FACTORS INFLUENCING FLOW OF FUNDING ON MAINTENANCE OF DEVOLVED ROAD NETWORKS IN KAPSARET, UASIN GISHU COUNTY, KENYA.

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DECLARATION

This research project is my original work and has not been presented to any other University.

Sign..... Date.....

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This research project has been submitted for examination with my approval as university supervisor.

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DEDICATION

This work is dedicated to my wife Pamella ,my son Bruno and Daughter Bridgit who have given me support during the preparation of this work.

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ABBREVIATIONS AND ACRONYMS

AASHTO	American Association of Stale Highways and Transportation Officials
ADB	Asian Development Bank
CG	County Governments
GDP	Gross Domestic Product
ILO	International Labour Organization
KeRRA	Kenya Rural Roads Authority
KeNHA	Kenya National Highways Authority
KURA	Kenya Urban Roads Authority
PP&DA	Public Procurement and disposal act
PP&DR	Public Procurement and disposal Regulation
PP	Public- Participation
RSDP	Road Sector Development Program
TANROADS	Tanzania National Roads Agency
TRN	Transport Road Note
UGC	Uasin Gishu County
UN	United Nations

ABSTRACT

Road networks are an important infrastructure for any country. Road networks that are well maintained and in good condition spurs economic growth and development not to mention the reduced travel time for the road users. With a huge population of Kenyans depending on agriculture, roads need to be in good conditions to enable them to link up to the markets easily and faster because most of this produce is perishable. Well maintained roads linking different centres promotes integration of the residents by easing movement from one place to another. The greatest challenge in maintaining these roads in the expected good condition arises when maintenance is either delayed or inadequately done due to funding for maintenance. This study was done to establish the factors influencing the flow of funding on the maintenance of the road networks in Uasin Gishu County, Kapsaret Sub-County. The study sought to understand the various stages that funds flow through and their influence on this flow. The following objectives were therefore considered; To establish how prioritization, assess how budgeting. To determine how tendering and to identify how payments processes influence flow of funding for the maintenance of road networks in Kapsaret. The study targeted the entire adult population from Kapsaret sub-county based on the last census. A sample that was considered representative of this population was considered proportionately along the networks that have been maintained so far. Staff working in the roads department at Uasin Gishu County were targeted to provide secondary information. This study employed questionnaires as the main data collection instruments. Piloting was undertaken to assist in determining the validity and reliability of the questionnaires and subsequently amend and make corrections on its content. The results from the data collection were then analysed to determine whether indeed there exist a relationship between the variables. Recommendations were then made based on the analysis.

CHAPTER ONE

INTRODUCTION

1.0 Background to the Study

Rural roads are a significant infrastructure in spurring economic development without which rural constituency may not realise faster growth for sustained wellbeing of communities. Maintenance of roads ensure that they are always motorable and in good maintenance conditions. Maintenance however should be done in a systematic and planned manner to achieve the desired road condition for ease of motoring. In addition, the effectiveness and sustainability of rural roads maintenance program has been hampered by inappropriate policies for planning and funding of roads (World Bank. 2005). Which in many instances make them inadequate for the required maintenance activities or have not been available when required hence ineffective flow.

In support of this position American Association of State Highway and Transportation Officials (AASHTO, 2005) affirmed that road maintenance includes all activities and services required in maintaining infrastructure assets and providing services to the travelling public.

Flow of Funding for these activities ought to be effective and efficient to realize adequate maintenance of road networks.

Road maintenance has over the years been done through in-house arrangements the world over with little activities being out sourced, however focus has shifted from this approach to the out sourcing or contracting approach. In recent years contracting has gained a lot of popularity and has evolved to a new business venture (World Bank, 2005). However, with this new events unfolding, more challenges and risks have emerged both from the contractors' end and from the road agency. One of the biggest risk and challenge is management of funding allocated for road maintenance works. This is so because the amount of funds available funds roads sub sector is significantly less than the amount required to maintain the load networks in a stable network condition (World Bank,2005). explicit funding arrangements and funding management need to be put in place.

A study done by TRIP (2015) indicated that with the population of the United States of America growing by figures between 0.1 and 1,5 percent, it poses more challenges to transportation hence there is need to address road infrastructure maintenance. The quality of life in Americas rural communities and settlements of the rural economy is highly depended on the quality of the transportation networks particularly roads. The rural roads provide links for supply chain

for farm produce to markets supporting up to $395 billion in value of agricultural production by 2012. Although farming accounts for only 6% of the US rural economy, other aligned sectors such whole sale, retail trade processing and marketing rely on the road networks.Tourism activities are equally supported by these roads networks. Such activities include hiking, biking golfing hunting and fishing. While Travel and tourism related spending in the US in 2013 totalled $1.5 trillion and 8.1 million employed in tourism related activities the national parks mostly located in rural areas received more than 274 million visitors mostly in personal vehicles utilizing roads.

The study findings showed majority of transportation in the US is by trucks, accounting for 46% of the total ton miles of travel compared to other means of transport carrying up wards of 91% of perishable food.The damage to roads increases the cost of maintenance. In 2013, 4% of county roads networks were rated as poor with 40% rated either mediocre or in fair condition. According to World Bank (2010) the US requires an average of $50 billion annually to keep road network in maintained conditions. This is however way beyond the annual budget of approximately $25 billion.Other sectors supported by rural road networks are energy sectors including gas and oil extraction.With Funding for road maintenance of the US roads, highways and bridges needed to increase to $120billion AASHTO (2015), about $43 billion is required to improve the public transport system by way of maintenance.Funding for road investment in the US is done through the federal Highway Trust Fund(HTF) whose responsibility is to raises funds through federal user fees and taxes on fuel. This agency should therefore adequately fund local and state transportation programs to meet maintenance and service conditions required to support rural economies.
Whereas England's total road network is 294,003 km (Gould, C. Parkman &Buckland. 2013), 171,911km comprises of rural roads with 12,093km paved roads while Wales has total network of 32,142km with 24,816 km of rural roads representing almost 86% of the total network. English poor network amount to 30,729km representing 13% of the total network. Welsh roads in comparison have a slightly higher proportion in overall poor conditions for unclassified roads at 10% compared to 9.6% in England.Budgetary allocation for maintenance of road network in England in the financial year 2015/2016 was 55% of the overall budget while Welsh allocation are slightly lower at 47%. Comparing these allocations to the road conditions Annual local authority road Maintenance Survey-ALARM done by AIA (2016) Wales government need to allocate more funding for maintenance of their road networks.

The Asian road maintenance approach is worrying; road maintenance has not received adequate attention and priority (ADB, 2006). Considering their huge network of rural roads, against the funding allocations of maintenance, more needs to be done towards this end. Reconstruction is given more priority than maintenance. More funds are therefore allocated for rehabilitation works at the expense of maintenance. Still funding has not been stable nor adequate for rural and village road maintenance (ADB,2012).

India has one of the largest roads network of 3.2 million kilometres with the approach to roads maintenance funding shifting to more sustainable methods. Having recognized that continuing to allocate insufficient funds for maintenance is not sustainable in the long run (D.P. Gupta,2005) focus has shifted to other funding approaches, among such approaches that have gained popularity are undertaking road maintenance through private financing, community participation in road maintenance, performance based maintenance and toll based maintenance, the latter being applied on trunk roads. This approach provides upfront financing for the government as well as ensuring quality to the road users. Road maintenance in India has faced reduction during difficult fiscal conditions with budgetary allocations for maintenance being cut at will by the government. Often maintenance is postponed in the hope that fiscal conditions could improve. Road maintenance budgets are a soft target partly due to it being considered a low priority compared to construction of new links the villages and estates.

The trend in Sub Saharan Africa (SSA) has also shifted from road maintenance using force acounts to contracting (Stankevich, N. and at, 2005). Force accounts involved the engagement of labour and equipment owned by roads agencies to undertake maintenance. However, roads agencies now contract out more than 80% of the maintenance works. This by far a tremendous change from the earlier approach of maintenance and seems to be gaining popularity though some countries are still lacking behind in embracing this external contracting approach. Kenya has only managed 50%, whereas CAR contracts 60% of the works and Ethiopia at 40%.

Ethiopia's situation is a wanting since 88% of all road networks are unpaved. More than 50% of total of approximately 34,000km of rural road networks were in deplorable conditions indicating that not much attention was being given to maintenance. It was not until the formulation of the Road sector development Program (RSDP) in 1997 that Ethiopia realized the increase in the size of road networks operating in good conditions (World Bank,2014). Through a sustained program RSDP sought to undertake rehabilitation, upgrading, construction of new roads and regular maintenance. The motorable networks increased by over 20% of the total network. This is not to say that the situation is way better but has brought a lot of benefits

to Ethiopia's agricultural economy which constitute more than 50% of her GDP (Worku,201 l). However, with 85% of the population depended on agriculture much still needs to be done to enhance funding allocations for maintenance.

Tanzania has a road asset value of US$ 2.6 Trillion. This is represented by a total network of approximately 85,000km with just 4,430 km of paved roads. The other 80,570km of unpaved roads are mainly in the rural areas. By 1990 only 10% of this network was in good condition. This was due to the fiscal difficulties the country was experiencing. (Haule,2005) The turnaround occurred in 1998 with the establishment of the Roads Fund and the Roads Fund Board to manage funding on behalf of the government. Also established was the Tanzania National Roads Agency (TANROADS). TANROADS was mandated to undertake maintenance of all roads funded by the roads fund. As has been discussed extensively, the common goal of these two agencies was to address inadequacies in funding and management of road networks.

The roads sector in Kenya has undergone a lot of transformation in the last 50 years. Besides providing the necessary linkage internally, it contributes to employment and income generation in trade and other economic activities hence improved quality of life. Kenya’s roads network with a total of 160,886km constitutes 80% of the transport sector (Harral, 2012). The transport sector itself contributes 6% of the country's GDP. In 1970 these roads were classified depending on their functional criteria into six classes A, B, C, D & E and the rest being unclassified roads.The road transport infrastructure has over the recent years deteriorated to the extent that 47% of the classified road network is currently in a failed condition and requires reconstruction.

1.1 Statement of the Problem

Road transport accounts for over 80 percent of Kenya’s total passenger and freight transportation (Harral, 2012). In spite of the importance of roads in the region, roads are poorly managed and inadequate funding is provided for maintenance. Large portions of the networks in Sub-Sahara Africa (which includes Kenya) are therefore, in poor condition. Socio-economic growth is, therefore, stilled due to high transport costs which are as a result of high vehicle operating costs

The Kenyan government has been concerned over the fragmented nature of the institutional framework for the transport sector. With regard to roads, it is considered that the establishment of the Kenya Roads Board in 2000 and the enactment of the Kenya Roads Act in 2007 which

established the KeNHA, KURA and KeRRA were to go a long way in improving the legal and institutional framework for road development and maintenance. However, with the promulgation of the new constitution in Kenya, the road sector within counties was devolved. County governments are now required to maintain certain road networks within their jurisdiction. To maintain these networks county government are required to equally budget and allocate funds for the same. Funds for maintenance of road networks previously disbursed by Kenya Roads Board directly to the three implementing agencies have now been channelled for maintenance works through County Governments (CG). Road maintenance still remains a challenge due to the inadequate and delayed funding allocated for maintenance of road network. Further, frequent delays and poor quality of the roads maintained is still evident and most networks are still in poor and deplorable state. It is not clear whether devolving the County road's sector funds has worked for or against road maintenance in the counties. It is against, this underpinnum that this study is conducted with a focus on Kapsaret Sub-county, in Uasin Gishu County.

1.2 Purpose of the Study

The purpose of this study was to examine the factors influencing flow of funding on maintenance of road networks in Kapsaret , Uasin Gishu county.

1.3 Objectives of the Study

The objectives of this study were:

1. To establish how prioritization of road networks influence flow of funding for road maintenance in Kapsaret , Uasin Gishu County.
2. To assess how budgeting for road maintenance influence flow of funding for maintenance of road networks in Kapsaret , Uasin Gishu County
3. To determine how tendering influence flow of funding for maintenance of road networks in Kapsaret , Uasin Gishu County
4. To identify how payment processes influence flow of funding for maintenance of road networks in Kapsaret , Uasin Gishu County

1.4 Research Questions

The study was guided by the following research questions.

1. Does prioritization of road networks influence flow of funding for maintenance of road networks in Kapsaret, Uasin Gishu County?

2. To what extend does budgeting influence the flow of funding for maintenance of road networks in Kapsaret, Uasin Gishu County?
3. How Does tendering influence the flow of funding for maintenance of road networks in Kapsaret, Uasin Gishu County?
4. What are the payment processes that influence flow of funding for maintenance of road networks in Kapsaret, Uasin Gishu County?

1.5 Significance of the Study

This study will be relevant to the Uasin Gishu County Government achieve value for allocated funds. The roads department within the county shall also benefit from this study identifying weak points within the funding flow channel. These points once identified and dressed or regulated shall result in better maintained road networks. It shall also be relevant to contractors undertaking road maintenance works within the county. Lastly it would be beneficial the residents of Kapsaret Sub-County since better maintained roads increases the economic activities and hence improved lifestyle.

1.6 Assumptions of the Study

The assumptions of this study were; The flow of funding for maintenance of road networks prior to decentralization of road maintenance to counties was efficient and effective and that funding ceilings and amounts have not changed. The study assumed that the responded would be cooperative and honest while making their responses in the questionnaires.

1.7 Limitations of the Study

The study focused on the influence of flow of funding on the maintenance of roads networks in Kapsaret sub-county only. The study findings were therefore limited to this geographical location. This study was also limited by the finances available to undertake the study hence the choice of Kapsaret sub-county due to its proximity to Eldoret town and the centre of Uasin Gishu County, lastly this study was limited by time. The final report had to be produced within a given specified time, this was restrictive in terms of time required to gather adequate information. This limitation was countered by reducing the scope of the study and developing a research plan to help manage available time. The research plan was strictly adhered to.

1.8 Delimitations of the Study

The study was conducted in Kapsaret sub-county in Uasin Gishu County. No other sub- county was considered.

1.9 Definition of Significant Terms

Prioritization-This is the process evaluating a group of items and ranking them in their order of importance or urgency.

Public Participation-This is the process through which involvement of those potentially affected by or interested in a decision is facilitated

Preliminary Estimates-A rough estimate made in an early stage of design work, prior to receipts of firms bids

Roadworks Estimates-This describes the process of predicting a projects cost before the planning and design is completed.

Procurement-The activities and processes involved in acquiring goods and services

Tender Notices-The process whereby an institution invites bids for projects that must be submitted within a finite deadlin**e**

Valuation-The act of assessing value or cost of works done

Road Maintenance – These are activities undertaken to keep pavement, shoulders, slopes, drainage facilities and all other structures and property within the road margins as near as possible to their as-constructed or renewed condition

Funding – Financial resources allocated in the form of money provided by an organization government agency.

Budgeting - The process of allocating an amount of money to be available for spending based on a plan on hoe it will be spent.

Tendering – This is the process by which bids are invited to prospective contractors to carry out certain road maintenance activities.

Stakeholders – This are a people who have interest and are affected by an initiative.

1.11 Organization of the Study

This project report is organized into five chapters as follows: Chapter consists of background to the study, statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, assumptions of the study, limitation of the study, delimitations of the study and definition of significant terms. Chapter two covers literature review subdivided into various sections. Literature has been reviewed on various themes and dimensions. At the end of this chapter the theoretical and conceptual framework of the study is covered. Chapter three consists of the research methodology constituting of introduction, research design, study area, target population, sampling size and sampling procedure, research

instruments, data collection procedure, data analysis techniques and ethical considerations. Chapter four comprises of data analysis, presentation, interpretation and discussions and finally chapter five constitutes of the summary of findings, conclusions and recommendations.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

This section will cover relevant literature from various writers on the field of roads maintenance. Literature on flow of funds shall also be reviewed from various writers and sources.

The literature has been divided into four dimensions; prioritization, budgeting, tendering and payments. These dimensions are further sub-divided into sub-dimensions and appropriate literature reviewed. The theoretical frame work and conceptual framework shall also be covered.

2.1 Flow of Funding, Prioritization and Maintenance of Road Networks in UGC

Flow of funding is tied to effective prioritization in the maintenance of road network across countries. In addition, effective and efficient prioritization assures steady and reliable flow of funds for maintenance of road networks.

Prioritization through a tied process compares cost of maintenance and allocation of funding to improve the condition and sustain the life of road networks (SBTCS,2002). Based on this, the flow of funding is drawn from limited resource base requiring hard decision to inform efficient and effective utilization of resources targeting road maintenance.

In instances where prioritization is weak, allocation of funding will be skewed and implementation of maintenance of road networks will be skewed. This implies that appropriate distribution of funds drawn from weak prioritization of road networks will affect completion and maintenance of road networks.

Available funds should thus be spent on the right networks at the right time and that networks are prioritized using value management to maximize maintenance and minimize whole life costs of road networks. (CPPHA, 2013).

Value for allocated funds is hence derived from proper prioritization of road networks for maintenance.

2.1.1 Flow of Funding, Prioritization, Public Participation (PP), and Maintenance of Road networks in UGC

Prioritization achieved through Public participation ensures proper and adequate flow of funds for maintenance of county roads.

Proper and extensive public participation results in priorities that result from a consultative process of all stakeholders to achieve a steady flow of funds for maintenance of road networks. This is the process through which the various stakeholders are brought on board in identifying the road maintenance needs and areas, most importantly the community that uses the roads. Public participation (PP) has been increasingly integrated into the international agenda on project sustainability and policy making. The concept has been introduced as a tool to improve resource management and promote more democratic decision-making.

Prioritization to determine final planning for road maintenance requires consultation with a wide range of relevant stakeholders in the particular project (World Bank, 2014).

All agencies and institutions directly affected by the roads and all road users, community, organizations, rural economies e, g agriculture and the business community should be consulted (world bank TRN-4,2005). A priority that is supported by a broad range of Stakeholders ensures that value for funds allocated is achieved in the maintenance of roads networks. It further ensures the sustainability of the project not only during the implementation of the maintenance activities but also after completion of maintenance.

By participating in the decision making process, the public will realize the importance of their involvement in deciding their future (Chadwick, 1971). According to Slocum and Thomas-Slayter (1995), PP is a means to convey individual and the society's personal interests that these priority activities would consequently affect them, it increases the substantive quality of decisions, recognizes the public as a valuable source of knowledge and ideas for making decisions (Raffensperger, 1998; Morino, 1990; NRC, 1996). Decisions with regard to priority roads and activities are therefore better arrived at by undertaking extensive public participation and assure adequate and efficient flow of funds for maintenance of road networks

Other than serving as a means of educating people and enhancing their awareness, public participation is also vital in preparing an efficiently better planning framework as a result of better understanding of stakeholders' demands and needs which thus leads to effective allocation flow of funds (Lachapelle, 2008).

PP further enhances ownership of the projects in effect allowing for acknowledgement of the funding by all the stakeholders and eventual accountability on spending of these funds. The term ownership (or sense of ownership) is increasingly cited as a critical element in determining the potential for buy-in and, consequently, public involvement in community planning and development efforts (Lachapelle,2008). According to Haban, Riverson, and Weckerle, (1994). Local "ownership" of priorities is key to the success and sustainability of road maintenance activities.PP therefore by enhancing a sense of ownership of the maintenance works subsequently results on smooth flow of funds, provides conducive environment for the execution of contractual works and eventual completion of maintenance works.

In instance where prioritization is skewed against PP, allocation and flow of resources may be tilted against efficient and effective distribution of funds to the maintenance of road networks. This implies that flow of funding could only be assured when there exists balanced PP in prioritization, allocation of and flow of funds to implement maintenance of road networks. A study done by Hashim (1986) and further reviewed by Lukic (2011) affirmed that the success of a project depends on how far the public is allowed to be involved. Little public participation compromises priorities, funding and eventual maintenance. However, PP efficiency and effectiveness itself may be compromised by the difficulties faced by the public when it comes to understanding the technical reports and the complex planning issues (Jenkins, 1993). A lot of awareness therefore needs to be done before the actual PP process is undertaken.

According to Bramwell and Sharman (1999), effective public participation is difficult to achieve if the residents are not equally represented within or as part of the whole group of stakeholders. Equal representation would include knowledge and ability to comprehend the infrastructure proposal and prioritization indicators and thresholds. It is equally worth noting that the project implementing institution must initiate the process of PP. Azizan (n.d) argues that government agencies still remain the key institutions to initiate the public participation process.

2.1.2 Flow of Funding, Prioritization, Ranking, and Maintenance of Road Networks in UGC

Prioritization anchored on ranking determines the flow of funds for road maintenance activities in many countries. Ranking is a means to assist pick up the needy priorities among many such priorities for road maintenance within the roads network.

To assist in maintenance planning prioritization, it is important to define a "core network of roads" of roads to maintained in good condition with procedures for condition monitoring and funding programs (Haban, Riverson, Weckerle, 1994).

According Jo Leyland (n. d) the selection and ranking of road networks involving looking at die intervention strategy required, availability of maintenance material such as gravel, requirement for major structures including culverts and bridges, difficult terrains, labour availability and the level of access of the road is critical to prioritizing roads and allocation of funds for maintenance purposes. On the basis of ranking, priority roads are selected and costing of the maintenance requirements that can be accomplished with financial resources allocated. Ranking of the road networks achieved through identifying roads that are functionally important and currently in reasonably good condition therefore results in effective prioritization, hence efficient flow of funds for maintenance, further, such roads shall require minimal funding in subsequent maintenance period.

Lack of ranking in the prioritization exercise however results in the wrong priority road maintenances being selected, misplaced budgets and funding and arising thereof in the wastage of funds. Value for allocated funds is therefore not achieved. According to a study by PIARC, (1999) highly ranked and prioritized roads should be allocated funds for maintenance today because tomorrow it would be more expensive. Roads agencies should therefore purpose to maintain their road networks as ranked and prioritized to avoid incurring more costs on maintenance in future by misplacing these priorities.

2.1.3 Flow of Funding, Prioritization, Preliminary estimates, and Maintenance of Road Networks in UGC

Preliminary estimates of road work as a process of prioritization achieves adequate allocation of funds for maintenances activities and determines overall budgetary allocation of funds. They are tentative indication of the likely amount of funds to be spent on maintenance works derived from summing up individual itemized road maintenance activities. On the basis of the prioritization, we select the roads and cost out the improvements required that could be accomplished with the financial resources available.

Preliminary estimates are prediction of quantities, cost, and/or price of resources required by the scope of an asset investment option, activity, or project. As a prediction, an estimate must address risks and uncertainties. Estimates are used primarily as inputs for budgeting; cost or value analysis; decision making in business; asset and project planning; or for project cost and

schedule control processes. Cost estimates are determined using experience and calculating and forecasting the future cost of resources, methods, and management within a scheduled time frame. (AACE International. Inc., AACE International Recommended Practices, Number 10S-9).

The fate of a new road maintenance project at the onset is significantly influenced by Preliminary cost estimation (Jamshid, 2005). It is the heart of the cost engineer's work and consequently it has received appropriate attention over the years (Jelen and Black, 1983). The Basis of Estimate describes the project. It includes underlying assumptions, notes, and exclusions, and is required prior to the preparation of every project estimate. According to Washington State Department of Transport, CEMP (2015). The Basis of Estimate document includes project information and previously developed project scope and schedule data, from which a project cost estimate can be prepared. The level of detail provided basis of Estimate varies depending on a project's phase, type, and complexity, but would include the design matrix and criteria, all assumptions, and pertinent scope details. The Basis of Estimate provides a documented history of the estimate process. It becomes a part of the project documentation, with the end result being a complete traceable history for each estimate.

Accordingly, preliminary estimates assist in establishing target resource allocations by maintenance category at the beginning of the funding cycle and help guide the project evaluation process and ensure that administration priorities will be emphasized through the distribution of fund (WORLD BANK, u. d). Some portion of funds available will be allocated by mode, maintenance category, and geographic region at the start of the funding process. Final funding allocations are made after a full assessment of project and program and maintenance requirements. (IDAS, GSE, 2006). To achieve reliable prioritization. The following estimates must be derived; estimated design costs and environmental testing costs, estimated costs for abatement of hazardous materials, estimated construction of costs, estimates for any other identified costs, estimate schedule for design and construction, including any specific scheduling requirements, estimated cash flow schedule and Estimated additional costs if the project is delayed

Prioritizing roads for maintenance without due consideration or undertaking a preliminary estimate, however shall result in an incompetent and biased list of priority roads, misplaced allocation of funds and eventually affect the maintenance activities on the road networks. It results in inconsistencies in prioritization of roads whose eventual cost could exceed available

funds as a result cost escalation and eventual difficulties or delays in funding hence compromising timely maintenance of the networks. According to Chabola Kaliba, Mundia Muya, Kanyuka Mumba. (2008) one of the reasons cited for cost escalation of maintenance project is using preliminary estimates that are not designed to be reliable predictors of project cost. Cost overruns are amount of funds expended at the completion of a project in excess of the initial project estimates, they are the difference between the final cost and the project estimated cost. (Rod E. Turochy, Lester A. Hoel,L. A. Lacy,Robert S. Doty.2001) Cost overruns or escalations on prioritized roads due to poor estimation results in poor and erratic funding. Proper estimation is therefore essential in every road maintenance projects (Chabota Kaliba, Mundia Muya, Kanyuka Mumba.2008)

The preliminary cost estimates should be as accurate as possible. This would allow the roads executing agency to ensure that the required funds for executing the project are sourced in good time and made available when required. Cost and value engineering principles must be applied at stages of the project. During the execution stage of the project, project managers should ensure that contractual obligations are deal with diligently within the required period. Delayed payments due to under estimation in client organizations would cause financial difficulties to contractors, and consequently cause delays in maintenance works. The project scope should therefore be well understood and enough time and effort expended in preparing the estimates to achieve accurate and reliable preliminary estimates to guide prioritization of the road networks (Ibrahim Mahamid and Amund Bruland, 2010).

2.2 Flow of Funding, Budgeting, and Maintenance of Road Networks in UGC

Effective flow of funding is achieved through proper budgeting in the maintenance of road networks. Budgeting assures adequate and reliable funds are allocated for prioritized road maintenance works. Besides, it also determines the actual cost of each activity proposed to be undertaken in maintenance of road networks.

Budgeting to assure a steady and reliable flow of funds and good maintenance involves an understanding of the economic and social importance of road maintenance (WORLD BANK. 2005). The budgeting process should therefore be spearheaded by the implementing agency an involve the various constituency within the sector Chris Hoban,John Riverson & Albert Weckerle,(1994.) argue that allocating budget for maintenance works requires not only a methodology but an inclusive process involving various stake holders, government agencies and local communities. It must then be as simplistic, accurate and realistic as much as possible.

Poor budgeting however results in inappropriate allocation of funds and poor maintenance of the road networks. Funds meant for road maintenance may be commandeered for other activities leaving very little to spend on maintenance activities. The little then that remains are

spend on what can be described as repairs, and emergency works(ILO,2007). This trend leads to further deterioration of the existing road network and huge costs in reconstruction and upgrading. Road maintenance is meant to keep the pavement, shoulders, slopes, drainage facilities and structures as close as possible to their as- constructed or renewed condition'" (PIARC 1994). Inadequate funds due to poor budgeting compromises these activities resulting in further deterioration of the roads and eventually the costly process of reconstruction.

2.2.1 Flow of Funding, Budgeting, Allocation of Costs, and Maintenance of Road Networks in UGC

Budgeting informed by proper allocation of cost assures adequate allocation of funds for maintenance of road networks. Allocation of cost to individual road maintenance activities and summed up to give overall cost of funds to be allocated for maintenance operations in a given period informs the budgetary allocation for that financial budgeting season and eventual funding for maintenance based on these budgets. Allocation of cost is a quantified economic justification for a maintenance activity and should be based on a set of standards and levels of service derived from a cost-effective analysis (Faiz,1991). Routine maintenance operations should be based on a set of standards and levels of service derived from cost-effectiveness analysis. The maintenance standards and cost should be informed by among oilier factors, the traffic volumes and not the road classification. Maintenance budget should therefore be derived from reliable costing of maintenance operations and activities.

Targets within budget constraints can only be controlled during maintenance works only if they have been achieved through proper costing and use of reliable cost data. Detailed cost of road maintenance is important for budgeting and funding of road maintenance of road networks (UN- HABIT AT; 1993) Proper choices on maintenance strategies can only be made when accurate data and costing is done. Maintenance costs are essentially determined by the cost of the various activities including equipment, labour and materials, the frequency of repair needed (JLO.2014). The cost of the maintenance works as well as the amount of damages on a rural road essentially depends on where the road is located and its history of past construction and maintenance works. Inappropriate and poor allocation of cost undermines the budget allocation and effectively the funding for maintenance of road networks. The various activities involved in road maintenance if not accurately costed could result in escalated budgets or inadequate budgets and similarly affects funding for maintenance works.

Without cost data, roads agencies cannot control funds within given budgets in the maintenance of road network (UN-HABITAT, l993). Maintenance of roads infrastructure will have little chance of success if good projection on costs are not made during the budgeting process.

2.2.2 Flow of Funding, Budgeting, Estimates, and Maintenance of Road Networks in UGC

Budgeting based on accurate and reliable actual budget estimates achieves adequate flow of funding for maintenance of road networks. Actual budget estimates are derived through a complex multi-disciplinary costing process that involves both the implementing agency and the stakeholders in the roads sector to achieve accurate and reliable estimates that shall be used for budgeting and allocation of funds for roads maintenance. Once a maintenance program has been established, roads maintenance budgets can be estimated through a direct or an indirect assessment World Bank, 2005). A direct assessment involves the USL of standardized road management systems such as Word Bank's HDM-4, This is a complex model that requires expert personnel from the roads agency to modify and domesticate the model to suite rural roads.On the other hand, an indirect assessment employs the use of formulas that are related to traffic, road length, among other maintenance requirements. It is therefore less complicated than the earlier model and requires less technical capacity. The indirect assessment is thus preferable for rural roads and cheaper and faster to achieve.

A proper budget estimate contains detailed work programs that are broken down into in depended activities such as gravelling or grading. These independent activities shall have a budget estimates for each activity derived accurately and accountably. The budget estimates reflect the financial scope of maintenance activities and their eventual costs (Faiz,1991). It is an indication of what may not be done if inadequate funds are budgeted and allocated for maintenance. It is further an indication of expenditure item on maintenance which should not be more than the funds allocated for maintenance of road networks.

In instances where budged are drawn without reliable and accurate estimates, funding will be inadequate and maintenance of road networks will be undermined. Inaccurate estimates shall lead to under budgeting for maintenance activities and as a result allocation of insufficient funds for maintenance of road networks. It is worth noting that budget should be drawn based on accountable estimates derived from a technical and expertise process. Main objective of the budget is to provide a framework for accountability. According to Faiz (1991) budget are a supposed contract between the road agency and the government, with the road agency expected

to deliver on maintenance of road networks whereas the government is expected to provide the funding for the same. The budget then shall be based on accurate estimates to reliable inform funding for maintenance works.

2.2.3 Flow of Funding, Budgeting, Approval and Maintenance of Road Networks in UGC

Timely forwarding of budget estimates and approval of the budget during budgeting ensures timely allocation of funding for maintenance of road networks. During budgeting, the budget estimates should be forwarded by the roads implementing agencies/departments to the approving agency be it national government or devolved governments accurately and in good time so that approvals can be expedited and allocation of funding for maintenance be made in good lime (United Nations. 2005). Accordingly, the approving agency shall expedite the approval of the budget through its arms e.g. the National Assembly (NA) in the case of National Government (NG) and the County Assembly (CA) in the case of County Governments (CG).According, to Chino (2003), adequate funding for proper maintenance of road networks can be achieved through timely approval of the annual budget, estimates. The Government shall then release the allocated funds in time for the maintenance activities without compromising the entire maintenance program.

However, delays in approval of the budget during the budgeting process results in delayed release of funding for maintenance of road networks. Uncalled delay in releasing funds to the road implementing agency could occasion contraction delays on the part of the contractors engaged in maintenance works, this is due to delayed payments for works already executed. It could also delay the more urgent procurement process. Note that procurement can only be commenced once funds are available. Urgent or emergency maintenance works may also not be carried out if funds are delayed due to a slow approval process.

2.3 Flow of Funding, Tendering and Maintenance of Road Networks in UGC

Flow of funding is pegged on timely tendering in the maintenance of road networks. Tendering procedures should be transparent and accountable to ensure effective flow of binding for maintenance of road networks. Roads maintenance can be undertaken either through force account popularly referred to 'in-house units and equipment' or through out- sourcing to private contractors (TRN-4.2005). The process of out sourcing is done through a tendering process consisting of a number of stages. It is important then that Roads agencies put up a clear and transparent procedures and mechanisms for tendering.

Accordingly, effective flow of funding is determined by how fast these stages of tendering are executed to achieve timely implementation of road maintenance works.

VCC I (2008) recognizes that other innovative approaches can also be employed and achieve the desired results depending on the effective cost of the approach. Such approaches include joint ventures, alliance contracting partnering, strategic alliances that when used appropriate evaluation criteria should also be determined to aid in the eventual evaluation process.

Delays in tendering process however results in delay in disbursement of funding. Further, delayed tendering process will affect the awarding of the tenders and the timely implementation of maintenance works. A study by IDB (2010) illustrates that slow tendering and procurement process are one of the chief reasons for the delayed implementation of roads infrastructure projects, maintenance included. The time taken up by these processes eats up on the time allocated for maintenance activities and further delays payments to contractors. C. Calvo (1998) argues that slow tendering could affect payments to contractors resulting in higher overheads, reduces accountability and calls for more funding due to the increase in the costs. The effective flow of funds is thus interfered with.

An opaque tendering procedure lacking transparency is a recipe for litigation and arbitration issues which besides being costly would unnecessarily delay the commencement and completion of road maintenance.

2.3.1 Flow of Funding, Tendering, procurement planning, and Maintenance of Road Networks in UGC

Tendering preceded by a procurement plan achieves an efficient flow of funds on maintenance of road networks in the counties. Tendering informed by a reliable and consistent procurement plan ensures that the tendering process is systematic and has time limits to ensure an effective flow of funding for maintenance works. A proper procurement planning sets up all procurement procedures and stipulates as and when they should be undertaken with a clear guideline on how they shall be undertaken targeting efficient and timely flow of funds for maintenance of county roads. According to Mpw &C Guyana (u. d) a procurement plan stipulates the procedure to be employed in the procurement of contractors commonly referred to as works the method of selecting the contractors, minimum qualifications required, the cost estimate for the works, tentative dates for all the procurement steps i.e. tender notices, site visits, submission of tenders, tender opening, evaluation and finally lender award. It is the foundation setting stage for subsequent procurement activities (Basheka.2008).

According to Basheka, a proper procurement plan brings sanity into financial allocation and management. The gaps in procurement planning therefore need to be bridged especially with the advent of devolution in Kenya.

Organizations should therefore put in place proper procurement plans and tendering strategies focused at timely service delivery, the process must be transparent and accountable. A transparent procurement plan has little loop holes and should be designed in a manner that ensures accountability in the process thereby reducing chances of inviting political attention and interferences. Edler and Georgia (2007) pose that procurement plans serve as road maps with its main objective being to facilitate efficient use of available funding. It seeks to assist the organization achieve its strategic procurement goals if adequately adhered to.

Edler and Georgia (2007) further indicate that procurement plans in this case will serve as a road map and its main goal should be to enable efficient use of available resources. It seeks to assist the organization achieve its strategic procurement goals if adequately adhered to the latter. Public institutions should as a priority operationalize the procurement departments and adequately fund them to be able to undertake their functions (Davis,2002). This view is further reinforced by Mullins (2003) who asserts that procurement planning contributes to an efficient and effective service delivery and operations in the private sector.

Conversely procurement procedures cannot succeed without a procurement plan hence flow of funds is compromised and maintenance works seriously undermined both by delay and quality of the works. The absence of a procurement plan in an institution is synonymous to a vehicle without a steering wheel. Accountability issues arise due to poor or lack of procurement planning justifying TI (2007) view that public procurement at public levels is anchored on corruption and lack of openness. It would further open up the procurement process to political interferences and thereby constraining procurement results attainment particularly in the road maintenance activities.

This view is supported by Chandra (2008) that projects should proceed on a sound formal planning without which there may be chaos. Such chaos arising from poor procurement plans include opening up room for favouritism in awarding of tenders to contractors, reducing the stakeholder confidence in the process. Reduced stakeholder confidence is a recipe for further conflict during the actual implementation of maintenance works. Contractors will not get due cooperation from the public and other stakeholders resulting further in contractual delays in the road maintenance program. Kibet and Njeru (2014) contend that to avoid delays in supply and provision of services, timelines have to be respected since most projects would have cost overruns arising from these delays. Procurement plans timelines must thus be adhered to.

2.3.2 Flow of Funding, Procurement, Tender Notices, and Maintenance or Road Networks in UGC

Procurement preceded by tender notices is necessary for transparency in the flow of funding for maintenance works. A lender notice during procurement process ensures that the prospective tenderers are adequately informed of the onset of the tendering process and the availability of tenders for bidding, it is also referred to as invitation to tender. Proper information and openness in tendering results in transparency in the entire procurement process and the management of the financial resources. Tender notices are normally issued when both, open tendering and selected tendering methods are employed. According to VCC I (2008), the lender notice is meant to inform the public and prospective tenderers of the date of closing of the tender, dateline for submission of tenders, where to purchase the lender documents from and the tender submission place and date. Prospective tenderers shall then be guided by this information failure to which results in disqualification.

This view is consistent with the Public Procurement and Disposal Act (2010) with the following additions, name and address of the procuring entity, tender number.an explanation of how the tender document can Ire obtained and the fee to be paid for the same, a brief description of the goods, works or services being procured and a statement that those submitting the lenders or their representatives may attend the tender opening.

It is imperative then from the foregoing that the tender notice timelines should strictly be adhered to in order to realize a transparent procurement process.

2.3.3 Flow of funding, Procurement, Submission of Tenders, and Maintenance of Road Networks in UGC

Procurement done through adequate and timely submission of lenders is a sure way to fast track the flow of funds for road maintenance. Date lines for submission of tenders ought to be observed so that the procurement plan is not disrupted. These date lines ought to have been earlier stipulated in the procurement plan and appropriately communicated to the prospective tenderers on the invitation to lender. According to PP&DA (2010), tenders must be submitted before the stipulated dateline and any tenders received there after shall be returned unopened.

This time line shall be minimum period of twenty-one days (PP&DR,2006) from the date the invitation to lender is brought to the attention of those who may wish to tender and the dateline for submission of the tenders (PP&DA ,2010). This datelines ought to be observed by the prospective lenders to ensure that procurement process is dispensed off timely, maintenance is executed timely and a stable flow of funding achieved.

Tenders should also be submitted in the correct format as prescribed in (he invitation to tender. According to PP&DA (2010), tenders must be in writing, duly signed and sealed in an envelope, the envelope on which the tender is sealed must contain the tender number assigned to the tender by the procuring entity. This view is reinforced by INR (2012) Guide on procurement, that the document structure, fond size and the number of copies to be submitted shall also be observed during lender submission.

In the event however that these timelines, structure and formats are not observed, tenders shall not qualify for evaluation, the procurement process slowed down and the effect on the flow of funding is not worth emphasizing. According to PP&DA (2010) tenders received after the dateline shall be returned unopened. It goes then that such tenders are effectively not eligible for further consideration. Re-advertisement shall be called for in the circumstance that all prospective do not meet this date lines and the effect on the entire procurement process snow balling to the road maintenance and flow of funding to contractors. Tender submission date lines may however in exceptional circumstance or where the procuring entity feels more time may be required for certain clarifications to be made with regard to the structure and the format of submission to be communicated. This view is emphasized by EB (20l0) that the procuring entity may at its discretion extend the dateline for such submission of lenders. This may be done through amendments to the tender document or the issuance of an addendum and appropriately communicated to those who may wish to tender.

2.3.4 Flow or Funding, Procurement, Tender Evaluation and Award. and Maintenance of Road Networks in UGC

Procurement through a transparent tender evaluation process results in the identification of competent contractors to undertake the maintenance of the road networks; value for the funds allocated is thus achieved. Tender evaluation is only undertaken on tenders that according to the procuring entity are considered responsive and have observed the requirements of the tender notice/invitation to tender.

Chebon and Chepkuto (2013) argue that tender evaluation is largely dependent on the procurement regulations of the institution or the government and that Standard and clear criteria for evaluation should be set and explicitly captured in the tender documents to promote openness and ensure transparency. This view is further asserted by the PP&DA (2010) that the evaluation and comparison of tenders should be done using the criteria set out in the tender documents and no other criteria shall be used. It further adds that the criteria used should be

objective and quantifiable and that it should be applied taking into consideration the price and the quality of the service. VCCI (2008) underscores the need to have people with the necessary competence and skills and who are free of conflicts of interest in the evaluation team to ensure fairness and accountability in the process. For expedience purposes tenders should be evaluated not long after they are opened. The Public Procurement and Disposal Regulations (2006) assign a period of within thirty days after the tender opening. However, this being a guide, the actual date within this period should be well defined by the procurement plan and adhered to.

It is apparent that any delays in the evaluation process beyond the legal timeless stipulated in the PP & DA and the PP & DR shall render the tenders invalid and no further evaluation shall be undertaken. In effect it shall call for retendering, more time spend on retendering means a delay in the commencement and completion of maintenance of road networks and subsequent delays in the payment schedule.

The use of inappropriate criteria shall also undermine the evaluation process resulting in skewed awarding of tenders, payments to contractors shall be skewed and the maintenance of roads skewed. Robinson (2005) opined that the absence of any particular criteria for evaluating tenders results in consideration of the lowest bid for award hence the tenders awarded to undeserving contractors who eventually underperform. This is against the requirement that tender shall be awarded to the tenderer whose bid is considered to be the lowest 'evaluated' bid PP & DA (2010). VCC (2008) emphasizes that the evaluation criteria to be used for this purpose should be consistent with the proposed maintenance works requirements and should aim to eventually identify the contractor offering the best value for funds allocated.

2.4 Flow of Funding, Payments, and Maintenance of Road Networks in UGC

Effective and efficient Flow of funding is tied to timely and accurate payments for road maintenance works undertaken in the counties. Timely and accurate payments to contractors and suppliers engaged in road maintenance works ensures that funds flow down freely and effectively for purposes of maintenance works.

Payments should only be made to contractors upon completion of substantial amount of maintenance works and should be made strictly in accordance with the provisions of the contract (VCCT,2008). Accordingly, the executing agency should therefore ensure compliance with contractual obligations on me part of the contractor. Amounts paid from maintenance fund accounts should reflect the value of the works physically undertaken on site and should be measured and valued accordingly by a competent Superintendent.

A delayed payment in road maintenance slows down the flow of funds to contractors and effectively slowing down maintenance activities. Contractors ought to be paid within a reasonable time upon raising their invoices to facilitate them to proceed with further maintenance works.

A study done by ADB (2003) indicate that delayed payments to contractors results in erratic workloads and leads to bankruptcy of the contractors as a result therefore cost overruns are incurred due to inflationary prices charged by contractors to cover for these risks. Proper payment system and procedures with clear timelines should thus be drawn and adhered to by both the executing agency and the contractors as well. Amoako (2011) asserts that delayed payments to contractors have serious effect on early completion of projects in the construction industry in the world. This view is espoused by Rashid (2010) that the financial capacity of most contractors is limited and that they are mainly depended on how they get paid for work done thus enabling them to proceed with further works.

2.4.1 Flow of Funding, Payments, Joint measurements, and Maintenance of Road Networks in UGC

Payments made through joint measurements of works done results in accountability of flow of funding for maintenance of road networks in the counties. Joint measurements done together by the contractor and a representative of the road agency derives measurements that are acceptable to both parties hence avoids disputes on payable funding during valuation of the road works done. These measurements shall be duly signed by both parties to confirm concurrence of the values tabulated on the joint measurements sheets.

According to PAHCEW (2010) much time is saved in checking and making corrections on payment statements by carrying out joint measurements. These measurements shall be agreed on and signed by both parties before the contractor submits the statements. The works so measured shall conform to the conditions of contract and the bills of quantities as outlined in the tender document, any variations or additional works undertaken on instruction shall also be measured. In the event where measurements are done individually and separately by both parties, measurements shall not be jointly accepted; payments shall be contested resulting in undue delays and slow funding flow.

2.4.2 Flow of funding, Payments, Valuation and certification, and Maintenance of Road Networks in UGC

Payments derived from timely, accurate and actual valuation of road maintenance works achieves efficient utilization and value of funding budgeted for road maintenance activities. Valuation is achieved through costing of actual measured works and determines the actual monetary compensation due to the contractor for maintenance works done hence ensures that value for funding is realized.

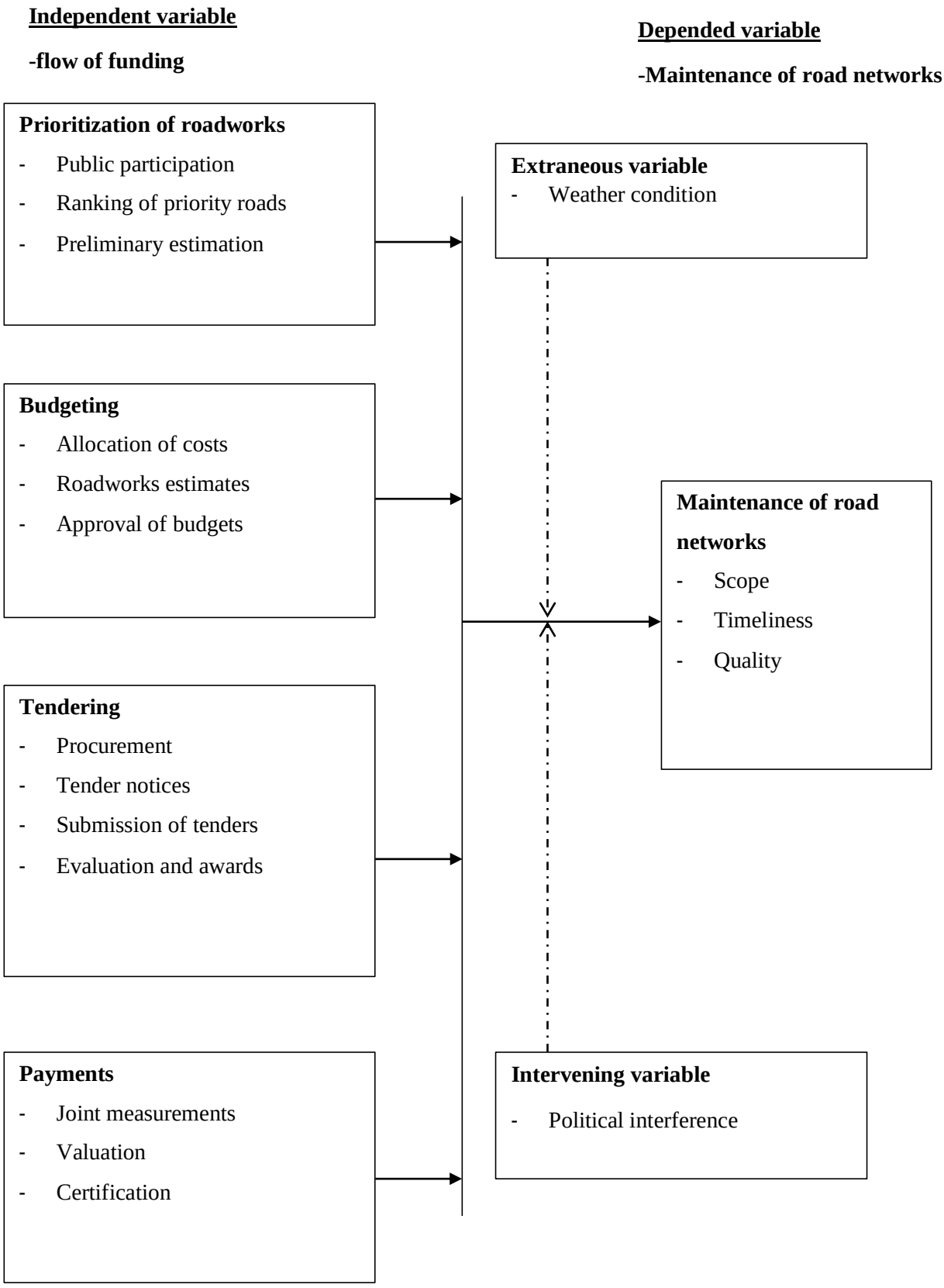
According to JCT (2011) valuation refers to the total value of works executed by the contractor from the date of the last valuation. It is therefore the total value of works so far undertaken by the contractor less the value on the last valuation done. The valuation gives amount of monies due to the contractor at the time of valuation. It may be an interim valuation or a final valuation. JCT further describes interim valuation as a valuation made before the maintenance works are completed and serve to facilitate the contractor's cash flow to proceed uninterrupted with the works. Whereas final valuations are done after the maintenance contract has been fully completed. E N Donkor (2011) emphasizes the need to fast track the valuation process on construction projects to avoid delay in the part of the contractor on execution of works. He further poses that such delays result in contractors making claims for interest on the delayed payments. Extra claims beyond the contract amounts result in cost overruns on the maintenance contract and value for funds will not be achieved.

Delayed and inaccurate valuation of works delays payment process to contractors affecting the flow of funding to them. Walker and Wilkie (2002) argue that contractors depend on full and timely payments to run their operation, delays and underpayments therefore could cause major inconvenience and difficulties on their operations. Cooke and Williams (2009) agrees on this view that contractors rely on timely valuation and payments to pay their wages, materials and sub-contractors. This view is further shared by Meng (2005) that all problems in construction works begin when payment is not received or paid at the exact amount or date. Disagreements lead to contractual disputes and sores relationships between the contractor and the road implementing agency. Contractors should thus be paid their correct valuations and done at the right time.

2.5 Conceptual Framework

The conceptual framework for the study shows diagrammatically the relationship between the independent variable (flow of funding) and the dependent variable (road network maintenance) as illustrated.

Figure 2.1: conceptual framework



2.6 Summary of Related Literature

Having extensively reviewed the literature on flow of funding and also on road maintenance, it is clear that several factors determine the effectiveness and the stability of flow of funds from the financing level all the way down to the expending level. Several studies have indicated that the sub-dimensions discussed herein indeed have a notable bearing on the stability of funding for road maintenance. From the literature reviewed it can also be deduced that indeed road maintenance has not received adequate attention by most of the governments, indeed most government allocate very little finances towards this exercise. The funds so allocated do not either get utilized for the intended purpose or delayed by certain procedures along its flow.

Literature on these procedures has been extensively reviewed under the sub-dimensions.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter captures the research and the methodology that will be employed in undertaking this study. It describes the study area the research design, the target population, sampling techniques, data collection instruments, validity and reliability of the instruments and eventually data collection and analysis procedures.

3.1 Research Design

A research design is a plan, structure and strategy of investigations to obtain answers to research questions and control variance (Ogula,2005). This adopted a descriptive research design. A descriptive research is used to provide a picture of a situation as if is natural or as it happens, it may also be used to justify current practice and make judgments (Bums and Grove,2003). This research method can be used in studies that require documenting existing conditions about a specific topic(Trocham,2005). Manion and Cohen (1994) point out the descriptive research is useful for gathering and analysing data at a specific point in time with the aim of describing correlation of existing conditions and comparing these conditions with identified standards. This study sought to identify the current situation of funds flow and road maintenance against required standards.

3.2 Target Population

According Mugenda and Mugenda (2003) a target population is a complete set of individuals, cases or objects with common observable characteristics. The study targeted all adult residents living in Kapsaret Sub-County.The target population was 56,493.

3.3 Sample Size and Sampling Procedure

A sample is the target or accessible population that has been procedurally chosen to represent the entire population (0nen, Oso,2009). It is a smaller group or sub-group obtained from the accessible population (Mugenda and Mugenda. 1999). The sample size for the residents determined from Krejcie and Morgan tables (Appendix 1) was 380. (Table 3.2). The respondents were selected using simple random sampling technique proportionately along the maintained networks.

3.4 Research Instruments

The main data collection instrument in this study was the use of structured questionnaires administered to the selected residents. According to Mugenda and Mugenda (1999) questionnaires give a detailed answer to complex problems. Questionnaires are also a popular method for data collection in deduction because of the relative ease and cost-effectiveness with which they are constructed and administered.

Questionnaires give a relatively objective data and therefore, are most effective. They have the potential to reach out to a large number of responded within a short time, gives respondents adequate time to respond to the questions and has a sense of confidentiality to the respondent(Owens,2002).

3.4.1 Piloting of the Instruments

According to Murray (2003), piloting is important because it helps to identify ambiguities of the items and vague questions for improvement. A pilot study was conducted before the main study, for this purpose, Questionnaires were given to ten (10) residents from randomly selected from Kapsaret sub-county. These respondents were not involved in the actual study. The results of these questionnaires enabled the researcher to determine the reliability of this instrument. It assisted the researcher to revise and reframe the questions appropriately.

3.4.2 Validity

This researcher sought to establish content and face validity to assess the accuracy, meaningfulness, appeal and appearance of the instruments for data collection. Validity of an instrument is the success of a scale in measuring what it sets out to measure so that the differences in individual scores can be taken as representing true differences on the characteristics under study (Koul,1992); while content validity refers to the subjective agreement among professionals that a scale logically appears to reflect accuracy in what it purports to measure (Kothari, 2005). To determine content validity of the instrument items, the researcher sought assistance from his supervisors in ensuring that the instruments were in relation to the set objectives and content area under study. Their suggestions and comments were used as a basis to modify the research items and make them adaptable to the study. Basing on the feedback from the experts, the wordings of the instruments were appropriately modified.

3.4.3 Reliability

Reliability is the level of internal consistency or stability of the measuring device overtime (Borg and Gall, 1986). A measuring instrument is reliable if it provides consistent results or

data after repeated trials (Mugenda and Mugenda ,1999). If a measuring instrument administers a test to a subject twice and gets the same results on the second administration as the first one, then the instrument is considered reliable. Reliability was determined during piloting. Questionnaires were administered twice to ten (10) residents in Kapsaret sub-county. Reliability was then determined using the Cronbach Alpha test. Instruments with Cronbach Alpha value below 0.7 is considered un acceptable (Nunnally ,1978) otherwise figures above 0.7 are considered reliable. A Cronbach Alpha Value of 0.73 was found indicating that the instrument was reliable.

3.5 Data Collection Procedures

Before the commencement of the study, necessary administrative documentations were sought; this included introductory letters from the University and permits from National Commission for science, technology and Innovation The researcher then collected quantitative data. Secondary data was collected from available records at the county offices and the ministry of devolution. Primary data was collected by distributing questionnaires to the respondents.

3.6 Data Analysis

Data was analysed using quantitative methods. Results from questionnaires were first summarized. Quantitative data from questionnaires were subjected to descriptive statistic with the aid of Statistical Package for Social Science.

3.7 Ethical Considerations

Ethical considerations that were observed before data collection included, obtaining permit to undertake the study from the university and the National Commission for Science. Technology and Innovation. During data collection, responded were not prodded to answer in a given direction, the responded were allowed to voluntarily participate. Confidentiality of the respondents was also maintained and their identity concealed. The responded were allowed to know the identity of the researcher and the intention of the research. Finally, all literature from earlier authors was dully acknowledged to avoid plagiarism of any kind.

Table 2: operational definition of variables

Research questions	Variables	Indicators	Measuring Scale	Tools of data collection	Tools of analysis
How does prioritization of road networks influence the flow of funding for maintenance of road networks in Kapsaret Sub-County , Uasin Gishu County,	Prioritization procedures	Public-participation Ranking Preliminary-Estimation	Nominal scale ordinary Scale	Questionnaire	Frequencies Percentages
To what extend does budgeting influence the flow of funding for maintenance of road networks in Kapsaret Sub-County , Uasin Gishu County,	Budgeting procedures	Cost allocation Budget estimates Budget Approval	Nominal scale Ordinary Scale	Questionnaire	Frequencies Percentages

What are the effects of tendering procedures on the flow of funding for maintenance of road networks in Kapsaret Sub-County , Uasin Gishu County,	Tendering procedures	Procurement planning, tender notices. Submission of tenders Tender evaluation and award	Nominal scale Ordinary Scale	Questionnaire	Frequencies Percentages
What are the payment processes that infuence the flow of funding for maintenance of road networks in Kapsaret Sub-County , Uasin Gishu County,	Payment Procedure	Measurements Valuation and Certification	Nominal scale Ordinary Scale	Questionnaire	Frequencies Percentages

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRATATION AND DISCUSSION

4.1 Introduction

This chapter presents the analyses, presentation, interpretation and discussion of the results from the data collected. It is divided into two sections. The first section presents the background information of the respondents. The second section presents results and discussions based on the main themes of the study. All data in this study is quantitative and is treated as such using the SPSS statistical software.

4.2 Response Rate

Out of a targeted sample of 380 respondents.360 respondents returned the questionnaires. This represents a fairly good percentage of 95.0 % and therefore a good representation of the population.

4.3 Background Information

The study sought to determine the background information of the respondents based on their location, their age, how long they have lived in the sub-county, and finally their economic activities.

4.3.1 Location of Residence

It was deemed necessary to the study to categorize the respondents based on their place of residence within the sub-county.

Table 4.1 Ward Residence.

	Frequency	Percent
Ngeria Ward	60	16.7
Megun Ward	64	17.8
Langas Ward	44	12.2
Kapsaret/simat Ward	100	27.8
Kipkenyo Ward	92	25.6
Total	360	100.0

From the findings in table 4.1, it is evident that 16.7 %(60) of the respondents were from Ngeria ward, Megun ward was represented by 17.8%(64), whereas Langas had 12.2%(44). kapsaret /simat Ward represented 27.8% (100) of the total respondents. Kipkenyo ward had an equally high response constituting of 25.6% (92) of the total respondents.

From the table it is evident that a majority of the respondents who participated in the study were from both Kipkenyo and Kapsaret/Simat wards whereas the rest constituted less than 50% of the total respondents.

4.3.2 Age Distribution

In order to determine the level of understanding and awareness of the study information. The researcher sought to desegregate the respondents on the basis of their ages. In order to archive this, the questionnaire outlined age brackets that the respondents were required to state.

Their responses are given in table 4.2.

Table 4.2 Age Distribution

Age Bracket(YRS)	Frequency	Percent
18-30	116	32.2
31-45	140	38.9
46-65	80	22.2
Above 65	24	6.7
Total	360	100.0

Table 4.2 shows the age brackets of the respondents in years. The findings indicate that a majority of the respondent 38.9%(140) were in the age bracket of 31-45 years. Those aged between 18-30 years represented 32.2%(116) of the total respondents. This implies that a majority of the population in the study area fell within these two age brackets. The findings further indicate that 22.2%(80) of the respondents fall in the bracket of 46-65 years where as those above 65 years of age accounted for 6.7%(24).

4.3.3 Duration of Residence

The study sought to find out the duration that the respondents have lived in the study area. This was to inform the study on whether the respondents had lived in the study area long enough to understand the study information. The findings are shown on table 4.3

Table 4.3 Duration of Residence

Duration	Frequency	Percent
More than 10yrs	184	51.1
5-10yrs	124	34.4
1-5yrs	40	11.1
less than 1yr	12	3.3
Total	360	100.0

The findings in table 4.3 above shows that a majority of the respondents 51.1%(184) had lived in the study area for more than ten years. Those who had lived for between 5-10 years accounted for 34.4%(124) of the total respondents whereas those who had resided for 1-5years constituted 11.1%. The respondents who have had residence in the study area for less than one year account for only 3.3%. The findings therefore are fairly representative as more than 85% of the respondent have live in the study area for at least more than five years.

4.3.4 Economic Activity

The study sought to understand what economic activities the respondents are engaged in. This was meant to inform the study on the engagement the respondents have had with the study information. It also sought to ascertain whether the respondents are well acquainted with the issues related to road maintenance in the study area. The findings are shown on table 4.4.

Table 4.4 Economic Activity of Respondents

Economic Activity	Frequency	Percent
Agriculture	116	32.2
Formal employment	68	18.9
Unemployed	72	20.0
Business	104	28.9
Total	360	100.0

The results from table 4.4 show that 32.2% (116) of the respondents engage in farming activities. Those in formal employment constitute 19%(68) while the respondents who are unemployed account for 20%. The respondents who are engaged in various forms of business account for 28.9% (104). From the findings it can be deduced that the respondents are fairly distributed across the four categories therefore sufficient to undertake the study.

4.4.1 Flow of Funding, Prioritization and maintenance of Road Networks.

The first objective of the study was to establish how prioritization of road networks influence flow of funding for roads maintenances in the study area.

As introductory the respondents were asked whether the level of maintenances in Kapsaret sub-county was excellent. Table 4.5 shows the study findings.

Table 4.5 Level of Road maintenance

The level of Road Maintenance in Kapsaret Sub-County is Excellent

Response	Frequency	Percent
strongly disagree	40	11.1
Disagree	156	43.3
don't know	4	1.1
Agree	140	38.9
strongly agree	20	5.6
Total	360	100.0

The finding in table 4.5 illustrate that a majority of the respondents 43.3%(156) disagreed that Road Maintanmanace in kapsaret sub-county was excellent with a further 11.1% strongly disagreeing with this view.38.9% held the contrary view with just 5.6% agreeing that road maintenance was excellent. It is evident therefore that road maintenance is not excellent as per the findings.

The study within the same objective sought to find out whether there is proper prioritization of Roads to be maintained in the study area.

The respondents were asked whether there is lack of prioritization of road networks to be, maintained in kapsaret sub-county. The findings are shown in table 4.6.

Table 4.6 Prioritization of Road Networks for Maintenance

There is Lack of Prioritization of Road Networks to be Maintained in Kapsaret Sub-County

Response	Frequency	Percent
strongly disagree	8	2.2
Disagree	80	22.2
don't know	8	2.2
Agree	132	36.7
strongly agree	132	36.7
Total	360	100.0

From Table 4.6, the findings illustrate that most of the respondent agree that indeed there is lack of prioritization of roads to be maintained in the study area. This is evident from the 36.7%(132) of the respondents further strongly consenting to this view. A total of 88 respondents accounting for 24.4% disagreed with this view, while 2.2%(8) did not know whether prioritization is done or not.

The study also sought to determine whether the public gets involved in prioritization of roads. The respondents were asked to tell whether the public is always involved in prioritizing roads for maintenance in Kapsaret Sub-County. Table 4.7 shows the findings.

Table 4.7 Public Involvement in Prioritization of Roads.

The public is always Involved in Prioritizing Roads for maintenance in Kapsaret Sub-County

Response	Frequency	Percent
strongly disagree	152	42.2
Disagree	92	25.6
don't know	20	5.6
Agree	80	22.2
strongly agree	16	4.4
Total	360	100.0

The findings from Table 4.7 indicate that 42.2%(152) strongly disagree with the fact that the public is involved in prioritization of roads, 25.6% of the respondents just disagree. A total of 27% argue that the public is involved in prioritization of roads and a small fraction of 5.6% are undecided on this matter. This implies that prioritization of road networks in the study area is weak and not much attention is given to this process.

The study also sought to determine whether Roads maintained in the study area were maintained in order of their maintenances needs.

The results are presented in table 4.8.

Table 4.8 Road Maintenance and Priority Needs

Roads Maintained in Kapsaret Sub-County were Maintained in Order of Their maintenance needs and Priority

Response	Frequency	Percent
strongly disagree	40	11.1
Disagree	132	36.7
don't know	12	3.3
Agree	132	36.7
strongly agree	44	12.2
Total	360	100.0

From table 4.8 it can be deduced that 48.9% of the respondents believed that maintenances of roads in Kapsaret sub –county was done in order of their maintenances needs and priority. An equally similar number constituting of 47.9% disagreed on this issue and 3.3% were not decided or did not know about this issue. This implies that maintenances are done fairly according to the needs and priority activities required in maintenances.

Cost estimates for road maintenance was also one of the interest of this study. The study sought to establish whether the cost estimates that inform budgeting are competently and accurately derived. The findings are illustrated on table 4.9.

Table 4.9. Road Maintenance Cost Estimates.

Do You Think Cost Estimates for Road Maintenance Are Competent and Accurately Done

Response	Frequency	Percent
strongly disagree	32	8.9
Disagree	148	41.1
don't know	8	2.2
Agree	164	45.6
strongly agree	8	2.2
Total	360	100.0

The study findings from table 4.9 illustrates 50% of the respondents disagree with the question posed indicating that the same respondents do not approve of the competency and accurateness of the cost estimates derived for the roads to be maintained whereas 48% do agree. The variance between the two infers that the estimates derived for road maintenance are fairly accurate and competent.2% of the respondents could not tell the position of this issue.

4.4.2 Flow of Funding, Budgeting and maintenance of Road Networks.

The second objective of this study was to assess how budgeting for road maintenances influence flow of funding for maintenance of road networks in the study area.

The respondents were asked whether they get involved in the budgeting for road maintenance. The findings are indicated in table 4.10

Table 4.10 Involvement in Budgeting

Do You Get Involved in The Budgeting For Roads maintenance

Response	Frequency	Percent
strongly disagree	180	50.0
Disagree	116	32.2
Agree	52	14.4
strongly agree	12	3.3
Total	360	100.0

From Table 4.10 it is evident that a majority of the respondents 50% allude that they never get involved in budgeting for road maintenance works. This indicates that the public has or is being kept out of the budgeting process on roadworks. Only 18% of these respondents affirmed that they get involved in the budgeting for road maintenance works implying that more effort needs to be put to ensure greater involvement of the public in this exercise.

The study also sought to determine whether the respondents agreed with the level of costs allocated to individual roads for maintenance. The findings are tabulated on table 4.11

Table 4.11. Costing for Road maintenance

Do You Agree With The Costs Allocated to Individual Roads For maintenance

Response	Frequency	Percent
strongly disagree	40	11.1
Disagree	144	40.0
don't know	4	1.1
Agree	164	45.6
strongly agree	8	2.2
Total	360	100.0

From the study findings in table 4.11 it can be inferred that 51.1% of the respondents were not contended with the level of costs allocated to individual roads during maintanance.47.8% however agreed with this view whereas 1.1% did not know. The implication of this findings indicate a mixed feeling about the costs allocated for road maintenance whose result then would compromise the flow of funding and eventual maintenance activities.

The study further sought to determine the level of satisfaction on the amount of funds being budgeted for maintenance of road networks in the study area. The findings are illustrated in table 4.12

Table 4.12 Budgetary Amounts for Road Maintenance

What is Your Level of Satisfaction On Amount of Funds Being Budgeted for Maintenance In Kapsaret Sub-County

Response	Frequency	Percent
very dissatisfied	64	17.8
Dissatisfied	164	45.6
Don't know	28	7.8
Satisfied	96	26.7
very satisfied	8	2.2
Total	360	100.0

The findings in table 4.12 shows that 63.4% of the respondents were dissatisfied with the amount of funds being budgeted for road maintenances where as 29% were satisfied. The implication of this finding is that more funds need to be budgeted for road maintenances purposes.

The study also sought to establish whether budgets for road maintenance are approved in time. Table 4.13 illustrates the study findings.

Table 4.13 Road Maintenances Budget Approval

Budget for Maintenance of Roads in Uasin Gishu County Are Always Approved Timely

Response	Frequency	Percent
strongly disagree	68	18.9
Disagree	152	42.2
don't know	12	3.3
Agree	92	25.6
strongly agree	36	10.0
Total	360	100.0

From table 4.13 it is apparent that more that 61% of the total respondents disagreed and did not concur that there is timely approvals of budget for road maintenance. This implies that there

is always delays in approval of budgets to trigger availability of funds for road maintenance. Only 35.6% agreed that road maintenance budgets were approved in time.

4.4.3 Flow of Funding, Procurement and maintenance of Road Networks.

The third objective of the study sought determine how tendering influence flow of funding for maintenance of road networks in the study area.

The respondents were asked to rate the level of accountability and transparency of procurement procedures for road maintenances contracts in the study area. The findings are enumerated on table 4.14.

Table 4.14 Accountability and Transparency of Procurement Procedures

How Would you Rate the Level of Accountability and Transparency of Procurement Procedures For Road maintenance Contracts in Kapsaret Sub-County

	Frequency	Percent
poor	60	16.7
average	132	36.7
don't know	16	4.4
good	104	28.9
excellent	48	13.3
Total	360	100.0

It can be deduced from the findings on table 4.14 that a majority of the respondents accounting for 36.7% rated the accountability and transparency of procurement procedures at an average where as 16.7% rated the process as poor. Those shared the contrary opinion accounted for 42.2% of the total respondents. The findings imply that accountability and transparency of procurement procedures has a negative effect on the effective flow of funding for road maintenances works as espioned by Edler and Georgia (2007) that a transparent procurement has little loop holes and should be designed in a manner that ensures accountability in the process thereby reducing chances of inviting political attention and interferences.

This study also sought to ascertain whether tender notices for road maintenance works in the study area were issued in time. The study findings are shown on table 4.15

T**able 4.15 Tender Notices**

Tender Notices for Road Maintenance Works in Kapsaret Sub-County Are Issued in time and are elaborate

Response	Frequency	Percent
strongly disagree	52	14.4
disagree	172	47.8
don't know	16	4.4
agree	100	27.8
strongly agree	20	5.6
Total	360	100.0

The findings in table 4.15 indicate that a majority of the respondents 62.2% felt that tender notices for maintenance of road networks were not issued in time. This implies that the entire procurement process is slowed. A slow procurement process undermines the effective flow of funding hence road networks may not be maintained in time as planned. Only 33.4% of the total respondents however agreed that tender notices are issued timely. The feeling is that before the tender notices are issued, the initial process of procurement planning would have been dispensed with.

The study sought to determine whether tenders for road maintenance works are submitted in time. The findings are tabulated in table 4.16

Table 4.16 Submission of Tenders

Submission Of Tenders For Road maintenance Works in Kapsaret Sub-County are done Timely

	Frequency	Percent
strongly disagree	16	4.4
disagree	128	35.6
don't know	12	3.3
agree	172	47.8
strongly agree	32	8.9
Total	360	100.0

The findings from table 4.16 indicate that a majority of the respondents 56.7% are of the view that tenders for road maintenance works are submitted in time. This is attributed to the strict timelines drawn for the submission of tenders. These findings agree with PP&DA (2010). that

all tenders submitted after the due date and time shall be rejected forthwith. The respondents who dissented on this view accounted for 40% of the total respondents. This could be due to the feeling that the general lag in the procurements timelines could be attributed to a delay in the submission of tenders.

The study also sought to determine the accountability and transparency of the tender evaluation and awards process for road maintenances works. Table 4.17 shows the findings

Table 4.17 Tender Evaluation and Ward

Tender Evaluation and Award For Road maintenance Works In Kapsaret Sub-County Are Done Transparent and Accountably

	Frequency	Percent
strongly disagree	68	18.9
disagree	128	35.6
don't know	28	7.8
agree	104	28.9
strongly agree	32	8.9
Total	360	100.0

It is evident from table 4.17 that respondents accounting for 54.5% were of the opinion that the tender evaluation and award for road maintenance works lacked transparency and accountability. Those who agreed that transparency and accountability indeed is exercised accounted to 39.8% whereas those who were unaware constituted 8% of the respondents. This could be attributed to the fact that, tender evaluation and award is an internal institutional process that the public may not be in a position to comment on. It is however worth noting that a majority of those who have access to this process painted a grim picture on the accountability of the process.

The study also asked respondents to rate the level of competency of contractors appointed to undertake road maintenance works. Below are the findings.

Table 4.18 Competency of Road Works Contractors

How Would You Rate the Level Of Competency of Contractors Appointed to Undertake Road Maintenance In Kapsaret Sub-County

	Frequency	Percent
poor	16	4.4
average	156	43.3
Don't know	20	5.6
good	168	46.7
Total	360	100.0

The findings on table 4.18 illustrate that 46.7% of the respondents approved of the competency of the contractors appointed to undertake road maintenance works. A further 43.3% rated them at average whereas 4.4% did not approve of their competency. These findings imply that the output of the contractors undertaking maintenance works is generally acceptable. The findings are further reinforced by NCA (2011), that before registration, all contractors are vetted both on their professional capacity as well as their plant and equipment capacity to deliver on construction works.

4.4.4 Flow of Funding, Payments and maintenance of Road Networks.

The fourth objective of the study was to identify how payment processes influence flow of funding for maintenance of road networks.

The respondents were first asked to rate the level of competency of measurements for road works undertaken in the study area. Table 4.19 illustrates the results.

Table 4.19 Measurements of Roadworks

How Would You Rate the Level of Competency and Accountability of Measurements for Road Works Undertaken in Kapsaret Sub-County

	Frequency	Percent
Poor	40	11.1
average	180	50.0
don't know	12	3.3
good	124	34.4
excellent	4	1.1
Total	360	100.0

From table 4.19, more than 61% of the respondents did not approve of the competency and accountability of the measured works. About 35% agreed that the road works were competently measured. These findings imply that the measured works and eventually the value paid for these works do not reflect the amount of works actually delivered or done. It could also imply that the personnel tasked with undertaking the measurements may not be technically qualified for this purpose. Training on this field may be necessary to equip them with the necessary skills and expertise on road works measurements.

The study also sought to find out whether the road maintenances works are accurately valued after the measurements have been undertaken. The findings were as follows.

Table 4.20 Valuation of Road Works

Road Maintenances in Kapsaret Sub-County Are Competently and Accurately Valued

	Frequency	Percent
strongly disagree	36	10.0
disagree	156	43.3
don't know	12	3.3
agree	152	42.2
strongly agree	4	1.1
Total	360	100.0

Table 4.20 illustrates that a majority of the respondents 53.3% disagreed with the competency and accurateness of the valuation of the road works. This could imply that the value derived for the road works do not reflect the measured works and figures. The feeling of the respondents was that works are either exaggerated or overvalued during and after the measurement process. As a result, value for money may not be achieved. However, a good number of the respondents accounting to 43.3% agreed that indeed the valuation of road works are accurate.

The study finally sought to determine whether certification of road works done and payments for the same are done in time. The results are tabulated below.

Table 4.21 Certification and Payments

Certification and Payments For Road Works Are Made in Time

	Frequency	Percent
strongly disagree	52	14.4
disagree	132	36.7
don't know	48	13.3
agree	124	34.4
strongly agree	4	1.1
Total	360	100.0

The findings on table 4.21 indicate that a majority of the respondents accounting to 51.1% disagreed that certification and payments for road works undertaken were made in time. This indicates that there evidently are delays in these processes. Respondents accounting to 35.5% however agreed that certification and payments are made in time.

CHAPTER FIVE
SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter shall provide the summary of the major findings as inferred by the study, it shall also present conclusions and recommendations and suggest area for further study

5.2 Summary of Findings

This section presents the summary of findings based on the objectives outlined for the study.

5.2.1 Background Information

The background information sought from the respondents indicated that a majority of the respondents were from Kapsaret/Simat ward accounting for 30% of the total respondents. This implies that more residents from this ward were willing to participate in the study. The findings also show that a majority of the respondents were between the ages of 31 and 45 years. This is the age bracket that contains residents who are actively involved in development and economic activities and therefore provided reliable information to the study.

The results also indicate that 50% of the respondents have lived in the study area for more than 10 years and therefore are sufficiently informed to reliably participate in the study. The study findings also indicated a fairly balanced economic background of the respondents. This implies that the responses derived were reliable.

5.2.2 Flow of Funding, Prioritization and maintenance of Road Networks.

The study sought to establish how prioritization of road networks influence flow of funding for roads maintenances in the study area. The findings indicated that the majority of the respondents accounting to 54% were of the view that road maintenance in the study area was poor. This implies that the road networks were always in unmaintained and not so motorable state. The poor maintained state of these roads could be attributed to the lack of proper prioritization of both the road works activities and the networks to be attended to.

The findings further show that indeed prioritization is weak or entirely lacking in the process of identifying roads for maintenance. This is indicated by the 73.4% of the respondents in support of this view and only 22% in support of the contrary view.

It was also found that 67.8% of the respondents disagree on the involvement of the public in prioritizing road networks as and if prioritization is undertaken. This implies that though

prioritization may be weak, consultation with the public is equally weak arising therefore to skewed list of Roads prioritized for maintenance.

The study finding further showed that 48.9% of the respondents agreed that roads were maintained in order of their priority activities and needs where as 47.8% disagreed.

5.2.3 Flow of Funding, Budgeting And maintenance Of Road Networks.

The study sought to assess how budgeting for road maintenances influence flow of funding for maintenance of road networks in the study area.

Findings revealed that 82.2% disagreed that they do not get involved in the budgeting for road maintenance works, whereas a further 17.7% agreed that they get involved in budgeting. It infers therefore that indeed public participation in the budgeting process is weak.

The study findings also revealed that the costs allocated to individual roads do not reflect the level and amounts required to undertake adequate road maintenance, this is inferred by 51.1% of the respondents disagreeing with this view. whereas a further 63% dissatisfied with the amount of funds budgeted for maintenance works in the study area.

The study findings also pointed out that budgets are not approved in time. It noted delays in approval of budgets meant to finances road works.

5.2.4 Flow of Funding, Tendering and maintenance of Road Networks.

The third objective of the study sought determine how tendering influence flow of funding for maintenance of road networks in the study area.

The study findings indicated that a majority of the respondents 53.4% rated the level of accountability and transparency of procurement/tendering process below average. This implies that the process is not water tight and could be propagating a scenario where undeserving contractors are awarded road maintenance works at the expense of genuine deserving bidders.

The study findings also indicate that a majority of the respondents felt that tender notices were not being issued in time resulting to delay of the execution of maintenance activities.

The study also noted that there was timely submission of tenders, a total of 56.7% of the respondents agreed that indeed tenders were being submitted in time.

Further, 54.4% of the respondents did not agree with the transparency and accountability of the tender evaluation and award process. This implies that there could be favouritism and corruption in the evaluation and award of such tenders.

The study findings also indicate that 47.7% of the respondents placed the level of competency of contractors undertaking maintenance works. This implies that whereas the public do not

have confidence in the process s of awarding the tenders. The contractors awarded this tender are able to deliver and execute the works to completion. This could be attributed to the national construction authority that has put punitive measures on non-performing contractor

5.2.5 Flow of Funding, Payments to Contractors and Maintenance Of Road Networks.

The fourth and last objective of the study sought to identify how payment processes influence flow of funding for maintenance of road networks.

The findings indicated that majority of the respondents did not agree with the competency and accountability of the measurement. for works done by the conractors,61% of the respondents felt that measurement of road maintenance works is either no accurate, do not reflect the works done and are incompetently derived. This implies that eventual payments for maintenance works may be inaccurate. The respondents felt that inaccurate measurement may result in over valuation and over payments to contractors undertaking these work.

The study further found that a majority of the respondents accounting for 53.3 % felt that valuation for road works done are either incompetent or inaccurate whereas 43.3% thought that the valuation derived was accurate. This implies that inaccurate valuation arises from in competent measurement for the road works done resulting therefore to overpayments and lack of value for money. The study finding final indicated that there are delays in certification and payments to. contractor for road maintenance works done. Such delays could result in disagreements leading to contractual disputes and soring of relationships between the contractor and the road implementing agency (Meng,2005).

5.3 Conclusion

In conclusion this study found that prioritization of road works has a bearing on the scope and the competency of road maintenance works and there a strong influence on the flow of funding for maintenance of road networks. The study notes that prioritization of road networks is lacking or very weak in the study area resulting thereof to skewed allocation of funding for maintenance. Weak prioritization results in roads that are well above maintenance urgency being allocated funds at the expense of highly deteriorated and unmotorable road.

The study also contends that for a smooth and efficient flow of funding, budgeting for road maintenance works must be an all in involving process. The public should be involved in all the budgeting cycle. This will ensure that the public takes ownership of the resulting budget

and accept it. Budgets must also be adequately derived and approved in time. This will trigger timely release of funds for road maintenance.

The study also concludes that procurement process to identify contractors to undertake maintenance is opaque. There is very little transparency in the entire procurement process. It also notes that there are delays in completion of the procurement cycle. As a result therefore, funds allocated for maintenance of road networks are not spend in time as planned. An opaque process also results in disquiet within the public, invites unnecessary political attention and may even result in litigations from the public.

The study finally contends that timely payments to contractors is key to the success of road maintenance works. The study notes that payments due to contractors are not accurately derived. As a result, the implementing agency could lose funds due to overvaluation of the works done.

5.4 Recommendations for Policy and Practice

On the basis of the findings and conclusions, this study makes the following recommendations.

That in order to achieve efficient flow of funding

1) The County Government should enhance the prioritization of road networks for maintenance
2) The county government and other road agencies should involve the public more in identification of roads to be maintained
3) Budgets developed and allocated to road maintenance should be adequate to undertake all maintenance activities required
4) The county government should fast track the process and approval of the budget
5) Tendering and procurement procedures ought to be streamlined to ensure that there is transparency, accountability and timeliness in the process
6) Certification and payments to contractors for works done should not be delayed.

5.5 Suggestions for Further Study

1.A similar study be done in other Sub-Counties within Uasin Gishu County to compare and validate these findings

2.Further research be done to ascertain the influence of politics on flow of funding for maintenance of road networks.

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APPENDICES

APPENDIX A: TRANSMITTAL LETTER

University of Nairobi

School of Continuing and Distance Education

Eldoret Extra Mural Centre

RE: Introduction

I am a masters' student of Nairobi University conducting a study entitled, **'Factors influencing flow of Funding on Maintenance of Devolved Road Networks in Kapseret, Uasin Gishu County, Kenya**. You have been selected as one of the respondents of this study. Your responses will be used for purposes of this study only and will be treated with utmost confidentiality. Please feel free to fill in your responses in this questionnaire as you may deem appropriate.

Thank you.

Yours sincerely,

Peter Kimeli Too

APPENDIX B: QUESTIONNAIRES

	QUESTION	RESPONSES					INSTRUCTION
1.0	**BACKGROUND INFORMATION**						
1.1	What is the name of your ward						Indicate
1.2	What is your age?	18-30 31-45 46-65 Above 65					Tick your against Choice
1.3	How long have you lived in Kapsaret sub-county?	More than 10yrs 5-10 yrs 1-5 yrs Less than 1 yr.					Tick your against Choice
1.4	What is your economic activity?	Agriculture	Formal Employment	Unemployed	Business		Tick against your Answer
2.0	**FLOW OF FUNDING, PRIORITIZATION AND MAINTENANCE OF ROAD NETWORKS IN UGC** **Key: Strongly Agree=5 Agree=4 Don't know=3 Disagree=2 Strongly Disagree=1**						
2.1	The level of road maintenance in Kapsaret sub-county is excellent?	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree	Tick Against Your Answer
2.2	There is lack of Prioritization of road networks to be maintained in Kapsaret sub-county?	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree	
2.3	The public is always involved in prioritizing roads for maintenance in Kapsaret sub-county?	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree	
2.4	Roads maintained in Kapsaret sub-county were maintained in order of there maintenance needs and priority?	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree	

2.5	Do you think Cost estimates for road maintenance are competent, accurate and properly done?	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree	
3.0	**FLOW OF FUNDING, BUDGETING AND MAINTENANCE OF ROAD NETWORKS IN UGC** **Key: Strongly Agree=5 Agree=4 Don't know=3 Disagree=2 Strongly Disagree=1** **Very Satisfied=5 Satisfied =4 Don't Know =3 Dissatisfied =2 Very Dissatisfied =1**						
3.1	Do you get involved in the budgeting for roads maintenance?	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree	Tick Against Your Answer
3.2	Do you agree with the level of costs allocated to individual roads for maintenance?	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree	
3.3	What is your level of satisfaction on amount of funds being budgeted for maintenance in Kapsaret sub-county?	Very Satisfied	Satisfied	Don't Know	Dissatisfied	Very Dissatisfied	
3.4	Budget for maintenance of roads in Uasin Gishu County are always approved timely?	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree	
4.0	**FLOW OF FUNDING, PROCUREMENT/TENDERING AND MAINTENANCE OF ROAD NETWORKS IN UGC** **Key: Strongly Agree=5 Agree=4 Don't know=3 Disagree=2 Strongly Disagree=1** **Poor=5 Average =4 Don't Know =3 Good=2 Excellent =1**						
4.1	How would you rate the level of accountability and transparency of	Poor	Average	Don't Know	Good	Excellent	Tick Against Your Answer

	procurement/ tendering procedures for road maintenance contracts in Uasin Gishu County?						
4.2	Tender notices for road maintenance works in Kapsaret sub-county are issued in time and are elaborate?	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree	
4.3	Submission of Tenders for road maintenance works in Kapsaret sub-county are done timely?	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree	
4.4	Tender evaluation and award for road maintenance works in Kapsaret sub-county are done transparently and accountably?	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree	
4.5	How would you rate the level of competency of contractors appointed to undertake road maintenance in Kapsaret sub-county?	Poor	Average	Don't Know	Good	Excellent	
5.0	**FLOW OF FUNDING, PAYMENTS TO CONTRACTORS AND MAINTENANCE OF ROAD NETWORKS IN UGC** **Key: Strongly Agree=5 Agree=4 Don't know=3 Disagree=2 Strongly Disagree=1** **Poor=5 Average =4 Don't Know =3 Good=2 Excellent =1**						
	How would you rate the level of competency and accountability of	Poor	Average	Don't know	Good	Excellent	Tick Against Your Answer

	measurements for road works undertaken in Kapsaret sub-county?						
	Road maintenance works in Kapsaret sub-county are competently and accurately valued?	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree	
	Certification and Payments for road works are made in time?	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree	

APPENDIX C: RESEARCH PERMIT