

DETERMINANTS OF COMPLETION RATE OF INFRASTRUCTURAL COUNTY FUNDED ROAD PROJECTS: A CASE OF NYAMIRA COUNTY, KENYA

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Abstract: The infrastructural projects are key to the economy of any country worldwide. They contribute to around 20% of the global GDP. Completion of projects along the quadruple constraints of time, scope, cost and quality needs good planning requirements. The purpose of the study was to establish the determinants of completion rate of county funded infrastructural projects a case study of Nyamira County. The study also looked at the specific objectives on how monitoring and evaluation, availability of resources, competency of staff and stakeholder participation influence the completion rate of county funded infrastructural road projects in Nyamira county. The design of this study was descriptive survey research. The population of this study was approximately 2500 individuals drawn from 60 road projects that were at different stages of completion. The sample size of the study comprised of 42 participants. The study covered roads in within all 5 sub-counties of Nyamira County. Nyamira County allocates an average of 20% of its budget on road construction and maintenance. The purpose of this study was to explore the Determinants of completion rate of infrastructural county funded projects case study of Nyamira County. The researcher used questionnaires as instruments of collecting data from various stakeholders. A pilot study was conducted to pre-test the validity and reliability of instruments for data collection. Data collection was done through the use of questionnaires constructed on a 5 point Likert scale. The instrument for the collection of data was pre-tested where the coefficient of Cronbach's Alpha was utilized in examining the reliability of the instrument. Examination of compiled information was prepared by utilizing software known as statistical package for social sciences (SPSS). Information was evaluated employing explanatory figures and association scrutiny. The scrutinized data was shown and discussed in form of tables. The study observed that taking all factors (Funding, competence of staff, stakeholder participation and monitoring and evaluation tools) constant at zero, the completion rate would be 1.224. The data findings analysed also indicated that taking all other independent variable at zero, a unit increase in availability of funding would lead to an increment of 0.217 of completion rate of a road project. A unit increase in competence of staff led to an increment of 0.272 on completion rate of infrastructural road project. A unit increase in stakeholder participation led to an increment of 0.299 on completion rate of infrastructural road project. It was further observed that a unit increase in monitoring and evaluation tools led to an increment of 0.118 on completion rate on infrastructural road project. It was therefore concluded that stakeholder participation contributes most to the completion rate of county funded infrastructural county funded road projects followed by competence of staff. Monitoring and evaluation contributed the least to the completion rate of county funded road projects. The study recommends that there is need to of ensuring that all stakeholders are engaged effectively when planning and executing the construction of roads at the county level. The study further recommends that each road project should have a mechanism to ensure that the beneficiaries and project implementers get involved in decision making at all stages of the project lifecycle. The study also recommends that project staff should undergo continuous in house trainings to ensure that they are aware of the emerging skills in the construction industry. The study finally recommends that counties should incorporate information technology in their monitoring and evaluation tools to accelerate the completion rate of infrastructural road projects.

Keywords: Determinants of completion rate of county funded infrastructural projects.

LIST OF ABBREVIATIONS AND ACRONYMS

CBEF	County Budget and Economic Forum
CG	County Governments
CGA	County Government Act
CGN	County Government of Nyamira
CIC	Commission for the Implementation of the Constitution
CRA	Commission on Revenue Allocation
ICPAK	Institute of Certified Public Accountants Kenya
MCA	Member of County Assembly
OCOB	Office of the Controller of Budget
PFM	Public Finance Management

1. INTRODUCTION**Background of the Study**

Road infrastructure is a crucial driving force for economic growth in any country and sustained access to roads is essential to improve living standards. According to Ntiniya (2016), productivity, welfare, and security of both rural and urban people are greatly influenced by the level of road infrastructure development in any country. The quality of infrastructure including road transport, in a nation, considerably affects production costs, employment creation, markets access, and investment depend on the quality of infrastructure, especially road transport (Mwangi, Nyang'wara&Kulet, 2015). Therefore, so as to attain the goals of employment and wealth creation, poverty alleviation and economic growth, there is need for implementation of a well-functioning and good road network (Enshassi, Arain& El-Rayyes, 2014).

Globally, governments are placing greater emphasis on the development of infrastructural projects including road projects. The budget allocation, mostly in developing countries, in respect to road projects has been increasing over the years (Xue, Turner &Anbari, 2013). Even though efforts are being made in a way to improve on road projects, developing countries are still faced by performance challenges such as delays in completion of road projects, demolitions that are experienced in businesses houses, abortive works and cost overruns. According to Kariuki (2015) road construction projects are still associated with sub-standard works, loss of Governments funds and ultimately untimely completion of road construction projects. It further added that a lot of funds were set aside for Monitoring and supervision in the budget for road construction projects but roads were found to be of poor quality compared to those works where there were no funds set aside for monitoring and evaluation.

In the construction industry, the aim of the project control is to ensure that the projects get finished on time, within budget and achieving other project objectives. It is a complex task undertaken by project managers in practice, which involves constantly measuring progress; evaluating plans and taking corrective actions when required (Kerzner, 2003). The goal of all the parties involved in construction projects, owners, contractors, engineers and consultants in either public or private sector is to successfully complete the project on schedule within planned budget, with the highest quality and the safest manner. When projects are completed in time, their duration is not extended beyond the schedule and thus operates within budget (Gollapudil, 2003).

Construction delays occur all over the world and many studies have been carried out to assess the causes of delays in construction. Sambasivan and Yau (2007) stated that about 17.3% of government contract projects in Malaysia were considered sick, which means they were delayed by more than three months or abandoned completely. Besides that, Assaf and Al-Hejji (2006) from Saudi Arabia studied the causes of delay in large construction projects and discovered that only 30% of construction projects were completed within the scheduled completion dates and the average time overrun was between 10% and 30%.

Road construction in Africa is a scarce undertaking and where roads are available, they are largely poorly maintained. A survey carried out by the World Bank reveals that average road density in Africa is 20.4km per 100 square kilometres of land area. Worse still, of these only a quarter are paved. Southern Africa is the only region in Africa with a fairly good road transport system. South Africa in particular is reported to have 62km of road per 100km square kilometres close to the United States of America that has 67km of roads per 1000 square kilometre. This success story has been attributed to the country's revitalization of its road and railway system before the FIFA World Cup Of 2010. The low road construction in Africa has had dire consequences. The effects of poor road connectivity in Africa cannot be over emphasized. The World Bank notes that with poor road connectivity the cost of goods significantly goes up.

The contractors and consultants have varying experience, capabilities and management skills, all of which have a major impact on the completion times of construction projects. The growth in the number, of these players in the industry has not seen a corresponding improvement in the timely delivery of projects. Although with more contractors and consultants, there is increased competition among themselves and the clients have a greater variety of service providers from which to select. The construction industry in Malawi is now at a stage where most contractors both emerging and as well as long established, can hardly deliver their projects on schedule, not to mention failing to perform all together. This failure to deliver road projects on time annoys both the clients and road users who expect to benefit from the completed roads. This state of affairs is undesirable to both the contractors and clients, as it costly for both parties and has the potential to trigger disputes, whose resolution is time-consuming and expensive (Kamanga, 2013). In Ghana for instance 33 out of total of 47 projects completed between 1979 and 1999 were delayed and 38 projects suffered cost overruns. (Frimpong et al, 2001).

Not much has been done on the determinants affecting the delivery of Nyamira infrastructural roads projects specifically Nyamira county. Thus study aims to bridge this knowledge gap by seeking to survey the determinants influencing the completion of infrastructural roads projects in Nyamira County.

Infrastructural development of road networks in Kenya is a sector that has been put under emphasis by the government due to it being the key incentive to spur economic growth. A large share of the national budget resource allocations goes to it (Gasangwa, Mulyungi&Ndabaga, 2017). Contracting for paved road construction has increased in great measure making construction industry an easily noticeable development. This is intended to spur growth by creating efficiency, convenience and cost effectiveness in the transportation of both goods and services in the Kenyan economy (Tong', Otieno& Osoro, 2019).

The County government of Nyamira has been investing heavily in road projects in the last five years. For instance, in January 2018, Nyamira County government allocated Ksh. 656 million towards the construction of roads and bridges across the county (County Government of Nyamira, 2018). However, most of the construction projects end up experiencing cost overruns and hence exceeding the contract amount that was planned for initially. In addition, completion of the project within the stipulated time remains to be a problem. In the year 2019, the County government of Nyamira re-advertised four bridges after the contractors who won tenders in June 2018 failed to implement the projects in the last six months (Najimesi, 2019). During the rainy season, the road networks in the County are mainly earth surface and are normally impassable, which negatively affects movement of people and fresh farm produce to market. Therefore, improvement of road construction projects performance will play a major role in ensuring that farmers get their produce to the market on time and at low transport costs. While monitoring evaluation is an important component in project management, road projects in Kenya are characterized by low monitoring and evaluation skills, inadequate allocation of resources, failure to use modern technology and low stakeholder's involvement (Landicho, 2018).

Various studies have been done in regard monitoring and evaluation and performance of road construction projects. For instance, Maendo, James and Kamau (2018) conducted a study on the effect of project monitoring and evaluation on performance of road infrastructure projects constructed by local firms in Lake Basin Region; and Wanjiku (2015) conducted a study on the monitoring and evaluation factors influencing the performance of road infrastructural projects in Nyandarua County. However, different Counties and regions in Kenya have varying coverage and need for road networks and hence the findings of these studies cannot be generalized to Kenya. This study therefore seeks to investigate the determinants of completion level of infrastructural county funded roads projects in Nyamira County.

2. LITERATURE REVIEW

Concept of completion of infrastructural road projects

County Government of Nyamira is a county in the Nyanza region of Kenya with an estimated population of 922,888 (50.3% women and 49.7% men) in 2018. Nyamira County is divided into five (5) Sub-Counties (Manga, Nyamira South, Nyamira North, Borabu and Masaba North, 20 wards, 38 locations, 90 sub-locations and 1,977 villages. In 2018, population density in Nyamira is high due to higher land/soil -county; including rich agricultural land, commercial activities, and the largest urban Centre, Nyamira town (County Government of Nyamira, 2018).

The county has a road network which is mainly gravel and earth surface. A small portion of the road network is made of bitumen. The total number of kilometers of road network in the county is 298 Kms out of which 200 Kms is under bitumen or is in the process of being upgraded to bitumen status and 200 Kms is under gravel and earth surface. The bitumen surface is only 11.6 per cent of the total road network in the County (County Government of Nyamira, 2018).

Given the heavy rains across the county, road network particularly gravel and earth surface becomes impassable. The County government through the roads department has undertaken an ARICS (Annual Inventory and Condition Survey) so that prioritization and scoping of works is based on this inventory (County Government of Nyamira, 2018)

Monitoring and Evaluation and completion rate of infrastructural road projects

Monitoring and Evaluation is an embedded concept of project management and constitute part of every project. It involves a systematic and routine collecting of information from projects and programs by assessing as systematically and objectively as possible a complete or ongoing project. Kusak and Rist (2017), advises that there is need for effective Monitoring and Evaluation (M&E) which is increasingly being recognized as an indispensable tool of both project and portfolio management. This is because M&E provide a basis for accountability in the use of development resources. Further, M&E can be applied to strengthen the project design and implementation and stimulate partnership with project stakeholders (Raut, Pimplikar&Sawant, 2016). However, while monitoring and evaluation can be used in improving performance of projects, most monitoring and evaluation programmes are characterized by lack of competence and skills, untimely and inadequate resources, low involvement of stakeholders and low adoption of information technology in data collection, data analysis and report writing.

In India, a surge in public expenditure in road projects driven by economic growth has occurred, which in turn has resulted in a growing demand for monitoring and evaluation (M&E) and performance management from government, program implementers, international donor organizations, and civil society at large (Mehrotra, 2013). As such, the Indian government has moved towards a countrywide M&E system to establish more firmly an institutionalized national setting for continuous results-based M&E activities tied to planning, budget decision making, and accountability. In addition, Raut, Pimplikar and Sawant (2016) indicate that effective cost monitoring and controlling has received much attention in the construction industry due to excessive cost escalation and woeful profit margin of some contractors. In addition, project monitoring in India involved a managerial process, which aims to generate information to support decision-making and to stimulate cost reduction, value improvement and continuous improvement in various projects.

In addition, Kusak and Rist (2017) in Malaysia indicate that putting in place a rudimentary system of monitoring, evaluating, and reporting in government projects performance is not easy and it is also characterized by obstacles which include inadequate resources, lack of monitoring and evaluation skills and lack of top management support. Nisa, Uzma and Akhtar (2015) indicate that monitoring and evaluation practices were being frequently used in different projects of Pakistan. In addition, monitoring and evaluation showed greater impact than project design on project success.

In Pakistan Landicho (2018) indicates that leakages in fund disbursement due to corruption have robbed the government of much needed funds to execute crucial community development projects. As such the author suggested the use of web-based geographical project monitoring and information system for the road and highways in an effort to ensure transparency in projects information and ensure that projects are completed within schedule and within budget. The based geographical project monitoring and information system includes the survey information such as detailed design and drawings, cost estimates for various road works among others, which are required for execution of the road works. The

same information is highly useful during construction monitoring, quality control and maintenance activities. This in turn become the basis for award of work, monitoring the progress of the work and quantity control in the field.

Enshassi, Arain and El-Rayyes (2014) indicate that international organizations in the Gaza Strip are concerned with the post-evaluation system of construction projects because post evaluation is required by all donors. Cost, time and quality are found to be the most important group factors for the post-evaluation system of construction of road projects. The factors that are used in the process of post-evaluation include the following: project efficiency, owner satisfaction, project effectiveness, safety, risks, change orders, resources, communication, procurement and the environment. A lack of awareness about post evaluation will increase the risk of not complying with donor requirements, which affects potential future funding.

Xue, Turner and Anbari (2013) state that many projects in China fail to deliver the expected benefits because the expected returns were over-estimated, key components of the new asset required to realize the full benefit have not been implemented and the realization of benefits post-completion has not been effectively managed. However, these problems can be addressed by adopting a results-based monitoring and evaluation system for benefits identification and realization throughout the project life cycle and for the creation of a project organization with clear responsibilities for project owners, sponsors and other stakeholders.

In Africa, although use of roads dominates the transport sector, carrying 80 per cent to 90 per cent of passenger and freight traffic in most countries, the condition of these roads remains very poor by international standards. According to the World Bank (2018) average 65 percent of road projects constructed in Africa were considered to have failed in terms of being undertaken within the stipulated cost, time schedule and meeting the desired quality. These projects were suspended and later contracted to other firms.

Oluka and Basheka (2014) states that in spite of increased funding for the road sector in Uganda, performance of the road sector continues to indicate that the government is still losing billions of shillings in low quality and incomplete road projects. In addition, road projects in Uganda are characterized by delays in implementation, cost overruns and complaints of poor quality of works. However, Oluka and Basheka (2014) proposes that the utilization and emphasis on monitoring and evaluation can improve performance in terms of delivery schedule, cost and achievement of the set objectives. Byaruhang and Basheka (2017) indicate that there is a weak internal project monitoring and evaluation mechanism at the Uganda National Roads Agency (UNRA) and contractor monitoring is handled by unqualified, incompetent and inexperienced professionals.

In Ethiopia, Desta (2015) indicate that tracking and measuring of performance in projects in Ethiopia is important both for the success of the project and future learning. Monitoring and measurement of performance gives feedback for improving performances and modeling and predicting project targets. Besides, feedback serves as a learning tool (for current and future project and endeavors). Evaluations also help to make operations and results transparent - aimed at improving both performances and accountability.

Respicius (2018) found that compliance to guidelines and laid down procedures was an important aspect in monitoring and evaluation in road construction projects in Tanzania. In addition, Compliance with specifications in M&E, Inspections, resource requirements, time managements and allocation and utilization of resources were influencing successful road construction projects in Bagamoyo district. In Rwanda, Gasangwa, Mulyungi and Ndabaga (2017) indicate that monitoring and evaluation in terms of strength of monitoring and evaluation team, management support, clarity of scope in monitoring and evaluation and frequency of meeting with stakeholders had an effect on road the implementation and performance of projects measured in terms of achievement of project, general goal, sustainability, impact and relevance.

Maendo, James and Kamau (2018) indicate that local road construction firms experience challenges in completing their projects within the budgeted cost, time schedule and attaining the desired quality, which can considerably be attributed to poor monitoring and evaluation in terms of monitoring and evaluation skills, lack of capacity building, frequency of monitoring and evaluation and allocation of financial resources for M&E activities. The lack of training and competence leads to inefficiencies which impede adoption of monitoring and evaluation in management. The purpose of M&E is to improve capacity building, increases efficiency and effectiveness, promotes transparency and accountability, encourages

coordination of data collection and supervision, creates new partnerships, to leads to empowerment and promotes sustainability.

Kariuki (2015) also indicates that availability and adequate resources for monitoring and evaluation, availability of monitoring and evaluation personnel and competent project staff had a significant effect on timely completion of road construction projects in the Central region of Kenya. It was found that other resources in monitoring and evaluation include time, mode of transport and data collection tools. Contractors have big influences upon projects and their successes. If the contractor provides poor workmanship it affects construction projects.

In addition, Kariuki (2015) found that monitoring and evaluation is important in an organization since it allows the involvement of beneficiaries in evaluation which increases its reliability and gives the chance to obtain useful feedback and ideas for corrective actions. However, Wanjiku (2015) reports that monitoring and evaluation is not widely utilized in road projects construction due to a variety of factors among them allocation of insufficient \-funds, lack of understanding of the value of monitoring and evaluation, negative perception of the whole monitoring an evaluation process and lack of training on monitoring and evaluation by senior management within organizations. Further, there are doubts on quality management capabilities, training levels and effectiveness of the responsible individuals in monitoring and evaluation. Kamau and Mohamed (2015) found that the components of efficacy of monitoring and valuation included strength of M&E team, resource allocation, monitoring approach adopted, stakeholder participation and project lifecycle stage and all of them had a significant effect on the success of road construction projects.

Stakeholder participation and completion of infrastructural road projects

Participation in policy development is an important element in democratic and open societies. Participatory governance is increasingly becoming essential in County government performance. Fielden (2008) states that participatory governance is the extent to which different stakeholders are taken into account in the planning, decision-making and implementation processes of an institution.

According to (OECD 2015) Shareholders should have the opportunity to participate effectively and vote in general shareholder meetings and should be informed of the rules, including voting procedures, that govern general shareholder meetings: Shareholders should be furnished with sufficient and timely information concerning the date, location and agenda of general meetings, as well as full and timely information regarding the issues to be deliberated upon at such developmental meetings. Processes and procedures for general shareholder meetings should allow for equitable treatment of all shareholders. Company procedures should not make it unduly difficult or expensive to cast votes. Shareholders should have the opportunity to ask questions to the board, including questions relating to the annual external audit, to place items on the agenda of general meetings, and to propose resolutions, subject to reasonable limitations. In order to encourage shareholder participation in general meetings, many jurisdictions have improved the ability of shareholders to place items on the agenda through a simple and clear process of filing amendments and resolutions, and to submit questions in advance of the general meeting and to obtain feedback from management and board members. Shareholders should also be able to ask questions relating to the external audit report for the financial years in question.

The Constitution of Kenya, call for openness, accountability and public participation in development matters together with provisions of the Public Finance Management Act, 2012, the County Government Act 2012, In light of the above Many County Governments and elected leaders resist the idea of involving local people in the decision making process on the account of having been elected to represent them. They argue that efforts to refer any matter to the public for a decision amount to expression of loss in faith, integrity and ability of the elected County leaders. In organizing public consultations in financial matters and affairs concerning public welfare the devolved units should ideally work through organized citizen groups, including constituent groups within the forum i.e. women, business community, youth, professionals, labour organizations etc. (C.R.A 2017) Stakeholder participation is the key to local delivery – local activists and ward committee members should understand County finance and budgets so that they can engage County officials on the bigger debates about spending and development priorities potential changes to the appropriate finance officials in a timely manner

Stakeholder consultations for the proposed Nyamira outerring Road were conducted in order to capture the major concerns associated with the project from all concerned and interested parties.

The consultant held three public meetings along the corridor during the development of ESIA Report. A stakeholder's consultation workshop was held on 21st March 2013. The participants included representatives of community based associations such as the Transporters Association, the Traders (Jua Kali) Associations, and Market owners, Parents Association (schools), Nyamira Water Services Board, Nyamira Municipal Council, KeNHA and KURA. The stakeholder consultative meetings provided views, opinions and suggestions on the most appropriate considerations on the construction and use of the proposed road.

The sessions also laid out fears and concerns to be addressed during construction. To ensure that both women's and men's view were taken on board in the project design; public consultations were conducted in all-inclusive manner. The consultations sought community participation and instant feedback into the project design especially related to matters of road alignment /design, resettlement and compensation. The consultations created awareness and identified positive and negative socio-economic impacts of the road project, proposed mitigation measures to address the potential impacts during project implementation and operation (ESIA, 2013). Stakeholder's involvement is paramount in development projects. Even though, minor decisions and emergency situations are generally not appropriate for stakeholder participation, a complex situation with far reaching impacts warrant stakeholder involvement and when done proactively, rather than in response to problem, helps to avoid problems in the future (Maina, 2013).

Stakeholders have different levels of responsibility and authority and influence on a project which may change during the life of the project. Their responsibility and authority range from occasional contributions in surveys and focus groups to full project sponsorship which includes providing financial and political support. Stakeholders who ignore this responsibility can have damaging impacts on project objectives. Also, project managers who ignore stakeholders can expect a damaging impact on project outcomes. Failure to identify key stakeholders can cause major problems for a project (PMI 2006). According to Project Management Institute, (2006), stakeholders may have a positive or a negative influence on a project. Positive stakeholders are those who would normally benefit from a successful outcome of a project while negative stakeholders are those who see negative outcomes from project success. The negative stakeholders' interest would be better served by impeding the project's progress. Negative stakeholders shall be often overlooked by the project team due to the risk of failing, to bring the project to a successful end.

Project's success depends on its ability to formulate, support and management of key stakeholders. Satisfied stakeholders improve the progress and relevance of the project and hence to its success (Kennon, Howden & Hartley, n.d.). According to (Bourne 2006), the stakeholder community consists of individuals and groups each with a different potential to influence the project's outcome positively or negatively. Construction projects just like any other organizational framework comprises of networks of people with various needs, formation and purpose. Bourne and Walker 2005 likened project success to the strength of relationship established and nurtured within and among construction stakeholders. This will in turn influence the project success and timely completion of the project. Burton and Nobel (2003) also describes project environment as one having high complexity, high uncertainty and high equivocality and such factors make stakeholder management difficult. Oyegoke (2006) opined that construction projects have direct and indirect impacts on different project interest groups and these interest groups are referred to as the stakeholders.

Funding and influence on completion of infrastructural road projects

One of the Counties' greatest responsibilities is approving and regularly monitoring a devolved unit's budget that provides money to implement their visions. This work should be done in consultation and co-operation with the ward committees. The community should be involved as much as possible in deciding what should be the spending priorities for the area they live in.

It is important to know that the success of any project entirely depends on the adequacy and availability of the project's funds. County funded roads projects are not exceptional. Nearly all County funded projects are financed through county budgetary allocations by the national government although others are financed through levies. For instance, one of the major sources of funding for road works in the country is the fuel levy fund which was introduced in 1993 and is mainly used for the maintenance of roads. The fuel levy fund is collected by KRA and administered by KRB, which was established by an Act of Parliament in the year 2000, with the responsibility of presiding over planning, development and maintenance of roads. Other government projects are funded through multiple sources including the government itself.

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For instance, the geothermal exploration projects in the country. It is estimated that the development of the 5000 MW will cost about 18 billion US\$.

An examination on the projects under the Ministry of Public Works cited bureaucracies in the collection and disbursement of funds as a key challenge. Kenya Roads Board (KRB) manages road maintenance funds from the Fuel Levy Fund by disbursements in tranches to appointed agents for roads maintenance. Disbursement of funds to districts by the Ministry of Roads and Public Works is done via cheques after receiving funds from KRB. Upon receiving the funds, the Ministerial allocation committee sits to deliberate on its distribution. Copies of the allocation committee minutes with the PS' instructions are forwarded to the Chief Engineer (Roads) to requisition Authority to Incur Expenditure (AIEs) from the Chief Finance Officer (CFO). The AIEs are then forwarded to the Principal Accounts Controller for commitment, where they are captured in the Integrated Financial Management Information System (IFMIS).

As a result of the long and bureaucratic procedure for the disbursement of funds, the study revealed that many projects at county level fail to be completed on time due to delay in the disbursement of funds for projects by responsible authorities both at the county or national level. These delays are occasioned by: delays in requisitioning, the frequent breakdown of the government Integrated Financial Management Information System (IFMIS) system, officials have to take time to physically collect AIEs and cheques from the Ministry Headquarters, the allocation of funds follows after Board meetings, leading to funds being withheld before being released to the agents. Many at times these funds reach the project sites even after the useful project time has elapsed. As a result, implementation of the work plans is delayed causing a rush in completion of projects towards the end of the financial year. This leads to emergency purchases, repairs, and rushed expenditure of funds. In addition, this creates a loophole for irregularities in procurement and shoddy job being done.

Competence of staff and influence on completion of infrastructural road projects

A devolved unit is the sphere of government closest to the people, the leaders of the units are elected by citizens to represent them and ensure that services are delivered to Kenyans at the grass root level. Many Devolved units, however, are unable to deliver services to residents. This might be because of ineffective management or lack of capacity to provide a good service at an affordable price (Municipal service delivery South Africa 2010). One way in which Devolved units can overcome this is by employing qualified personnel and ensuring that management is adequately remunerated for work they perform on leadership competence and track records on their previous assignments. It is unfortunate that many Kenyans have been corrupted to elect their leaders based on the amount of tips they receive from them, which clan they come from, how they associate with them in their social events like weddings and funerals among others these parameters compromise the quality of leaders that are elected at the end of the day. Generally speaking, Kenyans should be educated on how to elect leaders based on merit and track record of the contestant because the longer we continue elected incompetent leaders in devolved units the more we will compromise development at the county levels. In this respect corporate governance which is about fairness advocates, equal opportunities for advancement fairness in treatment and of the remuneration of the management for the required qualification for the work.

Construction projects do not implement themselves. They require people to carry out laid down work, there is need to understand whom will work on the system, what skills and knowledge they have and the overall level of human resources available –both within the team and externally-to

support your project execution plan. The minimum required mix of skills and expertise and the required number of staff per unit managed or administered by the agency can be established through estimates provided by knowledgeable informants (Economic Stimulus Programme Handbook, 2009). These informants could include current and past managers of the stimulus project analysts, researchers tracking the stimulus project operations and functioning (Cambridge, 2000).²⁰

Based on their informed contractors or consultancy firms' opinion, a range of estimates for the minimum required skill mix and the number of required staff with requisite skills per unit can be established as points of reference. To translate a project's staff skills and expertise into effective action, staff members must have the motivation and willingness to discharge their responsibilities and perform mandated functions according to norms of professional behavior.

Staff motivation and will to act is not directly observable, but it is linked to incentives and rewards for good performance within a project team. The relative attractiveness of the agency's compensation package and prospects for professional

growth and promotion can motivate staff and serve as incentives for good performance. Norms of professional behavior set standards and expectations on how staff members ought to conduct themselves in the course of their work. The degree to which these standards are adhered to also provide some indication of quality of staff performance and how effectively an agency is managed (Kent, 2011).

Gardner (2003) argued that skilled personnel staff entrusted with project execution should have required technical expertise in the area. Where necessary, skill levels should be augmented to meet the needs and with ongoing investments in developing such capacity within the office as necessary.

Coordination problems due to incompetency of project manager may cause project delays. In a construction project, there are many parties involved such as contractor, consultant, sub-contractor and client. Often, it may be difficult for these various separate parties to coordinate well in order to complete the project. In one study conducted by Assaf et al. (1995) it was found that difficulty in coordination between the parties is one of the factors that contribute to delay. In addition, Majid and McCaffer (1998) also agreed that coordination problems will contribute to delay.

Ali et al. (2008) and Kadir et al. (2005) stated that lack of coordination between contractors and subcontractors will lead to delay, for example in the situation that newly revised contractions drawings of a project may be issued later by the contractors to the subcontractors. This leads to construction mistakes and the work requiring to be redone. Reconstruction work takes additional time, therefore impacting upon the completion time of the project. According to Sambasivan and Yau (2007), most of the unskilled laborers used in the Malaysian construction industry are foreign laborers. These foreign laborers have little formal education (Santos et al., 2003). Construction output may be expressed in terms of functional units or constant dollars. In the former case, labor productivity is associated with units of product per labor hour, such as cubic yards of concrete placed per hour or miles of highway paved per hour. In the latter case, labor productivity is identified with value of construction (in constant dollars) per labor hour. The value of construction in this regard is not measured by the benefit of constructed facilities, but by construction cost. Labor productivity measured in this way requires considerable care in interpretation. For example, wage rates in construction have been declining in the US during the period 1970 to 1990, and since wages are an important component in construction costs, the value of construction put in place per hour of work will decline as a result, suggesting lower productivity.

In a country like Kenya, construction workers are relatively unskilled and lack adequate planning at the early stages of the project impacts on timely completion of construction projects and cost overruns. In the construction of Thika Superhighway for example, The Chinese contractors knew this. They planned on how to train the Kenyan labor force on their construction methods and this reduced the scenarios that we saw of Chinese contractors working with only two or three local workers at the construction site. The more they train and engage in their projects, the more the construction process stayed on course and completed in good time (<http://www.capitalfm.co.ke/business/2012/04/thika-superhighway-completion-set-for-june/>)

3. RESEARCH METHODOLOGY

Research Design

A research design is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions. Ogula (1995) says research design provides a framework for planning and conducting a study. This study will use descriptive survey design. Descriptive research is conclusive in nature as opposed to exploratory. This means that descriptive survey research gathers quantifiable information that can be used for statistical inference on your target audience through data analysis. As a consequence, this type of research takes the form of closed ended questions. This information through this method can be used by an organization to make better decisions. Mwiria (1995) describing survey says that a survey collects data about variables or subjects as they are found in a social system or society. Survey design for this study will involve the collection of quantifiable information from the samples.

Data collection Instruments

The research instrument that was used for the survey was a structured questionnaire supplemented by an interview guide. The data for the study is was carefully collected from the selected sample, and thus, a structured questionnaire and the interview guide was considered as the most effective instruments. Mellenbergh (2008) stated that a questionnaire is useful in obtaining objective data because participants are not manipulated in any way by the study. The questionnaire comprised of both open and close-ended questions. The questionnaire collected both qualitative and quantitative data

from the departmental heads and county management offices with regard to timely completion of County Government projects

Validity and reliability of research Instruments

Mugenda and Mugenda (1999) define validity as the accuracy and meaningfulness of inferences, which are based on the research results. In other words, validity is the degree to which the results obtained from the analysis of data actually represents the phenomenon under also defines reliability as a measure of the degree to which a research instrument yields consistent results or data after repeated trial. To ensure that the questionnaire is reliable the use of test retest method will be employed. This method involved administering similar instrument at different time to a sampled population at different intervals.

Pilot Test

In order to establish the suitability and clarity of the instruments, a pilot study was done in the selected road projects. A pre-test is a preliminary test administered on a research instrument to check on its reliability and validity. These offices that were selected did not participate in the final study. The pre-test allowed the clarification of the question phrasing and response categorization to be done in order to test the validity and reliability of the instruments. The desirability of piloting was to ensure that survey questions operate well and also that the research instruments functioned well.

Validity of research Instruments

Mugenda (1999) define validity as the accuracy and meaningfulness of inferences, validity is the degree to which the results obtained from the analysis of data actually represents the phenomenon under the study. To enhance validity of the instruments, a pre-test was conducted on a population similar to the target population. The research instrument was pretested at the neighboring Migori County government to establish the validity of the questionnaire. This was done to assess the clarity of the instrument items and those found to be inadequate for measuring the variables will be discarded or modified to improve the quality of the research instruments thus increasing its validity. During the pre-test, after each respondent completed filling the questionnaire, each item was discussed with him/her to determine its suitability, clarity, and relevance for the purpose of the study. The researcher sought assistance of research experts, experienced graduates, lecturers and experienced supervisors in order to improve validity of the instruments.

Reliability of the Instruments

Mugenda and Mugenda (1999) define reliability as a measure of the degree to which a research instrument yields consistent results or data after repeated trial. To ensure that the questionnaire is reliable the use of test retest method will be employed. This method involved administering similar instrument at different time to a sampled population at different intervals. Then the scores of the test and retest will be computed for each individual and these two tests of scores correlated by using the Pearson Product Moment Correlation Coefficient. The correlation obtained represented the reliability coefficient of only half of the test and because reliability is related to the strength of the test, a correlation will be effected so as to obtain the reliability of the whole test.

Data Collection Procedure

A letter was obtained by the researcher from The University of Nairobi requesting the County to allow for the study to be conducted. With a copy the letter obtained from the graduate school the researcher wrote a formal request to the organization to allow her conduct the study. Approval was obtained from County secretary office in form of a letter. The letter circulated to all staff by electronic mail. After circulation of the letter of approval the researchers engaged individual employees by booking appointments and distributing questionnaires.

Data analysis Techniques

Data collected was manually processed and analyzed through use of content analysis methodology by grouping key theme and forming opinions. The researcher used various instruments in collecting of data; this included Analysis of historical journals, interviews and questionnaires. This was presented as numeric values as per the Likert scale in the questionnaires in additional to the textual form as derived from the instruments where the text form is most likely when analyzing the policy documents. Each variable studied was represented in a different form depending on the category. Quantitative Data

collected was grouped into similar categories and subjected to descriptive statistics such as frequency and tables to describe the strength of each variable. On the other hand, qualitative data collected were expressed in textual form; the researcher used non-statistical techniques. Data was discarded to develop logic and finally categorized according to the developed relationship and explanations made. Possible solution to each variable collected from the tools was discussed against each variable of the study.

4. DATA ANALYSIS, PRESENTATION AND INTERPRETATION

Monitoring and evaluation and completion rate of infrastructural road projects

Monitoring and Evaluation is an embedded concept of project management and constitute part of every project. Thus the researcher needed to sought the extent to which Monitoring and evaluation tools influenced the completion rate of infrastructural road projects

Table 1: Monitoring and evaluation tools on project completion rate of infrastructural road projects

Extent	Frequency	Percentage
Very great extent	14	46
To great extent	5	16
Moderate extent	5	16
Little extent	4	13
No extent	2	6
Total	30	100

On the influence of Monitoring and Evaluation on completion of construction of road projects, results show that 46% of the respondent agreed that Monitoring and evaluation tools have great influence on completion of construction of road projects to a very great extent, while 16% was to a great extent, 16% was to a moderate extent and 2% to no extent. With regards to whether the M&E Tools needed for completion of construction projects were available, the interviews indicated that the availability of resources influenced completion of road construction projects.

Influence of funding on completion infrastructural road projects

Financial availability is one of the important challenges facing the construction industry hence the research posed this question to establish the feeling of the respondents on the influence of the availability of resources, the findings were as per Table 2

Table 2: The influence of funding on project completion

Extent	Frequency	Percentage
To a very great extent	12	50
To a great extent	7	19
To a moderate extent	5	14
To a little extent	4	11
To no extent	2	6
Total	30	100

On the influence of funding on completion of construction of road projects, results show that 50% of the respondent agreed that resources influence completion of construction of road projects to a very great extent, while 19% was to a great extent, 14% was to a moderate extent and 6% to no extent. With regards to whether the resources needed for completion of construction projects were available, the interviews indicated that the availability of resources influenced completion of road construction projects.

Stakeholder participation on completion of road infrastructure projects

In this section, the study sought to determine the influence of stakeholder participation on completion of road construction projects. The respondents level of agreement with the selected statements regarding the influence of stakeholder participation is as presented in the following subsections.

Table 3: Influence of Stakeholder’s participation on completion of construction road projects

Scale	Frequency	Percentage
To a very great extent	14	47
To a great extent	8	28
To a moderate extent	5	17
To a little extent	3	8
To no extent	0	0
Total	30	100

The findings showed that most respondents were in agreement that stakeholder participation influences completion of construction projects which was represented by 48%. However, no respondent felt that stakeholder participation had no extent which was presented by 0%. 28% were for to a great extent while the rest 17% were for to a little extent. This showed that the respondents felt that stakeholder participation influences completion of construction projects.

Competency of staff

Contractors and engineers have different skills, expertise, competence and experience. This section addressed objective two which sought to examine the influence of competency in completion of projects. It was important in establishing whether the road subsector was doing enough in terms of deploying competent staff in their construction of infrastructural road projects.

The rating on influence of competency of staff on completion of construction projects

The researcher wished to establish how competency of staff influences completion of infrastructural road projects. The findings were as indicated

Table 4: Rating on influence of competence of staff on project completion

Extent	Frequency	Percentages
To a very great extent	13	53
To a great extent	8	23
To a moderate extent	5	14
To a little extent	2	5
To no extent	2	5
Total	30	100

The findings show that 53% of the respondents were for the opinion that competency of staff influence completion of construction projects to a very great extent while 23% were for a great extent, 14% were for a moderate extent and the rest 5% were for to no extent. This implies that the respondents felt that competency of staff influence completion of road construction projects to a very great extent.

Indicators of competency of staff and completion of road construction projects

The study sought to establish the extent to which the following factors influenced completion of road construction projects. The results were as shown in the Table 5

Table 5: Indicators of competency of staff and completion of road construction projects

Statement	Mean	Standard Deviations
Time taken to complete a task	3.81	1.014
Lack of Experience	3.35	0.486
Lack of required Skills	3.94	0.250
Lack Knowledge in the area of constructions	3.45	0.568
Accuracy levels	3.19	1.167

According to the findings, the respondents indicated that lack of required skills and time taken to complete a task influenced completion of road construction projects to a very great extent with a mean of 3.94 and 3.81 respectively. The respondents further indicated that lack of experience and accuracy levels also influenced completion of construction projects with a mean of 3.35 and 3.19 respectively. This implies that the above factors influence completion of road construction projects to a great extent

Indicators on the influence of resources on completion of road construction projects

Table 6 shows the extent to which the following indicators influenced effective implementation and completion of constructions projects. The findings were as per table 6

Table 6: Indicators on the influence of resources on project completion of road projects

Indicators	Mean	Std. Dev.
Availability of Construction Materials	3.8352	0.707
Skilled Construction workforce	3.3212	1.045
Availability of Construction equipment	3.4543	1.087
Material mobilization	2.6934	1.079

From the findings, the respondents indicated with a mean of 3.8352 that construction materials influenced completion of road construction projects to a very large extent. The respondents also indicated that availability of skilled construction workforce, availability of construction equipment's and material mobilization influenced completion of road construction projects shown by a mean of 3.3212, 3.4543 and 2.6934 respectively. We can therefore infer that these indicators under resources had a very large influence on completion of infrastructural road projects

Variables on completion of road projects

The study sought to establish the extent to which the following variables influenced effective project completion of road construction project in Nyamira County. The respondents were asked to indicate the extent to which the stated variables on resources influenced completion of construction of infrastructural projects. Their responses were as shown in Table 7

Table 7: Variables of completion of road projects

Variable	Frequency	Percent
Lack of finances	16	61.1
Lack of skilled personnel	9	25.0
Lack of effective mode of stakeholder engagement	5	13.9
Total	30	100

The respondents indicated that lack of finances and skilled personnel influenced completion of construction of road projects in Nyamira County to a very great extent as indicated by a percentage of 61% and 25% respectively. The respondents also indicated that stakeholder engagement influenced completion of projects to a great extent of 5%. The respondents indicated that the resources were available but inadequate. In determining how the availability of resources influenced completion of infrastructural road projects, the interviewees indicated that resources facilitated effective and efficient running of project activities thus leading to its completion.

Regression Models

The following correlation and regression models will guide the data analysis where:

Y– Dependent Variable

$\beta_1, \beta_2, \beta_3, \beta_n$ – Regression coefficients

X_1, X_2, X_3, n – Predictor Variables

e – Error Term

For research objective one, a hypothesis was formulated and the corresponding correlation model will be developed.

Model 1

1 H₀ : Monitoring and evaluation has no significant influence on completion rate of road projects in Nyamira County
 = f (Monitoring and evaluation)

$$Y = \beta_0 + \beta_1 X_1 + e$$

For research objective one, a hypothesis was formulated and the corresponding correlation model will be developed.

Model 2

2 H₀ : Stakeholder participation has no significant influence on completion rate of infrastructural road project

= f (stakeholder participation)

$$Y = \beta_0 + \beta_2 X_2 + e$$

For research objective two, a hypothesis was formulated and the corresponding correlation model will be developed.

Model 3

3 H₁ : Funding has no significant influence on completion of infrastructural road projects in Nyamira County.

Completion rate of road projects = f (Participatory M&E)

$$Y = \beta_0 + \beta_3 X_3 + e$$

For research objective four, a hypothesis was formulated and the corresponding correlation model will be developed.

Model 4

4 H₁ : A Staff competency has no significant influence on completion of infrastructural road projects in Nyamira County.

Completion of road projects = f (Staff competencies)

$$Y = \beta_0 + \beta_4 X_4 + e$$

For research objective four a hypothesis will be formulated and the corresponding regression model was developed.

Table 8: Hypothesis Testing

No	Objective	Hypothesis	Tools of Analysis	Analysis model	When to accept or reject
1	Objective: To evaluate the influence of monitoring and evaluation tools on completion rate of infrastructural road projects in Nyamira County	H₀: Monitoring and evaluation tools have no significant influence on completion rate of infrastructural County funded road projects in Nyamira County	Pearson's Correlation and Linear Regression Analysis	$Y = \beta_0 + \beta_1 X_1 + e$	$P \geq 0.7$ accept $P \leq 0.6$ Reject
2	Objective: To determine the influence of stakeholder participation on completion rate of infrastructural road projects in Nyamira County	H₀: Stakeholder participation has no Significant influence completion rate of infrastructural road projects in Nyamira County.	Pearson's Correlation and Linear Regression Analysis	$Y = \beta_0 + \beta_2 X_2 + e$	$P \geq 0.7$ accept $P \leq 0.6$ Reject
3	Objective : To assess the influence of funding on completion rate of infrastructural roads projects in Nyamira County	H₀: Funding has no significant influence on completion rate of infrastructural road projects in Nyamira County	Pearson's Correlation and Linear Regression Analysis	$Y = \beta_0 + \beta_3 X_3 + e$	$P \geq 0.7$ accept $P \leq 0.6$ Reject
4	Objective : To establish the influence of staff competency on completion rate of infrastructural roads projects in Nyamira County	H₀: Competency of road construction staff has no significant on completion rate of infrastructural road projects in Nyamira County	Pearson's Correlation and Linear Regression Analysis	$Y = \beta_0 + \beta_4 X_4 + e$	$P \geq 0.7$ accept $P \leq 0.6$ Reject

5. SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

Summary of the Findings

This study focussed on the determinants of completion rate of infrastructural county funded road projects in Nyamira County. The objectives that guided this study were: To evaluate the influence of monitoring and evaluation tools on completion rate of infrastructural county funded road projects in Nyamira county, to determine the influence of stakeholder participation on completion rate of infrastructural county funded road projects in Nyamira county, to assess the influence of funding on completion rate of infrastructural county funded road projects, finally the study intended to establish the influence of competency of staff on completion rate of infrastructural county funded road projects in Nyamira county.

Monitoring and Evaluation

From the findings it was observed that respondents agreed that through monitoring and Evaluation firms the county has managed to increase its completion level of infrastructural road projects. Further respondents agreed that regular monitoring spur economic investments since the county is capable of generating more cash flows that sustain the obligation of completion of roads. On the other hand, respondents observed that monitoring and evaluation ensures minimal wastages on funds allocated on infrastructural road projects within Nyamira County.

On the influence of Monitoring and Evaluation on completion of construction of road projects, results show that 46% of the respondent agreed that Monitoring and evaluation tools have great influence on completion of construction of road projects to a very great extent, while 16% was to a great extent, 16% was to a moderate extent and 2% to no extent. With regards to whether the M&E Tools needed for completion of construction projects were available, the interviews indicated that the availability of resources influenced completion of road construction projects.

Stakeholder participation and completion of infrastructural road projects

It can clearly be noted stakeholder participation is key in any project that stands to involve a wide range individuals. 47% of the respondents felt that stakeholder participation influenced the rate of completion of infrastructural county funded road projects to a very great extent. 28% of the respondents felt that stakeholder participation influenced the completion rate of infrastructural county funded road projects to a great extent. This is a clear indication that 75% of the respondents were convinced that there was a close correlation between stakeholder participation and the rate of completion of county funded road projects with only 25% of the respondents feeling that stakeholder participation was of little or null influence on the rate of completion of infrastructural county funded road projects.

Funding and completion of projects

Funding has a positive influence on completion rate of county funded infrastructural road projects. 50% of the respondents felt that funding influenced the completion rate of the infrastructural county funded road projects to a very great extent. 19% of the respondents felt that funding influenced the completion of county funded road projects to great extent. 14% of the respondents felt that funding influenced the rate of completion of county funded road projects to a moderate extent. While 11% and 6% of the respondents felt that funding influenced the rate of completion of county funded infrastructural road projects to a little extent and to no extent respectively.

Financial resources should be available constantly throughout the project life cycle. 61.1% of the responding beneficiaries felt financial resources were inadequate, 25.0% of the respondents felt that skilled personnel were not adequate to run the construction of road projects.

Competency of staff and completion of infrastructural road projects

The study also established that lack of proper professional and academic qualification, turnaround time, lack of accountability and responsibility among staff and accuracy levels influenced completion of construction projects. Kent (2011) postulates that the ability of an agency's staff to meet demands for its services depends on both its numbers and the skills and expertise of staff members bring to the job. An agency need to have at least a minimum necessary mix of skills and expertise and a sufficient number of staff with appropriate skills relative to the scale of its responsibilities, measures for example in terms of size of its area or territory or volume of its production.

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53% of the respondents indicated that competency of the project staff influenced the rate of completion of infrastructural county funded road projects to a very great extent. While 23% felt that the competency of the project staff influenced the completion rate of county funded road projects to a great extent. This implies that 76% of the respondents felt that the rate of completion of road projects in Nyamira county majorly depended on the expertise of the project staff. Only 19% of the respondents felt that the competence of the project staff influenced the completion rate of infrastructural county funded road projects to a moderate level and below.

Discussion of findings

This section gives a detailed discussion of the findings from the study in question.

Funding and resource allocation.

County government projects cannot thrive without resources, these resources come in form of human resources, financial resources and raw materials. Community projects cannot survive in areas with no resources and the fact that a community project is in existence then it means that there are resources that sustain those projects (McConnell,2002). This study relied on various resources i.e. availability of construction materials whose mean was 3.8352, skilled construction workforce whose mean was 3.3212, availability of construction equipment whose mean was 3.4543 and finally material mobilization whose mean stood at 2.6934. From the findings it is clear that availability of construction materials had a greater influence on the completion rate of infrastructural county funded road projects in Nyamira County. It is also worthy while to note that construction won't be readily available if the county government can't allocate enough funds for the construction of roads. Availability of competent and skilled man power is also critical in ensuring timely completion of county funded road projects in Nyamira County. The study revealed that more than 83% of the respondents felt that lack or availability of resources influenced to a great extent the completion rate of the county funded road projects. Therefore the county government of Nyamira should ensure that relevant resources are in place before commencing any road project to mitigate unnecessary delays once the project kicks off.

Competency of staff and completion of infrastructural road projects

Regarding objective two which sought to determine the influence of competency of staff in completion of construction projects, the study revealed that competency of staff influenced effective completion of construction projects. Cuban (2001) observed that there are many ways to define and measure the adequacy of staff competency, capacity and the effectiveness of agencies tasked with projects. Thus there are also many ways to define indicators. For construction project, in most countries the desired outcome is sustainable management of construction project. The effectiveness of agencies tasked with construction project administration depends to a large extent on the agencies 'staff capacity relative to the demands placed upon them.

The study also established that lack of proper professional and academic qualification, turnaround time, lack of accountability and responsibility among staff and accuracy levels influenced completion of construction projects. Kent (2011) postulates that the ability of an agency's staff to meet demands for its services depends on both its numbers and the skills and expertise of staff members bring to the job. An agency need to have at least a minimum necessary mix of skills and expertise and a sufficient number of staff with appropriate skills relative to the scale of its responsibilities, measures for example in terms of size of its area or territory or volume of its production.

The study revealed that availability of required skills required influenced the rate of completion of road projects to a very great extent with a mean of 3.94. This implies that the county government of Nyamira should ensure that the road projects staff are well trained to ensure that the road projects are completed on time. When a staff is well trained and competent in his area of operation he tends to execute tasks allocated to him efficiently and at speed. Competence of project staff also spurs the turnaround time of a project. The respondents further indicated that lack of experience and accuracy levels of the project staff influenced the completion rate of the county funded infrastructural road projects with a mean of 3.35 and 3.19 respectively.

Stakeholder participation and completion of infrastructural road projects

Griffith et al. (2008) noted that the concerns and needs of the key stakeholders influences project performance to a great extent. This can effectively be achieved by identifying the relevant stakeholders, consulting them before commencing the

project and involving them throughout the project lifespan. This ensures project ownership by the stakeholders, it also eliminates unnecessary resistance that end up delaying the completion rate of the project. All facets at play in a project including the beneficiaries, the implementation team, project objectives and means of distributing project benefits play key role in ensuring projects are completed on time. In my study, the findings showed that most respondents were in agreement that stakeholder participation influences completion rate of infrastructural road projects which was represented by 48%. However no respondent felt that stakeholder participation had no influence on the completion rate of the county funded road project.

Monitoring and evaluation

The practice of monitoring and evaluation has a positive influence on the rate of completion of infrastructural county funded road projects. From the data analysis, when the three parameters under study were kept constant except monitoring and evaluation, the study revealed that a unit increase in M&E lead to 0.118 increases in the completion rate of the infrastructural county funded road projects in Nyamira County. Of the four parameters studied, monitoring and evaluation had the least influence in the completion rate of infrastructural road projects. Despite the least influence on the rate of road completion, the respondents agreed that monitoring and evaluation was key in ensuring that the objectives of the road project were achieved in a timely manner. A good number of respondents further agreed that even if M&E did not influence the rate of completion of infrastructural road projects, M&E tools promoted the quality of projects and it also ensured that the projects were completed finally regardless of the duration they took to be completed

Conclusions

The study concluded that the four variables studied combined contributed only 62.7% of the completion rate of the infrastructural road projects in Nyamira County while the other factors that were not considered in this study contributed to the rate of completion of road projects by 37.3%. This is a clear indication that the county management should put a lot of emphasis on Monitoring and evaluation, community participation, resources allocation and competency of staff when carrying out the construction of roads.

The study further revealed that taking all four factors under study constant at zero, the completion rate of infrastructural road projects would be 1.224. This explains that the other factors that were not incorporated in this study cumulatively contributed to the rate of completion of infrastructural road projects by 1.224.

The data findings analysed proved that taking all other independent variables at zero, a unit increase in resource availability lead to 0.217 increase in completion rate of the infrastructural road projects. This is a clear indication that resource availability has a strong correlation with the rate of completion of infrastructural road . The resources required for the construction should be available to the project team in right quantity and on time to ensure effective planning and eliminate unnecessary delay in the project's turnaround time. The project team should also make use of the locally available resources to cut down on cost and increase confidence of the community members where projects are being carried on.

A unit increase in stakeholder participation led to 0.299 increases in the rate of completion of infrastructural road projects. Project beneficiaries should be incorporated in all stages of the project cycle including project identification, project planning, project implementation, monitoring and evaluation. The involvement of all stakeholders ensures success and eliminates delays while carrying out the construction of road projects. The community can resist a road projects especially if the road is going to encroach on their perceived lands and developments, but if the project team in collaboration with community leaders approaches the community members in advance and explains them on their intention to put up a road through a given area and the benefits it will bring to them, then there is high chances for that community to own that project and to be ready for any sacrifice.

The study observed that a unit increase in monitoring and evaluation led to 0.118 increases in completion rate of infrastructural road projects. Monitoring and evaluation help stakeholders in ensuring that projects are implemented in alignment to the objectives of the project. The methodology used in monitoring and evaluation should be participatory taking into consideration the opinions and contributions of all stakeholders. The study revealed that monitoring evaluation had the least influence on the completion rate of the infrastructural road projects.

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Regarding objective four influence of staff competency on completion of road projects in Nyamira County it came out clearly that effectiveness of agencies tasked with road constructions projects had a direct bearing with the completion level of county funded road projects. It is worthy while to note that the staff capacity and competency relates to demands placed upon them. It is also worthy while to note that competency of the staff is not a one off event but a continuous process, meaning that the project should undergo continuous training process to catch up with the emerging of the infrastructural road projects.

Recommendations

Based on the findings of this study and conclusion made, the study makes the following recommendations

1. The study recommends that there should be stakeholder engagements to ensure that their ideas and perspectives are well articulated when carrying out the infrastructural road projects; members of stakeholder group should be invited to participate in project scope identification and planning. Participation improves the quality of project management and that of evaluations accuracy of information, increased credibility and acceptance of findings, and better correspondence to the practical concerns of stakeholders.
2. The study also recommends that the various road departments should allocate enough resources needed for construction of infrastructural road projects. These funds should be made available in the right amounts before the project kicks off to avoid unnecessary delays when those projects are flagged off.
3. The study also recommends that organizations should consider adopting modern information and communication technologies in carrying out monitoring and evaluation activities.
4. The study further recommends that government leaders should offer the necessary support and goodwill to enhance completion rate of infrastructural county funded road projects.
5. The study also recommends that the project technical team should undergo continuous trainings to catch up with modern and up to date skills in the construction industry.
6. The county government should ensure that the project teams have a mix of young and inexperienced staff and old experienced staff, to ensure that the old folk who tend to be more experienced transfer their expertise from one generation to the other.

Suggestions for Further Research

1. The study report recommends that similar study to be done in other counties for comparison purposes, since this study was limited to the county government of Nyamira alone.
2. The study report also recommends a further study to be done to articulate how planning at the county level affect the completion rate of infrastructural county funded road projects.
3. The study further recommends a study to be done to establish how the national government policies affect the county funded infrastructural road projects.
4. The study finally recommends a study to conduct to establish the influence of change of governments both at the county and national levels on infrastructural road projects at county and national level.

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