## FACTORS INFLUENCING THE COMPLETION OF WATER PROJECTS: A CASE OF WEST POKOT COUNTY, KENYA

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# A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF DEGREE OF MASTER OF ARTS IN PROJECT PLANNING AND MANAGEMENT OF THE UNIVERSITY OF NAIROBI

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#### ABSTRACT

The purpose of the study will be to build up the components impacting the consummation of water ventures. The explicit goals of the examination were to decide how temporary worker capability impact the finish of water ventures, to set up the impact of fund on culmination of water ventures, to evaluate the impact of undertaking supervision on fulfillment of water ventures, and to decide how venture arranging impact the fruition of water ventures. Elucidating research overview configuration will be utilized. This technique for research is favored in light of the fact that the analyst can gather information. The populace for this investigation will be two hundred and sixty-eight (268) respondents drawn from associations that execute water extends inside the West Pokot County. The venture group pioneers, venture supervisors, staff, and service delegate will be the fundamental respondents. In this examination, testing strategies will be utilized to recognize respondents. This examination will receive the stratified inspecting system. From the conceivable 268 target populace, stratified irregular examining will be utilized to choose an example of 204 respondents. A poll will be utilized to gather essential information. The inquiries were shut finished to upgrade consistency and open finished to guarantee most extreme information gathering and age of subjective and quantitative information. The information for the investigation will be broke down both subjectively and quantitatively. The information gathered will be entered in and dissected and exposed to the illustrative measurements include in Statistical Package for the Social Sciences to create mean, and standard deviation which will be exhibited utilizing tables, frequencies and rates, while Qualitative information comprise of words and perceptions, not numbers. Further the examination will utilize a multivariate relapse model to think about the components impacting the finishing of ventures: an instance of water extends in West Pokot County, Kenya. The examination found that the utilization of experienced and adequate specialized labor impact consummation of activities. The investigation found that poor temporary worker offering procedures and methods impact culmination of activities. The examination further settled that the quantity of managing building staff amid task execution impact fruition of ventures. The investigation likewise settled that venture arranging impacts the fruition of task. The examination inferred that venture supervision impacts the fruition of task. The investigation further inferred that the quantity of directing building staff amid undertaking execution impact finish of ventures. The investigation reasoned that the task supervision systems utilized in West Pokot County were viable. The investigation presumed that Project supervisors should hold partner commitment sessions in the lifetime of the venture to guarantee that each invested individual assumes their job in guaranteeing the development contract does not take longer than proposed in view of the activities or inactions of any of the undertaking players. Able and experienced undertaking directors ought to be employed to guarantee that the correct task authority group is procured to lead a procedure of development venture execution.

## **CHAPTER ONE**

#### INTRODUCTION

## 1.1. Background of the Study

Projects are complex and involve a large number of parties in execution. The interest for real activities has never been more prominent, and generally determined by an expanding worldwide populace, maturing framework, expanding urbanization, and proceeded with improvement of developing markets (Lock, 2007)). With interest come the difficulties for proprietors, temporary workers, and different partners to effectively convey the genuinely necessary framework ventures (Taleb, 2009). As indicated by KPMG (2009), the truth is that like world markets, capital activities have turned out to be progressively perplexing and testing. What worked in the past is never again adequate today and will not be sufficient later on. The problem of completion of projects is a global issue that needs to be analyzed so as the implementers can deliver projects to the beneficiaries in good time.

Varma (2012) stated that finish and cost invade are characteristic piece of most tasks in spite of the much procured information in undertaking the executives. An undertaking contains task, through the building configuration stage to granting of development contract) and the development stage (period from granting development contract to when the real development is finished) (Lock, 2007). Postponements and cost overwhelms happen in both preconstruction and development stages. Anyway the significant examples of venture invades ordinarily occur in the development stage (Frimpong and Oluwoye, 2003).

Deferrals in undertaking development imply overwhelm, loss of capital and income, builds advertise chance, delay underway, expanding material expense and additionally absence of effectiveness. While finishing venture at ideal time drives benefit, advertise development, expanding client's trust and expanding self and also group's certainty (Yvas, 2013). In this case, irrigation construction projects in the country are commonly undertaken by government agencies and are of national interest. Studies (Kapulula, 2008; Ngoma, 2006; Ofori, 2009) show that the development business has been hounded by a horde of difficulties which incorporate blunder, aptitudes deficiency, debasement, absence of innovation, resolute credit terms, late installments to temporary workers and challenges in getting to back. As indicated by Chilipunde (2010) Projects have to a great extent not been conveyed on time, spending plan and expected quality gauges. To put it plainly, development time and again neglects to address the issues of present day organizations and effects on their intensity in global markets and once in a while gives best esteem.

Assaf and Al-Hejji (2006) found that in Saudi Arabia just 30% of development ventures were finished inside the planned fruition dates and that the normal time invade was somewhere in the range of 10% and 30%. In Nigeria, Sambasivan and Soon (2007) saw that the execution of the development business as far as time was poor. As per Sambasivan and Soon (2007), seven out of ten ventures overviewed in Nigeria endured delays in their execution.

With respect to water ventures Frimpong and Oluwoye (2003) led an overview to recognize and assess the overall significance of the critical components adding to defer and cost overwhelms in Ghana groundwater development ventures. Varma (2012) reports that in India, all, 77 major and 86 medium water projects are running delayed by anything from a few years to as much as 40

years in some cases. The cost of these 163 projects was pegged at Rs 47,864 lakh crore at the time they were started. Now their combined cost is estimated at Rs 1.58 lakh crore. That's an escalation of a phenomenal 231%. The Kenya Vision 2030 (KV 2030) formulated in 2008 and adopted by government as the roadmap for delivering change to our nation and its people has scaled up investments in water projects and provided for its development at a rate of 32,000 hectares per year.

In West Pokot County, which is located in the former Rift Valley Province of Kenya, the few projects initiated by the government have either stalled or failed due to factors ranging from poor funding to lack of goodwill by the government among other dilemmas. A preliminary informal review by the researcher on the projects undertaken by the government in West Pokot County are not completed on schedule while others are abandoned before completion because of many problems and complex issues of performance such as cost, time, poor planning and safety. These, among many other factors have prompted the researcher to conduct this study, evaluating the factors influencing completion of water projects with West Pokot County providing the case study.

## **1.2. Statement of the Problem**

Keeping up enduring finish of development ventures, has up to this point, been an issue of genuine concern both to the customer and temporary workers. Standish Group Report (2007) noted that mega projects fail at a higher rate than small/medium sized projects. According to Khatak (2009), the primary reasons and reasons for undertaking/assignment disappointment are exemplified in four key components of the errand, to be specific time, cost, quality and substance. The end clients and partners of a venture likewise assume an in a general sense vital

job towards progress or disappointment. Bolt (2007), affirms that results of disappointment of activities can be multi-dimensional, having expansive impacts on people, networks and associations. In increasingly noticeable terms time and cost invades are normal highlights of disappointment of tasks, bringing about postponement of administration or item conveyance.

Kappelman et al., (2006) says that the high rate of fizzled/deficient or deserted tasks adversely impacts government/authoritative execution, costing citizen billions of cash in misfortunes. In quantifiable terms the expense of deferrals and incomplete or lacking collection of the conceived advantages in the state of increment in incomes, upgrades in administration, quality or innovation would fluctuate as indicated by the nature and extent of undertaking. In creating nations like Kenya, ventures are the existence line of development plan or projects. Disappointment of activities regardless of the division, whether open or private add to hopeless misfortune to society and to the economy as entirety. Postponements and non-consummation of ventures from beginning cost plan has been pervasive on development ventures. Be that as it may, almost no endeavors have been made to reduce the wonder. It is against this foundation that this examination endeavors to contemplate the variables impacting fulfillment of tasks: an instance of water extends in West Pokot County.

#### **1.3.** Purpose of the Study

The purpose of this study was to establish the factors influencing the completion of water projects: a case of West Pokot County, Kenya.

## **1.4 Research Objectives**

The study was guided by the following research objectives:

 To determine the influence of contractor competence on completion of water projects in West Pokot County.

- To establish the influence of financing on completion of water projects in West Pokot County.
- iii. To assess the influence of project supervision on completion of water projects in West Pokot County.
- iv. To determine the influence of project planning on completion of water projects in West Pokot County.

## **1.5. Research Questions**

The study answered the following research questions:

- i. How do contractor factors influence the completion of water projects in West Pokot County?
- ii. How does financing influence completion of water projects in West Pokot County?
- iii. To what extent does project supervision influence completion of water projects in West Pokot County?
- iv. How does planning influence the completion of water projects in West Pokot County?

## 1.6. Significance of the Study

This investigation may help development experts increment the achievement of water ventures fulfillment by overseeing admirably the components that will encourage their effective consummation. The originators, engineers, sum surveyors, advancement adventure boss and site pros may benefit by this examination by applying the eventual outcomes of its revelations while finishing other improvement adventures. Adventure engineers/clients may in like manner benefit

by the revelations of this examination and thusly gain increasingly vital ground in their improvement adventures. This is in light of the fact that they may apply the revelations of this examination in ensuring the risk factors that may cause their endeavors not be passed on viably are directed.

#### **1.7.** Limitations of the Study

Public projects in West Pokot County, Kenya are seen as a sensitive issue, and as such, most of the respondents may not be willing to give information for fear of being victimized in future. To curb this constraint, the researcher assured the respondents that the study was used for academic purpose only and confidentiality was maintained by not having any personal identifiers such as name, address and telephone numbers of the respondents. Furthermore, identification of all stakeholders and bringing them on round table to discuss real issues took may take a lot of time. Balancing resources and budget allocation to all programs may also be a big challenge since all projects are in dire need of resources.

## **1.8. Delimitations of the Study**

The study was designed to investigate the factors influencing the completion of projects: a case of water projects in West Pokot County. For this reason, the data was collected and treated with prudence so that it fit its unique characteristics of the County as opposed to generalization and comparing it to other parts of the country or on an international basis. The variables that were considered in this study included contractor competence, finance, project supervision, and planning.

## **1.9** Assumptions of the Study

The examination was led under the supposition that the respondents were accessible and furthermore that they give fair reactions. This examination accepted that respondents had a decent comprehension of the variables affecting the fruition of undertakings: an instance of water extends in West Pokot County.

#### **1.10 Definitions of Significant Terms**

**Completion of projects:** refers to the completion of given projects according to the time schedule set out for the projects without any delays in time.

**Contractor competence:** this is the aspect of ensuring the contractor has the necessary qualifications, experience, ability to perform the task with the resources available etc

**Project planning:** reffer to the piece of task the executives utilizing calendar.

**Project supervision:** refers to the way toward guaranteeing that the undertaking is worked as per the prerequisites of the agreement archives, affirmed designs, details, construction regulations, construction law principles and relevant neighborhood codes and statutes

**Project:** this refers to the transitory affiliation that is relied upon to make a stand-out and predefined result or result at a pre-shown time using predestined resources.

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## **CHAPTER TWO**

#### LITERATURE REVIEW

## **2.1. Introduction**

Chapter two provides the literature review of the study. The main focus will be on the factor that influence completion of projects and the literature that supports the fact.

#### 2.2. Completion of Water Projects

An undertaking has been characterized to have a characterized start and end, that is, a predefined time for fruition. An undertaking likewise has a lot of objectives, a progression of exercises and a restricted spending plan. Venture fulfillment includes the adjusting of three central point in particular cost, quality and time. Undertaking cost is the expense caused to understand a venture (Project Management Institute, 2004). Venture time or span is the aggregate number of work period required to finish a task. An undertaking is on time when the general task term does not surpass at first arranged venture time (Project Management Institute, 2004).

As per Abbas (2006), late fruition of fills in when contrasted with the arranged calendar or then again contract plan is what is known as deferment. Deferral happens when the headway of an understanding falls behind its arranged program. It may be caused by any social affair to the understanding and may be a quick outcome of no less than one conditions. An understanding deferral effectsly influences both the proprietor and legally binding laborer (either as lost livelihoods or extra expenses) and it frequently raises the repulsive issue of delay obligation, which may result in conflicts that regularly accomplish the courts. An expense attack happens when the last cost of the endeavor outperforms the principal measures (Azhar and Farouqi, 2008).

Development delays happen everywhere throughout the world and numerous examinations have been completed to survey the reasons for postponements in development. Sambasivan and Yau (2007) expressed that about 17.3 percent of government contract extends in Malaysia were viewed as wiped out, which implies they are postponed by over three months or are relinquished totally. As indicated by Assaf and Al-Hejji (2006) from Saudi Arabia just 30 percent of development ventures were finished inside the planned culmination dates and the normal time over run was between 10 percent and 30 percent. Agaba (2009) characteristics delays in development tasks to poor structures and determinations, and issues related with the executives and supervision. In their examination, El-Razek et al., (2008) found that postponed installments, coordination trouble and poor correspondence were imperative reasons for deferral in Egypt. Because of the specific idea of the development business, and shifting contract conditions crosswise over various activities, contract claims are inescapable. In spite of the fact that claims are brought up in various territories, defer claims are observed to be generally normal. Yates and Epstein (2006) have seen that delays in development and the cases starting from such deferrals are a basic piece of the advanced development process. As indicated by them, the development defer guarantee process initiates at the undertaking origin itself. Alluding to various past examinations, Scott et al (2004) reason that development ventures tend to experience the ill effects of deferrals and such postpones convey potential misfortunes for all gatherings: for the employer(client, proprietor) through loss of utilization, and for the contractual worker and subcontractors through their drawn out nearness on location. Be that as it may, a deferral in a

development venture can be caused by either the proprietor or by the temporary worker or by the various different reasons.

Al-Momani (2000) considered 130 tasks and found that poor structure, and carelessness of the proprietor, change orders, climate conditions, site conditions, late conveyance, monetary conditions and increments in amounts are the primary driver of deferral. Odeh and Battaineh (2002) have recognized 28 reasons for defer arranged in eight noteworthy gatherings through poll study in Jordan. Aibinu and Jagboro (2002) have recognized six impacts of postponements as time invade, cost overwhelm, debate, assertion, add up to surrender, and case for Nigerian development industry. Kurmarswamy and Yogeswaran (2003) opine that the point by point claims identified with expansion of time are regularly submitted towards the finish of the development time frame which is one of the contributory elements to the late evaluation of cases. Scott (1997) has contemplated the frames of mind of the temporary workers and bosses towards postpone claims.

In the Indian setting, Iyer and Kalidindi (2002) have recognized the 'Time Delay and Extension condition' as second most basic provision beside Final and Binding Power in development contracts. It is seen that there is much worry about question identified with postponement in development ventures. Kaliba et al. (2009) closed from their examination that the real reasons for deferral in street development extends in Zambia were postponed installments, budgetary lacks with respect to the customer or temporary worker, contract adjustment, monetary issues, material acquirement, changes in configuration drawing, staffing issues, hardware inaccessibility, poor supervision, development botches, poor correspondence on location, changes in details, work question and strikes. Ellis and Thomas (2003) contend that it has turned into a standard as opposed to the exemption for street development extends in Malawi to encounter delay.

In Kenya, time and cost invades are broadly predominant in the general population segment ventures (Musa, 1999). His finding demonstrated that, poor correspondence, absence of experience by task administrator, acquirement delays, absence of arranging, poor framework, insufficient assets, absence of inspiration, offering strategies, varieties, venture condition, poor undertaking definition similar to a portion of the significant commitments to time and cost invades.

#### **2.3.** Contractor Competence and Completion of Water Projects

The type of contractor has been found to be an influencing factor in the completion of construction projects these include such factors as the attitude of the contractor, size of the contracted firm and the experience of the contracted firm (Acharya, Lee, Kim & Lee, 2006). For instance, in developing countries, there is an emphasis to involve start-up firms and Small and Medium Enterprises (SMEs) in bidding for construction projects in an attempt to create competitiveness among local firms in public construction projects (Chilipunde, 2010). Rebelo (2005) expressed that the development business and SME contractual workers play a noteworthy and basically critical financial job in creating nations. It is along these lines vital that SME temporary workers be very much prepared to successfully deal with their development undertakings from the point of view of nature, wellbeing and security, and in addition from business maintainability, which adds to the financial advancement of nearby networks and society on the loose. However, this has not always been the case in their performance in infrastructural projects (Chilipunde, 2010).

In an investigation of the connection among contractual workers and subcontractors in Saudi Arabia, it was discovered that various factors altogether influenced these connections. These variables included deferral in contract advance installment, absence of development quality, mistakes and postponements in structure illustrations and endorsement of test materials were positioned most elevated as contractual worker subcontractor interface issues. Positioning most minimal among these elements were legitimate question, booking clashes among subcontractors, topographical issues and climate conditions (Bowen et al., 2010). Deficient development ability to execute ventures is another reason that upsets fulfillment of activities. The issues identifying with the executives, laws and control ought to be the duty of task the executives (Government of India, 2009). Completion of projects requires adequate and effective project management techniques and skills of the contractor. Weak management of contractors has often affected the completion of construction projects. In Lebanon, contractual relations and project management from viewpoints of contractors and consultants have been found to affect completion of infrastructural projects (Khalafizadeh, Mirhosseini & Tayari, 2014).

Similar associated contractor factors include weakness of rush in selection of contractor. The right dimension of information, experience, techniques and the executives abilities are expected to guarantee a more noteworthy possibility for activities to be finished at the very latest the due dates (Hussin & Omran, 2011). Choge and Muturi (2014) also associate the completion of infrastructural projects on the experience of the contractor. Contractual workers are chosen based on value, involvement in embraced specific kinds of development venture and their notoriety or reputation in creating top notch work inside spending plan and on time. By and expansive there is a trade off between esteem, contribution and notoriety anyway the hankering to recognize the most lessened sensitive does not commonly provoke an errand that is done inside time. The intrinsic contractual workers encounter amid readiness, arranging, approval and assessment

methodology for huge framework ventures makes snags to the usage of such tasks (Commission of the European Union, 2008).

Phaladi and Thwala (2009) additionally discovered administration related issues as real reasons for poor undertaking execution for the little and medium estimated temporary workers in South Africa. Absence of powerful administration in the beginning times of the undertakings, combined with deficient back, absence of credit offices from providers, insufficient talented labor, poor valuing and offering, lacking contract documentation abilities, and for the most part absence of appropriate administration preparing were the main considerations adding to temporary workers' inability to execute extends effectively. So as to prevent the test of venture conveyance, Samuel (2008) 11 prescribes that venture time the board be a key need for the contractual workers and that the arrangement of an enlisted undertaking chief for each agreement ought to be a required state of delicate.

Prequalification is a technique used to analyze and assess the limits of the authoritative laborers to finish a livelihood in case it is conceded to them. The strategy itself has been investigated by various researchers (Zedan and Skitmore 1994). Prequalification gives a client a once-over of transitory specialists that are welcome to fragile constantly. This is the system most right currently used by various countries and in which various and particular sorts of criteria are considered to survey the general sensibility of transitory laborers. To get segment to an embraced standing summary, a legally binding laborer applies at first to the client and is then studied on grounds of cash related quality, regulatory capacity, definitive structure, particular ability and the past record of comparable advancement (Merna and Smith, 1990).

As shown by Hunt (1966), it is imperative to consider specific, managerial and cash related criteria in the prequalification methodology. These contain the hopeful's enduring spot of business, adequacy of plant and rigging to make each vital stride truly and expeditionary, sensibility of cash related ability to meet responsibilities required by the work, reasonableness of particular limit and experience, execution of work of a comparable general sort and on a scale in any event half of the proportion of the proposed get, the repeat of past disillusionments to perform contracts properly or disregard to complete them on time, the present position of the transitory specialist to play out the assention well, and the legally binding laborer's relationship with subcontractors, or delegates.

Moore (1985) proposed a quantitative framework for quick track activities to choose a temporary worker. At first, an assessment group should visit the contractual worker's home office to gather the required data and allot primer scores to every model recorded doling out a most extreme point an incentive for every part of development venture execution. These scores ought to never be founded on one individual's investigation; at least three evaluators is required for each scoring action. An examination led by Severson (1993) exploring patterns in temporary worker budgetary information to help anticipate their probability of encountering a case. The examination secured diverse themes, in regards to the benefits segment of a contractual worker's asset report, the liabilities segment of a temporary worker's accounting report, the investors' value segment of a contract based worker's monetary record; the investigation additionally covers the contract based worker's salary explanation.

## 2.4. Financing and Completion of Water Projects

Fund is one of the essential proportions of a venture's prosperity. This is valid, particularly for Construction extends in creating nations, since open development extends in these nations are executed with rare money related assets (Choge and Muturi, 2014). In spite of the fact that the administration of Kenya puts aside tremendous aggregates of cash to be spent in development segment, the industry is confronting a great deal of difficulties. Most development extends in Kenya are presented to outrageous cost heightening hazard to the degree that it calls for additional financing as well as particular skill consequently prompting specialized and venture administrative clashes between task's gatherings. Adherence to cost gauges has been a noteworthy test and viewed as the most concerning issue which impedes undertaking's advancement since it diminishes the contractual workers' overall revenue subsequently affecting time culmination (Choge and Muturi, 2014). In spite of the fact that venture conveyance process does not have a phase called financing, budgetary requirements influence each phase of the procedure (Sullivan and Mayer, 2010). The Right of Way to a venture isn't distinguished by an undertaking that just satisfies the ecological procedure, just for the approach creators to differ with the picked wellspring of financing.

Mansfield, Ugwu and Doran (1994) investigated the relationship between's cost overwhelms and venture delays and understood that a decent assention exists between the two variables. This infers the accessibility of money to provide food for undertaking costs impacts the fulfillment of a venture. Kariungi (2014) ponder uncovered a solid positive relationship between's budgetary imperatives and obtainment delays. A large portion of the inspected ventures experienced budgetary imperatives; a circumstance which bargained ventures conveyance. As indicated by

Koushki, Al-Rashid and Kartam, (2005) income investigation issues in infrastructural ventures are among the most widely recognized marvels - from easy to complex tasks. Most disappointments of development ventures are because of cost accelerations (Gkritza and Labi, 2008). An investigation led in vitality area on cost invades in Kenya, issues related with pioneer control tasks and process plants uncovered that 74 % of cost accelerations was caused by poor coordination of undertakings exercises and absence of progress the board control therefore influencing adherence to cost gauges (Kagiri and Wainaina, 2009).

The expanding multifaceted nature of framework and the earth inside which ventures are built spots more noteworthy interest on development chiefs to convey extends on time, inside the arranged spending plan and with high caliber. An investigation of customers' execution in development extends in Uganda (Alinatwe, 2008) found that inability to pay advance installment to temporary workers as accommodated in the agreement prompted poor contractual worker income prompting poor finish of tasks. Kaliba, Muya and Mumba (2009) announced deferred installments, unduly extended money related procedures, monetary challenges, contract change and financial issues as influencing finish of ventures. Adolwa (2002) assessed a development advance plan set up by the Botswana government to help little building temporary workers with undertaking preparation. The investigation found that the plan was not as effective as planned because of abuse of the advances.

Planning and money related administration have been the center of monetary changes programs in many countries around the word, Shick (1999). They have been the guideline instrument of change and rebuilding of the general population part in a few nations. With the developing difficulties of budgetary emergency and monetary stuns, the requirement for upgraded budgetary process and creative money related administration procedures are progressively felt in creating nations and change economies. Budgets could be used to allocate resources optimally by funding those projects promising the highest returns; Hongren (2003). Trentin, (2004) suggests that firms might have very good plans but fail to implement them fully. Effective implementation of budgets enables a firm effectively and efficiently utilizes its resources. Budgeting systems are universal and have been considered an essential tool for financial planning.

Batty (1975) States that, before a plan is adopted, a number of choices must be considered. The one selected must comply with two requirements; satisfactory profits and long term stability. Forecasts are statements used in the process of determining the plan to adopt. They show what is likely to happen in the future; that is, they relate to probabilities. The two requirements given above must be present and in addition, all statements have to be co- ordinate and harmonized so that they become part of an overall plan; to be called budgets. When the proper arrangement of spending plans has been picked they will be utilized as a methods for finding duties and consequently using articulations and reports, may upgrade control of execution and expenses. This whole procedure is known as budgetary control.

#### 2.5. Project Supervision and Completion of Water Projects

In each venture, there are distinctive partners and members. The case is significantly increasingly complex in development and building ventures. Water system extends regularly include a ton of designing and development forms. This implies there are basic choices that are included and henceforth the basic leadership process turns into a huge factor impacting finish of activities. As indicated by Chirwa, Samwinga and Shakantu, (2013) the execution of the temporary workers, as far as culmination, has frequently been fair. In any case, the disappointment by the customer and

their counselors (experts) to authorize the states of agreement additionally is by all accounts propagating the issue. The job of the administering operator is to control the procedure of task the executives.

Be that as it may, in general society segment of creating nations, venture the executives has been dissolved for the most part because of bureaucratic procedures. For example, in Pakistan, Ahmed and Mohamad (2014) found that venture the board has turned out to be enmeshed with the ordinary administration in general society area of Pakistan because of control of assets and motivating forces of recompenses that are preventing quality and finish of the activities. Supervision amid development is basic to guarantee quality items and conveyance of task. With respect to the advisors the evaluation of the accompanying will decide the speed of development and guarantee nature of the item: investigation methodology; sufficient quality administration assessment assets; quality administration data handling necessities; materials or work dismissal rate, and clean/dry workplace prerequisites (Olatunji, 2010).

Adages and Holt (2000) contend that the quantity of boss in a venture likewise impacts the culmination of a water system venture. Wambugu (2013) found that larger part of the respondents showed that powerful administration influenced the culmination of rustic zap extends in Kenya and that lacking supervision/examination of work brought about revise. As per Fortune and White (2005), bolster from senior administration is a factor that emphatically impacts the accomplishment of a task. This classification of staff gives guidance, rules and

control in a task. Most of the gifted agents should be guided, either day by day or week after week. The lower the executives staffs administer crafted by the gifted specialists while the best administration regulates the whole framework as far as time, amount of materials, workmanship and cost. Deficient supervision/assessment of work it may result in revise, expanded task cost, deferral and deserting (Ng et al., 2003).

Olatunji (2010) found that the nature of the executives amid development, for example, the dimension of supervision, movement sequencing and inadequate coordination of assets contrarily influences finishing time of ventures. In their investigation of execution of manufacture work exchange ventures, Lekan et al. (2013) built up in their work that there is direct connection between successful task supervision and finishing ventures on planned time. The examination found that Relationship between task supervision versus venture consummation time was dissected on one hand and supply of material versus booked undertaking time on the other it was approved through outcomes that they all directly corresponded. Ameh and Osegbo (2011) likewise discovered that the inadequacy of the supervision staff negatively affects finishing of the undertaking. This implies there is a requirement for qualified experts to regulate water system ventures. Lekan, Opeyemi and Olayinka, (2013) likewise contend that the accessibility of qualified supervision experts positively affects culmination of activities. As indicated by Jacobides (2007), fruitful consummation of tasks need satisfactory number of regulating designing staff, its groups should utilize work calendars and plans to screen venture usage and undertaking groups should focus on key elements of task supervision.

Sambrook (2010) ponder on the relationship between arranging, financing, institutional supervision and finish of undertakings. The examination found that in among all the free factors, supervision limit measurably supposedly had the most critical association with finish of tasks. Chirwa et al. (2013) suggest that different regions that will convey a few additions incorporate preparing and expert advancement for the two contractual workers' staff and in addition advisors in charge of the supervision and usage of these tasks. Ejaz, Ali and Tahir (2008) concur that there is a deficiency of specialized supervisory staff in creating world. Ondari and Gekara (2013) contemplate on elements influencing culmination of development extends in the street business found that supervision was the second most noteworthy factor affecting finishing of tasks.

Alternate components were the board bolster, plan determinations and temporary worker's ability. The investigation demonstrated that the guideline of authoritative structure requests that the quantity of sub-ordinates under a given director ought to be constrained to a most extreme of eight and that the aggregate number of connections between an official and his quick sub-ordinate winds up unreasonable when the range of control comes to around seven (Ondari and Gekara, 2013). Be that as it may, there is proof to demonstrate that the nearness of bosses has frequently not positively affected fruition of tasks. The distinction in cost increment for activities with an administering engineer, and those without, was not factually critical at the 95% essentialness level (Koushki, 2005).

## 2.6. Project Planning and Completion of Water Projects

Planning is a key determinant of whether a project will succeed or fail. It clarifies the goals, estimates resources to be used both human, material and financial as well as puts mechanisms to

gauge the heath of a given undertaking (UNDP, 2003). However plans are not cast on stone because lessons learnt during implementation may cause variations to the plans in order to improve and put the project on the path to success (UNDP, 1997). Planning for water projects in many parts of the world face a lot of challenges particularly from political leaders and government bureaucrats who have consistently exploited their citizens in participating in decision making even on projects that affect their lives directly, (Sanoff,2000). This phenomenon is also true in the management of water projects in Kenya where many citizens are left out in most aspects of the projects including but not limited to project identification, planning, implementation as well as evaluation and monitoring (Oyugi, 2007).

Delay in analysis of projects is either disregarded or done emotionally by essentially including a possibility. Accordingly, many real tasks neglect to meet calendar due dates Al-Momani, (2000). The length of activities is progressively turning into an issue of worry among the partners in the development business. This is because of the increasing rates of interests, commercial pressure, inflation and the potential of a construction project to result in disputed and claims leading to litigation or arbitration El Razek, Basssioni and Mobarak, (2008). Then again, Amusan, (2009) found that insufficient arranging, contractual workers venture inability, swelling, ceaseless and variety arrange, change in undertaking configuration, venture multifaceted nature, shortening of agreement period and fake practices are factors that outcomes in cost overwhelm on building locales.

A significant number of these financing alternatives include the investment of outsiders, for example, banks or bond guarantors. For private offices, for example, places of business, it is standard to have totally unique financing plans amid the development time frame and amid the time of office use. Development ventures are evaluated extremely fruitful if the work is finished inside spending plan and to the due dates concurred in the particular. In any case, the dismal truth is that not all ventures are blameworthy of being effective Barnes, (2012). Ship, Brandon, and Ferry, (1998) contend that numerous undertakings encounter disappointment because of the vulnerabilities related with development ventures which incorporate climate, materials, hardware, cash and gainfulness, differences between customers, temporary workers and subcontractors, statutory directions, monetary and political issues and usefulness and reason. To keep these disappointments from always happening, the kinds of disappointments should be tended to so future development ventures don't fall into a similar class of 'unsuccessful development ventures'. Obviously a portion of these disappointments happen paying little mind to cautious arranging because of wild conditions, for example, environmental change, retreat, deferred conveyances among others. In this manner, tending to the controllable issues, temporary workers can fuse these issues into their particular.

Collyer, Warren, Hemsley and Stevens (2010) depict instances of tasks, for example, the Australian submarine undertaking and the Iridium satellite venture. The innovation and condition changed such a great amount over the span of the tasks that the initially arranged venture yields couldn't be fruitful. They express that in unique conditions ventures need to adapt to changes in innovation over the span of the tasks. While helpful as a guide, intemperate detail in the beginning periods of an undertaking might be risky and misdirecting in a dynamic domain. Poon, Young, Irandoos and Land (2011) in utilizing fluffy set examination on five contextual investigations, found that abnormal state arranging was positioned second most minimal in significance out of five basic achievement factors considered. Arranging was positioned beneath best administration bolster, client association and philosophy. Collyer and Warren (2009),

express that in powerful conditions occasions emerge quicker than they can be suited by rearranging.

Making point by point long haul designs in any case for these undertakings can dawdle and assets and lead to false desires. Aubrey, Hobbs and Thuillier (2008) in an investigation of venture the board workplaces (PMOs) take note of that for one association examined, excessively thorough arranging forms brought about an obstacle to the rate required to support effective activities. Zwikael and Globerson (2006) take note of that despite the fact that there is a high caliber of arranging in programming and interchanges associations, these tasks still have moderately low appraisals on progress. They take note of this impact might be because of more dangerous advancements and conditions, control issues or excessively driven responsibilities. Chatzoglou and Macaulay (1996) address why arranging is here and there abbreviated or killed in data innovation (IT) anticipates in light of the fact that administrators think it is smarter to skirt the arranging and to begin building up the asked for framework. Experience demonstrates that this methodology does not spare time. Absence of arranging is probably going to prompt off base presumptions and half-baked execution; the adjust require to settle these oversights will more often than not go through critical segments of venture time.

Also Chatzoglou and Macaulay (1996) make a few points about why it is uncommon that an excessive amount of time is spent on prerequisites arranging or as they term it, necessities catch and investigation (RCA). Due dates should be met; any postponement in the arranging stage will result not just in the expanded expense of the arranging stage yet in addition in a chain response in the following periods of the venture. Thomas et al. (2008) compose that venture chiefs are continually compelled to 'begin with work or 'gain ground by senior administration who neglect

to perceive the estimation of arranging in an undertaking. In many undertakings there are weights to diminish the time and exertion spent on the arranging stage. The writing does not bolster the end that arranging ought not be done in tasks albeit a few admonitions are featured.

#### **2.7. Theoretical Framework**

This section brings out the overview of the theories upon which this study will be anchored. Among the theories found relevant to the study is the Theory of Complexity (TOC) as advanced by Terry William and the Theory of Constraints as developed by Eliyahu in 1980s.

## **2.7.1.** Theory of Complexity

Multifaceted nature hypothesis is started on the examination of astounding and violent systems and how demand, precedent, and structure can rise up out of them. A mind boggling framework is characterized as one in which numerous autonomous operators associate with one another in different ways. Waldrop, (1992) proposes similarity to the manner in which the human cerebrum adjusts to gain as a matter of fact. This theory is befitting the study in consideration of the set-up of construction projects which are a one-off, unique, novel and complex in nature (Ahadzie, 2008). There are many parties involved in completing a construction project making it even more fragmented (Ankrah and Langford, 2005).

Kahane (2004) on the other argues that multifaceted nature is profoundly established in a social 28 condition. He recognizes unpredictability as powerful and contends that the circumstances and logical results are far separated and it is difficult to get a handle on them firsthand experience. They more often than not spread out in unusual and new ways radiating particularly from cost related issues, for example, structure varieties. Intricacy speculation tries to elucidate

how even a considerable number free entertainers can incidentally indicate structured lead and properties that, while present in the general system, are missing in any individual fragment of that system.

#### 2.7.2. Theory of Constraints

The theory of constrains opines that associations confront difficulties in execution because of poor administration rehearses combined with absence of fundamental intercession components. It additionally expresses that all frameworks work in a domain of circumstances and logical results. It depends on these trusts that Eliyahu (2004) suggested ID of the principle factors influencing spending gauges in an association. He at that point recommended that the supervisors make sense of how to deal with the requirements or boundary to progress inside endorsed spending plan. By concentrating on settling the principle issue, generally execution could be enhanced (Eliyahu 2004).

Baloi & Price (2003) observed that most organizations do not examine their operations holistically but rather only focus on short-term goals when developing cost estimates. This leads to short term goals solutions leaving out the long term goals solutions. The circumstances and logical results relationship can be exceptionally intricate, particularly in complex frameworks, for example, those of development ventures. Catching the embodiment of circumstances and logical results inside the framework and distinguishing factors that copy these connections are the keys to framework execution that can prompt effective culmination of activities. By concentrating on settling the fundamental issue, Eliyahu says the general execution could be moved forward.

The TOC is both engaging and prescriptive in nature; it portrays the reason for framework imperatives, as well as gives direction on the best way to determine them. This hypothesis alludes to frameworks in associations as chains. A framework is a gathering of interrelated, autonomous procedures that cooperate to transform contributions to yields in the quest for some objective. The weakest connection is the requirement that keeps the framework from doing any better at accomplishing its objective. This hypothesis can be connected to factors that add to the postponement in finishing of water system development ventures. The nearness of any one factor in the undertaking will cause delays in its fruition. Along these lines it is the duty of the task groups to distinguish such factors and look for approaches to keep away from or limit them for viable finish of ventures.

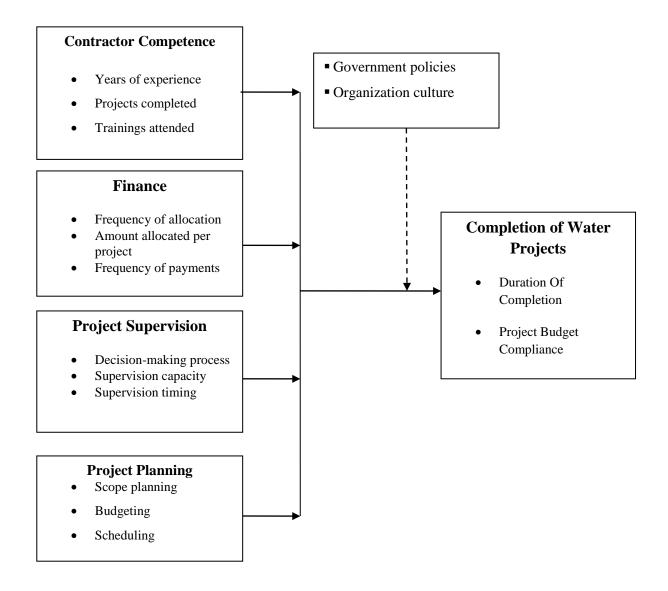
## **2.8. Conceptual Framework**

The calculated structure in Figure 1 shows the connections that exist between the needy and autonomous factors under scrutiny. The needy variable is culmination of water extends whose principle pointer is length of consummation. The autonomous factors that will be explored to build up their dimension of impact on the needy variable are: contract factors, cost factors, project supervision and project planning. The moderating variables are government policies and company culture.

**Independent Variables** 

**Moderating Variables** 

**Dependent Variables** 



**Figure 1: The Conceptual Framework** 

## 2.9. Knowledge Gaps

The literature reviewed shows that there is a lot of studies on the factors assumed to affect the completion of water projects. However, there was less emphasis on factors influencing completion of water projects. The literature of construction projects is available and is associated with that of water projects as they undergo similar stages of project implementation. The study

will anyway restrict its examination towards water ventures and the variables impacting culmination of these tasks in Kenya. The investigation will likewise centers around inner elements affecting culmination neglecting such factors as ecological variables impacts on fruition of ventures which has been a mainstream subject of research.

Author	Title	Findings	Gaps
Phaladi	Causes of poor	Lack of effective management in the	The study concentrated
and	project	early stages of the projects, coupled	on causes of poor
Thwala	performance for	with inadequate finance, lack of	project performance
(2014)	the small and	credit facilities from suppliers,	but was not specific on
	medium sized	inadequate skilled manpower, poor	water projects thus
	contractors in	pricing and tendering, inadequate	creating a knowledge
	South Africa	contract documentation aptitudes,	gap
		and by and large absence of	
		legitimate administration preparing	
		were the central point adding to	
		contractual workers' inability to	
		execute extends effectively	
Alinatwe,	clients'	failure to pay advance payment to	The study focused on
(2012)	performance in	contractors as provided for in the	poor project
	construction	contract led to poor contractor cash	performance in
	projects in	flow leading to poor completion of	Uganda and did not

	Uganda	projects	specifically focus on
			Kenyan situation for
			comparison purposes
			creating a knowledge
			gap
Olatunji	Effect of quality	The quality of management during	The study was not
(2010)	of management on	construction such as the level of	specific on water
	project	supervision, activity sequencing and	projects thus creating a
	completion	ineffectual coordination of assets	knowledge gap
		adversely influences finish time of	
		activities	
Amusan,	Project planning	Inadequate planning, contractors	The study focused on
(2013)	factors affecting	project inexperience, inflation,	project planning
	completion of	incessant and variation order, change	factors and how they
	projects	in project design, project complexity,	influenced completion
		shortening of contract period and	of projects but was not
		fraudulent practices are factors that	specific on water
		results in cost overrun on	projects in Kenya
		construction sites	

## 2.10. Summary of Literature Review

This chapter reviewed existing literature on the factors contributing to completion of water projects. The chapter is divided in four sections: completion of water projects; factors influencing completion of water projects; theoretical framework and the conceptual framework. Majority of the studies cited in the literature review focused on the construction sector. There is evidence to suggest that contractor-related factors, cost-related factors, project supervision and project planning have an influence on project success. However, there is a weak assessment of these factors in relation to project completion. There is also lack of evidence on the influence of these factors on completion of water projects.

### **CHAPTER THREE**

#### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter presents the research design, the target population, the sampling design, the sample, data collection instruments, techniques and the data analysis techniques that were used in the study.

### **3.2 Research Design**

Expressive research overview configuration was utilized. This technique for research was favored in light of the fact that the scientist can gather information to answer questions concerning the status of the subject of study. Clear research decides and reports the manner in which things are done and furthermore encourages a scientist to depict a marvel as far as frame of mind, qualities and attributes (Mugenda and Mugenda, 2013). This was so on the grounds that the enlightening plan depended much on optional information which helped in building up the case basing on certainties, continued by measurements and unmistakable elucidations from recorded materials and information.

#### **3.3 Target Population**

Populace alludes to all individuals or things (unit of investigation) with the attributes that one wishes to contemplate. The unit of examination might be a man, gathering, association, nation, protest, or whatever other substance that you wish to draw logical inductions about (Bhattacherjee, 2012). The populace for this investigation was two hundred and sixty-eight (268) respondents drawn from organizations that implement water projects within the West Pokot

County (West Pokot County, 2018). The project team leaders, project managers, staff, and ministry representative were the main respondents.

Tab	le 3.1	.Target	t Popu	lation

Population	Frequency	Percentage
Project Team leaders	27	10.0%
Project managers	103	38.4%
Staff	134	50.0%
Ministry representative	4	1.6%
Total	268	100

## **3.4 Sample Size and sampling Procedure**

The sample size, sampling technique and selection that was employed in the study are discussed in the subsequent sections

## 3.4.1 Sample Size

A sample is a littler gathering or sub-assemble got from the open populace (Mugenda and Mugenda, 1999). This examination got the stratified looking at technique. Stratified looking at is a probability assessing strategy wherein the expert secludes the entire people into different subgroups or strata, by then heedlessly picks the last subjects generally from the unmistakable strata. The explanation behind the decision of the testing technique was on the grounds that it empowered the scientist to representatively test even the littlest and most blocked off subgroups in the populace. This enabled the scientist to test the uncommon limits of the given populace. In

addition, the study used the following formula proposed by Using Yamane (1973) to determine the sample size;

Using Yamane (1973) formulae

$$n = N/(1+N^*)(e)^2$$

Where

n = sample size

N = the population size

e = the acceptable sampling error (7%) at 93% confidence level

Thus;

 $n = 268/(1+268)(0.07)^2$ 

n = 204

Therefore, the sample population size (n) was 204 respondents

Population	Frequency	Percentage	Sample Size
Project Team leaders	27	10.0	21
Project managers	103	38.4	78
Staff	134	50.0	102
Ministry	4	1.6	3
representative			
Total	268	100	204

#### **3.4.2. Sampling Procedure**

Sampling is the procedure of choosing the general population who partook in an investigation. This procedure ought to be illustrative of the entire populace. Testing is subsequently the method, process or strategy of picking a sub-amass from a populace to take part in the investigation (Ogula, 2005). This investigation received the stratified inspecting procedure. From the conceivable 268 target populace, stratified irregular testing was utilized to choose a sum of 204 example populace.

## **3.5 Research Instruments**

A questionnaire was utilized to gather essential information. The inquiries were both shut finished to upgrade consistency and open finished to guarantee greatest information gathering and age of subjective and quantitative information.

#### 3.5.1 Pilot Study

Piloting helps the researcher to generate an understanding of the concept of the people being interviewed. In directing the pilot ponder, the analyst was keen on building up whether the respondents had a similar comprehension of the inquiries and along these lines would offer the data required. Mugenda and Mugenda (2003) set that "even the most deliberately built instrument can't ensure to acquire 100% unwavering quality". Piloting is important as it helps in determining the reliability of the instrument. Piloting was done in Kacheliba constituency in West Pokot County. In this research, 12 respondents were chosen to contribute and were not included in the sample chosen for the study. Test-retest reliability is obtained by administering the same test repeatedly over a period of time and still produces the same results. During piloting the researcher administered the questionnaire to a different set of respondents who are

not part of the groups of sampled respondents, but similar in characteristics to those sampled for the study. The piloting process also played the important role of checking the respondents for their suitability, clarity, relevance of information and appropriateness of the language used.

#### **3.5.2** Validity of the Instruments

Legitimacy is how much an instrument estimates what it implies to gauge (Mugenda and Mugenda, 2003). It is the precision and significance of surmisings, which depend on the examination results. In this regard, experts in the field of projects achieved the content validity through an evaluation of the content. The instruments were given to two groups of experts (project team leaders and project managers), one gathering was asked for to survey what idea the instrument is endeavoring to gauge and the other gathering was solicited to decide if the set from things precisely speaks to the idea under investigation.

#### **3.5.3 Reliability of the Instruments**

Unwavering quality alludes to the consistency of information emerging from the utilization of a specific research strategy. A test estimates what it is estimating to the degree. Mugenda (2003), states that unwavering quality is the proportion of how much an examination instrument yields a similar outcome after rehashed preliminaries over a period. In such manner, test-retest was utilized to beware of unwavering quality. This included overseeing similar instruments twice to a similar gathering of subjects, however after some time. Thus, to decide steadiness, a measure or test was rehashed regarding the matter at a future date. Results were contrasted and connected and the underlying test to give a proportion of strength. Reactions got amid the guiding were utilized to figure the dependability coefficient from a relationship lattice. The unwavering quality of the instrument was assessed utilizing Cronbach's Alpha Coefficient which is a proportion of

inside coefficient. Cronbach's alpha estimation of at the very least 0.50 proposed an adequate dimension of inward consistency (Cronbach, and Azuma, 1962)

#### **3.6 Data Collection Procedure**

The procedure for data collection started once the researcher is given a letter of approval by the university to go to the field. Using the letter of approval, a permit to conduct the study was acquired. Afterwards, the District Commissioner was informed of the study and hence all the relevant stakeholders were informed as well. The researcher used the services of three research assistants in the data collection process. The research assistants were trained on how to administer the questionnaire. The drop and pick method was used where the research assistants delivered the questionnaire to the respondents and picked them when completed.

#### **3.7 Data Analysis Techniques**

The information for the examination was investigated both subjectively and quantitatively. The information gathered was entered in and broke down with the guide of SPSS. The Quantitative information produced was exposed to the engaging measurements highlight in SPSS to create mean, and standard deviation which were exhibited utilizing tables, frequencies and rates, while Qualitative information comprised of words and perceptions, not numbers.

#### **3.8** Operational definition of variables

Table 3.3 lists the definition of variables as they were used in the research.

Table 3.2. Operational definition of variables

Objective	Independen	Indicator(s)	Measure	Tools of	Data
	t Variable		ment	analysis	Analysis
	( <b>IV</b> )		scale		
To establish the	completion	Duration Of	Nominal	SPSS	Descriptive
factors influencing	of projects	Completion	Ordinal		statistics
the completion of water projects in		Project Budget Compliance			
West Pokot County		Quality Completion			
To determine how	contractor	Years of	Nominal	SPSS	Descriptive
contractor	competence	experience	Ordinal		statistics.
competence		Projects completed			
influence the		Trainings attended			
completion of water					
projects in West					
Pokot County					
To establish the	Finance	Frequency of	Ordinal	SPSS	Descriptive
influence of finance		allocation	Nominal		statistics.
on completion of		Amount allocated			
water projects in		per project			

West Pokot County		Frequency of			
		payments			
To assess the	project	Decision-making	Nominal	SPSS	Descriptive
influence of project	supervision	process	Ordinal		statistics.
supervision on		Supervision			
completion of water		capacity			
projects in West		Supervision timing			
Pokot County					
To determine how	project	Scope planning	Nominal	Questionnaire	Descriptive
project planning	planning	Budgeting	Ordinal		Statistics
influence the					
completion of water		Scheduling			
projects in West					
Pokot County					

## **3.9. Ethical Considerations**

The scientist guaranteed the respondents that the information was secret and was utilized for scholarly purposes just and no exposure of the names. In addition, participation in the study was voluntary and no respondent was compelled to participate in. The interview with the respondents commenced through an introduction from the researcher to the respondents. The researcher was true to his/her word and aimed at collecting the truthful information only

#### **CHAPTER FOUR**

#### DATA ANALYSIS, PRESENTATION, AND INTERPRETATION

#### 4.1. Introduction

This part introduces the information that was found on variables impacting the culmination of water extends: an instance of West Pokot County, Kenya. The exploration was led on an example of 204 respondents to which surveys were directed. The part presents with investigation of respondents' close to home data, and afterward investigates the examination of subjects: temporary worker skill, back, venture supervision, and undertaking arranging. Discoveries from open-finished inquiries were displayed in composition.

#### **4.2 Questionnaire Return Rate**

This part analyzes information on the questionnaires that were returned from the field. Findings on filled in questionnaires and unreturned questionnaires are presented in Table 4.3.

Response	Frequency	Percentage
Filled in questionnaires	150	73.5
Un returned questionnaires	54	26.5
Total Response Rate	204	100

Out of the sampled population, 150 questionnaires were returned duly filled in making a response rate of 73.5%. The response rate was representative and was adequately used to answer

the research questions. According to Mugenda (2003) that a reaction rate above half is satisfactory for investigation and revealing; a rate of 60% is great and a reaction rate of 70% and over is magnificent.

#### **4.3.** Demographic characteristics of the respondents

The respondents' personal information included gender, age, level of education, the period of time the respondent have you worked at West Pokot County.

#### 4.3.1. Distribution of Respondents by Gender

The respondents were requested to indicate their gender. Accordingly, the findings are as presented in the Table 4.4.

	Frequency	Percentage (%)	
Male	85	56.7%	
Female	65	43.3 %	
Total	150	100.0%	

#### Table 4.4. Distribution of Respondents by Gender

From the discoveries in Table 4.4, greater part (85) of the respondents were male and 65 of the respondents were female. This suggests despite the fact that the vast majority of the reactions exuded from guys there was sexual orientation balance.

# 4.3.2. Distribution of Respondents by Age

The study sought to establish the age of the respondents and the findings are as shown in Table 4.5

	Frequency	Percentage (%)
24 years and below	2	1.3
25-29 years	7	4.7
30-34 years	55	36.7
35-39 years	22	14.7
40-44 years	26	17.3
45-49 years	23	15.3
Above 50 years	15	10.0
Total	150	100

# Table 4.5: Distribution of Respondents by Age

According to the findings in Table 4.5, 55 of the respondents were between 30-34 years, 26 were 40-44 years, 23 were 45-49 years, 22 were 35-39 years, 15 were above 50 years, 7 were between 25-29 years and 2 respondents were 24 years and below. This depicts that most of the respondents were aged enough and thus could offer high quality information in relation to project completion.

#### 4.3.3. Distribution of participants by Level of Education

The respondents were requested to indicate their level of education. The findings on analysis of respondent's level of education has been presented on Table 4.6

	Frequency	Percentage (%)	
Secondary	22	14.7	
Certificate/Diploma	50	33.3	
Graduate	65	43.3	
Post Graduate	13	8.7	
Total	150	100	

 Table 4.6: Distribution of participants by Level of Education

From the findings Table 4.6, most (65) of the respondents had graduate level of education, 50 had certificate/diploma level of education, 22 had secondary education while 13 were postgraduate. This implies that respondents were well knowledgeable and hence higher chances of getting reliable data pertaining project completion in West Pokot County.

# 4.3.4. Duration of working at West Pokot County

The study also sought to establish how long respondents had worked at West Pokot County. The findings are as shown in Table 4.7.

#### Table 4.7. Duration of working at West Pokot County

	Frequency	Percentage
Less than a year	15	10.0

Total	175	100
Tatal	175	100
Over 4 years	30	20.0
3-4 years	39	26.0
between 2-3 years	45	30.0
between 1-2 years	21	14.0

Based on the findings Table 4.7, 45 of the respondents had worked in West Pokot County for a duration between 2-3 years, 39 of the respondents had worked between 3-4 years, 30 of the respondents indicated over 4 years, 21 indicated between 1-2 years while 15 of the respondents indicated less than 1 year. This illustrates that the most of the respondents had worked for a maximum duration since the inception of counties and thus had gained experience in relation to project implementation and completion.

#### 4.4. Contractor Competence and Completion of Water Projects

This section presents findings on contractor competence on completion of water projects which are presented in the subsequent section.

## 4.4.1. Influence of Contractor Competence on Completion of Projects

The respondents were asked for to show whether contractual worker fitness influence the culmination of tasks. The discoveries are appear in Table 4.8

# Table 4.8. Effect of Contractor Competence on Completion of Projects

Frequency	Percentage (%)

Yes	135	90.0
No	15	10.0
Total	150	100

From Table 4.8 majority (90%) of the respondents indicated that contractor competence affects the completion of projects while 10% were of contrary opinion. This depicts that contractor competence affect the completion of projects.

# 4.4.2. Extent of agreement on Contractor Competence and Completion of Water Projects

The respondents were requested to indicate the extent to which they agree with statements on contractor competence and completion of water projects. The findings are shown in the Table 4.9

# Table 4.9.Extent of agreement on Contractor Competence and Completion of Water Projects

Statements	Mean	Std Dev.
Use of experienced and sufficient technical manpower	4.12	0.5119
influence completion of projects		
Use of modern technologies and construction equipment	3.77	0.5218
influence completion of projects		
Size of contracting firm influence completion of projects	3.69	0.5272
Work Experience of the contractor influence completion of	3.99	0.5920

projects

Proper planning in procurement of material & workers	3.60	0.5389
influence completion of projects		
Proper use of the work schedule influence completion of	3.88	0.5213
projects		
Adequate site management influence completion of projects	3.55	0.5002

From the findings in Table 4.9 the respondents agreed that use of experienced and sufficient technical manpower influence completion of projects (mean=4.12), followed by work Experience of the contractor influence completion of projects (mean=3.99), proper use of the work schedule influence completion of projects (mean=3.88), use of modern technologies and construction equipment influence completion of projects (mean=3.77), size of contracting firm influence completion of projects (mean=3.69), proper planning in procurement of material & workers influence completion of projects (mean=3.60), and that adequate site management influence completion of projects (mean=3.55). This depicts that use of experienced and sufficient technical manpower influence completion of projects.

#### 4.5. Financing Influence on Completion of Water Projects

This section presents findings on finance influence on completion of water projects which are presented in the subsequent section. The information was collected through the use of a questionnaire from the respondents.

# 4.5.1. Influence of Finance on Completion of Water Projects

The respondents were requested to indicate whether finance influence on completion of water projects. The findings are show in Table 4.10

	Frequency	Percentage (%)	
Yes	111	74.0	
No	39	26.0	
Total	150	100	

From the findings in Table 4.10 majority (111) of the respondents indicated that finance influence on completion of water projects while 63 were of contrary opinion. This depicts that finance influence on completion of water projects.

# 4.5.2. Extent of Finance influence on Completion of Water Projects

The respondents were requested to indicate the extent to which they agree with statements on finance and completion of water projects. The findings are shown in the Table 4.11

Statements	Mean	Std
		Dev.
Late bill payments by employer influence completion of projects	3.61	0.1834

Poor contractor bidding processes and procedures influence completion of	4.14	0.1324
projects		
Misappropriated use of mobilization advance influence completion of projects	3.80	0.2081
Price fluctuations of building materials influence completion of projects	3.66	0.2189
Appropriate equipment availability through project life influence completion		0.1894
of projects	5.57	0.1074

From the findings in Table 4.11 the respondents agreed that poor contractor bidding processes and procedures influence completion of projects (mean=4.14), followed by misappropriated use of mobilization advance influence completion of projects (mean=3.80), price fluctuations of building materials influence completion of projects (mean=3.66), Late bill payments by employer influence completion of projects (mean=3.61), and appropriate equipment availability through project life influence completion of projects (mean=3.57). This depicts that poor contractor bidding processes and procedures influence completion of projects.

#### 4.6. Project Supervision Influence on Completion of Water Projects

This section presents findings on project supervision influence on completion of water projects which are presented in the subsequent section.

# 4.6.1. Influence of Project Supervision on Completion of Projects

The respondents were requested to indicate whether project supervision influence the completion of project. The findings are show in Table 4.12

<b>Table 4.12.</b>	Influence of I	Project Sup	ervision on	Completion of	f <b>Projects</b>

	Frequency	Percentage (%)	
Yes	115	76.6	
No	35	23.4	
Total	150	100	

From the findings in Table 4.12 majority (115) of the respondents indicated that project supervision influences the completion of project while 35 were of contrary opinion. This depicts that project supervision influence the completion of project.

#### 4.6.2. Extent of Project Supervision Influence Completion of Water Projects

The respondents were requested to indicate the extent to which they agree with statements on project supervision and completion of water projects. The findings are shown in the Table 4.13

Table 4.13. Extent	of Project Supervision	<b>Influence Completion of</b>	Water Projects
	<b>J</b> 1	1	J

Statements	Mean	Std Dev.
Project management capacity of the project team influence	3.52	0.1901
completion of projects		

Timing of inspections during the project life cycle influence	3.58	0.2723
completion of projects		
Availability of supervising staff during project implementation	3.76	0.1240
influence completion of projects		
Project teams' focus on key functions of project supervision	3.67	0.2245
roject teams focus on key functions of project supervision	3.07	0.2243
influence completion of projects		
Availability of supervising professionals influence completion	3.79	0.1112
of projects		
Number of supervising engineering staff during project	3.89	0.1762
implementation influence completion of projects		
Use of work schedules/plans to monitor project	3.62	0.1198
implementation influence completion of projects	2.02	

From the findings in Table 4.13 the respondents agreed that number of supervising engineering staff during project implementation influence completion of projects (mean=3.89), followed by availability of supervising professionals influence completion of projects (mean=3.79), availability of supervising staff during project implementation influence completion of projects (mean=3.76), project teams' focus on key functions of project supervision influence completion of projects (mean=3.67), use of work schedules/plans to monitor project implementation influence to monitor project life cycle

influence completion of projects (mean=3.58), and that project management capacity of the project team influence completion of projects (mean=3.52). This depicts that number of supervising engineering staff during project implementation influence completion of projects.

#### 4.6.3. Rate of Project Supervision Techniques Used at West Pokot County

The respondents were requested to indicate how they would rate the project supervision techniques used in West Pokot County and how they influence project completion. The findings are shown in Table 4.14

Rate	Frequency	Percentage
Very effective	35	23.3
Effective	94	62.7
Moderately effective	15	10.0
slightly effective	5	3.3
Not effective	1	0.7
Total	150	100

Table 4.14. Rate of Project Supervision Techniques Used at West Pokot County

From the findings in Table 4.14 majority (94) of the respondents indicated that the project supervision techniques used in West Pokot County were effective, 35 indicated they were very effective, 15 indicated moderately effective, 5 indicated slightly effective, while 1 indicated not

effective. This depicts that the project supervision techniques used in West Pokot County were effective.

#### 4.7. Project Planning Influence on Completion of Water Projects

This section presents findings on project planning influence on completion of water projects which are presented in the subsequent section.

#### **4.7.1.** Presence of Project Plans Prior to Construction

The respondents were requested to indicate whether they normally have project plans prior to construction of projects in the County. The findings are show in Table 4.15

Table 4.15. Presence of Project Plans Prior to Construction	
---	--

	Frequency	Percentage (%)	
Yes	95	63.3	
No	55	36.7	
Total	150	100	

From the findings in Table 4.15 majority (95) of the respondents indicated that they normally have project plans prior to construction of projects in the County while 55 were of contrary opinion. This depicts that they normally have project plans prior to construction of projects in the County.

# 4.7.2. Influence of Project Planning on Completion of Project

The respondents were requested to indicate whether project planning influence the completion of project. The findings are as shown in Table 4.16

Table 4.16. Influence of Project Planning on Completion of Project	Table 4.16. I	Influence of P	Project Plann	ing on Com	pletion of Project
--	---------------	----------------	---------------	------------	--------------------

	Frequency	Percentage (%)	
Yes	140	93.3	
No	10	6.7	
Total	150	100	

From the findings in Table 4.16 majority (140) of the respondents indicated that project planning influences the completion of project while 10 were of contrary opinion. This depicts that project planning influence the completion of project.

# 4.7.3. Extent of Project Planning Influence Completion of Water Projects

The respondents were requested to indicate the extent to which they agree with statements on project planning and completion of water projects. The responses were placed on a five Likert scale. The findings are shown in the Table 4.17

Table 4.17. Extent of Project	Planning Influence	<b>Completion of</b>	Water Projects

Statements	Mean	Std Dev.
Planning is a key determinant of whether a project will	3.98	0.4201

succeed or fail

Project planning clarifies the goals, estimates resources to be	4.22	0.4123
used both human, material and financial as well as puts		
mechanisms to gauge the heath of a given undertaking		
Project planning ensures that a project is completed within	4.19	0.4540
budget and to the deadlines agreed in the specification		

From the findings in Table 4.17 the respondents agreed that project planning clarifies the goals, estimates resources to be used both human, material and financial as well as puts mechanisms to gauge the heath of a given undertaking (mean=4.22), followed by project planning ensures that a project is completed within budget and to the deadlines agreed in the specification (mean=4.19), and that planning is a key determinant of whether a project will succeed or fail (mean=3.98). This depicts that project planning clarifies the goals, estimates resources to be used both human, material and financial as well as puts mechanisms to gauge the heath of a given undertaking.

#### 4.7.4. How to Deal with Planning Related Factors Affecting Completion of Projects

The respondents were requested to indicate how they deal with planning related factors affecting completion of projects. According to the respondents all levels of planning affect completion of projects. High in the planning is the planning during construction which includes proper allocation of labour, tasks and duties during implementation. The construction schedule should also be faithfully followed and an organized way of ensuring that materials are delivered on site when required, in the right quality and time. This will avoid delays. Pre-planning is also a key

area of project implementation. Good pre-planning means foreseeing the entire project at the time of conception, identifying the risks and mitigating them. It also involves allocating the right responsibilities to the right people and it forms the basis for proper monitoring and evaluation.

#### **CHAPTER FIVE**

# SUMMARY OF THE FINDINGS, DISCUSSION CONCLUSIONS AND RECOMMENDATIONS

#### **5.1. Introduction**

This chapter presents summary, discussion, conclusion and recommendations on the factors influencing the completion of water projects: a case of West Pokot County, Kenya.

#### 5.2. Summary of findings

This section presents the summary of the findings and they are discussed in subsequent headings:

#### 5.2.1. Influence of Contractor Competence on Completion of Water Projects

The study found that contractor competence affects the completion of projects. In addition, the study found that the use of experienced and sufficient technical manpower influence completion of projects.

#### 5.2.2. Influence of Financing on Completion of Water Projects

The study established that finance influence on completion of water projects. In addition, the study found that poor contractor bidding processes and procedures influence completion of projects.

#### 5.2.3. Influence of Project Supervision on Completion of Water Projects

The study found that project supervision influences the completion of project. The study further established that the number of supervising engineering staff during project implementation influence completion of projects. The study found that the project supervision techniques used in West Pokot County were effective.

#### **5.2.4. Influence of Project Planning on Completion of Water Projects**

The study found that they normally have project plans prior to construction of projects in the County. The study also established that project planning influences the completion of project. In addition, the study established that project planning clarifies the goals, estimates resources to be used both human, material and financial as well as puts mechanisms to gauge the heath of a given undertaking.

#### 5.3. Discussion of Findings

#### **5.3.1. Influence of Contractor Competence on Completion of Water Projects**

The study found that contractor competence affects the completion of projects. In addition, the study found that the use of experienced and sufficient technical manpower influence completion of projects. The findings agree with a study by Acharya, Lee, Kim & Lee, (2006) who stated that the type of contractor has been found to be an influencing factor in the completion of construction projects these include such factors as the attitude of the contractor, size of the contracted firm and the experience of the contracted firm. For instance, in developing countries, there is an emphasis to involve start-up firms and Small and Medium Enterprises (SMEs) in bidding for construction projects in an attempt to create competitiveness among local firms in public construction projects (Chilipunde, 2010). Rebelo (2005) expressed that the development business and SME contractual workers play a noteworthy and basically critical financial job in creating nations. It is thusly critical that SME contractual workers be very much prepared to

successfully deal with their development undertakings from the point of view of the earth, wellbeing and security, and in addition from business maintainability, which adds to the financial advancement of nearby networks and society on the loose. However, this has not always been the case in their performance in infrastructural projects (Chilipunde, 2010).

#### 5.3.2. Influence of Financing on Completion of Water Projects

The study established that finance influence on completion of water projects. In addition, the study found that poor contractor bidding processes and procedures influence completion of projects. The findings are in contrary with a study by Koushki, Al-Rashid and Kartam, (2005) who stated that income investigation issues in infrastructural ventures are among the most widely recognized wonders - from easy to complex tasks. Most disappointments of development ventures are because of cost accelerations (Gkritza and Labi, 2008). An examination led in vitality area on cost overwhelms in Kenya, issues related with pioneer control tasks and process plants uncovered that 74 % of cost accelerations was caused by poor coordination of undertakings exercises and absence of progress the executives control in this way influencing adherence to cost gauges (Kagiri and Wainaina, 2009).

#### 5.3.3. Influence of Project Supervision on Completion of Water Projects

The study found that project supervision influences the completion of project. The study further established that the number of supervising engineering staff during project implementation influence completion of projects. Sayings and Holt (2000) contend that the quantity of chiefs in a venture additionally impacts the fruition of a water system venture. Wambugu (2013) found that dominant part of the respondents showed that successful administration influenced the fulfillment of provincial jolt extends in Kenya and that deficient supervision/review of work

brought about modify. As per Fortune and White (2005), bolster from senior administration is a factor that decidedly impacts the achievement of an undertaking. This classification of staff gives guidance, rules and control in a task. Most of the gifted agents should be guided, either day by day or week after week. The study found that the project supervision techniques used in West Pokot County were effective.

#### 5.3.4. Influence of Project Planning on Completion of Water Projects

The study found that they normally have project plans prior to construction of projects in the County. The study also established that project planning influences the completion of project. Amusan, (2009) found that deficient arranging, contractual workers venture freshness, expansion, perpetual and variety arrange, change in undertaking configuration, venture multifaceted nature, shortening of agreement period and deceitful practices are factors that outcomes in cost overwhelm on building locales. Plans considered by proprietors for office financing ordinarily have both long and momentary angles Ashworth, (1994). In addition, the study established that project planning clarifies the goals, estimates resources to be used both human, material and financial as well as puts mechanisms to gauge the heath of a given undertaking.

#### 5.4. Conclusion of the Study

This section presents the conclusion of the study as shown in subsequent headings:

#### 5.4.1. Influence of Contractor Competence on Completion of Water Projects

The study concluded that contractor competence affects the completion of projects. The study also concluded that the use of experienced and sufficient technical manpower influence completion of projects.

#### 5.4.2. Influence of Financing on Completion of Water Projects

The study concluded that finance influence on completion of water projects. In addition, the study concluded that poor contractor bidding processes and procedures influence completion of projects.

#### 5.4.3. Influence of Project Supervision on Completion of Water Projects

The study concluded that project supervision influences the completion of project. The study further concluded that the number of supervising engineering staff during project implementation influence completion of projects. The study concluded that the project supervision techniques used in West Pokot County were effective.

#### **5.4.4. Influence of Project Planning on Completion of Water Projects**

The study concluded that they normally have project plans prior to construction of projects in the County. The study also concluded that project planning influences the completion of project. In addition, the study concluded that project planning clarifies the goals, estimates resources to be used both human, material and financial as well as puts mechanisms to gauge the heath of a given undertaking.

#### 5.5. Recommendations

The following recommendation were made in relation to the study findings:

Project managers should hold partner commitment sessions in the lifetime of the venture to guarantee that each invested individual assumes their job in guaranteeing the development contract does not take longer than proposed as a result of the activities or inactions of any of the task players

Equipped and experienced venture directors ought to be enlisted to guarantee that the correct task initiative group is contracted to lead a procedure of development venture usage. This must also guarantee proper program of works which should be followed by good supervision/inspection to ensure it is followed to the letter and all the amendments done at the right time and in an appropriate way to ensure successful project delivery

Developers/ project champions/ owners should guarantee development ventures are not kept from funds. This will guarantee that development ventures don't slow down. Contractual workers ought to likewise be checked before contract grant to guarantee that they have a background marked by paying their staff and industry great remaining to convey well on their agreement assentions. On the off chance that they hint at an income issues they are not to be picked to execute an undertaking. They ought to likewise pad the customer from a few dangers through protection and execution security stores

All the task players ought to be prepared on all factors that impact effective usage of water ventures. They ought to particularly be taught on the key measurements of an effective undertaking. Financial plan, extension and courses of events ought to be purposely overseen so a quality venture can be figured it out

A quality culture ought to be energized in development industry so purposeful endeavors are made to convey quality activities.

# 5.6. Suggested Further Research

This study suggests a research to develop a predictor model for successful water project implementation. This model should include interplay of risks, success factors and weighted factor for the unknowns in construction project implementation. This will ensure that a success or failure of a project can be properly managed with more certainties and anticipated outcomes

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#### **APPENDICES**

### **APPENDIX I: INTRODUCTORY LETTER**

P.O BOX

WEST POKOT, KENYA

THE GOVERNOR

WEST POKOT COUNTY

KENYA.

Dear Sir,

#### **REF: REQUEST FOR USE OF INFROMATION**

I am a master of arts in project planning and management student at the University of Nairobi and in the partial fulfillment of the requirements of the degree; I wish to undertake a research study on the **factors influencing the completion of projects: a case of water projects in** 

#### West Pokot County.

The purpose of this letter is to request your permission to collect data through interviewing the respondents dealing with performance of water projects in the county. Your support and responses will be helpful in the study as I will be able to summarize, conclude the findings and help me come up with the right recommendations.

I take this opportunity to ensure that the data obtained will be used for academic purposes only and your identity will be held confidential.

Your cooperation will be highly appreciated.

Yours Faithfully,

#### **POGHISIO JOAN CHELIMO**

# L50/80166/2015

#### **APPENDIX II: QUESTIONNAIRE**

Dear respondent. The researcher is a student of Project Planning and Management at University of Nairobi and the research is for academic purpose only and will be treated with outmost confidentiality. The research seeks to establish the factors influencing the completion of projects: a case of water projects in West Pokot County. Kindly provide correct and useful data and fill appropriately as logically guided. (This questionnaire has been provided as a word document that can be filled out in soft copy and returned via e-mail; or printed, filled out and mailed).

# **Section 1: General Information**

1. Gender of the respondent

a) Male ( ) b) Female ( )

2. Indicate by ticking your age bracket

a) 24 yrs and below	[]	b) 25-29	[ ]
c) 30-34	[ ]	d) 35-39	[ ]
e) 40-44	[ ]	f) 45-49	[ ]
g) 50 and above	[ ]		

# 3. Kindly indicate your highest level of educational qualification (tick)

a) Secondary educati	on		[	]	c) Certificate or diploma [	]	
d) Graduate	[	]			e) Postgraduate	[	]

4. How many years have you worked at West Pokot County?

a) Less than 1 Year	[]	b) 1-2 Years [ ]
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c) 2-3 Years [] d) 3-4 Years []

d) 4 Years and above [ ]

# SECTION B: CONTRACTOR COMPETENCE ON COMPLETION OF WATER PROJECTS

5. Do contractor competence affect the completion of projects?

Yes () No ()

6. Using a scale of 1-5, where 1= strongly disagree; 2=disagree; 3=Neutral; 4=agree;
5=strongly agree, please indicate the extent to which you agree with the following statement on contractor competence and completion of water projects.

Question	S.A	D	N.S	Α	S.A
Use of experienced and sufficient technical manpower influence					
completion of projects					
Use of modern technologies and construction equipment					
influence completion of projects					
Size of contracting firm influence completion of projects					
Work Experience of the contractor influence completion of					
projects					
Proper planning in procurement of material & workers influence					
completion of projects					

Proper use of the work schedule influence completion of projects			
Adequate site management influence completion of projects			

7. How do you deal with contractor competence aspects affecting completion of projects?

# SECTION C: FINANCE INFLUENCE ON COMPLETION OF WATER PROJECTS

8. Does finance affect the completion of projects?

Yes () No ()

9. Using a scale of 1-5, where 1= strongly disagree; 2=disagree; 3=Neutral; 4=agree;
5=strongly agree, Please indicate the extent to which you agree with the following statement on finance and completion of water projects.

Question	S.A	D	N.S	Α	S.A
Late bill payments by employer influence completion of projects					
Poor contractor Bidding processes and procedures influence completion of projects					
Misappropriated use of mobilization advance influence					
completion of projects					

Price fluctuations of building materials influence completion of			
projects			
Appropriate equipment availability through project life influence			
completion of projects			

# SECTION D: PROJECT SUPERVISION INFLUENCE ON COMPLETION OF WATER PROJECTS

10. Does project supervision influence the completion of project?

Yes () No ()

11. Using a scale of 1-5, where 1= strongly disagree; 2=disagree; 3=Neutral; 4=agree;

5=strongly agree, Please indicate the extent to which you agree with the following

statement on project supervision and completion of water projects.

Question	S.A	D	N.S	A	S.A
Project management capacity of the project team influence					
completion of projects					
Timing of inspections during the project life cycle influence					
completion of projects					
Availability of supervising staff during project implementation					
influence completion of projects					
Project teams' focus on key functions of project supervision					

influence completion of projects			
Availability of supervising professionals influence completion of			
projects			
Number of supervising engineering staff during project influence			
completion of projects			
Use of work schedules/plans to monitor project implementation			
influence completion of projects			

12. How would you rate the project supervision techniques used by this organization and

how they influence project completion?

a) Very effective	[]	b) Effective	[]
c) Moderately effective	[]	d) slightly effective	[]
e) Not effective	[]		

# SECTION D: PROJECT PLANNING INFLUENCE ON COMPLETION OF WATER PROJECTS

13. Do you normally have project plans prior to construction of projects in your County?

Yes [] No []

14. Does project planning influence the completion of project?

Yes () No ()

15. Using a scale of 1-5, where 1= strongly disagree; 2=disagree; 3=Neutral; 4=agree;
5=strongly agree, Please indicate the extent to which you agree with the following statement on project planning and completion of water projects.

Statement	S.A	D	N.S	Α	S.A
Planning is a key determinant of whether a project will succeed					
or fail					
Project planning clarifies the goals, estimates resources to be					
used both human, material and financial as well as puts					
mechanisms to gauge the heath of a given undertaking					
Project planning ensures that a project is completed within					
budget and to the deadlines agreed in the specification					

16. How do you deal with planning related factors affecting completion of projects?

# THE END

# THANK YOU