, and performance evaluation and the acquisition of competencies can be through talent, experience, or training (Verma, et al., 2006).

Based on the literature review and primary research project management, key core competencies required of Project Team toward project success have been abstracted below, with summary supporting discussion. The Project Manager is the leader of the team and is responsible for the overall success of the project. Therefore, it is critical to have a clear vision as well as the ability to communicate it effectively to all employees whether they are charismatic, supportive, or inspiring. The Project Manager creates an environment in which the team feels valued, respected, and energized to explore new ways of providing services. Strong leadership on the part of the Project Manager gives direction, builds morale, and inspires the project teams. There is increasing evidence that improvements in "productivity, quality, and morale" are recorded when teamwork is astutely utilized (Whetten and Cameron, 2010; Greenberg and Baron, 2008). The program manager as the leader is responsible for engaging all the team members and creating collaboration, individual commitment and accountability. Woods & King (2010) argue that successful team leaders share the following three characteristics namely; a team mission statement; a team code of conduct; and, effective team leaders Leadership is therefore a key competency in ensuring success of a project (Milošević, Martinelli, & Waddell, 2007).

Projects often require strategic visioning and planning skills to align overall project goals and benefits with the long-term goals of the organization (PMI, 2013). It therefore means that the Project Team needs to be adept at planning and organizing for results. Apart from project scheduling, developing a work breakdown structure (WBS) for the project at the summary level is critical. The WBS ensures that "that nothing is left out and no extra work is completed" (PMI, 2013). It also leads to the establishment of control accounts, where cost, schedule, and scope management take place. A well-constructed WBS not only helps to get the team organized at the beginning of a project, but can help to make change management easier.

Much of the success of a project is the ability to effectively move information between resources in the project. Negotiating effectively, managing conflict wisely, and mediating constructively are undoubtedly essential core competencies of the program team. The Project

Team members must have the ability to effectively negotiate and use persuasion when necessary to ensure the success of the team and project. Through effective communication, project leaders support individual and team achievements by creating explicit guidelines for accomplishing results and for the career advancement of team members (Barry, 2010). It is important to build trust and respect in order to effectively build key relationships. Thus effective communication involves working to break down barriers within and across projects as well as functional departments. The "hard skills" of communication involve the process of collecting and distributing performance information, including status reports, progress measurements, and forecasts. The Project manager needs to communicate effectively, not only with the program and project teams, but also with upper level management and stakeholders. In essence, both vertical and horizontal communications are to be effectuated in a fluid and transparent manner.

A successful Project Team should have a strong knowledge base and understanding of the organization and its business practices as well as familiarity with technologies used in the projects. Project Team need not only the "hard skill" of technical expertise, but also detailed crossfunctional knowledge. This prevents the team from being overly influenced by functional experts who either have an agenda or are making decisions with a limited amount of information (Muzio et. Al 2007). The project team therefore need to be technically knowledgeable or else they may risk credibility in the industry. A wider breadth of organizational knowledge compared to that of a project manager is called for. This is because projects tend to be specialized, temporary, and have a specific end result. Being the leader of the project core team, knowing a little of every aspect by the Project Manager will be advantageous. (Milosevic, Martinelli, & Waddell, 2007; Liu an Walker, 1998). More in-depth technical skills may be acquired through conferring with subject matter experts. The Project Team is responsible for the interpretation, implementation, and review of policies, procedures and requirements and share these amongst themselves. In addition to having the knowledge of the company's product, services and infrastructure capabilities and key application, the Project Team should have the knowledge of future trends of the market. It is therefore of great essence for the project team to have the required technical expertise in order to ensure the success of projects.

According to Jugdev and Muller (2005), the project team should be able to focus on the interests of both internal and external stakeholders simultaneously. Identifying all people or organizations impacted by the activities of projects, and documenting relevant information

regarding their interests, involvement, impacts heavily on project success. As highlighted by Allam et., al (2010) this gives the ability to deal with internal stakeholders (other project managers, senior managers and the likes) and external stakeholders (other agencies and regulators). The relationships project managers have with customers is significant. Many project teams have customer representatives who are part of the project core team. These representatives provide input and product needs but also have varied interests which at times may be conflicting. It is therefore important for the project team to persuade, negotiate and resolve conflicts so that an agreement that would lead to project success (Muzio et., al 2007).

# 2.4 Project Management Factors and successful implementation of Livelihood Projects the perception of the Project Managers

Project management is key for project success (Hubbard 1990). Project management has evolved over the past couple decades as researchers and practitioners have attempted to identify the causes of project failure and the various factors that lead to project success. Traditional project management skills were developed from the requirements of construction and defence industries to plan, control and manage large and complex 'tangible' projects (Freeman and Beale, 1992). Project Management can also be seen as being about managing change (Clark, 1999; Collyer and Warren, 2009) and project managers should consider themselves as change agents adding to the Project Management role an additional focus on so-called 'soft' aspects of relationship management (Cooke-Davies, 2002). Moreover, according to Collyer and Warren, 2009 (2009) in most organizations, project managers are accountable for the successful delivery of complete projects. The variables in project management include clearly defined project mission, top management support, adequate communication, planning effort, control mechanisms, feedback capabilities, troubleshooting, coordination effectiveness, decision making effectiveness, monitoring, risk management, stakeholder management and other related previous management experience (Belout and Gauvreau 2004; Walker and Vines 2000). Some of these factors are reviewed below.

Comprehensive planning sets up a project for success from the start (Prabhakar 2008). All stakeholders should be on board during the planning process and always know in which direction the project is going to go. Planning can help the team to meet deadlines and stay organized. Good

planning not only keeps the project team focused and on track, but also keeps stakeholders aware of project progress (Turner 2004; Ika et al., 2010).

As indicated by Atkinson (1999) there are many benefits to smart planning. This first step in the project process allows for a reliable and realistic time-scale to be created. Assuring accurate time for cost estimates to be produced and for clear documentation of milestones and deliverables will make things much easier as the project progresses (Turner, 2012). A proficient plan details all resource requirements and doubles as a warning system. If task slippage is at risk, then a warning system will provide clear visibility of what to expect.

Monitoring and Feedback refer to the project control processes by which at each stage of the project implementation, key personnel receive feedback on how the project is comparing to initial projections (Gareis et al., 2013; Keizner 2009). Making allowances for adequate monitoring and feedback mechanisms gives the project manager the ability to anticipate problems, to oversee corrective measures, and to ensure that no deficiencies are overlooked. From a budgeting perspective, Ika, (2009) emphasizes the importance of constant monitoring and "fine-tuning" of the process of implementation. It is therefore important to note that Monitoring and Feedback refers not only to project schedule and budget, but also to monitoring performance of members of the project team (Belassi and Tukel, 1996).

Looking closely at details and listening to outside sources of information is vital to the success of a project. As indicated by Belout and Gauvreau (2004), keeping open communication within the team is absolutely essential. When working under a specific timetable, it is important that the team remains well-informed. If a problem arises on one part of a project, it can negatively impact other parts as well. Communication is the best way to prevent problems from occurring. Communication should also be focused internally within the organization. Keeping an organizational history of major projects will give convenient access to improved policies and business processes. If this isn't done, then a team may repeat mistakes that have already occurred. Listening to stakeholders and paying attention is a very important ingredient for success (Clarke, 1999). A project team should never promise anything they know they can't deliver. Saying no in the beginning could save an overabundance of unnecessary problems later. Always be honest about what your team can do and when it can be done. According to Diallo and Thuillier 2004) apart from using a tool that allows drag gable timelines, also find one that allows you to use previous projects as templates for establishing your new timeline. Not only will you improve your processes

over time through becoming more accurate with your estimates and setting client expectations accordingly, but you also improve communications between all your project participants.

Project managers know that things rarely go off exactly as planned. During the planning process, it is vital to produce a risk log with an action plan for the risks that the project could face (Shenhar et al., 2001). According to Turner and Muller (2005) all key stakeholders need to have knowledge of the existence of the risk log and highlighting the risks that need to be managed. This is essential for quickly resolve any issue that may be arise and can adversely affect the successful implementation of the project. This will also give the team confidence when facing project risks and help the clients feel comfortable with the project's progression.

# 2.5 External Factors and successful implementation of Livelihood Projects the perception of the Project Managers

The factors identified by (Kwak, 2002) as external to the success or failure of the project include political, legal, institutional, cultural, sociological, technological resources, economic, financial, and physical (infrastructure). Both studies directed attention to some factors within the environment that pose greater challenges to projects, management and organizational structure than others and suggested that these factors should form the focus for the management of the projects environment.

Political factors refer to issues at the national level and regional level including inconsistency in policies, laws and regulations, and political instability (Crawford, et al. 2006). From development project's perspective, these factors contribute to an environment of uncertainty on return of capital investment. Political instability coupled with underdeveloped institutions and lack of awareness in the people may result in frequent change of governments or stimulate abrupt change of policies adversely affecting the successful achievement of development project objectives. According to Kwak 2002 several associated factors that may prompt political challenge to the project are: Political takeover or military coup; War or revolution; Allegations of corruption causing government resignation, and nationalization of assets with or without adequate compensation.

As pointed out by Westerveld (2003), Technical factors refer to use of technology including design, engineering, procurement, construction, equipment installation, and operation of the equipment and its compatibility with accomplishment of project objectives. International

development projects are located in the developing countries, which lack adequate resources, technical and managerial skills, and have low human capital productivity. It is therefore important that project design standards, specifications, and construction methods must be carefully selected so that they will be appropriate to the local financial, human, and material resources required during both the implementation phase of the project and its subsequent operation (Kwak, 2002).

Economic factors refer to the issues influencing the economic feasibility of the project including the changes in domestic economic conditions of the recipient country or inaccurate project development plan due to unpredictable economic conditions (PMBOK 2013). This may be caused by increased competition, decreased consumption, and regulatory changes requiring changes in selling price of the product or renegotiating concessions awarded to the project and would reduce the profit margin (Bannerman, 2008).

Environmental factors refer to issues in conflict with established environmental regulations of the recipient country. This comprises pollution related issues such as noise, air pollution, water pollution, and visual disturbances and those related to natural resources such as unsustainable use of natural resources including minerals, water, land, and flora and fauna. Until mid-1980s, environmental concerns fared far less in the development of project appraisal, as the basic benefit-cost criterion was the main consideration for selecting projects. Lately, it has been realized that severe environmental degradation can affect a country's macro-economic performance over the long run. If not dealt with appropriately and early, environmental problems can eventually impose a heavy burden on an economy and hamper country's economic growth. To counter such denigrating effects caused by development projects, Wilson and Howcroft (2002) suggests integrating a proper valuation of the environmental effects of the projects in order to improve the conventional methods of project evaluation.

According to Lock (Kwak 2002) social factors refer to social environment of the recipient country and encompass the following: Hostility due to religion, customs, and ethnicity of the project participants; Social uprising or riots due to ethnicity or polarization of social strata (i.e. rich may become richer and poor become poorer thus increasing rich to poor gap) Security of the stakeholders; overestimation of capacity of the beneficiaries, and resistance of the beneficiaries to new social values and standards or to absorb the effects of economic change or new technology. All these may adversely affect the success of projects (Kang and Moe 2008).

### 2.9 Theoretical Framework

A theory is a set of interrelated variables formed into propositions that represents a systematic view of phenomenon by specifying relations among variables, with the purpose of explaining natural phenomena (Creswell, 2009).

### The Theory of Agile Project Management

This study is based on the theory of Agile Project Management which was developed in 1998 by proponents Robert D. Austin and Richard L. Nolan of Harvard Business School academics and IBM researcher Watts Humphrey. The theory stresses on flexibility in terms of the scope of work based on the new requirements in such a way that it is realistic for the planners to act on in the short term in order to deliver early value and therefore mitigate risk for the entire project. It also postulates the breaking down the project processes into smaller units, making the team members to work closely together and with clear vision about their responsibilities and roles in a project; frequent reassessment of the work done within the project cycle to make the final product better; and constant and frequent cooperation with the clients or stakeholders to consider their requirements and suggestions which is key to the organizational learning required to iteratively and incrementally produce the best possible value yielded in projects. Agile project management theory is therefore demonstrated as a project delivery approach, which emphasizes the integration of project stakeholders, project systems, processes, structures and practices to ensure success. Through agile project management talents, resources, insights, capacities and expertise of project partners combined would normally determine the success of projects

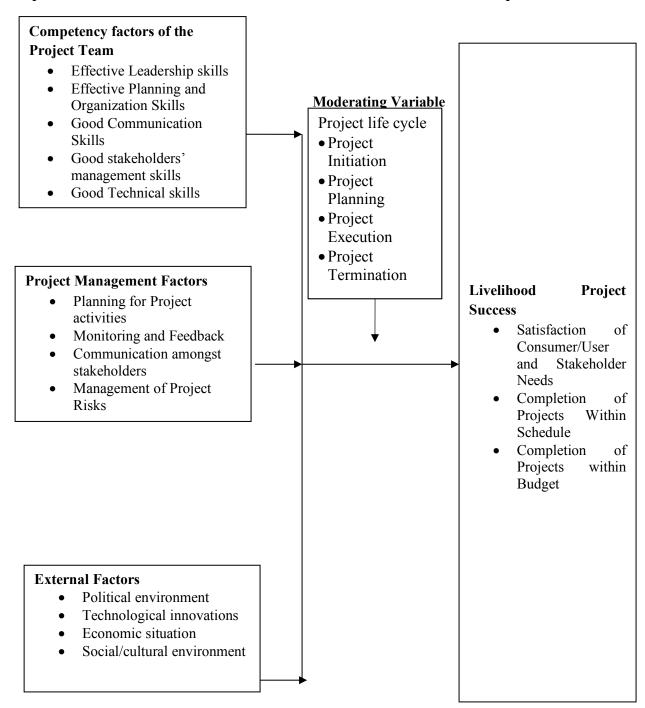
The agile project management theory is relevant to this study since it outlines project management principles that would ensure success in projects. The theory principles ensure that testing is integrated during the project cycle, which means that there are regular checkups and monitoring to see that the ultimate goal of the project is achieved; project customers are engaged and involved throughout the project leading to satisfaction; and techniques that eliminate the chances of absolute project failure are employed which would therefore lead to project success. This study seeks to prove and recommend the combination of these principles to demonstrate the important factors that would influence livelihood project success.

### 2.10 Conceptual Framework

Conceptual Framework is a presentation of key variables, factors or concepts and their relationship among each other which have to be studied in a given research. The framework can be presented graphically or in some other narrative form and is always connected to the research project's goal and directs the collection and analysis of data. The conceptual framework below highlights three independent variables namely the project team competency factors; project management factors; and external factors and consider their relationship towards successful implementation of livelihood projects (Cooke-Davies, 2002). The framework expresses within the context of the project life cycle how effective leadership and communication, stakeholder management and technical skills coupled with proper planning, monitoring and feedback risk management and effective management of the factors endogenous to the environment from which the project is being carried out can lead to successful implementation of the livelihood projects. It is important to note that the above factors can influence project design, and implementation, project fund allocation, and compatibility with development priorities (design changes) which culminate in project delays and often affect the successful implementation of livelihood and is therefore the reason for selecting this framework

### **Independent Variable**

### **Dependent Variable**



### 2.12 Summary of Literature Review

This chapter reviewed literature on various studies that have been carried out on the concept of project success and some of the critical success factors of project management. It also highlighted the distinction between project success and project management success. Various authors have researched widely in the concept of project management and in the context of the above literature three critical success factors have been identified namely competency of the project team; project management factors and external environmental factors.

The study reviewed the literature related to the competency of the Project Team and successful implementation of Livelihood Projects as perceived by the Project Managers. The key competencies have been highlighted as hard and soft skills which are necessary for the project team to successfully carry out project implementation. The review highlights the hard skills related to nine knowledge areas, including project scope management, time management, cost management, risk management, procurement management, communications management, quality management, and integration management. Numerous soft skills have also been found to positively impact on the effectiveness of successfully managing a project. The necessary soft skills include leadership, communications, verbal and written skills, attitude, and the ability to deal with ambiguity and change. The review highlights the literature related to leadership and teamwork; having effective planning and organization skills; communication skills; ethics and ethical values; internal and external stakeholders' management skills; and technical skills which are essential competency of the project team.

This study also reviewed literature on project management factors and successful implementation of the livelihood projects. The review explains how the project management has evolved over the past couple of decades as researchers and practitioners have attempted to identify the causes of project failure and the various factors that lead to project success. The variables that need to be considered in successful implementation of projects include clearly defined project mission, top management support, adequate communication, planning effort, control mechanisms, feedback capabilities, troubleshooting, coordination effectiveness, decision making effectiveness, monitoring, risk management and stakeholder management.

Finally external environmental factors identified as political; legal; cultural; technical; managerial/organizational; economical; environmental; social; and corruption issues have been reviewed in relation to successful project implementation as highlighted by the various authors.

These factors have been indicated to pose greater challenges to projects, management and organizational structure and various authors have suggested that these factors need to form the focus for the management of the projects environment.

### 2.13 Research Gaps

Based on the literature review, there was need to establish how the above factors influence the performance and success of projects. Previous studies have demonstrated that these factors may affect the success of various projects in the construction sector; infrastructure and telecommunication sectors;

Independent	Independent Authors (Year)		Findings	Knowledge Gap
Variable	• '			
Competency	Diallo, A.,	&	The Authors studied the	The study did not
factors of the	Thuillier,	D.	success dimensions of	therefore directly address
Project Team;	(2004).		International Development	internal project success
Project			Projects as perceived by the	factors like project team
management			African Project Coordinators.	interrelations or
factors and			The work characterized the	communication quality
External			dimensions of success (and	between the project
factors			their hierarchy) for such	coordinator and the more
			projects, as perceived by	influential stakeholders
			Project Coordinators in sub-	as perceived by the
			Saharan Africa. The findings	Project Coordinators.
			confirm the importance of	The study did not also
			management dimensions	highlight how other
			(time, cost, quality) but	external factors related to
			paradoxically the project	the social/cultural,
			impacts are rated in last	economic and
			position for the coordinators.	technological
			In addition, the dimensions	environment would
			related to the political	impact on the
			environment of the	implementation of
			international development	projects. These were key
			community plays a significant	focus for this study that
			role in the perception of	needed to be investigated
			project success as the project	
			coordinator must satisfy more	
			than one "client" in such	
			projects financed by	

		multilateral institutions. The	
		study further confirms that	
		each stakeholder assesses	
		project success on the basis of	
		evaluation dimensions that fit	
		within his own agenda or	
		within the interests of the	
		group he represents.	
Project	Ika et al., (2010)	The study focused on	The authors only looked
management		analyzing the empirical	at the tools, techniques
factors		relationship between Project	and methods as
		Management efforts (the	perceived by the African
		extent to which project	International
		coordinators make use of	Development Project
		available tools, techniques,	Coordinators towards
		and methods), project success,	determining project
		and project success criteria as	success but did not look
		perceived by African	at the other dimensions
		International Development	of success which would
		Project Coordinators. The	include the competency
		research results suggest that	of the project team and
		project success is insensitive	the external factors.
		to the level of project planning	These are gaps that
		efforts, but a significant	needed to be investigated
		correlation does exist between	and specifically to the
		the use of monitoring and	livelihood projects and
		evaluation tools and project	were therefore the focus
		"profile," a success criterion	for this study
		which is an early pointer of	
		project long-term impact.	

## CHAPTER THREE RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter describes the research methodology that was used in the study. These include research design, target population, the sample size and sampling procedure to be used. It further explains the research instruments employed in the study, a pilot study, measures to test reliability and validity of the study, data collection procedure and data analysis techniques. Finally, the chapter specifies the ethical requirements that were followed throughout the period of data collection and after data collection.

### 3.2 Research Design

Research design refers to the systematic steps set up to accomplish the purpose of the study. According to Kothari (1990) research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. This study adopted a cross-sectional study design where data collected once within a predetermined period of one month and analysed. This design was appropriate because it did not allow for any form of manipulation of variables and helped in assessing relationship between variables as they are during the period of assessment. Sekaran (2006) observes that, unlike longitudinal study design, cross-sectional study design is cost effective and less time consuming since data is collected once.

### 3.3 Target Population

The study population was drawn from NGOs operating in Kenya and implementing livelihood related projects across the country. The established a sampling frame (population) made up of 229 top managers of NGO's dealing in livelihood projects. Sampling unit therefore was top managers of NGO with livelihood projects or programmes.

### 3.4 Sample size and Sample selection

### 3.4.1 Sample Size

Using an NGO with livelihood project or programme as sampling unit, Fisher's et al. formula in Mugenda and Mugenda, (2003) shall be adopted as follows:

Sample size will be determined according to Fisher et al (1991), using the formula;

$$n = Z^2 (pq)$$

 $d^2$ 

Where: n = minimum sample size (for population > 10,000) required.

Z = the standard normal deviate at the required confidence level, (set at 1.96 corresponding to 95%, Confidence level adopted for this study).

p = population proportion estimated to have a particular characteristic. (Where there is no reasonable estimate a default of 50% or 0.5 was acceptable).

$$q = 1-p$$

d = the degree of accuracy required (usually set at 0.05).

Therefore, on substitution:  $n = 1.96^2 \times 0.5 \times (1-0.5) \times 1 = 384.16$ 

 $0.05^{2}$ 

However, since the targeted population is below 10,000 the final sample size (nf) will be calculated as follows:

$$n f = n \div \{1 + (n/N)\}$$

Where; n f= desired sample size (when target population is less than 10,000)

n = desired sample size (when target population is greater than 10,000)

N = population of NGO's with livelihood project/programme

Therefore, n f = 
$$384 \div \{1 + (384/229)\}$$

= 143

This figure was approximated to be 143 top managers of NGOs.

### 3.4.2 Sampling Procedure

Sampling is the process of selecting a sufficient number of elements from the population, so that a study of the sample and an understanding of its properties or characteristics would make it possible to generalize such properties or characteristics to the population elements (Sekaran, 2006). In this study, all the participants had equal chance of participating in the study. The questionnaire was sent to all the 229 managers with expectation that some would not participate at random. A response rate of 50 percent was set as the minimum threshold for analysis as the chosen method of analysis require at least 70 respondents to perform a valid analysis. Other corrective sample size bias due to non-response was corrected based on statistical test for sample size adequacy where each variable under investigation would be subjected to Kaiser-Mayor-Olkin Measure of sampling adequacy and Battlet's test of specificity was applied as preceding steps of factor analysis.

### 3.5 Data Collection Instruments

Data was collected using semi-structured questionnaires. The questionnaires were structured into sections thematically organized to capture the Success Factors measurement including Project management factors; Competency of the Project Team Factors; and External Factors. Each factor has a set of item measures on which measurements were based. Measurements of key variables was done by objectives as follows:

To determine Project Management related factors as a determinant to measuring the success of livelihood projects, all measures such as; planning; monitoring and feedback; communication; and risk management statement based questions using a Likert scale system of measurement on a continuum ranging from 1-5 where 1 corresponds to strongly disagree and 5 corresponds to strongly agree.

To determine the competency of the Project Team factors as a determinant to measuring the success of the livelihood projects, all measures such as leadership and team work skills; planning and organisation skills; communication skills; internal and external stakeholder management skills; and technical skills formed statement based questions using a Likert scale system of measurement on a continuum ranging from 1-5 where 1 corresponds to strongly disagree and 5 corresponds to strongly agree.

To determine the external factors as a determinant to measuring the success of the livelihood projects, all measures such as political; technological; economical; environmental; and social; factors formed statement based questions using a Likert scale system of measurement on a continuum ranging from 1-5 where 1 corresponds to strongly disagree and 5 corresponds to strongly agree. The researcher sent 229 questionnaires to top managers of selected NGOs through mail with a hope that 143 questionnaires would be returned.

### 3.5.1 Pilot Testing of the Instruments and Reliability

A pilot study was carried out among 15% of the sample size amounting to 14 eligible respondents. These respondents were excluded from the study sample. The pilot study adopted the same procedures and sampling technique adopted in the main study. After pilot testing data was analysed, the resultant product was used to provide suggestions on how the research instruments could be reviewed and revised to become suitable for the study. Reliability refers to the extent to which a research instrument yields consistent results or data after repeated trials (Mugenda and Mugenda, 2003). In this study reliability was tested using split- half method to measure internal consistency of the items measuring each construct. The research instrument was administered to the 15% of the respondents and data obtained split into two sub sets (the sets had odd numbers and even numbers). All even numbered items and odd numbered responses in the pilot study were computed separately. Reliability test statistics was based on Cronbarch alpha calculated to test for internal consistency. The pilot survey instruments which stood at Cronbach alpha above 0.7 which was considered as acceptably reliable.

#### 3.5.2 Validity of Research Instruments

Validity refers to the extent to which recorded observations accurately reflect the construct they intend to measure (Judd, Smith and Kidder, 1991). Construct validity was assessed by evaluating the opinion of the respondent against each score using principle component factor analysis. The researcher ensured that the instrument was simple, clear and non-ambiguous language in the instruments. The supervisor reviewed the content of the tools to validate content validity aspects. After the exercise of data collection, all the questionnaires verified to check if all the questions were well answered to the end to ensure validity of collected data. Statistical validity based of principal component analysis stood above 70 percent communality.

#### 3.6 Data Collection Procedures

Prior to the actual collection of data from the participants, the proposal was presented to the supervisor for approval and defense. Upon approval of the proposal, letter of introduction from the university was obtained as well as a permit from the National Commission for Science, Technology and Innovation (NACOSTI) for the research to be conducted. Appointments were booked with the respondents. The questionnaires were administered through self-administration in which case the questionnaires were hand-delivered to the respondents who were project managers or finance managers within their respective organisations.

## 3.7 Data Analysis techniques

Data was analysed using descriptive and inferential statistics. Data collected using structured questionnaires were entered into Statistical Package for Social Sciences (SPSS) version 19.0 spreadsheet and cleaned. Descriptive statistics were run to establish the accuracy of entry of scores by assessing range, mean, standard deviation and normality of data. Inferential statistics mainly principal axis factoring and paired sample t-test was used to identified valid factors based on critical domains. Principal axis factoring was used isolate factor loadings for items under each of the three domains of project success measure. The critical tests were done based on Eigenvalues=1 and communality threshold of 40 percent. Paired sample t-test was used to compare the differences between the item Batt-score generated by factor output for each indicator domain and general individual rating for each of the main domains.

#### 3.8 Ethical Consideration

Before the study was conducted, the proposal was presented to the University of Nairobi for approval. Relevant local authorities were informed of the study for clearance to access the Non-Governmental Organizations. Verbal consent was sought from the respondents before they were sent the questionnaire through phone call. The respondents who chose to participate was assured that the information they give was confidential and would not be used for any other purpose except for this study. Every questionnaire remained anonymous, as the respondents were only assigned identity pseudo-numbers. Equally important was the acquiring of the necessary approval letters from the relevant government agency to conduct the study. The study was only conducted once the necessary approval letters were obtained from the University of Nairobi and the National Commission on Science, Technology and Innovation (NACOSTI)

# 3.9 Operational Definition of the Variables

This section explains the dependent and the independent variables that will be investigated in the study in relation to the objectives of the study.

Objective	Variable	Indicator	Measuremen t	Instrument of Data collection	Data Analysis/Statistical Tools
	<u>Dependent</u> <u>variable</u> Project Success	Customer/User and Stakeholder Needs Satisfied	Ordinal	Semi-structured questionnaires	Inferential (Mean, Standard deviation, normality) and Descriptive statistics(Principal Axis Analysis), Content analysis
		Project Completed Within Schedule	Ordinal	Semi-structured questionnaires	Inferential (Mean, Standard deviation, normality) and Descriptive statistics(Principal Axis Analysis), Content analysis
		Project Completed Within Budget	Ordinal	Semi-structured questionnaires	Inferential (Mean, Standard deviation, normality) and Descriptive statistics(Principal Axis Analysis), Content analysis
	<u>Independent</u> <u>Variables</u>				

Objective 1: To	Competency	Leadership and	Ordinal	Semi-structured	Inferential (Mean, Standard
determine the extent to which the competency factors of the project team influence the success	factors of the Project Team	Team work skills		questionnaires	deviation, normality) and Descriptive statistics(Principal Axis Analysis), Content analysis
of the livelihood projects		Planning and Organization Skills	Ordinal	Semi-structured questionnaires	Inferential (Mean, Standard deviation, normality) and Descriptive statistics(Principal Axis Analysis), Content analysis
		Communication Skills	Ordinal	Semi-structured questionnaires	Inferential (Mean, Standard deviation, normality) and Descriptive statistics(Principal Axis Analysis), Content analysis
		Internal and external stakeholders' management skill	Ordinal	Semi-structured questionnaires	Inferential (Mean, Standard deviation, normality) and Descriptive statistics(Principal Axis Analysis), Content analysis
		Technical skills	Ordinal	Semi-structured questionnaires	Inferential (Mean, Standard deviation, normality) and Descriptive statistics(Principal Axis Analysis), Content analysis

Objective 2: To determine the extent to which the project management factors influence the success of livelihood	Project Management factors	Planning	Ordinal	Semi-structured questionnaires	Inferential (Mean, Standard deviation, normality) and Descriptive statistics(Principal Axis Analysis), Content analysis
projects.		Monitoring and Feedback	Ordinal	Semi-structured questionnaires	Inferential (Mean, Standard deviation, normality) and Descriptive statistics(Principal Axis Analysis), Content analysis
		Communication	Ordinal	Semi-structured questionnaires	Inferential (Mean, Standard deviation, normality) and Descriptive statistics(Principal Axis Analysis), Content analysis
		Risk Management	Ordinal	Semi-structured questionnaires	Inferential (Mean, Standard deviation, normality) and Descriptive statistics(Principal Axis Analysis), Content analysis
Objective 3: To assess the extent to which the external factors influence the	External Factors	Political	Ordinal	Semi-structured questionnaires	Inferential (Mean, Standard deviation, normality) and Descriptive statistics(Principal Axis Analysis), Content analysis

of success of livelihood projects	Technological	Ordinal	Semi-structured questionnaires	Inferential (Mean, Standard deviation, normality) and Descriptive statistics(Principal Axis Analysis), Content analysis
	Economic	Ordinal	Semi-structured questionnaires	Inferential (Mean, Standard deviation, normality) and Descriptive statistics(Principal Axis Analysis), Content analysis
	Social	Ordinal	Semi-structured questionnaires	Inferential (Mean, Standard deviation, normality) and Descriptive statistics(Principal Axis Analysis), Content analysis
	Environment	Ordinal	Semi-structured questionnaires	Inferential (Mean, Standard deviation, normality) and Descriptive statistics(Principal Axis Analysis), Content analysis

#### CHAPTER FOUR

#### DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

#### 4.1 Introduction

This chapter contains the data analysis, presentation, interpretation and discussion on the objectives of the study. It explains how the data was organized, analyzed, interpreted and presented. It also explains the meaning and implications of the findings of the study.

## 4.2 Questionnaire Return Rate

The study's sample size was 143 Project Managers/Leaders/Finance Managers from 143 Not for Profit Organization implementing livelihood projects or programs in Kenya, to whom questionnaires were delivered. Out of the 143 Not for Profit Organizations targeted, only 86 organizations returned completed questionnaires. Thus, the questionnaire return rate was 60%, which was adequate sampling size.

## 4.3 Characteristics of Study Participants

This study engaged 60.6% of male and 39.4% of female participants. Majority (41.4%) of those interviewed were Project Managers followed by Project Leaders (34.5%). The years of experience were fairly distributed on the lower side (0-6 years) at 69.7%, level of education was dominated by Bachelor's degree (60.6%) and Master's degree (27.3%) participants. Again, it appeared that majority of NGO's had financial portfolio of < 20million shillings (33.3%) followed by Ksh. 50-100 million projects and >Ksh. 200 million projects (15.2%). This implies that most projects were handling large sum of money.

Table 4.1 Distribution of the study participants by individual characteristics

Characteristics	Percentage	
Gender		
Male	60.6	
Female	39.4	
Job Description		
Project Manager	41.4	
Senior Project Manager	10.3	
Project Leader	34.5	
Financial Manager	13.8	
Years of project management experience		
0 to 2 years	27.3	
2 to 4 years	24.2	
4 to 6 years	18.2	
8 to ten years	15.2	
More than 10 years	15.2	
Highest level of qualification		
Diploma	6.1	
Bachelor's Degree	60.6	
Master's Degree	27.3	
Doctorate Degree	6.1	
Project financial portfolio		
Less than KES 20 Million	33.3	
KES 20 Million to KES 50 Million	3.0	
KES 50 Million to KES 100 Million	24.2	
KES 100 Million to KES 150 Million	15.2	
KES 150 Million to KES 200 Million	9.1	
KES 200 Million and Above	15.2	

### 4.4 Project Success Indicators Rating

Project success was assessed based on three indicators including three perspectives namely: Factors related to competency of the project team, factors related to project management and external factors. Based on participants rating and response, the three indicators of success were first subjected to reliability and sampling adequacy test before principal axis factor analysis. Test of sampling adequacy was using Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity which revealed adequate sample size (KMO=0.729; Bartt's Test  $\chi$ =59.86, df=3, p<0.05). The reliability of the indicators measures internal consistency to ascertain whether they were true measures of the project success. Reliability coefficient based on Cronbach's Alpha revealed high level of internal consistency ( $\alpha$ =914). This demonstrates that the three indicators were true measure of project success.

Further analysis focused on the dimensionality to ascertain the cumulative contribution of the three indicators as related by the participants based on principal axis factoring. The analysis only extracted one factor score implying that the indicators were solid measure of project success accounting for 78.8% total variance.

The study finally made attempt to test competitiveness of the three domains of project success measurement outcomes and somehow it appeared that factors related to project management was the most competitive (Communality=0.947) followed closely by external factors (Communality=0.917) and competency factors (Communality=0.791) as per the rating of participants. This implies that project management related indicators were most valued in the evaluation of project success.

Table 4.2. Project success indicator competitiveness

Indicators of project success	Project Success Accountability (based on commonalities)
Factors Related to Competency of Project Team	.791
Factors Related to Project Management	.947
External Related Factors	.917

Extraction Method: Principal Axis Factoring.

Level of project has demonstrated some indicator competitiveness with regard to project success. Three main indicators which included team competency, project management and external indicators fairly competed as rated by project management team. The study has isolated project management domain as the leading factor, followed by external factors and finally team competency in that order. External factors are rated second to project management. Competency somehow performed lower than the other two indicators. However, higher variance above 0.7 is still a critical feature to give attention to and this concurs with the findings of Allan et al (2010).

## 4.5 Factors related to competency of the project team

As a measure of project success, the study reviewed and assessed competency domain as a measure of project success based on sub-indicator approachable. This domain had 15 iterations each given equal weight as potential indicator within competency domain. The initial step before subjecting the item indicators factors into principal axis factoring was to test for the reliability of the 15 measures. Internal consistency test based on Cronbach's alpha revealed an alpha value of 0.933 indicating a highly reliable measure competency domain as project success indicators.

The second step was to test for sample size adequacy based on KMO and Bartlett's test of sphericity, which validate sample size for further analysis. The sample size was adequate (KMO=0.714, Bart's test,  $\chi^2$ = 377.8, df=105, p<0.05).

Out of the 15 sub-indicator items subjected to principal axis factoring, three factor loadings emerged based on Eigen values of 1 accounting for 68.73% of the total variance on competency of the team as a measure of project success. The first factor which accounted for 28.8%, identified items  $x_1$  to  $x_7$  and  $x_{13}$  as critical measures of competency and was labelled communication, management and technical skills. As shown in table 4.3 below these factor cluster items that would be labeled broadly as 'leadership, planning and skills' competencies. The second factor which accounted for 22.1% identified  $x_7$ ,  $x_8$ ,  $x_9$ ,  $x_{11}$ ,  $x_{12}$ , and  $x_{14}$  as critical measures of project competency. The final factor loading accounting for 17.92% identified  $x_5$ ,  $x_{11}$  and  $x_{13}$  to  $x_{15}$ . This cluster would be labeled as planning with management and technical skills competency. It therefore appeared that competency of project team as a measure of project success would generate three categories namely: leadership, planning and technical skills; communication, management and technical skills competencies; planning, external and internal management skills.

Table 4.3. Factor loading for team competency

Item indicators	Competency factor category 1	Competency category 2	factor	Competency category 3	factor
X1	.846				
X2	.638				
X3	.736				
X4	.694				
X5	.791			.497	
X6	.813				
X7	.486	.541			
X8		.890			
X9		.772			
X10					
X11		.579		.498	
X12		.741			
X13	.458			.662	
X14		.440		.700	
X15				.818	

#### Key

- X1 Effective leadership and team work skills influence project being delivered to Customer/User and Stakeholder Satisfaction
- X2 Effective leadership and team work skills influence project being delivered within the schedule
- X3 Effective leadership and team work skills influence project being delivered within the budget
- X4 Planning and organization skills influence project being delivered to Customer/User and Stakeholder Satisfaction
- X5 Planning and organization skills influence project being delivered within schedule
- X6 Planning and organization skills influence project being delivered to Customer/User and Stakeholder Satisfaction
- X7 Having good communication skills amongst project team influence project being delivered to Customer/User and Stakeholder Satisfaction

- X8 Having good communication skills amongst project team influence project being delivered within the schedule
- X9 Having good communication skills amongst project team influence project being delivered within the budget
- X10 Having good internal and external management skills amongst project team influence project being delivered to Customer/User and Stakeholder Satisfaction
- X11 Having good internal and external management skills amongst project team influence project being delivered within schedule
- X12 Having good internal and external management skills amongst project team influence project being delivered within the budget
- X13 Having good technical skills amongst project team influence project being delivered to Customer/User and Stakeholder Satisfaction
- X14 Having good technical skills amongst project team influence project being delivered within the schedule
- X15 B-Having good technical skills amongst project team influence project being delivered within the budget

Further attempt was made to correlate the three different domains with the corresponding rating on competencies by the participants as shown in table 4.4 below. The results revealed non-existence of the correlation between the individual item rating score and indicator-based rating score on competencies. A test of mean rating percent revealed significant differences between the individual score rating and each of the emerging indicator-based ratings from the three-factor loading (t>16, p<0.01. this suggests that each of the factors were unique and could be applicable to bring out the distinct nature of project success.

Tables 4.4. A comparison between individual rating of competency as a factor of project success and itemized competency factors domains related to project success

Indicator	r rating vis a vis indicator-based rating	95% Confidence t Interval of the Difference			t	Sig. (2- tailed)
			Lower	Upper		
		Correlation				
Pair 1	Rating of Competency of Project - Competency factor category 1	045	60.4	77.5	16.48	.000
Pair 2	Rating of Competency of Project -	.052	60.5	77.6	16.56	.000
	Competency factor category 2					
Pair 3	Rating of Competency of Project -	.224	60.6	77.5	16.70	.000
	Competency factor category 3					

This study has isolated three critical domains of factors oriented within competency framework. It appears that project success when measured within competency domain would first give attention to "leadership, planning and technical skill competencies". The second factor domains in this category would throw its weight on "communication, management and technical skills competencies". The last alternative of competency orientation in project success according to this study would be given to planning and external/internal management skills and technical skills. It appears that lack of correlation between the individual rating and factor clusters would

imply that specified indicators within this domain must be clearly understood to assess their contribution to project success effectively within the project team competency domain.

## 4.6 Factors related to project management

Within the management factors, 12 sub-indicators were assessed. This initial step was to test for sample test adequacy and reliability of oriented success domains. Internal consistency items as critical measures of project management with Cronbach's alpha revealed high level of reliability ( $\alpha$ =0.914) demonstrating the key indicators as reliable measures. In addition, KMO and Bartlett's test of sphericity also revealed adequacy of sample size (KMO=0.711, Bartlett's test  $\alpha$ =265, df=66, p>0.05)

Factor loading based on principal axis factoring identified three distinct loadings of project management oriented measure of success accounting for 71.3% of total variance. As shown in table 4.5 the first factor which comprised of items Y<sub>1</sub> to Y<sub>7</sub> accounting for 27.7% of variance on management domain. This factor was labeled 'planning, monitoring and communication focused management. The second factor comprised of Y<sub>4</sub>, Y<sub>5</sub>, Y<sub>9</sub>, to Y<sub>12</sub> accounting for 23.5% of variance. This category could be labeled 'risk, monitoring and communication focused management'. The third factor which accounted for 19.9% of variance identified items Y<sub>6</sub>, Y<sub>7</sub>, Y<sub>8</sub>, Y<sub>9</sub>, and Y<sub>12</sub> this category could be labeled 'communication, monitoring and risk focused management'.

Table 4.5. Factor loading for management

Item indicators	Management factor category 1	Management factor category 2	Management factor category 3
Y1	.708		
Y2	.873		
Y3	.886		
Y4	.747	.426	
Y5	.459	.585	
Y6	.497		.562
Y7	.413		.651
Y8			.740
Y9		.402	.764
Y10		.649	
Y11		.811	
Y12		.881	.419

<u>Key</u>

- Y1 Effective Planning influence project being delivered to Customer/User and Stakeholder Satisfaction
- Y2 Effective Planning influence project being delivered within the schedule
- Y3 Effective Planning influence project being delivered within the budget
- Y4 Monitoring and Feedback influence project being delivered to Customer/User and Stakeholder Satisfaction
- Y5 Monitoring and Feedback influence project being delivered within the schedule
- Y6 Monitoring and Feedback influence project being delivered the budget

- Y7 Effective internal and external communication influence project being delivered to Customer/User and Stakeholder Satisfaction
- Y8 Effective internal and external communication influence project being delivered within the schedule
- Y9 Effective internal and external communication project being delivered within the budget
- Y10 Effective Risk Management influence project being delivered to Customer/User and Stakeholder Satisfaction
- Y11 Effective Risk Management influence project being delivered within the schedule
- Y12 Effective Risk Management project being delivered within the budget

In a similar pattern as shown in table 4.6, no correlation occurred between individual rating of project management and item based rating. A test for differences between the individual rating and each of the factors identified revealed significant discrepancies (t>12, p<0.05) indicating uniqueness of each factor domain.

Tables 4.6. A comparison between individual rating of management as a factors of project

success and itemized management factors domains related to project success

Indicator	rating vis a vis indicator-based rating		Interva	% dence ll of the rence	t	Sig. (2- tailed )
			Lower	Upp	er	
		Correlation				
Pair 1	Rating of Management of Project - Management factor category 1	089	53.5	75.4	12.1	.000
Pair 2	Rating of Management of Project - Management factor category 2	.219	53.7	75.4	12.2	.000
Pair 3	Rating of Management of Project - Management factor category 3	.244	53.84	75.5	12.3	.000

Project management as a measure of project success also isolated three distinct management domains. The first management domain loaded planning, monitoring and communications aspects of management as a priority factor.

The second alternative combinations focused on risk, monitoring and communication aspects of project management. The last preference for this domain was given to managing risk associated with the successful implementation of projects as identified. This domain attempts to suggest that management of communication aspect followed by monitoring is very important for project success.

#### 4.7 External Factors

External factor items were subjected to factor extraction to determine how strongly they measured this component of project success. The internal consistency reliability was significantly high ( $\alpha$ =0.91) which demonstrated that the item measures were accurate in measuring external

factors. A test for sample size adequacy also revealed good sample size for external validity (KMO=0.570, Bartlett's Test,  $\chi^2$ =270.326, df=66, p<0.05).

As indicated in Table 4.7 below, the 12 items subjected to factor extraction identified two important domains of external factor. Factor 1 loaded all the 12 items except  $z_7$  (economic factors as an influencer to customer/stakeholder). This factor could be labeled as political, technology, economic and social factors defined project success. The second factor only identified  $z_1$ ,  $z_2$ ,  $z_8$ , and  $z_{12}$ . this factor was labeled as 'political, economic and social factors defined project success. The second factor excluded technology component.

**Table 4.7. Factor loading for External factors** 

Item	External factor category 1	External factor category 1
indicators		
Z1	.759	512
Z2	.710	452
Z3	.572	
Z4	.815	
Z5	.707	
Z6	.760	
<b>Z</b> 7		
Z8	.516	.423
Z9	.453	
Z10	.694	
Z11	.783	
Z12	.717	.608

## <u>Key</u>

- Z1 Political factors influence the delivery of a project to Customer/User and Stakeholder Satisfaction
- Z2 Political factors influence the delivery of a project within the schedule
- Z3 Political factors influence the delivery of project within the budget
- Z4 Technological factors influence the delivery of a project to Customer/User and Stakeholder Satisfaction
- Z5 Technological factors influence the delivery of a project within the schedule
- Z6 Technological factors influence the delivery of a project within the budget
- Z7 Economic factors influence the delivery of a project to Customer/User and Stakeholder Satisfaction
- Z8 Economic factors influence the delivery of a project within the schedule
- Z9 Economic factors influence the delivery of a project within the budget
- Z10 Social factors influence the delivery of a project to Customer/User and Stakeholder Satisfaction
- Z11 Social factors influence the delivery of a project within the schedule
- Z12 Social factors influence the delivery of a project within the budget

As shown in Table 4.8, paired sample correlation attempted to demonstrate the relationship between the two extracted external factor domains and individual ratings revealed no correlation at all. A test of difference between factor rating and individual rating revealed significant differences in both cases (t>9, df=64, p<0.01).

Table 4.8. A comparison between individual rating of external as a factors of project success and itemized external factors domains related to project success

Indicator rating vis a vis indicator-based rating			Interval o	95% Confidence Interval of the Difference		Sig. (2-tailed)
			Lower	Upper		
		Correlation				
Pair 1	Rating of External factor of Project - External factor	.975	37.03	56.46	9.857	.000
Pair 2	category 1 Rating of External factor of Project - External factor category 2	.628	37.15	56.5	9.913	.000

This study therefore uniquely isolated only two categories of external factors as measures of project success. The first factor identified all the four major sub-domains of external factors including political, technological, economic, and social factors. These factors somehow displayed equal weight in the factor loadings. The second external factor option isolated political, economic and social factor domains in the context of project success. However, in this component, the political factors somehow demonstrated negative influence unlike in the first case where political factor appeared to positively contribute to project success. This implies that political factors have potential to influence project success both positively or negatively and should be given attention.

#### CHAPTER FIVE

#### SUMMARY OF THE FINDINGS, CONCLUSION AND RECOMMENDATION

#### 5.1 Introduction

This chapter contains a summary of the findings of the study, conclusions, recommendations and suggestions for further studies. It also contains references and appendices that contributed to this study.

## 5.2 Summary of the Findings

This study was set to establish the critical success factors that would improve livelihood projects management in the not for profit organizations in Kenya. Specifically the study was anchored on four objectives as follows: To assess the rated level of project success based on competency, management and external factor domains; To determine the extent to which the competency factors of the project team influence the success of the livelihood projects; To determine the extent to which the project management factors influence the success of livelihood projects and; to assess the extent to which the external factors influence the of success livelihood projects. Based on the study outcome largely evaluated by principal axis factoring, the following four conclusions have been made.

1) The study has established that 78.8% of project success according to the Project Managers could be accounted for by single rating for main project success indicators including competency factors, project management and external factors. However, an attempt to test the competitiveness of the three domains of project success measurement outcomes revealed that factors related to project management was the most competitive (Communality=0.947) followed closely by external factors (Communality=0.917) and competency factors (Communality=0.791) as per the rating of participants. This implies that project management related indicators were most valued in the evaluation of project success and that arguments put forward by some authors (Collyer and Warren, 2009; Belout and Gauvreau, 2004; Waller and Vires, 2000; Chan et al., 2004) are valid and consistent dimensions of project success measurement. However, there could be other factors accounting for 21.2% that need to be determined to ensure livelihood project success. These factors need to be investigated through further studies

Within competency domain as a measure of project success, it emerged that competency of project team as a measure of project success would generate three factor group categories namely: leadership, planning and technical skills; communication, management and technical skills competencies; and planning, external and internal management skills in the order of superiority. It appears that project success when measured within competency domain would first give attention to "leadership, planning and technical skill competencies". This outcome supports arguments of a number of authors (Whetten and Camaron, 2010; Wood and King 2010; Milosevic, Matinelli and Wddell, 2007) which focused on leadership, planning and technical skills as important determinants in project success. This also provides an additional empirical evidence in support of findings of the same authors indicating that technical and management skills of the project manager, as well as his/her commitment and competence, becomes the most critical component during the project life cycle. It also concurs with PMI (2013) planning recommendation for project managers. In this domain communication skills (Barry, 2010) and technical skills (Muzio et al. 2007; Milosevic, Martinelli and Waddell, 2007) add to the value of leadership and planning.

The second factor domains in this category would throw its weight on "communication, management and technical skills competencies". Within this context, communication as suggested by Barry (2010), external and internal management skills (Jugder and Muller, 2005; Allam eta al. 2010) as well as technical skills (Muzio et al., 2007; Anderson and Jessen, 2000) would be given attention as second level project success measures. This study outcome therefore validated a number of previous authors arguments.

3) Management aspects of project success identified three factor groups namely: planning, monitoring and communications aspects; risk, monitoring and communication aspects of project management; communication, monitoring of project activities, managing risk associated with the project in that order. This component concurs with the finding of a number of authors who clearly identified planning, monitoring of project performance and effective communication and feedback as being critical in management of the project success (Prabhakar, 2008; Tumer, 2004, Gareis et al, 2003; Keizner, 2009, Belassi and Tukel, 1996; Belout and Gauvreau, 2004; Clarke, 1999; Waleski and Gibson, 2003). The findings of the above authors strengthen the fact that programs often require strategic visioning and planning

skills coupled with well-designed follow-ups and communications to align overall program goals and benefits with the long-term goals of the organization.

Risk management of projects is also outlined as a key component in the successful implementation of projects in this study and this clearly concurs with the findings of other authors Shenkar et al (2001) and Tuner and Muller (2005). Other components of this domain which brought on board monitoring concurs with sentiments of Gareis et al (2013) and Ika (2009). Added to these factors is effective communication emphasized by Balout and Goureau (2004). The last alternative domain of management as a measure of project success identified communication as a priority, giving more preference to the sentiments of Balout and Grauvreau (2004) and Thuillier (2004). The second preference was given to monitoring of project activities (Gereis et al, 2013; Keizer, 2009).

4) External factor aspects of project success also identified two main factor groups namely: political, technological, economic, environmental and social factors and political, economic and social factor domains in the context of project success. The result confirms in a similar pattern of arguments put across by some authors (Westeveld 2003; PMBOK, 2013; Bennerman, 2008; Howcroft, 2002; Kwak, 2002). The authors reiterate that understanding the political components of networking and strategic thinking is very important towards making the best decisions for the smooth implementation and success of a project. With a solid understanding of the political environment the program manager will need to form positive relationships so that the full benefits of the program can be realized when the activities are transitioned to gain leverage and buy-in for overall success of a project. However, political factors have potential to influence project success both positively or negatively and should be given attention.

#### 5.3 Conclusions

The study provides additional empirical evidence in support of the fact that technical and management skills of the Project Team as well as commitment are the most critical components during the project life cycle. In addition, communication and technical skills add to the value of leadership and planning. The findings of the study also strengthen the fact that programs or projects often require strategic visioning and planning skills, coupled with well-designed follow-ups and management of risks to realize its full potential and meet stakeholders' expectations. The study

has also established that political components of networking can influence project success both negatively and positively and therefore should be given keen and equal attention.

#### 5.4 Recommendation

The study findings have generated good knowledge on prioritization of performance areas of project success as perceived by the Project Managers. Based on this finding the study recommends to the project managers to focus on managerial issues in such a way that leadership, planning and technical skills are given more weight before other factors are considered. This process should follow an eight-tier model suggested in table 4.8 below.

**Tables 4.8: Project Success Priority Factor Model** 

Planning, Monitoring and Communications Aspects	High	٨
Risk, Monitoring and Communication aspects of Project Management		/\
Communication, Management and Technical Skills Competencies		4 2
Communication, Monitoring of Project Activities, Managing Risk		
Planning, External and Internal Management Skills		
Political, Technological, Economic, Environmental		
Political, Economic and Social Factor	Low	Ш

## 5.5 Suggestions for Further Studies

In all the three domain determinants of project success, it appears that there was lack of correlation between the individual rating within each of the clusters. A test for differences between the individual rating and each of the factors identified revealed significant discrepancies (t>12, p<0.05) indicating uniqueness of each factor domain. This would imply that specified indicators within each of the domains must be clearly understood to assess their contribution to project success. A further study to understand the effect of each of the indicators within each of the domains and how they would influence project success specifically in the livelihood projects within the not for profit organizations would therefore be suggested.

This study has established that 78.8% of project success according to the Project Managers could be accounted for by single rating for main project success indicators including competency factors, project management and external factors. However, there could be other factors accounting for 21.2% that need to be determined and would ensure livelihood project success. These factors need to be investigated through further studies.

This study on the factors influencing project success is only based on the perceptions of the Project Managers Implementing Livelihood projects within by the Not for Profit Making Organisations in Kenya. It therefore does not consider the view of other stakeholders. It would therefore be important for further studies to be done to get the perceptions of other stakeholders on the factors influencing livelihood project success.

## 5.6 Contribution to the Body of Knowledge

This study has contributed to the body of knowledge on the factors influencing project success in relation to the livelihood projects implemented by the Not for Profit Organisations in Kenya. Previous studies have demonstrated that these factors may affect the success of various projects in the construction sector; infrastructure and telecommunication sectors; however, there was limited information on the success factors for the livelihood projects implemented by the not for profit making organisations in developing countries. The study has therefore demonstrated through empirical evidence that technical and management skills of the Project Team as well as commitment are the most critical components for success in livelihood projects. The study has generated hierarchical order of an eight-tier model which need to be considered while implementing the livelihood projects with Leadership, and Technical skills considered highly important; Risks, Monitoring and Communication aspects of the project management considered moderately important; and political, environmental and social factors considered important but not as the above two areas. The findings of the study have also generated knowledge that strengthen the fact that programs or projects often require strategic visioning and planning skills, coupled with well-designed follow-ups and management of risks to realize its full potential and meet stakeholders' expectations.

#### REFERENCES

- Allam, M., Gale, A., Brown, M., and Khan, A.I. (2010). The Importance of Human Skills in Project Management Professional Development. *International Journal of Managing Projects in Business*, 3:3, pp. 495-516
- Ashley, D. B., Lurie, C. S., & Jaselskis, E. J. (1987). Determinants of Construction Project Success. *Project Management Journal*, 18(2), 69–79
- Anderson, E. S., and Jessen, S. A. (2000). Project Evaluation Scheme; a Tool for Evaluating Project Status and Predicting Project Results. *Project Management Journal, Vol. 6, No. 1, pp.* 61-69
- Atkinson, R. (1999). Project Management: Cost, Time and Quality, Two Best Guesses and a Phenomenon, It's Time to Accept Other Criteria. *International Journal of Project Management*, 17, 337–342.
- Bannerman, P. L. (2008). Defining Project Success: A Multilevel Framework. *In Proceedings of the PMI Research Conference (pp. 1–14)*. Newtown Square, PA: Project Management Institute
- Baccarini, D. (1999). The Logical Framework Method for Defining Project Success. *Project Management Journal*, 30(4), 25–32
- Barbara, Dexter. (2010). Critical Success Factors for Developmental Team Projects. *Team Performance Management, Vol. 16 Issue 7 pp. 343 358*
- Barry, T.R. (2010). Top 10 Qualities of a Project Manager. Project Smart. Retrieved December 3, 2015, from: http://www.projectsmart.co.uk/pdf/top-10-qualities-of-a-project-manager.pdf
- Belassi, W., & Tukel, O. I. (1996). A New Framework for Determining Critical Success/Failure Factors in Projects. *International Journal of Project Management*, 14, 141–151
- Belout, A., & Gauvreau, C. (2004). Factors Influencing Project Success: The Impact of Human Resource Management. *International Journal of Project Management*, 22, 1–11
- Chambers, R., & Conway, G. (1991). Sustainable Rural Livelihoods: Practical Concepts for the 21<sup>st</sup> Century. Retrieved February 3, 2016, from <a href="http://www.smallstock.info/reference/IDS/dp296.pdf">http://www.smallstock.info/reference/IDS/dp296.pdf</a>
- Chan, A.P.C., Scott, D. & Chan, A.P.L. (2004). Factors Affecting the Success of a Construction Project. *Journal of Construction Engineering & Management*, vol. 130, no. 1, pp. 153-155.
- Cho, H.C., 1999, Study on Concession Models for Private Sector Involvement in Asian Infrastructure Development, Ph.D. Dissertation, University of Tokyo, 1999.

- Clarke, A. (1999). A Practical Use of Key Success Factors to Improve the Effectiveness of Project Management. *International Journal of Project Management*, 17, 139–145
- Collyer, S. and Warren, C.M.J. (2009). Project Management Approaches for Dynamic Environments. *International Journal of Project Management*, vol. 27, pp. 355-364.
- Cooke-Davies, T. (2002). The "Real" Success Factors on Projects. *International Journal of Project Management*, 20, 185–190
- Crawford, L., Pollack, J., England, D. (2006). Uncovering The Trends in Project Management: Journal Emphases Over the Last 10 Years. *International Journal of Management*, 24(2006), 175 184
- Creswell, J.W. (2009) Research Design: Qualitative, Quantitative, And Mixed Method Approaches. Sage Publications Inc. Los Angeles
- Creti, P. (2005). Evaluation of the Livelihood Programmes in Mapou and Cape Haitian, Haiti. Retrieved March 29, 2016, from ALNAP: <a href="http://www.alnap.org/resource/3360.aspx">http://www.alnap.org/resource/3360.aspx</a>
- Daniel, R. (1961). Management Information Crisis. Harvard Business Review, Vol. 39, No. 5, pp. 111 121
- De Wit, A. (1988). Measurement of Project Success. Project Management Journal, 6(3), 164–170
- Diallo, A., & Thuillier, D. (2004). The Success Dimensions of International Development Projects:

  The Perceptions of African Project Coordinators. *International Journal of Project Management*, 22, 19–31
- Donnges, C. (2009). Addressing Unemployment and Poverty Through Infrastructure Development as A Crisis Response Strategy. Retrieved March 17, 2016, from Asian Development Bank: http://www.adb.org/documents/events/2009/Poverty-SocialDevelopment/WG3A-infrastructure-and-rescue-packages-Donnges-paper.pdf
- Eldis. (2010). Livelihoods Connect. Retrieved February 5, 2010, from Eldis: <a href="http://www.eldis.org/index">http://www.eldis.org/index</a>.
- Erling, S., Andersen, D. B., Svein, A. J., and Money, A. H. (2006). Exploring Project Success. *Baltic Journal of Management, Vol. 1 Issue 2 pp. 127-147*.
- Fincham, R. (2002). Narratives of Success and Failure in Systems Development. *British Journal of Management*, 13,1–14
- Fowler, A., & Walsh, M. (1999). Conflicting Perceptions of Success in an Information Systems Project. *International Journal of Project Management*, 17(1), 1–10

- Fortune J., & White, D. (2006). Framing of Project Success Critical Success Factors by A System Model. *International Journal of Project Management*, 24(1),53–65
- Freeman, M., & Beale, P. (1992). Measuring Project Success. *Project Management Journal*, 23(1), 8–17
- Gareis, R., Huemann, M., & Martinuzzi, A. (2013). Project Management and Sustainable Development Principles. Newtown Square, PA: Project Management Institute
- Greenberg, J. & Baron R. A. (2008). Behavior in Organizations (9<sup>th</sup> Ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Hubbard, D. G. (1990). Successful Utility Project Management from Lessons Learned. *Project Management Journal.*, 21 3, 19–23.
- Hyväri, I. (2006). Success of Projects In Different Organizational Conditions. *Project Management Journal*, 37(4), 31–4
- Ika, L. A. (2009). Project Success as a Topic in Project Management Journals. *Project Management Journal*, 40(4), 6–19.
- Ika, L. A., Diallo, A., & Thuillier, D. (2010). Project management in the international development industry: The project coordinator's perspective. *International Journal of Managing Projects in Business*, 3(1), 61–93.
- Ika, L. A., Diallo, A., & Thuillier, D. (2012). Critical Success Factors for World Bank Projects: An Empirical Investigation. *International Journal of Project Management*, 30(1), 105–116.
- Jaspars, S. (2006). From Food Crisis to Fair Trade: Livelihoods Analysis, Protection and Support In Emergencies. Retrieved December 12, 2015, from Emergency Nutrition Network: <a href="http://www.reliefweb.int/rw/lib.nsf/db900sid">http://www.reliefweb.int/rw/lib.nsf/db900sid</a>
- Judd, C.M., Smith, E.S. and Kidder, L.H. (1991). Research Methods in Social Relations. New York, Holt, Rinehart and Winston
- Jugdev, K., & Müller, R. (2005). A Retrospective Look at Our Evolving Understanding of Project Success. *Project Management Journal*, *36*(4), *19–31*.
- Khang, D. B., & Moe, T. L. (2008). Success Criteria and Factors for International Development Projects: A Lifecycle-Based Framework. *Project Management Journal*, 39(1), 72–84
- Kerzner, H. (1992). Project Management: A Systems Approach to Planning, Scheduling and Controlling. New York: Van Nostrand Reinhold.

- Kerzner, H. (2009). Project Management: A Systems Approach to Planning, Scheduling, And Controlling. Hoboken, NJ: Wiley.
- Kloppenborg, T. J., & Opfer, W. A. (2002a). Correspondence. *Project Management Journal*, 33(4), 71–72.
- Kloppenborg, T. J., & Opfer, W. A. (2002b). The Current State of Project Management Research: Trends, Interpretations, And Predictions. *Project Management Journal*, 33(2), 5–18
- Koskela, L. & Howell, G. A. (2002a). The Theory of Project Management: Explanation to Novel Methods. *10th International Conference on Lean Construction*, Gramado, Brazil. IGLC.
- Kothari, C.R. (1990). Research Methodology; Methods & Techniques; New Age International Limited Publishers, New Delhi
- Kwak, Y. H., (2002). Critical Success Factors in International Development Project Management, Washington, DC, 2002.
- Lim, C. S., & Mohamed, M. Z. (1999). Criteria of Project Success: An Explanatory Re-Examination. *International Journal of Project Management*, 17, 243–248
- Liu, A. N. N., & Walker, A. (1998). Evaluation of Project Outcomes. *Construction Management & Economics*, 16, 109–219
- Milosevic, D. & Patanakul, P. (2005). Standardized Project Management May Increase Development Projects Success. *International Journal of Project Management, vol. 23, no. 3, pp. 181-192.*
- Milosevic, D. M., Martinelli, R., and Waddell, J. M. (2007). Program Management for Improved Business Results. Hoboken, NJ: Wiley.
- Mugenda, O.M. and Mugenda, A. G. (2003). Research Methods; Qualitative & Quantitative Approaches; African Centre for Technology Studies, Nairobi
- Munns, A. K., & Bjeirmi, B. F. (1996). The Role of Project Management in Achieving Project Success. *International Journal of Project Management*, 14, 81–87
- Muzio, E., Fisher, D. J., Thomas, R. R., and Peters, V. (2007). Soft Skills Quantification (Ssq) For Project Manager Competencies. *Project Management Journal*, 38(2): 30-38.
- Prabhakar, G. P. (2008). What Is Project Success: A Literature Review? *International Journal of Business and Management, Vol.39, pp.3-10.*
- Project Management Institute [PMI]. (2013). A Guide to the Project Management Body of Knowledge. USA: Project Management Institute (PMI).

- Sekaran, U. (2006). Research Methods for Business; A Skill-Building Approach John Wiley New Delhi
- Shenhar, A., Levy, O., & Dvir, D. (1997). Mapping The Dimensions of Project Success. *Project Management Journal*, 28(2), 5–13.
- Shenhar, A. J., & Dvir, D. (2007). Project Management Research—The Challenge and Opportunity. *Project Management Journal*, 38(2), 93–99.
- Shenhar, A. J., Dvir, D., Levy, O., & Maltz, A. C. (2001). Project Success: A Multidimensional Strategic Concept. *Long Range Planning*, 34(6), 699–725
- Smith, D.C., Bruyns, M., and Evans, S. (2011). A Project Manager's Optimism and Stress Management and IT Project Success. *International Journal of Managing Projects in Business*, 4:1,pp 10-27.
- Stevenson, Deborah H. and Starkweather, Jo Ann (2010). PM Critical Competency Index: IT Execs Prefer Soft Skills. *International Journal of Project Management*, 28, pp 663-671
- Thomas, G., & Fernandez, W. (2008). Success in IT Projects: A Matter of Definition? *International Journal of Project Management*, 26(7), 733–742.
- Söderlund, J. (2004). Building theories of project management: Past research, questions for the future. International Journal of Project Management, 22, 183–191
- Tukel, O. I., Rom, W. O. (2001). An Empirical Investigation of Project Evaluation Criteria. International Journal of Operations and Production Management, 21(3), 400 – 409
- Turner, JR. (2004). Five Necessary Conditions for Project Success. *International journal of project management*, 22(5), 349-350.
- Turner, J. R., & Müller, R. (2005). The Project Manager's Leadership Style as a Success Factor on Projects: A Literature Review. *Project Management Journal*, *36*(2), 49–61.
- Turner, R., & Zolin, R. (2012). Forecasting Success On Large Projects: Developing Reliable Scales to Predict Multiple Perspectives by Multiple Stakeholders Over Multiple Time Frames. *Project Management Journal*, 43(5), 87–99.
- Walker, D. H. T., and Vines, M. W. (2000). Australian Multi-Unit Residential Project Construction Time Performance Factors. *Eng., Constr. Archit. Manage.*, 7-3, 278 –284.
- Walewski, J., and Gibson, G. (2003). International Project Assessment: Methods, Procedures and Critical Factors. Report. Center Construction Industry Studies. Austin, Texas.

- Westerveld, E. (2003). The Project Excellence Model: Linking Success Criteria And Critical Success Factors. *International Journal of Project Management, Vol. 21, No. 6, Pp. 411-418.*
- Whetten, D.A., & Cameron, K.S. (2010). Developing Management Skills (8th ed.). New York, NY: Prentice-Hall.
- Wilson, M., & Howcroft, D. (2002). Re-Conceptualizing Failure: Social Shaping Meets IS Research. *European Journal of Information Systems*, 11(4), 236–250
- Woods, R. H. & King J. Z. (2010). Leadership and Management in the Hospitality Industry (3<sup>rd</sup> ed.). Lansing, MI: American Hotel & Lodging Educational Institute.
- Zwikael, O. & Globerson, S. (2006). Benchmarking Of Project Planning And Success In Selected Industries. *An International Journal, Vol. 13, No. 6, Pp. 688-700*.

#### APPENDIX A: LETTER OF INTRODUCTION



#### **UNIVERSITY OF NAIROBI**

COLLEGE OF EDUCATION AND EXTERNAL STUDIES SCHOOL OF CONTINUING AND DISTANCE EDUCATION DEPARTMENT OF EXTRA-MURAL STUDIES NAIROBI EXTRA-MURAL CENTRE

Your Ref:

Our Ref:

Telephone: 318262 Ext. 120

Main Campus Gandhi Wing, Ground Floor P.O. Box 30197 NAIROBI

22<sup>nd</sup> March, 2017

REF: UON/CEES/NEMC/25/310

#### TO WHOM IT MAY CONCERN

#### RE: OKEYO GEORGE OTIENO - REG NO L50/68877/2013

This is to confirm that the above named is a student at the University of Nairobi College of Education and External Studies, School of Continuing and Distance Education, Department of Extra- Mural Studies pursuing Masters of Art in Project Planning and Management.

He is proceeding for research entitled "factors influencing project success." The Case of Livelihood Projects Implemented by not for Profit Organization in Kenya.

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EXTRA MURA

Any assistance given to him will be highly appreciated.

**CAREN AWILLY** 

**CENTRE ORGANIZER** 

NAIROBI EXTRA-MURAL CENTRE

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## **APPENDIX B: QUESTIONNAIRE**

# CRITICAL FACTORS INFLUENCING PROJECT PERFORMANCE: THE CASE OF LIVELIHOOD PROJECTS IMPLEMENTED BY NOT FOR PROFIT ORGANIZATIONS IN KENYA

Greetings
My name isI am involved in the study to investigate: Factors Influencing Project Success: The Case of Livelihood Projects Implemented by Not for Profit Organizations in Kenya. This study may be useful to project management team to implement policies that will address the challenges faced by Non-Governmental Organizations in implementing projects. It may also contribute to the project management body of knowledge by addressing the gap of lack of information on the critical success factors with regard to the implementation of the livelihood projects in Kenya.
Please note that confidentiality will be maintained and the information will be used strictly for the purposes of this study.
Part A: Personal Information
Please tick or write where applicable
<ul><li>1. Gender</li><li>a) Male</li><li>b) Female</li></ul>
2. Job Description/Role
a) Project Manager
<ul><li>b) Senior Project Manager</li><li>c) Project Leader</li><li>d) Financial Manager</li></ul>
<ul> <li>3. Number of Years in Project Management</li> <li>a) 0 to 2 years</li> <li>b) 2 to 4 years</li> <li>c) 4 to 6 years</li> <li>d) 8 to 10 years</li> <li>e) &gt; 10 years</li> </ul>
<ul><li>4. Your Educational Qualification?</li><li>a) Diploma</li><li>b) Bachelor's degree</li></ul>

c) Master's degreed) Doctorate degree

- e) Others (Specify)
- 5. Headline figure of the biggest Project/Portfolio you have been involved in? (figures in Kenya Shillings)
  - a) Less that KES 20 million
  - b) KES 20 million to KES 50 million
  - c) KES 50 million to KES 100 million
  - d) KES 100 million to KES 150 million
  - e) KES 150 million to KES 200 million
  - f) KES 200 million and above

PART B: Based on literature review, interviews and personal experience I have compiled a list of 39 Success Factors that could impact on the delivery of Livelihood Projects in Kenya. Please you are expected to indicate your opinion on the degree of relevance/importance of each of the SFs on a scale of 1 to 5.

Scores: Strongly Disagree=1; Disagree=2; Neutral=3; Agree=4; Strongly agree=5

	FACTORS INFLUENCING PROJECT	1	2	3	4	5	What is the reason
	SUCCESS						for the choice of
							the score
A	FACTORS RELATED TO COMPETENCY OF THE	HE ]	PR(	)JE	CT	TE	AM
1	Effective leadership and team work skills influence						
	project being delivered to Customer/User and						
	Stakeholder Satisfaction						
2	Effective leadership and team work skills influence						
	project being delivered within the schedule						
3	Effective leadership and team work skills influence						
	project being delivered within the budget						
4	Planning and organization skills influence project						
	being delivered to Customer/User and Stakeholder						
	Satisfaction						
5	Planning and organization skills influence project						
	being delivered within schedule						
6	Planning and organization skills influence project						
	being delivered to Customer/User and Stakeholder						
	Satisfaction						
7	Having good communication skills amongst project						
	team influence project being delivered to						
	Customer/User and Stakeholder Satisfaction						
8	Having good communication skills amongst project						
	team influence project being delivered within the						
	schedule						

	TT : 1 : 1:11 :	1	l I			
9	Having good communication skills amongst project					
	team influence project being delivered within the					
	budget					
10	Having good internal and external management skills					
	amongst project team influence project being					
	delivered to Customer/User and Stakeholder					
	Satisfaction					
11	Having good internal and external management skills					
11	amongst project team influence project being					
10	delivered within schedule					
12	Having good internal and external management skills					
	amongst project team influence project being					
	delivered within the budget					
13	Having good technical skills amongst project team					
	influence project being delivered to Customer/User					
	and Stakeholder Satisfaction					
14	Having good technical skills amongst project team					
	influence project being delivered within the schedule					
15	Having good technical skills amongst project team					
13	influence project being delivered within the budget					
В	FACTORS RELATED TO PROJECT MANAGEM	EN	TT			
		LEAN	1	l I	I	
16	Effective Planning influence project being delivered to					
	Customer/User and Stakeholder Satisfaction					
17	Effective Planning influence project being delivered					
	within the schedule					
18	Effective Planning influence project being delivered					
	within the budget					
19	Monitoring and Feedback influence project being					
	delivered to Customer/User and Stakeholder					
	Satisfaction					
20	Monitoring and Feedback influence project being					
	delivered within the schedule					
21	Monitoring and Feedback influence project being					
21	delivered the budget					
22	Effective internal and external communication					
22						
	influence project being delivered to Customer/User					
	and Stakeholder Satisfaction					
23	Effective internal and external communication					
	influence project being delivered within the schedule					
24	Effective internal and external communication project					
	being delivered within the budget					 
25	Effective Risk Management influence project being					
	delivered to Customer/User and Stakeholder					
	Satisfaction					
26	Effective Risk Management influence project being					
	delivered within the schedule					
	dell'i el ed i i i i i i i i i i i i i i i i i i	<u> </u>	1	<u> </u>		

27	Effective Risk Management project being delivered					
	within the budget					
C	EXTERNAL FACTORS					
28	Political factors influence the delivery of a project to					
	Customer/User and Stakeholder Satisfaction					
29	Political factors influence the delivery of a project					
	within the schedule					
30	Political factors influence the delivery of project					
	within the budget					
31	Technological factors influence the delivery of a					
	project to Customer/User and Stakeholder Satisfaction					
32	Technological factors influence the delivery of a					
	project within the schedule					
33	Technological factors influence the delivery of a					
2.4	project within the budget					
34	Economic factors influence the delivery of a project to					
2.5	Customer/User and Stakeholder Satisfaction					
35	Economic factors influence the delivery of a project					
26	within the schedule					
36	Economic factors influence the delivery of a project within the budget					
37	Social factors influence the delivery of a project to					
37	Customer/User and Stakeholder Satisfaction					
38	Social factors influence the delivery of a project within					
30	the schedule					
39	Social factors influence the delivery of a project within					
37	the budget					
	ine ouugei			<u> </u>		

PART C: Please evaluate the percentage of contribution (X%) of the mentioned above success factors to 100% project success:

<b>Groups of Success Factors</b>	<b>Contribution to Project Success</b>
Factors Related to Competency of Project Team	
Factors Related to Project Management	
External Related Factors	

# APPENDIX C: PROJECT BUDGET

Activity	Requirements	<b>Budget in KES</b>
1. Development of	1.1 Transport for consultative meetings with	3,000
Research Proposal	the supervisor, colleagues and other	
	stakeholders	
	1.2 Email communication and online searches	10,000
	for literature	
	1.3 Printing of copies of the draft proposal and	2,000
	the final research proposal	
2. Data collection	2.1 Training of 2 research assistants	10,000
	2.2 Copies of research instruments	10,000
	2.3 Transport for the research and research	10,000
	assistants for 3 days	
	2.4 Payments for research assistants (for 5	20,000
	days @ KES 2000)	
3. Data analysis	3.1 Data entry by research assistants for 2 days	3,200
4. Report writing	4.1 Editing of the report	1,000
	4.2 Printing of copies of the Final Research	4,000
	Project Report	
Total Budget		73, 200

## **APPENDIX D: TIME FRAME**

Activity			Month								
	Jan	May	Jun	Jul	Aug	Sep	Feb	Mar 2018	April		
	2016	2016	2016	2016	2016	2016	2018		2018		
Concept											
Development											
Research											
Proposal											
Development,											
discussions with											
the supervises											
and adjustment											
Defense and											
approval of the											
Research											
Proposal											
Collection of											
data											
Analysis of data											
Report writing											
and editing of											
the First Draft											
of Project report											
Revised project											
report and											
Approval of the											
Final Project											
report											
Submission of											
the Final Report											

#### APPENDIX E: RESEARCH PERMIT



## NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: 020 400 7000, 0713 788787,0735404245 Fax: +254-20-318245,318249 Email: dg@inacesti.go.ke Website: www.nacesti.go.ke When replying please quote NACOSTI, Upper Kabete Off Waiyaki Way P.O. Box 30623-00100 NAIROBI-KENYA

Ref: No. NACOSTI/P/18/56496/21112

George Otieno Okeyo University of Nairobi P.O. Box 30197-00100 NAIROBI. Date: 2nd February, 2018

#### RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "Factors influencing project success: the case of livelihood projects implemented by not for profit organizations in Kenya" I am pleased to inform you that you have been authorized to undertake research in all Counties for the period ending 1st February, 2019.

You are advised to report to the County Commissioners and the County Directors of Education, all Counties before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a copy of the final research report to the Commission within one year of completion. The soft copy of the same should be submitted through the Online Research Information System.

30 Kalerwa

GODFREY P. KALERWA MSc., MBA, MKIM FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioners All Counties.

The County Directors of Education All Counties.

National Commission for Science, Technology and Innovation isISO9001:2008 Certified

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