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The Role of Project Management Training in Determining Project Success

A Case Study of River Nzoia Basin Project in Kenya

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ABSTRACT

A project is defined by various dimensions as a result of its various characteristics and its dynamic nature. To achieve project success, management must as much as possible adopt the project management approach, by clearly stating their desired goals and outcomes. There is therefore need to create clear objectives and enhance the conditions for the attainment of good results. Many scholars have highlighted the importance of knowledge in project management as a key that provides an organization with clear mechanisms that improves the organizations ability to plan, organize, communicate, coordinate, deploy and control important functions and centre its activities and the ways it uses its entire resources to improve the project success. This serves to underscore the importance of having the project team with the right skills so as to be able to undertake these key functions.

The general objective of this research was to establish the role of project management training in determining the project's success in Kenya. The study sought to answer the following questions; to what extent does training in project planning influence project success in Kenya?; What are the effects of training in risk management in relation to project success in Kenya? And does training in monitoring and control determine project success in Kenya? The case study for this research was the River Nzoia Basin project.

The study adopted a descriptive design to collect both quantitative and qualitative data. The target population was drawn from a population frame provided by the River Nzoia Basin Project and UNEP which was the project sponsoring organization and consisted of coordinators, project managers and staff. The sampling procedure employed was census and the entire population of 35 respondents was studied from the River Nzoia Basin project. Data was collected using questionnaires. A pilot study was conducted to establish the accuracy and reliability of the research instrument. Data was analyzed with the aid of Statistical Package for Social Sciences (SPSS 21.0) Quantitative data was presented inform of tables, pie-charts and bar graphs while qualitative data was given inform of explanatory notes.

The research had a high response rate. Out of the total 35 questionnaires issued to the respondents, 32 were returned dully completed representing 91.4% of the total study

population. In determination of project success, 62.5% of the total respondents who participated in the study acknowledged that so far the project has achieved its set objectives, while 37.5% of the respondents indicated that the project has not achieved its set objectives. Most respondents stated that project success can be measured by how well project inputs are transformed into outcomes, achievement of project objectives, levels of stakeholder satisfaction and evaluation in terms of quality, time and cost.

From the findings of the research, planning was a major determinant of the success of the River Nzoia Basin project according to 84.4% of the respondents. This was done through ensuring proper usage of resources and minimizing wastage. Further Majority (38.9%), (83.3%), (50.0%), (77.8%) of the respondents strongly agreed and agreed respectively that various aspects of risk management are essential in successful project implementation and management. On monitoring and control majority of respondents representing 62.5% of the total study population indicated that the level of influence of monitoring and control was high, while 28.1% and 9.4% stated that the level was moderate and low respectively.

The variables under study expressed a positive correlation coefficient of r = 0.748 indicating that there is a significant relationship between these variables. Therefore 74.8% probability of project success is influenced by project planning, risk management and monitoring and control. From the findings of the study, it can be concluded that it is paramount that every organization undertaking projects ensures that its project staff are adequately trained in professional and technical skills to maximize the project outcomes. Therefore further research should be conducted to determine the effects of training in project planning, risk management and monitoring and control in sector specific projects so as to increase the available knowledge on determinants of project success.

CHAPTER ONE
INTRODUCTION

1.1 Background to the Study

A project can be characterized by a few elements such as objectivity, as it is definable with result, output or product; complexity, as it consists of interrelated activities and large number of different tasks; unique, since it is usually a one-off assignment; uncertainty as it has element of risk; temporary, since it has a well defined beginning and end and lastly operate in a life cycle as resource needs change during the life of the project (Turner, 2004). Project management can be described as a carefully planned and organized effort to successfully accomplish a specific one-time objective, for example, constructing a building (Comninos & Frigenti, 2002). To achieve project success, management must as much as possible adopt the project management approach, by clearly spelling out project objectives, create clear objectives, create the conditions for the attainment of good results (Berkun, 2005). Harvey (2005) explains that the outcome of a project includes the product or services itself, the time at which the outcome is available and the cost entailed in achieving the outcome (Baars, 2006).

According to Meredith (2003) project management provides an organization with powerful tools that improves the organizations ability to plan, organize, communicate, coordinate, deploy and control important and centre its activities and the ways it uses its people and resources to improve project success. However, few projects actually benefit from more resource; instead, it only serves to make the failure seem even more costly and spectacular

when it eventually comes to light. Instead, it is preferable to ensure that the project team comprises the right people with the right skills and abilities from the outset; and to take immediate steps to address skill gaps as soon as they are identified. If delivering successful projects is about people more than process or tools, the primary objective must be to have the right team in place.

The project management team is expected to integrate all aspects of the project, such as Such as planning, communication, resourcing risk management, monitoring and evaluation among other responsibilities to ensure that proper knowledge and resources are available when and where needed and above all ensure that the expected results are produced in a timely, cost effective manner (Smith, 2002). This suggests that project team managers must have a wide range of skills and abilities in order to ensure a successful outcome. Formal project-management skills and qualifications are an obvious prerequisite, as is the ability to remove any obstacles to success and ensure that the flow of work is taking place at the right pace. In addition, they need interpersonal and persuasive skills in order to engage the assistance of colleagues who are not officially assigned to the project, correctly plan the activities in the project; ensuring correct and adequate information flows; changing activities to accommodate frequent changes on dynamic; accommodating employees' personal goals with performance and rewards; and making a fresh start when mistakes in implementation have been identified so as to move the project forward (Turner, 2004).

Chamoun (2006) points out that project sponsors requires careful appointment of a skilled project manager who will spend time defining the project adequately; correctly planning the activities in the project; ensuring correct and adequate information flows; changing activities to accommodate frequent changes on dynamic; accommodating employees' personal goals with performance and rewards; and making a fresh start when mistakes in implementation have been identified. While Comninos and Frigenti, (2002) stress the importance of the issues of project life cycle management, time management, conflict resolution and management, networking, contracts management, project choice and project quality are the key factors that contribute to project success

According to Allen (2004) the efficient and proactive training of project staff and management and the application of these acquired skills results in effective project selection and execution, planning, monitoring task completion in the face of time, cost/ quality constraints so as to enhance project success (Timons and Spinelli, 2005). Burke (2003) notes that the process of bringing new projects on stream and into the market imposes demands on established organisations and necessitates different management techniques from those required to maintain day-to-day operations. In concurring with Burke (2003) sentiments, Chamoun (2006) adds that in circumstances where sponsoring organizations have a finite, unique and unfamiliar undertaking, the training of project management is necessary so as to make faster and efficient decisions than is possible under normal operation which will be critical to project success (Kerzner, 2003)

Dessler (2004) describes the various training programs formulated to provide dual purposes such as team building, managerial skills, negotiation and conflict resolution which can be fully utilized to improve inter as well as intra personal and communication skills in a project implementation and management environment. Project sponsors offer training opportunities to project employees and managers regarding communication skills, which help them to enhance interpersonal skills of employees; on technically relevant aspects including training of project implementation and management aspects. A well-formulated training program contribute significantly to all of project needs, most obviously to the negotiating, planning,

and financing interventions by acting as a feedback-and-correction mechanism (Jugdev & Muller, 2005).

In most cases project managers and staff are faced with myriad of challenges ranging from resource based, planning and monitoring and evaluation which negatively impact on their performance and the sustainability of the projects in the long run (Brown & Potoski, 2006). This state of affairs according to World Bank (2012) emanates from lack of project management skills necessary in defining project goals, initiate and implement detailed project plan, effectively manage conflict among project team members, and to motivate the critical stakeholders of the project .

1.2 Profile River Nzoia Basin Project

River Nzoia Basin project is sponsored through United Nations Environmental Programme (UNEP). River Nzoia Basin project offers a unique and innovative approach of using agriculture as the engine for combining productivity improvement and sustainable livelihoods with reversing land degradation, enhancing biodiversity conservation and carbon sequestration across the Nzoia river basin. The objective of the project is to address the causes of land degradation and restore ecosystem health and function and generate a range of global environmental benefits across the Nzoia basin through the introduction of adapted agro-ecosystem management approaches. The development objective is to improve the livelihoods of rural communities in the Nzoia Basin through more productive and sustainable resource management practices (UNEP, 2011)

UNEP (2011) indicates that it regularly trains its staff so as to facilitate them in planning, organizing, communication, deployment of resources and in monitoring and evaluation to ensure successful management of River Nzoia Basin project. Effective management helps to not only ensure that the project outcomes are successful, but also to provide feedback to the local community by assessing how the community group has changed as a result of activities, and identify future directions. Management training helps managers and staff to make decisions and recommendations about future directions , provide information for planning a new project, identify the strengths and weaknesses of a project, enable judgments to be made about the worth of the project, feed data back to support local, regional, state and national programs and policies, determine stakeholder and target group satisfaction, determine whether the project has met its objectives, meet demands for accountability to funding bodies, develop the skills and understanding of people involved in a project and promote a project to the wider community.

1.3 Statement of the Problem

The total annual cost of worldwide project failures alone is $6.2 trillion dollars, according to Roger (2009). A government report from the ministry roads and public works (GoK, 2005) identified eight main reasons for the failure of government projects: inadequate planning; insufficient buy-in by senior management; failure to engage effectively with key stakeholders; a lack of technical skills; poor project monitoring and review; inadequate initial evaluation of the project; poor networking skills; and failure to integrate the disparate parties needed to deliver project success. All are issues that can be improved through training and development. Moreover, these reasons apply equally to projects in public and private-sector organizations.

Empirical data Chamoun (2006); World Bank (2009) show project management skill as having the most significant impact on achieving project success which is equated to achieving project objectives. Research (Cooke-Davies, 2002; Bredillet, 2005) consistently shows well-trained teams deliver more benefit to project management than undertrained teams. Well trained and knowledgeable project managers and staff aggressively seek ways to control cost and to effectively reduce risks to projects by carefully selecting the most appropriate technologies, hiring the most affordable and experienced consultants, and using sophisticated management practices to ensure functional success. A project's level of embedded skill will affect project outcome regardless of project complexity. The likelihood of project success is proportional to the skill level of the team working on it. Stated bluntly, the risk of a project failing to meet its objectives rises when the project team does not have the skills to do the job.

Despite this critical role project team's talent often goes overlooked as the critical element of project success in most private sector projects especially those which are implemented in the rural areas. Indeed when these private projects fail to achieve the set objectives, the basic project constraints are usually advanced as reasons for the same. However this would have been avoided or reduced if the project sponsors and managers were more skilled in the application of prudent project management policies and practices. Thus this research study sought to examine the effect of project management training in the determination of project success in the private sector projects in Kenya.

1.4 Objectives of the Study

1.4.1 General Objective

The purpose of the study was to investigate the role of project management training in the determination of project success.

1.4.2 Specific Objectives

The following specific objectives guided the study:

a) To investigate how training in project planning influenced project success
b) To examine how risk management skills determined project success
c) To assess the effect of monitoring and control knowledge in determining project success

1. 4.3 Research Questions

a) How does training in project planning influence project success?
b) What were the effects of risk management skills in determining project success?
c) How does knowledge in monitoring and control determine project success?

1.6 Significance of the Study

The study findings was significant to the projects management and sponsors because they would be able to understand the importance of management training on the implementation and management of Project and seek ways to strengthen the variables so as to achieve project success. The study would also be significant to the public and private sector because they would be able to understand and appreciate the importance of training of project managers and staff and other factors that affect the implementation and management of Projects and look for ways to enhance the same through application of effective policies and

management practices. The study would also provide the background information to research organizations and scholars who would want to carry out further research in this area. The study would also facilitate individual researchers to identify gaps in the current research in this area.

1.7 Scope of the Study

The study was limited to investigating the role of project management training in determining project success with specific reference to the private sector Projects in Kenya. The target population of the study consisted of project sponsors, management, and staff. The study focused on the influence of planning, risk management, monitoring and control in determining project success. The research study covered the period between 2010 and 2012.

1.8 Limitations of the Study

The study was limited by some respondents who were unwilling to provide full information for fear of being reprimanded by their managers for giving out information that they consider confidential. However the researcher assured the respondents of the confidentiality of the information that they would provide and sought authority from the management to undertake research. There was some respondents who would not provide authentic information but instead provide general information. However the researcher chose to alternate closed and open ended questions in order to get direct answers.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

In this chapter, literature, which was related to and consistent with the objectives of the study, was reviewed. Important theoretical and practical problems were brought out; relevant literature on the aspects pertaining to the effects of project management training in the determination of project success was discussed.

2.2 Theoretical Review

A theory is an organized system of accepted knowledge that applies in a variety of circumstances to explain a specific set of phenomenon. Thus there are a number of theories that underlie project management and these include:

2.2.1 Theory of Project Management (PM)

Theory of project management (PM) can be described as a set of models and techniques for the planning and control of complex undertakings. Theory of project management is prescriptive: it reveals how actions contribute to the goals set to those actions. Project Management is the art of directing and coordinating human and material resources throughout the life of a project by using modem management techniques to achieve predetermined objectives of scope, cost, time, quality, and participant satisfaction (Johann. 1995). According to Lauri and Gregory (2002), the theory of project management is considered to be made of two components: Theory of Project: The main part of theory of project is scope management whose purpose is to ascertain that an adequate or sufficient

amount of work is done and also the work that is done delivers the stated business purpose. The scope is defined through the work breakdown structure.

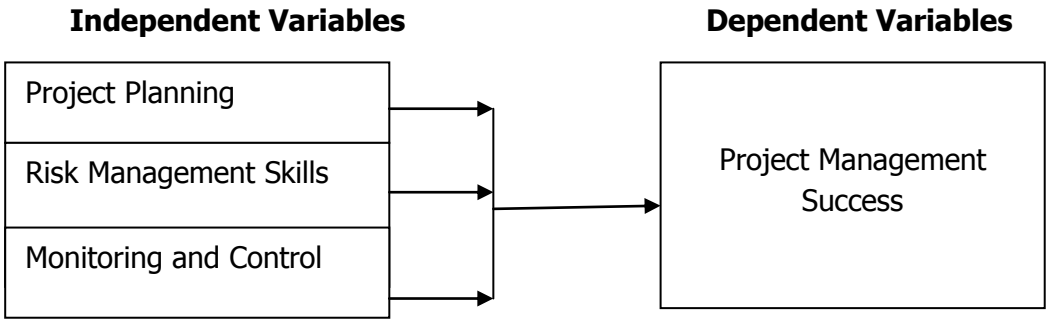
The theory of management can be further divided into three components: The planning processes are structured into core processes and facilitating processes. There are ten core processes: scope planning, scope definition, activity definition, resource planning, activity sequencing, activity duration estimating, cost estimating, and schedule development, cost budgeting and project plan development (Lauri & Gregory, 2002). The Execution of the plan indicates the process involved in the execution. The underlying theory of execution provides the interface between plan and work. While the theory of control indicates the core process of controlling two sub-processes: performance reporting and overall change control (Lauri & Gregory, 2002).

2.2.2 Theory of the Temporary Organization

The other theory is the theory of the temporary organization which is based on the notion that action has a leading role. An empirical reason for adopting action as a primary concept in a theory of temporary organizations is that temporary organizations are almost always motivated by a need to perform specific actions in order to achieve immediate goals. The project on the whole is seen as "the temporary organization (Rolf & Anders, 1994).A good deal of the basic project management theories see project management as being primarily about controlling, planning and scheduling and often assumes that the project work takes place within the boundaries of one organization (Lauri & Gregory, 2002).

Thus according to traditional theories projects are carried out under conditions of almost complete rationality (Johann, 1995). But the fact of the matter is that majority of projects are carried out under conditions of limited rationality and they are not repetitive, stable and linear. There is thus a part from the core constraints of time, scope and finance, there are a number of other factors that influence the implementation and management of these projects such as stakeholders' participation, planning and monitoring.

The study was conceptualized in a conceptual framework explaining the relationship between the effects of project management training such as planning, risk management, monitoring and control (independent variables or factors) and project success (dependent variables or outcomes). The figure 2.1 next page shows the relationship between the dependent and independent variables.



Source; author, (2013)

Figure 2.1 Conceptual Framework

2.3 Review of the Role of Project Management

2.3.1 Project Success

Project management suggests a shorter term and more specific context for success. Some literature on project management (Kerzner, 1998; Murphy, 2006) stresses the importance of techniques in achieving project objectives. They stress how successful implementation of techniques contributes to a successful project. Burke (1997) and Comninos and Frigenti (2002) both claim that project management is an important part in project success. Meredith and Mantel (2003) have discussed the different tools available to a project manager to achieve success. These include work breakdown structures, client information sheets and project plans, among others. The early development of strategies, philosophies and methodologies of project implementation has been stressed by Bhavesh, (2006) as the most important factor in achieving success. He suggested that by gathering sufficient site information and being aware of project considerations and constraints; it is possible to tailor strategies and methodologies which are specific to a certain situation. Such well-defined strategies will assist in providing a satisfying and successful implementation of a project (Bhavesh, 2006). The concentration on techniques may be considered as the 'hard' issues in project management. They are the easily measured and quantified concepts of time and cost.

Other writers have incorporated what might loosely be called people skills alongside these more administrative functions. These people skills are 'soft' issues in management. For example Belout, (1998) stressed personnel, technical and organisational skills as being necessary to help control projects and achieve successful results. Thamhain (2004) state that the major factor for the successful implementation of project management is that the project manager and team become the focal point of integrative responsibility. This would suggest that the focus for success in both spheres should lie with the project management team and would tend to exclude the client from any role in project success. The project team will shape the implementation of the project (Thamhain, 2004).

It is important for the team to employ the correct management techniques to ensure that planning, controlling and communication systems are all in place. Without these systems the co-ordination and control of all individuals and resources within the team is difficult (Nwachukwu, 2008). The orientation of the project team will be towards the task rather than the people. This will be particularly true as deadlines for achieving work are stressed and become paramount in people's thinking. The scope of interest here will be the completion of work and delivery of the project. Any rewards for the team will occur at the end of this management phase, therefore their primary concern will be to reach the end of this phase successfully (Munns & Bjeirmi, 1996).

Managers believe skill and dedication of the project team is the biggest contributor to successful projects, a team's talent often goes overlooked as the critical element of project success (Mantel & Samuel, 1999). Analysis suggests the likelihood of project success is proportional to the skill level of the team working on it. Stated bluntly, the risk of a project failing to meet its objectives rises when the project team does not have the skills to do the job. Empirical data backs up this conclusion, showing team skill has the most significant impact on achieving project objectives. Research consistently shows well-trained teams delivering more benefit than undertrained teams. This increased performance ability ties directly to project team's contribution to project success (Cooke-Davies, 2002).

Project managers must leverage on skills to increase project success: however team talent cannot keep pace with changes without continuous training. Training and metric-based certifications are necessary to maintain a team's high level of performance (Clarke, 1999). In fact, managers of projects are able to meet most or all of their objectives provided each team member receive twice as much training as compared to teams that achieve little or only some success. But the amount of training doesn't need to be massive; when preparing for a project, teams receiving 20 hours of training per member were twice as likely to succeed as teams that received 10 hours of training or less Training represents one concrete step managers can take to assure project teams possess the skills necessary to reduce failure risk, decrease costs, and increase project effectiveness (Belout, 1998). Complementary project management skills also contribute to implementation success. These include how to identify and schedule project resources, produce critical path planning, and create project flow charts to help evaluate project progress and evaluation (Baars, 2006). Training that includes reviews of case studies using realistic, project based methods produces results that align with business objectives (Clarke, 1999).

The outcomes of project management success are many. They would include the obvious indicators of completion to budget, satisfying the project schedule, adequate quality standards, and meeting the project goal. Project success is often commented on at the end of the project management phase (Baccarini, 1999). At this time knowledge about the project management success will be known because the budget, schedule and quality criteria can be measured. The criteria for measuring project success must be established at the beginning of the project, otherwise team members and project leader will find they heading into different directions and the result of the project will not be successfully determined due to difference in perception, emphasis and objectives (Baccarini, 1999).

Four success dimensions have been classified by Shenhar (1997). The first dimension is the efficiency which is not limited by the dimension of time, cost and quality but can be extended to number of engineering changes prior to final design release, production efficiency and yield, efficiency of purchase order and safety measures. Organization need to be caution as not to limit the measurement of success using efficiency measures as these efficiency measures are basically measuring project success in the implementation success and does not represent the total success of the project. The second dimension is the impact on the customer or end user followed by the third dimension which is impact on the organization. Lastly the success of the project need to be measured by the way it helps the organization to move and prepare for the future. Indeed successful project management requires planning with a commitment to complete the project; careful appointment of a skilled project manager; spending time to define the project adequately; correctly planning the activities in the project; ensuring correct and adequate information flows; changing activities to accommodate frequent changes on dynamic; accommodating employees' personal goals with performance and rewards; and making a fresh start when mistakes in implementation have been identified.

2.3.2 Project Planning

Project planning, which refers to the extent to which time tables, milestones, workforce, equipments, and budgets are specified, becomes crucial in project success in complicated project environments. Comprehensive planning sets up a project for success from the start (Clements & Gido, 2003). All stakeholders should be on board during the planning process and always know in which direction the project is going to go.

Planning is an important phase in project management cycle. It must be strategically prepared to provide a more focused goal and greater satisfaction in fulfilling the common vision. A project plan must have: work breakdown structure, team structure, effort and duration estimates, task schedule, and details of resources, budget allocation, and contingency plans, which are necessary in implementing the project plan (Munns *et al,* 1996). The production of a project plan, or schedule, is a key part of the development of any project. The schedule will set out the key stages to be completed during the project, with their starting and finishing dates, and the resources that need to be allocated. Progress can be monitored against each stage and completion readily reported on (Burke, 2003).

Planning brings other more subtle benefits. 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. There are many benefits to planning. This is the first step in the project process that 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. 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 (Sandoe et al, 2001).

The human resources required by the contractor to execute the work is not adequately managed and that little or no resource planning is done. According to the Project Management Institute (PMI, 1996) "the three important processes are organisational planning, staff acquisition and team development", however many contractors ignore these important aspects and prefer to chase their short-term goals of maximizing profit as opposed to the long term goals of industry development. With respect to managing client specific issues it was discovered that Key Account Manager (KAM), who is the person accountable to the client spends most of his day supervising staff and doing administrative work, instead of been involved in strategic planning, project conceptualization and project evaluation (Avots, 2001).

The knowledge and capabilities of the managers and staff is especially important, i.e. their knowledge about technologies, marketing, management, etc. According to Kerzner (2001) to succeed in planning needs to be trained in the various facets of project management such as planning resourcing, monitoring and control so as to be able to effectively manage the projects. Planning underpins the efforts of a management team that does not shy away from the challenges of change and proactively seeks to find better ways of doing things (International Project Management Association, 2006).

Managers need to support and engage in effective learning processes. The routine "act, find out what works, reflect and retain desirable behaviors'" needs to permeate all levels of organisations at both individual and group level. This does not mean learning for the sake of learning or permanently engaging in one experiment or other. Follow the simple routine - experiment, learn, reflect, do more of what works (Maylor, 2005). Experimentation, reflection and learning will assume greater importance as the future becomes more complex and unpredictable. In short, the challenge is to strike the right balance between learning and control, change and stability, thought and action.

Turner (2004) points out other key challenges for projects is to undertake effective planning include: effective management of project customers' satisfaction and loyalty; maintaining the right skill mix in a rapidly changing environment; enhancing employee flexibility; effective

introduction of new routines and technology. Better informed and more discerning consumers, combined with a larger number of organizations competing in the same markets are increasingly forcing managers to focus on customer satisfaction and retention (White, and Fortune, 2002). These authors note that customer satisfaction goes beyond service recovery, occasional focus groups, and surveys by the marketing departments. It requires a culture that values customers at all levels and where customer retention is part of everyone's job. It also requires a systematic and continuous process dedicated to understanding how customers' life styles and requirements change and what these changes mean for an organization's offerings, coupled with a three stage process - experimentation, reflection and organization-wide implementation of changes that work (Berkun, 2005).

Belout (1998) argues that maintaining the right skill mix and enhancing employee flexibility are two sides of the same coin and a direct consequence of a more unstable business environment, necessitating more frequent re-inventions and a continuous search for better ways of doing things. The attainment of the desired balances through significant personnel change is more risky when an organisation has a strong culture that it wishes to maintain, and is also very costly (Berkun, 2005). Developing a flexible workforce capable of performing a range of tasks and readily moving from one function to another is potentially a better option when there is no need for a fundamental cultural change, but requires a well developed training and education programme (Burke, 1997).

Management itself is not exempt from the 'flexibility' requirements as frequent movement between functions will be the norm in the future (Crawford *et al,* 2005). How do the future challenges faced by managers influence the structure and behaviour of organizations? It is convenient to separate the two; however, in reality the two go hand in hand. Therefore, not surprisingly the way organizations are expected to change in the future closely dovetails with the future challenges faced by managers. The key points raised by the survey were: adaptability and speed of response to changes in the market place; greater reliance on cross functional project process; team working; seeking and entering into more strategic alliances; and flatter organizational structures (Bredillet, 2005).

Bredillet (2005) argues that organizational adaptability is considered more important in the future because the environment is perceived to be more dynamic and unpredictable, increasing the frequency of change and the need for organizations to reinvent themselves. The greater emphasis on the speed of response to changes in consumer taste and requirements emanates from the wider choice enjoyed by consumers and greater competitive intensity. The predicted increase in team working and the greater reliance on project processes reflects the complexity of issues faced by organizations (Crawford & Pollack, 2005).

The cost and risk of new ventures and the importance of learning from external sources is encouraging more and more strategic partnerships. This range from joint venture projects where partners take equity position in a new business to non-equity forms of partnerships - for example, where organizations share key skills to develop a new product, resource sharing where organizations share an expensive and specialized piece of equipment, shared distribution, cross licensing, and increasingly partnerships between public and private sectors (Frascer, 2006). The blurring of boundaries between projects is likely to intensify and this has important implications, for example in the way strategies are formulated and coordinated in a network setting. What is the impact of the perceived changes in organizational behaviour, and the challenges faced by managers on technical knowledge and understanding, skill and competencies, and desirable managerial qualities? What will

separate successful from unsuccessful projects? (Nwachukwu, 2008) Knowledge of appropriate techniques, concept, and language of business; capacity to apply concepts and techniques appropriately; ability to plan and organize; and knowledge of industry and organizations are the qualifiers - these are issues which form the basic expected know-how. The key issues here are concerned with the ability of managers to: identify opportunities and problems; to solve problems systematically and creatively; and understand strategic issues and contribute to the formulation of realistic strategy, (Bhavesh, 2006)

Chamoun (2006) argues that managers need to possess both specific and generic knowledge and understanding. This perhaps reflects the greater likelihood of moving from one function to another, and greater reliance on smaller cross-functional teams. Technological changes and the rise in the proportion of skilled and knowledge workers means that increasingly a competent manager needs to act as a catalyst for mobilizing the organization's talents and channeling the available talent towards attaining the organization's strategic aims. Arguably this is why a clear understanding of strategic issues and the process of formulating a realistic strategy is an important managerial skill (Mantel & Samuel, 1999).

The key project management skills and competencies are concerned with the ability to: relate to superiors, subordinates, customers, suppliers, and increasingly the public; motivate and influence staff; lead and work effectively in a team; distinguish between important, relevant, and trivial problems or issues; utilize individual time effectively; listen and relate to others within and without the organization; and take informed action (Mantel & Samuel, 1999). There is no surprise here as managers get things done through other people and the interpersonal skills and the ability to communicate clearly and leadership skills that utilize persuasion and motivation to attain organizational goals is the most desirable management quality, followed by honesty, integrity, ethical behaviour, tactfulness, openness, and cultural awareness; ability to accept responsibility; self confidence, motivation, drive and tenacity; ability to enhance organizational performance; ability to clearly delegate tasks and responsibilities; ability to think strategically, inductively, and creatively; and the propensity to recognize and acknowledge other peoples' ideas (Meredith *et al,* 2003).

The "ability to motivate and unite staff in pursuit of common goal" and "possessing vision and the ability to clearly articulate it" are key dimensions of leadership (Belout, 1998). Leadership emerges as the key quality and is what distinguishes a successful manager from a less successful manager. Vision also emerges as an important distinguishing factor because without vision it is the past rather than the future that drives the organization (Kumar, 1999). Moreover, vision is useful when the environment is unpredictable, in turnaround situations, or when a significant change in culture is desired because it helps to galvanize and energize the organization. Integrity and fairness, components of ethical behaviour, were identified as further key managerial qualities, distinguishing the successful managers from less successful managers. Interestingly, both cognition and creativity were also considered as an important distinguishing factor between successful and less successful managers. Creativity enables mangers to combine different facets of the organization to generate unique and imaginative solutions to complex problems (ibid)

2.3. 3 Risk Management

Risk management comprises the processes concerned with identifying, analyzing, and responding to project risk (Chamoun, 2006). It includes maximizing the results of positive events and minimizing the consequences of adverse events. The processes include determining which risks are likely to affect the project and documenting the characteristics of

each; evaluating the risks and risk interactions to assess the range of possible project outcomes; defining enhancement steps for opportunities and responses to threats; and responding to changes in risk over the course of the project (Frascer, 2006).

Clearly most projects are faced by a myriad of risks necessitating increased skill levels among staff and management of the project. However, few projects would be able to demonstrate the application of disciplined risk management on their projects due to lack of training in risk management practices (Frascer, 2006). This can be a major constraint to the success of any project. Improving the application of project risk management involves two main objectives: improving the ability to identify risk, while we still have time in the project lifecycle to influence it, and embedding the management of risk into the mainstream of delivering projects which all require skilled personnel (Bredillet, 2005). As with any process, project risk management must itself be controlled. There should be periodic reviews and events scheduled into the mainstream project plan to address risk. These reviews must be managed with enormous discipline, as they are not brainstorming or analysis sessions - they should review the status of risk mitigation strategies, and assign actions as appropriate (Clarke, 1999).

Increasing team skill and employing successful practices reduces risk and contributes to successful implementations (Belout, 1998). In fact 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. If something happens, then a skilled team can quickly resolve the issue with the management plan that has already been set in place. This will give the team confidence when facing project risks and help the clients feel comfortable with the project's progression (Burke, 2003).

In spite of efforts, in many instances with external assistance, opportunities for training in requisite specialized skills are sorely inadequate although the foundation for developing such skills, in terms of basic education exists in most although not all of them. Effective risk management calls for training in a large number of technical skills and cannot be effectively pursued with the help of manpower that is merely literate at a basic level (Chamoun, 2006).

Risk is inherent in every project activity; however, several factors inhibit organizations from realizing their efforts to reduce risk; specifically, changing technologies, processes, and staff each contribute to decreased organizational performance and increased risk (Avots, 2001). Consistently applying standard business practices can contribute to lower risk; standard practices help reduce variation and increase the reliability of installed systems. Organizations that use consistent procedures and reliable systems reduce company exposure to risk. Best practices are often built into significant and mature technologies they are designed to promote the use of labor-saving or risk-reducing activities (Comninos *et al,* 2002).

During project implementation, problems will inevitably surface which end up with the eventual risk of project failure hence dealing effectively with projects calls for adequate human resources, both in size and level of technical sophistication (Clements *et al,* 2003). These problems can range from basic staffing decisions to major vendor disagreements over a contract and resolving problems with end users. The project manager must be able to identify the specific problem and to use sound judgment to develop alternative solutions and make recommendations. Making sound well informed decisions is a key competency (Clarke, 1999). The project manager must determine the scope and boundaries on which decisions should be made. Decisions must be made, and frequently they are not major enough to require a principal. Therefore the project manager must be able to make them (Clement *et*

al, 2003). Making such decisions requires that the manager be able to determine the impact and implications of the decision and commit to the necessary actions to accomplish the project goals and objectives, interpersonal and technical competencies are critical competencies for project managers and even other project staff a so as to effectively address risk management responsibilities, and procurement management skills (Maylor, 2005).

Organizations spend considerable amounts of time and money training staff in new project management skills to help increase performance and decrease risk. However, with surprising frequency, organizations attempt to fit new technologies into existing processes (Frascer, 2006). This tactic reduces the received benefit from their technology investment because they can't take advantage of built-in best practices. And it increases the inherent business risk associated with change (Murphy, 2006).

Sometimes, organizations initiate new projects independently of a new skill level to handle the new management practice, process and technology (Kerzner, 1987). At times if there is a change in implementation processes, which organizations expects to see some form of reduction in cost of storage, increased network security, or more consistent interoperability the risk but a skill project team will seek to increase benefits and reduce risk benefit to the extent that effective practices and policies are effectively communicated and implemented (Knoepel, 2000).

Skilled staff turnover, including departures, and layoffs, weakens the capability to achieve project success through increased standardization and decrease risk. This is because individuals who change roles often have accumulated knowledge and understanding about their previous tasks and responsibilities that they can't effectively convey to their replacement (Belout, 1998). Often, replacements (either internal transfers or new hires) are functionally less competent or experienced than their predecessors. This knowledge leakage adds complexity to project management's job and suggests that to ensure consistent high performance, project teams must establish and maintain a robust training program to ensure: project teams know how to use the deployed technology and management practices, Teams thoroughly understand and adhere to new procedures and new team members have sufficient skills to perform their assigned tasks (Thamhain, 2004).

After project initiation and during implementation, well-trained team members can anticipate problems, implement preventative actions, leverage best practice built into the technology, and contribute to ongoing operational improvements. Trained teams are better at leveraging built-in features and functions of a technology or tool than undertrained teams. Bottom line training allows project management to extract better performance from its tools and teams (Belout, 1998).

The project manager must thoroughly be trained (skilled) and understand the various risks that may affect the implementation and must be prepared to manage risks if they develop (Meredith *et al,* 2003). To mitigate possible risks, the project manager must be able to develop a risk management plan as a subset of the project plan. The plan must identify and document the risks that are likely to affect the outcome of the project. The manager must also be able to evaluate and quantify each risk and assess the range of possible outcomes. In other words, the manager must be able to distinguish between high-risk problems and low-risk problems (Nwachukwu, 2008). In many cases, the risk may not warrant a response, but when the risk is significant, the manager must be able to develop a risk response plan

and take the necessary actions to mitigate the risks in accordance with the risk management plan (Mantel & Samuel, 1999).

The project manager must thoroughly understand the various risks that may affect the implementation and must be prepared to manage risks if they develop. Risks may be internal or external (Thamhain, 2004). Internal risks are those that the project team can control or influence, such as staff assignments and cost estimates. External risks are things beyond the control or influence of the project team, such as market shifts or failure to perform by outside vendors' project risk management comprises the processes concerned with identifying, analyzing, and responding to project risk (Knoepel, 2000). It includes maximizing the results of positive events and minimizing the consequences of adverse events. The processes include determining which risks are likely to affect the project and documenting the characteristics of each; evaluating the risks and risk interactions to assess the range of possible project outcomes; defining enhancement steps for opportunities and responses to threats; and responding to changes in risk over the course of the project (Frascer, 2006)

2.3.4 Monitoring and Control

Monitoring and evaluation consists of those processes performed to observe project execution so that potential problems can be identified in a timely manner and corrective action can be taken, when necessary, to control the execution of the project. The key benefit is that project performance is observed and measured regularly to identify variances from the project management plan. Avots (2001), Office of Government Commerce (2005) and Nwachukwu (2008) agree in their description of risk as potential points of failure. However they note that most risks (or potential failures) can be overcome or resolved, given enough management skills among management and staff.

To Kerzner (2001) monitoring and controlling includes: Measuring the ongoing project activities (where we are); monitoring the project variables (cost, effort) against the project management plan and the project performance baseline (where we should be); identify corrective actions to properly address issues and risks (how can we get on track again); influencing the factors that could circumvent integrated change control so only approved changes are implemented. They contend that in multi-phase projects, the monitoring and controlling process also provides feedback between project phases, in order to implement corrective or preventive actions to bring the project into compliance with the project management plan.

While agreeing with Kerzner (2001), Comninos and, Frigenti (2002) note that project monitoring and evaluation is an ongoing process, and it includes: Continuing support of end users and correction of errors. In this stage, auditors should pay attention to how effectively and quickly user problems are resolved. Chamoun (2006) explains that Project Management tries to gain control over variables such as risk: Potential points of failure: Most negative risks (or potential failures) can be overcome or resolved, given enough planning capabilities, time, and resources. He argues that risk can also be categorized as "positive--" meaning that there is a potential opportunity to complete the project faster than expected.

Monitoring involve keeping track of a project's activities and. outputs on an on-going basis during the life of the project (Clements *et al,* 2003). Collecting data on a project's processes is important, because the information can be helpful to those responsible for ensuring that the project is on track (consistent with what it agreed to do). Staff responsible for monitoring and evaluation requires the necessary skill and expertise to effectively undertake this process

as this process is essential in keeping project management informed about scheduling, distribution (equity), and effectiveness of the project in delivering the activities and outputs (White *et al,* 2002).

However in many project especially in the public sector there is a lack of professional and technical skills, which has led to poor project quality (Nwachukwu, 2008). In addition, there is low community participation in monitoring due to the inadequacy of data and general information about the funds. Poor monitoring has led to abuse of funds and fostered a sense of impunity amongst the perpetrators (Kumar, 1999). In general, since capacities for districts to monitor and evaluate projects are inadequate, monitoring mechanisms are not well developed. At the community level, there is a lacuna in terms of who and how projects should be monitored. In addition, there is a glaring lack of computers and modern data storage and retrieval systems for enhancing financial management (Avots, 2001).

To properly control these variables a good project manager must have the necessary skills and depth of knowledge in time, cost, scope, and risk fields, and in six other areas as well: integration, communication, human resources, quality assurance, schedule development, and procurement (Meredith & Mantel 2002). They further argue that Project control is that element of a project that keeps it on-track, on-time, and within budget. Project control begins early in the project with planning and ends late in the project with post-implementation review, having a thorough involvement of each step in the process. Meredith and Mantel (2002) further note that control systems are needed for cost, risk, quality, communication, time, change, procurement, and human resources. In addition, auditors should consider how important the projects are to the financial statements, how reliant the stakeholders are on controls, and how many controls are existing (Murphy, 2006). Each project should be assessed for the appropriate level of control needed: too much control is time consuming, too little control is very risky. If project control is not implemented correctly, the cost to the business should be clarified in terms of errors, fixes, and additional audit fees and all this is build on the foundation of staff and management skills (Knoepel, 2000).

Well trained and skilled project managers and staff begin the process of monitoring and early in the project with planning and end late in the project with post-implementation review, having a thorough involvement of each step in the process (Kumar, 1999). In order to ensure the success of monitoring and evaluation in terms implementing control systems which are needed for cost, risk, quality, communication, time, change, procurement, and human resources control, appropriate and relevant training must be given to the relevant staff and management teams. In addition, management and staff should consider how important the projects are to the financial statements, how reliant the stakeholders are on controls, and how many controls existing (Krajewski, & Ritzman, 2005).

2.4 Critical Review

According to Baars (2006), one innovative step that can enhance the chances of progression in management of projects to the extent that they are successful is the utilization of project management skills sentiments supported by Kerzner, (2001) who indicated that the application of project management skills is essential to planning, communication, risk management and efficient monitoring and evaluation. However these authors did not take into consideration the unique features of the environment in which most of the projects are implemented.

According to Kerzner (2001), a well-formulated training program can contribute significantly to all of these project needs, most obviously to training itself and to the achievement of understandings, but also in some measure to the negotiating, planning, and financing interventions by acting as a feedback-and-correction mechanism.

2.5 Research Gaps to be filled by the Study

A training program should be regarded as a unique opportunity in the life cycle of project. It is a strategically situated event where key personnel (and outside stakeholders) should be brought together under conditions of minimal distraction in order to, most obviously, learn new skills and knowledge, but also to build personal relationships, face issues, and achieve the informal understandings referred to above (Murphy, 2006). However, most the information on the role of project management training in actual sector specific projects is scanty. Studies have shown that project management skills are crucial for successful implementation of projects. However the influence of such skills in public sector projects in general especially in Kenya is not well known. This study sought to identify the effect of project management skills in determining project success.

2.6. Summary

Project planning defines the project activities and end products that will be performed and describes how the activities will be accomplished. The purpose of project planning is to define each major task, estimate the time and resources required, and provide a framework for managements review and control . Planning entails deciding in advance what a project will achieve, the steps of execution, assigning people and other resources to those steps and identifying when the steps will begin and stop .Activities include defining goals and objectives, assessing risks, estimation, budgeting ,allocating resources, defining tasks and building schedules. The schedule is a key document that is based on project task sequence, recognizes task interdependencies and communicates to the project team and is used to determine and manage risks.

The importance of monitoring and control in project management cannot be overemphasized as it entails assessing how well project uses its plans and organization to achieve its goals and objectives. Activities include setting up change control, solving problems, tracking, monitoring, performing, contingency planning and re-planning Performance Control requires monitoring project performance and taking corrective action. Project monitoring requires reviewing the work schedule in order to answer the following questions: Is progress satisfactory? Is corrective action needed? And must we re-plan? It communicates project progress to team members and management. The review also addresses Management's needs and concerns through: documenting the following: A reminder of the project objectives: How well is the project doing? What actions are being taken to guide project? And are there any issues we should know about which affect the project's future? Coordination involves motivating people to perform satisfactorily on their job. Activities involved include delegation, communication and motivation. Effectiveness of coordination depends on the management style adopted by the project manager and its appropriateness to project being implemented.

Effective communications include an exchange of information, an act or instance of transmitting information, a verbal or written message, a technique for expressing ideas effectively, or process by which meanings are exchanged between individuals through a common system of symbols. According to communication skill is the most important skill

required of a project manager. The importance of communication therefore cannot be overemphasized in managing in projects. Evidently, there is a high failure rate of projects. There is evidence that poor or insufficient communication is one of the factors that contribute to the high failure rate of these projects. Effective communication is important in all the main phases of projects namely initiation, execution and closedown.

CHAPTER THREE
RESEACH METHODOLOGY

3.1 Introduction

This chapter explains the methodology that was used in the entire study. It looked at study area, study design, target and study population, sampling techniques, research instruments, data collection, pilot test and data processing and analysis.

3.2 Research Design

Research design is the blueprint that enables the investigator to come up with solutions to problems and guides him in the various stages of the research (Nachmias &Nachamias, 2004). The study adopted a descriptive design which is suitable in situations where questions such as how, why and what were being investigated on a certain phenomena to give facts of the situation as it was, without interference by the researcher (Kothari, 2004). The design was considered appropriate because it sought without bias to establish factors associated with certain occurrences, outcomes, conditions or types of behaviour.

3.3 Population of the Study

A population is defined as a complete set of individuals, cases or objects with some common observable characteristics (Mugenda & Mugenda, 2003). The study population was drawn from a population frame provided by the River Nzoia Basin Project and UNEP which is the project sponsoring organization and consisted of coordinators, project managers and staff as indicated on table 3.1 next page. Denscombe (2007) defined a population frame as an objective list of the population from which the researcher can make his or her selection. A population frame must thus contain an up-to-date list of all those that comprise the target population.

Table: 3. 1 Target Population

Units	**Coordinator**	**Manager**	**Staff**	
UNEP	2		-	
Nzoia Project	-	2	31	
Totals	**2**	**2**	**31**	= **35**

Source; River Nzoia Basin Project and UNEP (2013)

3.4 Sampling Design

Sampling design refers to a research plan that indicates how cases are to be selected for observation or as respondents (Mugenda & Mugenda, 2003). The study used a census sampling survey which involved the use of the entire population of thirty five (35) as a sample consisting of coordinators, project managers and staff. A census was attractive for small populations as it eliminated sampling error and provided data on all the individuals in the population.

3.5 Data Collection Instruments

Self-completion questionnaires, involving both open-ended and closed-ended questions items, was the main instrument for gathering the study's data. Open-ended questions focused on giving in-depth answers providing more details on the study aspects, while closed-ended questions were meant to keep the respondents on tract and to the point. According to Cooper and Emory (2008), a self - completion questionnaire was convenient as respondents could fill them during free times or when workloads are manageable besides it was cheaper and quicker to administer.

The questionnaire contained demographic factors in the initial part, while the main body of the questionnaire focused on the determinants of effective implementation of River Nzoia Basin Projects; hence they focused on 1) planning, 2) risk management 3), and project monitoring and control Within each of these areas, each respondent was asked to rate or rank on a scale on 1 (agree) (2) strongly agree (3) neither Agree nor Disagree (4) Disagree (5) Strongly Disagree on the contribution of the various aspects of the identified factors. The questionnaire was self-administered.

3.6 Reliability and Validity

Polit and Hungler (2001) refered to reliability as the degree of consistency with which an instrument measures the attribute it is designed to measure. Data collector bias was minimised by restricting the number of people administering the questionnaires, and standardizing conditions such as exhibiting similar characteristics to all respondents. The validity of an instrument is the degree to which an instrument measures what it is intended to measure (Polit & Hungler, 2001). Content validity refers to the extent to which an instrument represents the factors under study. To achieve content validity, questionnaires mainly consisted of questions on the variables. Content validity was further ensured by consistency in administering the questionnaires. A measure of reliability and validity was also guaranteed by discussion of the instrument with experts and research supervisor and by ensuring high precision and minimal errors in the data entry through training of the research assistants.

To further strengthen the reliability and validity measures taken, a pilot study was conducted in order to ascertain and detect any ambiguities, questions that were not easily understood or poorly constructed and even those that were be irrelevant were to be eliminated. The pilot study was conducted on seven respondents from the target population who were not to be included in the final sample. The questionnaires were administered to the group and thereafter the feedback was obtained through debriefing them individually and comparing the results. The results of the pilot study were to be analysed using Cronbach alphas with a set lower limit of acceptability of Cronbach alpha 0.6. From the responses, comments and

results of the analysis, the entire questionnaire was to be refined and improved to take care of the observed shortcomings if any,

3.7 Data Collection Procedures

The researcher was to administer questionnaires containing mainly closed ended questions to the sample respondents. Hence each respondent would receive the same set of questions in exactly the same way. The researcher would arranged with respondents a convenient time and place so as to allow both the respondent and the researcher the opportunity to create rapport and facilitate the process of questionnaire administration in a relaxed atmosphere. During the meeting it was also made clear in the introduction the purpose of the research. By clarifying the academic purpose and that they would not experience negative affects when contributing to the research. Secondary data was also sourced to supplement the primary data. This was collected from the relevant sources which include reports, newsletter and unpublished data.

3.8 Data Analysis and Presentation

Quantitative data, which was collected using closed ended questions in the questionnaires, it was chronologically arranged with respect to the questionnaire outline to ensure that the correct code was entered for the correct variable. The study employed both qualitative and quantitative analysis. Data cleaning then was done and tabulated. The tabulated data was analyzed with the aid of Statistical Package for Social Sciences (SPSS 21.0) which generated both descriptive statistics such percentages, mean and mode where applicable and inferential statistics such as regression and correlation. Qualitative data was organized into a checklist which will be clustered along the variables of the research study to ease consolidation of information and interpretation and then analysed through content analysis. Content analysis is the process of analysing verbal or written communications in a systematic way to measure variables qualitatively (Denzin & Lincoln, 2000).

The purpose of presentation of data was to highlight the results and to make data or results more illustrative by presenting in the form of figures and tables so that it is easy to observe general trends (Coolican, 2003). Thus presentation of data was in form of tables, pie-charts and bar graphs only where it provided successful interpretation of the findings. Descriptive data was provided in form of explanatory notes.

CHAPTER FOUR
DATA ANALYSIS AND INTERPRETATION OF RESULTS

4.1 Introduction

This chapter presents the analysis of study findings based on the determinants of project success and on the specific objectives of the study which included: to examine the effects of project planning, risk management and monitoring and control in determining project success. This chapter analyses the variables involved in the study and estimates of the model presented in the previous chapter.

4.2 Presentation of the Findings

4.2.1 Response Rate

Table 4.1: Response Rate

Response	Frequency	Percentage
Filled in questionnaires	32	91.5%
Unreturned questionnaires	3	8.5%

Out of the 35 issued questionnaires, 32 questionnaires representing 91.5% of the total questionnaires distributed were returned fully completed, while 3 questionnaires were not returned representing 8.5% of the total questionnaires distributed to the respondents. It can be inferred that the response rate was good. According to Mugenda and Mugenda (2003) states that a response rate of 70% and over is excellent for analysis and reporting on the opinion of the entire population.

Response Rate of Study Population

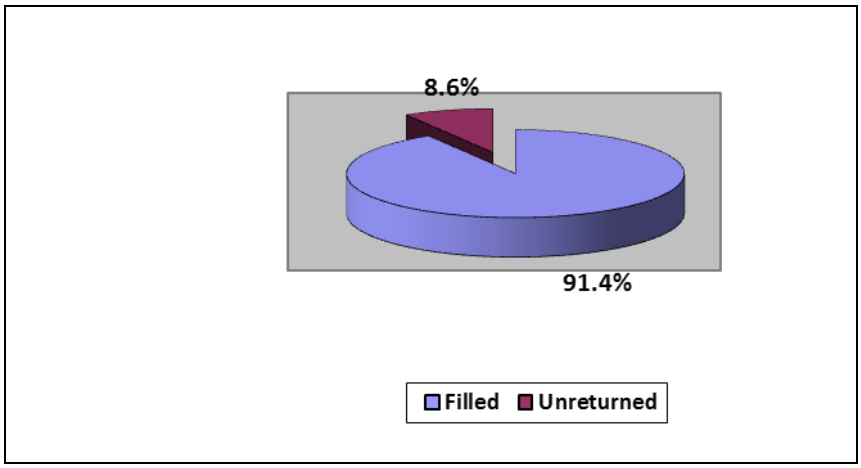


Figure 4.1: Response Rate

4.2.2 Current Position

Table 4.2: Current Position

Work Status	Position (n = 32) F	%
Coordinator	2	6.2
Manager	2	6.2
Staff	28	87.5
	32	**100**

6.2% of the respondents were coordinators, 6.2% were project managers, while 87.5% of the total respondents were project staff. This shows that all categories of people involved in project management were included in the study making it fairly representative.

Frequency Distribution of Respondents

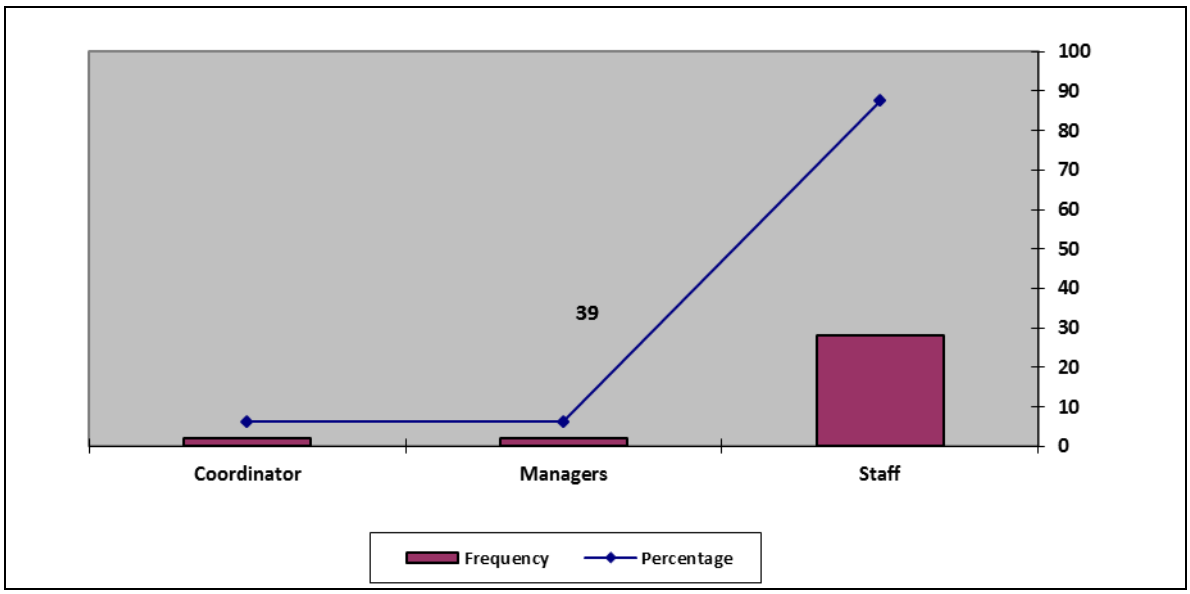


Figure 4.2 Frequency percentages in Current position

4.2.3 Project Success

Table 4.3 Frequency Distribution on Project Success

Question	Scale	Distribution	
		F	%
Has the project achieved its set objectives so far?	Yes	20	62.5%

	No	12	37.5%
	Total	**32**	**100%**

62.5% of the total respondents who participated in the study acknowledged that so far the project has achieved its set objectives, while 37.5% of the respondents indicated that the project has not achieved its set objectives as indicated on table 4.3 above. Most respondents stated that the project had met its objective through the stakeholder satisfaction from the final result. From the study it can be seen that so far the project has achieved its set objectives

4.2.4 Project Success Measurement

Table 4.4 Project Success Measurement

			(n = 32)		
Measurement	**SA**	**A**	**N**	**SD**	**D**
	%	**%**	**%**	**%**	**%**
Transformation of inputs into outcomes	83.3	16.7			
Achievement of Project objectives	38.9	44.4	16.7		
Stakeholders' satisfaction,	72.2	27.8			
Evaluation of time, cost and quality perspective	33.3	55.6	11.1		

Majority (83.3%), (44.4%), (72.2%) and (55.6%) of the respondents strongly agreed and agreed respectively that Transformation of inputs into outcomes, Achievement of Project objective, Stakeholders' satisfaction and evaluation from time, cost and quality perspective can be used to measure project success, as shown on table 4.4 above.

4.2.5 Regression of project success and its Measures

Table: 4.5: Regression Model

Model	R	R Square	Df	P-Value	Sig.

1	0.789[a]	0.622	5	0.227[a]	0.039[a]

a. Dependent Variable: Project Success

Table 4.6 Coefficients[a]

	B	Std. Error	Beta	t	Sig.
(Constant)	1.419	0.230		6.169	0.000
Transformation of inputs into outcomes	1.146	0.097	0.089	2.554	0.037
Achievement of Project objectives	0.809	0.085	-0.159	2.736	0.054
Stakeholders' satisfaction	0.738	0.084	-0.021	2.068	0.048

a. Dependent Variable: Project Success

The study examines whether the coefficients on transformation of inputs into outcomes, achievement of project objectives and stakeholders' satisfaction is different from 0 so that these measures have a relationship with project success or if alternatively any apparent differences from 0 is just due to random chance.

The study used a significance level (alpha) of 0.05 (95%), Degrees of freedom (df) of 5, and two-tailed test. The degree to which transformation of inputs into outcomes, achievement of project objectives and stakeholders' satisfaction is related to project success is expressed in the positive correlation coefficient (r) = 0.789, coefficient of determination (r2) = 0.622 indicating 62% probability of transformation of inputs into outcomes, achievement of project objectives and stakeholders' satisfaction being related to project success.

The computed t-value (t=2.001) is smaller than the critical t-value (t=2.015) and the p-value of 0.227 is larger than the significance level of 0.05. This then indicates that there is a significant relationship between transformation of inputs into outcomes, achievement of project objectives and stakeholders' satisfaction and project success.

4.2.6 Project Planning

4.2.6.1 Effect of planning on project success at Nzoia River Basin

Table 4.7 Frequency Distribution on the effect of planning on project success at Nzoia River Basin

Question	Scale	Distribution	
		F	%

	Yes	27	84.4%
Does planning affect project success at Nzoia River Basin?	No	4	15.6%
	Total	**32**	**100%**

Majority of the respondents 84.4% who participated in the study indicated that planning does has an effect on project success at Nzoia River Basin, while 15.6% of the respondents indicated that planning has no effect on project success at Nzoia River Basin. Some participants indicated that proper planning ensures proper usage of resources and minimizes wastage. This depicts that planning does have an effect on project success at Nzoia River Basin.

4.2.6.2 Opinion on Project planning

Table 4.8 Project planning opinions

	(n = 32)				
Statement	**SA**	**A**	**N**	**SD**	**D**
	%	**%**	**%**	**%**	**%**
Projects are constrained by inadequate planning skills	33.3	50.0	11.1		0.5
Requires varying skills since it is complicated and risky,	55.6	38.9	0.5		
High quality software and hardware which requires skilled planning due to Increasing complexity in the projects	27.8	72.2			

According to the study majority (50.0%), (55.6%), and (72.2%) of the respondents strongly agreed and agreed respectively that project planning: is constrained by inadequate planning skills, requires varying skills since it is complicated and risky, and requires high quality software and hardware which requires skilled planning due to increasing complexity in the projects as shown in table 4.8.

4.2.6.3. Level of effect of project planning

Table: 4.9. Frequency Distribution of level of effect of planning on projects success at Nzoia river basin

Question	Scale	Distribution	
		f	%
What level does planning affect project success at Nzoia River Basin?	High	15	46.8%
	Moderate	10	31.4%
	Low	7	21.8%
	Total	**32**	**100%**

46.8% of the total respondents indicated that the Level of effect of planning on project success at Nzoia River Basin is high, while 31.4% and 21.8% of the respondents indicated that the Level of effect of planning on project success at Nzoia River Basin is moderate and low respectively. From Figure 4.9 above majority of the respondents acknowledged that the Level of effect of planning on project success at Nzoia River Basin is high.

4.2.7 Risk Management

4.2.7.1 Effect of Risk Management

Table 4.10: Frequency Distribution on Risk Management

Question	Scale	Distribution	
		f	%
Does risk management affect project success at Nzoia River Basin?	Yes	22	68.7%
	No	10	31.3%
	Total	**32**	**100%**

Table 4.10 above, shows that (68.7%) respondents who participated in the study indicated that risk management affects project success at Nzoia River Basin, while, (31.3%) indicated that it does not. Most respondents explained that adequate risk manage ment protected the project from failure. From the study it can be concluded that risk management affects project success at Nzoia River Basin.

4.2.7.2 Opinion on Risk management

Table 4.11 Risk management opinions

Statement	(n = 32) SA %	A %	N %	SD %	D %
Successful project implementation is influenced by the skill levels of the staff	38.9	33.3	11.1	0.6	11.1
Skills are needed to hedge projects against risks and facilitate the development of effective strategies to address this risks	83.3	16.7			
Most staff and management lack risk management skills	50.0	27.8	0.6	0.6	11.1
Project managers rarely involve the local community in risk management due to lack of skills	22.2	77.8			

Majority (38.9%), (83.3%), (50.0%), (77.8%) of the respondents strongly agreed and agreed respectively that: risk management is essential in successful project implementation and management but influenced by the skill levels of the staff, skills are needed to hedge projects against risks and facilitate the development of effective strategies to address this risks, most staff and management lack risk management skills, project managers rarely involve the local community in risk management, respectively.

4.2.7.3 Level of influence of risk management

Table: 4.12. Frequency Distribution of influence of risk management

Question	Scale	Distribution F	Distribution %
What level does risk management affect project success at Nzoia River Basin?	High	17	53.1%
	Moderate	8	25%
	Low	7	21.9%
	Total	**32**	**100%**

53.1% of the total respondents indicated that the level of influence of risk management on project success at Nzoia River Basin is high, while 25% and 21.9% of the respondents indicated that the level of influence of risk management on project success at Nzoia River Basin is moderate and low respectively. From table 4.12 above majority of the respondents acknowledged that the level of influence of risk management on project success at Nzoia River Basin is high.

4.2.8 Monitoring and Control

4.2.8.1 Effect of Monitoring and Control

Table 4.13 Frequency Distribution of effect of monitoring and control

Question	Scale	Distribution	
		F	%
Does monitoring and control affect project success at Nzoia River Basin?	Yes	28	87.5%
	No	4	12.5%
	Total	**32**	**100%**

(87.5%) of the respondents who participated in the study indicated that monitoring and control does affect project success at Nzoia River Basin, while (12.5%) of the respondents indicated that monitoring and control does not affect project success at Nzoia River Basin as shown on table 4.13 above. Some respondents further explained that the project recorded milestones and conducted periodic reviews. This implies that monitoring and control affects project success at Nzoia River Basin.

4.2.8.2. 0pinion on Monitoring and control

Table 4.14 Monitoring and control opinions

	(n=32)				
Statement	**SA**	**A**	**N**	**SD**	**D**
	%	**%**	**%**	**%**	**%**
Poor project skills create problems in the monitoring and control	47.2	52.8			
There is a lack of professional and technical skills, which has led to poor project quality	30.6	36.1	11.1	8.3	14
Low skills level hinder active community participation in monitoring.	25.0	33.3	8.3	14	19
Monitoring mechanisms are not well developed due to inadequate skills	30.5	33.3	11.1	8.3	17

Table 4.18 above indicated the views of respondents in respect to monitoring and control on project success**.** From the study majority (52.8%), (36.1%), (33.3%), of the customer respondents agreed and strongly agreed respectively that: Poor project skills create

problems in the monitoring and control, There is a lack of professional and technical skills, which has led to poor project quality and monitoring mechanisms are not well developed since skill capacities for projects are inadequate.

4.2.8.3. Level of effect of monitoring and control on project success at Nzoia River Basin

Table: 4.15. Frequency Distribution of effect of monitoring and control

Question	Scale	Distribution	
		F	%
At what level does project monitoring and control affect project success at Nzoia River Basin?	High	20	62.5%
	Moderate	9	28.1%
	Low	3	9.4%
	Total	**32**	**100%**

62.5% of the total respondents indicated that the level of influence of monitoring and control on project success at Nzoia River Basin is high, while 28.1% and 9.4% of the respondents indicated that the level of influence of monitoring and control on project success at Nzoia River Basin is moderate and low respectively. From Figure 4.15 above majority of the respondents acknowledged that the level of influence of monitoring and control on project success at Nzoia River Basin is high.

4.2.9 Relationship between the determinants and project success

Table: 4.16 Regression Model

Model	R	R Square	Df	P-Value	Sig.
1	0.748[a]	0.560	5	0.128[a]	0.037[a]

a. Dependent Variable: Project Success

Table: 4.17 Coefficients[a]

	B	Std. Error	Beta	T	Sig.
(Constant)	1.640	0.212		7.752	.000
Project planning	0.289	0.067	0.229	1.342	0.782
Risk management	1.321	0.070	0.291	1.707	0.027
Monitoring and Control	0.397	0.073	0.112	0.608	0.071

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Monitoring and Control	0.397	0.073	0.112	0.608	0.071

a. Dependent Variable: Project Success

The study above determines whether the coefficients on the independent variables (Project planning, risk management and monitoring and control) is different from 0 so that the independent variable is having an effect on dependent variable (project success) or if alternatively any apparent differences from 0 is just due to random chance. The study used a significance level (alpha) of 0.05 (95%), degrees of freedom (df) of 5, and two-tailed test. The degree to which independent variables (project planning, risk management and monitoring and control) is related to the dependent variable (project success) is expressed in the positive correlation coefficient (r), = 0.748, (r2) = 0.560 indicating that 74.8% probability of project success is influenced by project planning, risk management and monitoring and control. In addition, the computed t-value (t=2.002) is smaller than the critical t-value (t= 2.015), while the p-value of 0.128 is larger than the significance level of 0.05. This then indicate that there is a relationship between project planning, risk management and monitoring and control and project success

4.3 Summary

Data analysis was done by editing and coding with the goal of highlighting useful information, suggesting conclusions, and supporting interpretations. It involved breaking down factors identified through the data collected into simpler coherent parts in line with the objectives of the study in order to derive meanings. The tabulated data was analyzed quantitatively, while descriptive data was analyzed qualitatively. The data analysis established existence of a relationship between project planning, risk management and monitoring and control and project success.

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This section gives summary of the study and the key findings that came out of the study. Conclusions based on the objectives of the study and recommendations for future actions are also discussed in this section.

5.2 Summary

The study had a high response rate 91.4% which involved respondents who were directly involved in project management. More than half of the respondents agreed that the River Nzoia Basin project had met its pre-determined objectives. The determinant of project success according to majority of respondents can be measured by how well project inputs are transformed into outcomes, achievement of project objectives, levels of stakeholder satisfaction and evaluation in terms of quality, time and cost. A positive coefficient of correlation of 0.789 indicates that there is a significant relationship between these determinants and project success. However 37.5% indicated that the project had not met its objectives.

Project planning has an effect on the success of the River Nzoia basin project according to 84.4% of the respondents who were interviewed. Despite this; majority of respondents agreed that most projects are characterized by inadequate planning skills, are highly complicated and risky; and therefore the need for high quality hardware and software in order to achieve skilled planning. The survey also indicated that 46.8% of the respondents stated that the level at which planning has an effect on the success of the project was rated as high. Overall planning was a major determinant of the success of the River Nzoia Basin project.

According to the study, majority of the respondents agreed that the skill level of staff affected how well the project was shielded against current and potential risk. 68.7% of the participants also indicated that risk management was essential in successful project implementation and management and thus influenced the level of success in River Nzoia Basin project. However, 10 respondents out of the total 32 who completed their questionnaires did not agree that risk management affects the success of the project. It was also evident from the study that most project managers do not involve the local community in risk management when implementing projects due to lack of proper project management skills. The study further established that 53.1% of the total respondents stated that the level at which risk management influenced the success of the River Nzoia Basin project was high.

Monitoring and control influenced project success according to 28 respondents representing 87.5% of the survey participants. Most respondents indicated that monitoring and control determined project success through periodical reviews and milestones charting on the progress of the project done by the various stakeholders. According to the findings from the case study project, 30.6% and 36.1% strongly agreed and agreed respectively that most projects lacked professional and technical skills needed to create proper monitoring mechanisms leading to poor monitoring and control. When investigating the level of effect of monitoring and control at the River Nzoia Basin project, the study established that majority of respondents representing 62.5% of the total study population indicated that the level of influence of monitoring and control was high, while 28.1% and 9.4% stated that the level was moderate and low respectively.

The relationship between the variables under study; (project planning, risk management, and monitoring and control) and project success expressed a positive correlation coefficient of $r = 0.748$ indicating that there is a significant relationship between these variables. Therefore 74.8% probability of project success is influenced by project planning, risk management and monitoring and control.

5.3 Conclusion

It is imperative to realize that performance of projects is largely dependent on the inputs that are applied in order to realize project's goals. From the findings of this research, the study made the following conclusions.

1. Investing in adequate professional and technical skills required in project management is an important foundation for ensuring the success of each project. Proper project management practices such as planning, risk management, and monitoring and control seek to cushion the project against present and potential risks or failure.

2. Poor project management skills may result in wastage of resources, time, and distortion in quality of the final product or even total project failure. The amount of time and effort dedicated to planning as an element of project management influences the success or failure of a project. The more effort and time applied, the higher the probability that the project will achieve its set objectives.

3. Due to the risky and complex nature of projects, it is important for the project management team to incorporate the use of hardware and software available in the market to handle such complexities by conducting skilled planning. Such software helps in the managing of multiple tasks in projects which might pose challenges if handled manually.

4. In risk management, risk identification and mitigation is an essential skill required by every project manager. Adequate risk management strategies are vital in identifying uncertainties in a project and employing mechanisms to respond to such risks. Practices such reviewing past projects would provide vital information on the possible areas of uncertainty in a current project.

5. In order for a project to attain the best result, risk management requires that the project manager maximizes the results of positive events and minimizes the consequences of adverse events. This will ensure that opportunities presenting themselves are exploited fully while threats are kept at minimal.

6. Periodic reviews should be conducted so as to ensure that the project is monitored regularly to check for any deviations from the original goal of the project. It is also important that the project management team is well trained in monitoring and control so as to correct deviations early enough when noted thus avoiding compromising the quality of the project.

7. Monitoring and controlling skills can be used to provide feedback between project phases, check the linkages for flow and consistency in order to implement corrective or preventive actions to bring the project into compliance with the project management plan.

8. When the level of effect of monitoring and control is deemed high by staff of a project, it can lead to more staff commitment and willingness to apply more effort in their individual roles as they feel that proper monitoring and control is a precedence of success to a project.

9. Regular monitoring communicates project progress to team members and management. The practice is essential in keeping project management informed about scheduling, distribution (equity), and effectiveness of the project in delivering the activities and outputs.

10. Project management skills are crucial for successful implementation of projects. The ability to plan effectively for a project, evaluate risk and monitor the progress of most projects has not been determined. moreover the influence of such skills in specific sector projects in general especially in Kenya is not well known

5.4 Recommendations

The findings from this study established that project management skills are an important determinant of project success in River Nzoia Basin project and Kenya in General. The following actions are therefore suggested by the study as essential in the determination of project success.

1. It is essential that all organizations that are involved in projects trains its project management team so as to raise the standards of results emanating from every project. Government agencies, parastatals, non-governmental organizations and corporate, community and faith-based organizations should ensure that their project teams have the necessary skills such as planning, risk management, and monitoring and control so as to cushion the project against failure.

2. It is important that the project management team of every project clearly states its pre-determined objectives beforehand in the planning process. This makes the implementation process easier and faster. Milestones achieved in the project can further be noted while carefully checking out for deviations.

3. Where changes to the original plan are required, adequate planning will guarantee that those changes do not interfere with the desired outcome of the project. Therefore the project team should be trained continuously on project planning, risk management and monitoring and control.

4. When a project is being implemented in a community, it is important to incorporate them as stakeholders in the planning process. This is because they can help the project team indentify areas of possible risk which may not be evident to the project team. Community participation further ensures that there is a perfect match between their needs and the goal of the project.

5. Investing in high quality hardware and software compliments the planning skills of the project management team. Project management software are necessary when handling complex projects as it can determine the shortest and longest period the project can be implemented at the same time showing activities that can be undertaken together. Sometimes the total project duration can be reduced in what is referred to as 'crashing' by increasing the resources needed to carry out an activity.

6. At the beginning of the project, the management team should establish the criteria for conducting periodic reviews on the progress status of the project. This should then be compared to the project plan to check for conformity in terms of work completed, costs incurred and amount of time spent. At this point the project status can be determined as on schedule, ahead of schedule or behind schedule.

7. Organizations should never refer to training project staff as expensive as this is minimal when compared to correction of errors, and additional audit fees. Sometimes

the problems incurred due to lack of project management skills should be evaluated keenly in face of training as they may be irreversible.

8. To attain a successful project, it is important that teamwork is emphasized. It should be seen as everyone's responsibility rather than attributed to a particular individual. The project manager and team become the focal point of integrative responsibility. Once the results have been achieved, the success should be attributed to the teams' effort rather than that of a single individual.

9. Since projects are undertaken in conditions of limited rationality, unstable and non-repetitive, project managers should have the necessary skills in selecting the most appropriate technologies, hiring the most affordable and experienced consultants, and using sophisticated management practices to ensure functional success.

10. Research should also be carried out on the effect of training project planning, risk management, and monitoring and control in sector-specific projects especially in Kenya. This information would be important for increasing the rate of success in projects within these sectors.

5.5 Areas of Further Research

There is need for further research to determine the effect of the component factors underlying the main factors (variables) that influence project success in Kenya. Research on the effect of resource planning as an individual element in project planning should be investigated and how it influences to overall project success. In general, there is limited literature in Kenya on the role of project management training in relation to project success.

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DECLARATION

This research project is my original work and has not been presented for a degree in any other university

This Research Project has been submitted for examination with my approval as University Supervisor, DR. FRED MUGAMBI.

DEDICATION

This research project is dedicated to my family: Allan and Michael for their great support, encouragement, understanding and enduring long periods of my absence in the course of this study.

ACKNOWLEDGEMENT

I thank the almighty God for his strength, wisdom, and provision to undertake this research project. I also sincerely appreciate my supervisor Dr. Mugambi for patiently reading the drafts and guiding me without which this research would not be a success. Lastly to my family for being with me every step on the way and enduring lost family time in the course of this research project.

APPENDIX I
DEFINITION OF KEY TERMS

Activity - Task, job, operation or process consuming time and possibly other resources. The smallest self-contained unit of work used to define the logic of a project. It has a defined start and end dates and the person or organization responsible for their completion (Kerzner, 2003)

Constraint - Applicable restriction affecting the performance of the project. Any factor affecting when an activity can be scheduled (Timons and Spinelli, 2005).

Milestone - A key event. An event selected for its importance in the project used to monitor progress. It represents the start of a new phase or the completion of a major deliverable (Sandoe et al, 2001).

Objective - A projected state of affairs which a person or a system plans or intends to achieve or bring about a personal or Organizational desired end-point in some sort of assumed Development (Harvey, 2005); (Berkun, 2005).

Resource - What is required to carry out a project's tasks. They can be people, equipment, facilities, funding, or anything else capable of definition (usually other than labour) required for the completion of a project activity (Meredith, 2003)

Scope - A project sum total of all of its products and their requirements or features. (Lauri & Gregory, 2002)

Stakeholder - All entities within or without an organization which sponsor a project or, have an interest or a gain upon a successful completion of a project.(I P M A ,2006).

Work Breakdown Structure - A tool that defines a project and groups the project's discrete work elements in a way that helps organize and define the total work scope of the project.((Munns, et al 1996).

APPENDIX II
INTRODUCTION LETTER TO THE RESPONDENTS

Milcah G. Muriuki,
School of Human Resource Development, Jomo Kenyatta University Of Agriculture and Technology- Mombasa CBD Campus,
P.O Box 81310-80100
Mombasa.

RE: LETTER OF INTRODUCTION.

I am a Postgraduate Student studying for a Master of Science degree in project management in the School of Human Resource Development, Jomo Kenyatta University of Agriculture and Technology. I am currently conducting a study on the topic: **The role of project management training in determining projects success in Kenya: A case study of River Nzoia Basin Project.**

The information gathered will be useful to various stakeholders in the project management sector in the country. All information provided will be treated with the highest confidentiality and will be used for academic purposes only.

Thanking you in advance for your time and cooperation.

Milcah G. Muriuki
Student

Dr Fred Mugambi
University Supervisor

APPENDIX III
RESEARCH QUESTIONNAIRE

Please answer all the questions as best as you can.

Respondent Profile

1. What is your Gender?

Male [ ] Female [ ]

2. What is your age?

Between 18-25 [ ] Between 26-35 [ ]

Between 36-40 [ ] Between 41-50 [ ]

3. What is your highest level of education?

Secondary [ ] College [ ] University [ ]

Others [ ] specify……

4. What is your position in the project?

Coordinator [ ] Manager [ ] Staff [ ]

PART 1- Project Success

1.1 In your opinion has the project achieved its set objectives so far?

Yes [ ] No [ ]

1.2 Explain how the project has achieved the set objectives

……

……

1.3 Please tick the numeric value corresponding to your personal opinion for each statement

	Strongly agree ①	Agree ②	Neutral ③	Disagree ④	Strongly disagree

Project performance can be assed based on its capacity to transform inputs into tangible outcomes.					
Progress toward achieving the objectives can be accessed by comparing actual achievements against planned project goals					
Project success is, also, measured through the achievement of organizational objectives.					
Project performance is evaluated from time, cost and quality perspective					

PART 2- Project Planning

2.1 In your opinion does planning affect project success at River Nzoia Basin?

Yes [ ] No [ ]

2.2 Explain how planning affect project success at Nzoia River Basin

.....

.....

2.3 Please tick the numeric value corresponding to your personal opinion for each statement

	Strongly Agree ①	**Agree** ②	**Neutral** ③	**Disagree** ④	**Strongly disagree**
Projects are constrained by inadequate planning skills that is required for effective planning for project success					
Project planning is complicated and risky, hence requires varying skills sets for successful project implementation and management					
Increasing complexity in the projects with pressure of time and costs has led to the introduction of high quality software and hardware which requires skilled planning					

2.4 In your opinion to what level does planning affect project success at Nzoia River Basin?

High [ ] Moderate [ ] Low [ ]

PART 3- Risk Management

3.1 In your view does risk management affect project success at Nzoia River Basin?

Yes [ ] No [ ]

3.2. Explain how risk management affects project success at Nzoia River?

.....

.....

3.3 Please tick the numeric value corresponding to your personal opinion for each statement

	① Strongly agree	② Agree	③ Neutral	④ Disagree	Strongly disagree
Project Risk management is essential in successful project implementation and management however it is influenced by the skill levels of the staff and management					
Key risk management skills are needed to hedge projects against many uncertainties i.e. resource shortage, contractors' inability to meet completion dates and other types of risks.					
Most staff and management lack risk management skills and do not take proactive initiatives in the management of risks leading to project failure					
Project managers rarely involve the local community in risk management relating to project implementation and management					

3.4 In your assessment what is the level of influence of risk management on project success at Nzoia River Basin?

High [ ] Moderate [ ] Low [ ]

PART 4- Monitoring and Control,

4.1 In your view does monitoring and control affect project success at Nzoia River Basin?

Yes [ ] No [ ]

4.2 Explain how monitoring and control affect project success at Nzoia River Basin?

.....

.....

4.3 Please tick the numeric value corresponding to your personal opinion for each statement

	Strongly agree	**Agree** ②	**Neutral** ③	**Disagree** ④	**Strongly disagree**
Poor project skills create problems in the monitoring and control as the result in misdirection for project management					
There is a lack of professional and technical skills, which has led to poor project quality.					
Low skills level hinder active community participation in monitoring due to the inadequacy of data and general information					
Since skill capacities for projects spread across the community to monitor and evaluate projects are inadequate, hence monitoring mechanisms are not well developed					

4.4 In your assessment to what level does project monitoring and control affect project success at Nzoia River Basin?

High [ ] Moderate [ ] Low [ ]

THANK YOU

APPENDIX IV

PROJECT PROPOSALWORKPLAN

	DURATION- 2013								
ACTIVITY	MAR	APR	MAY	JUN	JULY	JULY	AUG	SEP	0CT
IDENTIFICATION OF STUDY AREA									
LITERATURE REVIEW									
WRITING RESEARCH PROPOSAL									
PRESENTATION OF PROPOSAL									
DATA COLLECTION									
RESEARCH FINDINGS AND REPORTING									
PRESENTATION OF FINDINGS									
PUBLICATION OF RESEARCH PROJECT									

APPENDIX V

PROPOSED BUDGET

Activity	**Rate (Ksh)**	**Qty**	**Unit of Measure**	**Total cost (Ksh)**
Printingof data collection instrument	60.00	50	Pieces	3,000.00
Photocopying/printing/binding	1000	10		10,000.00
Logistics	700	25	Days	18,750.00
Analysis of the Report				4,000.00
Contingency				5,000.00
Total				**40,750.00**

About the author



Milcah G. Muriuki

Kenya

Milcah Muriuki was born in Kiambu County in the outskirts of Nairobi-Kenya. She grew up around the slopes of Ngong Hills where she attained both her primary and secondary education. Upon completion of secondary education she travelled to Uganda where she studied and obtained her bachelor's Degree in Business Administration. She then worked for various organizations before she developed an urge to further her education.

Most community and faith-based projects in Kenya lacked professional knowledge on how to run their projects successfully, this realization is what led the author to pursue a Master of Science Degree in Project Management from Jomo Kenyatta University of Agriculture and Technology (JKUAT). Upon completion the author wants to apply the knowledge acquired from the university to train project managers in robust project management practices and undertaking project management consultancies in the areas of project implementation, monitoring and control. She can be contacted on milmuriuki@yahoo.com.

About Jomo Kenyatta University of Agriculture and Technology

Jomo Kenyatta University of Agriculture and Technology (JKUAT) is a public institution in Kenya established as a University through an Act of parliament (the JKUAT Act, 1994) and inaugurated on 7th December 1994. The university's mission is to offer accessible quality training, research and innovation in order to produce leaders in the fields of Agriculture, Engineering, Technology, Enterprise Development, Built Environment, Health Sciences, Social Sciences and other Applied Sciences to suit the needs of a dynamic world. Its vision is to be a University of global excellence in Training, Research and Innovation for development. Further information about the university can be obtained from www.jkuat.ac.ke