



## **The Influence of Monitoring and Evaluation of Financial Resources on Implementation of Infrastructure Projects In Public Secondary School in Kakamega County, Kenya**

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### **Abstract**

The purpose of the study was to examine the influence of monitoring and evaluation of Financial Resources on implementation of infrastructure projects in public secondary school in Kakamega County, Kenya. The target population was principals, Board of Management chairpersons, Parents Association chairpersons and Sub County Education officers. Stratified sampling and purposive sampling technique were used to select respondents. A sample size of 316 respondents was selected comprising of 101 principals, 101 Board of Management chairpersons, 101 Parents Association chairpersons and 13 Sub County Education officers. Primary data was collected from the respondents using questionnaires and interview schedule. Qualitative data was analyzed qualitatively using content analysis based on meanings and implications emanating from respondent's information. Data from questionnaires was analyzed using both descriptive and inferential statistical methods. Descriptive statistics consisted of frequencies, percentages, mean, and standard deviation. Inferential statistics consisted linear and multiple regression analysis. Findings revealed that there is clear allocation of finance for every stage of the project and financial resource provider are clearly identified at planning stage. Further, there is clear allocation of contingencies funds and funds for projects supervision are allocated in the budget. From the linear regression model, ( $R^2 = .119$ ) showed that financial resource account for 11.9% variation in implementation of infrastructure projects. The financial resource predictor used in the model captured the variation in the implementation of infrastructure projects. The study hypothesized that there is no significant effect of financial resource on implementation of infrastructure projects. There was a positive significant effect of financial resource and implementation of infrastructure projects ( $\beta_2=0.302$  and  $P\text{-value} < 0.05$ ). Therefore, an increase in financial resource led to an increase in implementation of infrastructure projects. The null hypothesis was rejected. The financial resource had a significant influence on implementation of infrastructure projects. This implies that for each increase in financial resource, there was an improvement in implementation of infrastructure projects. The study recommended that schools should ensure that all the stakeholders are involved in the M&E of school projects. The study also recommends that there should be clear allocation of finances for M&E, staff hiring, staff training, equipment, environment setting, project supervision and the budgeting of financial resources by stakeholders.

**Key words: Monitoring and Evaluation, Financial Resources, Implementation of Infrastructure Projects, Public Secondary Schools, Kakamega County**

### **1.0 Introduction**

Monitoring and evaluation (M&E) is an essential component of program and project management, and financial resources play a critical role in ensuring the effectiveness of M&E activities. A robust M&E system requires adequate financial resources to ensure that data

collection, analysis, and reporting are conducted effectively and efficiently. A study conducted by Hartwig et al. (2020) found that financial resources are a crucial factor in the success of M&E activities. The study analyzed data from 16 organizations in nine countries and found that organizations that had adequate financial resources for M&E activities had more effective M&E systems than those that did not. The study also found that organizations that had dedicated funding for M&E activities were more likely to have successful M&E systems.

Another study by Beatty et al. (2019) examined the challenges that organizations face in accessing and utilizing financial resources for M&E activities. The study found that inadequate funding for M&E activities is a common challenge faced by many organizations, and this often leads to incomplete or ineffective M&E systems. The study also found that the lack of dedicated funding for M&E activities and the limited understanding of the importance of M&E by funders and donors are significant barriers to accessing financial resources for M&E. Furthermore, a study by Kusek and Rist (2020) highlighted the need for organizations to have a clear understanding of the costs associated with M&E activities to ensure that adequate financial resources are allocated. The study emphasized the importance of conducting cost-benefit analyses to determine the optimal level of resources needed for M&E activities. The study also found that organizations that had a clear understanding of the costs of M&E activities were better able to secure adequate financial resources for these activities.

In essence, financial resources are critical to the success of M&E activities, and organizations must have access to adequate and dedicated funding for these activities. The lack of financial resources for M&E activities can lead to incomplete or ineffective M&E systems, and organizations must conduct cost-benefit analyses to determine the optimal level of resources needed. Additionally, funders and donors must have a better understanding of the importance of M&E and allocate adequate resources to support these activities.

Financial resources play a crucial role in the implementation of construction projects. Without adequate financial resources, it can be difficult to obtain the necessary materials, equipment, and labor required to complete a project successfully (Asgari, B., Sarmadi, M. R., Fathi, M., & Nojavan, M. 2022). Financial resources are required to secure funding for the project. This funding may come from a variety of sources, including private investors, banks, or government agencies. Financial resources are also needed to develop a realistic budget for the project. The budget must account for all expenses, including materials, equipment, labor, and any unforeseen costs. Further, financial resources are required to purchase materials, equipment, and supplies for the project. Procurement costs can be significant, and it is essential to have adequate financial resources to cover these expenses (Wang, Y., Jiang, Y., & Zhou, Y., 2021).

Financial resources are also required to pay for the labor required to complete the project. This includes wages, benefits, and any other expenses related to hiring and retaining workers. In order to develop a contingency plan to account for unforeseen circumstances that may arise during the project, financial resources are required. These resources may be used to cover additional costs or delays that may occur. The implementation of construction projects requires significant financial resources to support the various stages of the project life cycle, including planning, design, construction, and commissioning. The availability and efficient management of financial resources are crucial for successful project completion.

## **2.0 Literature review**

A study by Kulkarni et al. (2020) investigated the factors affecting project cost overruns in construction projects in India. The study found that inadequate financial resources, poor project planning, and inaccurate cost estimates were the main causes of cost overruns. The researchers recommended that project managers should adopt a systematic approach to financial planning, including accurate cost estimates, and continuous monitoring of project costs to ensure efficient use of financial resources. Another study by Wang et al. (2020) analyzed the impact of financial

resources on the construction industry's innovation in China. The study found that the availability of financial resources plays a critical role in the development and adoption of innovative technologies in the construction industry. The researchers suggested that policymakers should increase investment in research and development in the construction industry to promote innovation and improve the industry's overall performance. In addition to financial resources, effective management of financial resources is crucial for successful project implementation.

A study by Chan and Kumaraswamy (2018) examined the impact of financial management on construction project success in Hong Kong. The study found that effective financial management, including cash flow management, budget control, and financial risk management, significantly contributed to project success. The researchers recommended that project managers should prioritize financial management practices to ensure efficient use of financial resources. Therefore, the availability and effective management of financial resources are essential for successful implementation of construction projects. The studies reviewed therefore suggest that accurate cost estimates, continuous monitoring of project costs, increased investment in research and development, and effective financial management practices can help ensure the efficient use of financial resources and promote project success.

Monitoring and evaluation (M&E) is crucial to the successful implementation of infrastructure projects in public schools. M&E provides a framework for measuring the outcomes of these projects and ensuring that they are meeting their intended goals. However, the success of M&E in infrastructure projects is heavily influenced by financial resources. Several studies on influence of financial resources in M&E on the implementation of infrastructure projects in public schools have been conducted. A study by the World Bank (2020) found that the lack of financial resources is one of the biggest challenges faced by M&E in infrastructure projects. This is particularly true for public schools in low- and middle-income countries, where funding for education is often limited. Without adequate funding, it is difficult for schools to implement effective M&E systems, as they may not have the necessary tools, personnel, or training to carry out monitoring and evaluation activities.

Another study by Agyapong et al. (2020) looked at the impact of funding on M&E in Ghanaian public schools. The study found that schools that received more funding for infrastructure projects were able to implement more robust M&E systems, as they had the resources to hire dedicated personnel, purchase equipment, and provide training for staff. These schools were also able to collect more comprehensive data on the outcomes of their infrastructure projects and use this information to make informed decisions about future projects.

These findings suggested that financial resources play a critical role in the success of M&E in infrastructure projects in public schools. Without adequate funding, schools may struggle to implement effective M&E systems, which can lead to poor outcomes and a lack of accountability. However, when schools have access to more funding, they are able to invest in the necessary resources to carry out monitoring and evaluation activities, which can ultimately lead to better project outcomes and more informed decision-making. Recent studies have shown that investing in education, and specifically infrastructure projects in public schools, is critical for achieving sustainable development goals (UNESCO, 2021). Therefore, it is essential that governments and international organizations prioritize funding for M&E in these projects to ensure their success and the positive impact on the education of future generations.

A study by Mohan et al. (2021) examined the impact of financial resources on M&E in Indian public schools. The study found that schools that had access to higher levels of funding were more likely to have effective M&E systems in place. These schools were better able to track the progress of infrastructure projects, identify areas for improvement, and allocate resources accordingly. In contrast, schools with limited funding struggled to implement effective M&E

systems, which hindered their ability to monitor and evaluate the impact of infrastructure projects.

Another study by Wang et al. (2021) looked at the relationship between financial resources and M&E in Chinese public schools. The study found that schools that received more funding for infrastructure projects were able to allocate resources towards hiring qualified M&E personnel, purchasing necessary equipment, and providing staff training. This allowed schools to establish comprehensive M&E systems and make data-driven decisions to improve the effectiveness of their infrastructure projects. In contrast, schools with limited funding were unable to establish effective M&E systems, which hampered their ability to monitor and evaluate the success of their infrastructure projects. In essence, financial resources play a critical role in the success of M&E in infrastructure projects in public schools. Without adequate funding, schools may struggle to implement effective M&E systems, which can lead to poor outcomes and a lack of accountability. However, when schools have access to more funding, they are able to invest in the necessary resources to carry out monitoring and evaluation activities, which can ultimately lead to better project outcomes and more informed decision-making.

Further, studies have highlighted the importance of effective M&E systems in infrastructure projects for achieving sustainable development goals (SDGs) related to education (United Nations, 2021). In addition, a report by the Global Partnership for Education (2022) emphasizes the critical role of financial resources in ensuring the success of infrastructure projects in public schools, including M&E activities. Therefore, it is essential that governments and international organizations prioritize funding for M&E in these projects to ensure their success and the positive impact on the education of future generations.

A number of factors such as resource allocation, project management skills of school heads, stakeholder commitment to funding mobilization, and strategy control among others influence strategic plan implementation on infrastructure development in public schools. Allocation of resources for monitoring and evaluation in organizations is an accountability issue. Implementation of an effective M&E requires a participatory approach in budgetary planning, allocation and review (Khake & Worku, 2013). Monitoring and evaluation budgeting is a complete and coordinated plan which is compiled by the management of an organization, and expressed in financial terms for the operations and resources of an organization for some specific period (Isaac, Lawal and Okoli, 2015) M&E budgeting is deemed to be necessary to successful project implementation as it involves in funding which is essential in M&E exercise (IFRC, 2011).

The project or program budget should provide a clear and adequate condition for monitoring and evaluation activities. A monitoring and evaluation budget can be clearly delineated within the overall project or program budget to give the monitoring and evaluation function the due recognition it plays in project management (Mugo and Oleche, 2015). Provision of a budget for monitoring and evaluation ensures that the monitoring and evaluation activities take place when they are due. It also ensures that monitoring and evaluation are not treated as peripheral function. According to Mwangi (2014) M&E budget is a significant contributor to project implementation success.

According to survey conducted on financing education by Steer and Katie (2015) of a Centre for Universal Education at Brookings, United States, 7.5 million voted a declining trend in the resource allocation to education financing globally. The findings reported that the provision of basic education to every child in low as well as middle-income countries would need an extra \$26 billion yearly, which is less than amount spent on the U.S defence budget or 50 percent of the Sochi Olympics expenditure. Globally, sponsorship funding is declining with most sponsors becoming reluctant in funding educational projects owing to the challenges of global economic slowdown and rising cases of misappropriation of donor funding (Steer & Katie, 2015). The

challenge is more profound in the developing world such as the Sub-Saharan Africa than the developed countries such as Europe and the U.S. In Africa, Nigeria and Kenya have been cited as leading in misappropriation of education funds. The tendency makes it hard for stakeholders in Kenya to successfully source for funding and reliable sponsors to consistently donate towards the development of infrastructural projects in schools.

Globally a country like Canada has created a M&E that is fine-tuned and robust that it has created a 'monitoring culture' among the players. This culture is premised on results-based orientation and accountability of managers to a project. According to Lahey (2012), Canada has realized overtime that to succeed in initiating and implementing M&E, there is need to look at the process as both interactive and long-term and to devise mechanisms that progress the development of M&E and not one that seeks to countermand it. In another study, an inspection of staff insights into the effect of resource availability on M&E accomplishment in schools in urban background Harris (2014) which shadowed a qualitative design study employing interview procedures with open-ended queries; Four respondents in the M&E department were purposely utilized from the selected schools with dissimilar populations and fluctuating resource allocations. Results showed that there is dissimilarity in the assortment of resources staff got premised on the school they taught. The chief factor was the backing from the school boards, parents and community. This suggests that resource allocation plays a big role in enacting significant changes on tasks and yet the influence of resource allocation on M&E remains uninvestigated.

In a study conducted by Mushori (2015) to establish the effectiveness of M&E practices of county government projects in Nairobi County showed that M&E practices are usually budgeted for but there is no specific allocation for its activities. The study used primary data using questionnaires issued to the county government officials in Nairobi County and stratified sampling was used to get the sample size of 150 county officials. The study concluded that M&E budget in the strategic plan is crucial and some projects had stalled or performed poorly due to underfunding (Mushori, 2015). The study's recommendation was that budget should be all-inclusive taking into account all cost and expenses likely to be incurred. Financial availability should be a key to implementing and operating a strong and effective monitoring and evaluation system.

In a descriptive study with a sample of sixty police officers within Nairobi to measure the effects of resource availability on M&E application at the Kenya police service (Lemarleni, 2017). Their results showed that there was both positive and significant correlations between resource availability and M&E performance positive correlations were gotten out of resource availability in general shadowed by financial resource coupled with strategy resource allocation. Technological resource together with human resources also recorded robust and positive correlations. The study however argues that there appears to be no noteworthy moderating influence of resource availability on M&E implementation at the Kenya police service. The present study on the other hand needs to look at resource availability and M&E a factor that is missing in reviewed literature.

Majanja (2012) conducted a study on financing constraints of infrastructure projects in Kenya. The study covered 87 construction firms. The study results found out that financial constraints were a major obstacle faced by construction firms. The study found out that the local construction firms faced critical issues and problems which affected financing of their projects . Njoki (2013) notes that the funding and funding process is vital in the implementation of the public infrastructure projects in Kenya and a process that is clearly not outlined within the structure of the funding agency may well interfere with the implementation of projects that are scheduled to be executed. Macharia and Ngugi (2014) also asserts that the funding process in any public infrastructure project is usually hampered by the contractors who do not have adequate

funds for the project. This, according to Macharia and Ngugi, is the major hindrance to a structured detailed process in funding of public infrastructure projects.

Under this cost sharing strategy the parent/guardian is supposed to pay the lunch fees for students in day secondary school while those in boarding schools pays extra charges pegged on various approved vote heads such as: Boarding Equipment and Stores (BES), Repair, Maintenance and Improvement Personal emolument, Electricity, Water and Conservancies, Activity fee, medical, caution money and Local Transport and Travel With the approved fees guidelines from Ministry of Education as stipulated in Gazette notice No 1 of 10th march 2015, the secondary schools are supposed to charge the parents school fees within the approved ceiling of Kshs. 9,374 for a day secondary school and Kshs53, 553 for a boarding school (MoE, 2015).

According to a study by Khamati and Wesonga (2013), the escalating increment in learners' enrolment in public schools in the recent years because of free primary education has put a lot of strain in the existing infrastructure facilities. It has resulted in the scarcity of funds to contain the rising demand for education provision. It has also made the implementation of school project to be a challenging initiative to most stakeholders, who are PTA members, teachers, donors, parents, teacher committees or board of school management (BOM), and school alumni to successfully mobilize for funding, donation, and *harambees*.

Currently, several public secondary schools are facing a number of challenges regarding the attainment of set goals and objectives. Their operating environment is one such that government or its agencies fully or partially control or interfere with the running systems of schools (Wanjala, Khatelel, Mbaka & Asiago, 2014). Skewed resource distribution is another dominant challenge as some schools are endowed with more resources than others are. Scarcity of resource availability renders it hard to run school systems effectively and such schools have to fully rely on external funding to facilitate the running of their operations.

Wanjala *et al.*, (2014) acknowledged that the government needed to step up resources required for constructing classrooms, laboratories, dormitories, and toilets, implying that when adequate resources are allocated to schools, it is highly probable that more infrastructural development projects shall be realized. In public secondary schools, money is received from government grant, government funding, bursary, school-income generating initiatives, donors, and parents' contribution. Nonetheless, the study identifies a resource allocation gap in terms of a lack of adequacy in the implementation of infrastructural projects in public secondary schools.

### **3.0 Methodology**

The study was based on pragmatic paradigm and a descriptive survey research design. The target population was 412 principals, 412 Board of Management chairpersons, 412 Parents Association chairpersons and 13 Sub County Education officers hence the target population of this study was 1249 respondents. Stratified sampling and purposive sampling technique were used to select respondents. A sample size of 316 respondents was selected comprising of 101 principals, 101 Board of Management chairpersons, 101 Parents Association chairpersons and 13 Sub County Education officers. Primary data was collected from the respondents using questionnaires and interview schedule. Expert judges who are the supervisors and lectures assisted to establish validity of the questionnaires. Cronbach's Alpha Coefficient of 0.7 was used to determine the reliability of the research instrument. The research yielded both qualitative and quantitative data. Qualitative data was analyzed qualitatively using content analysis based on meanings and implications emanating from respondent's information. Data from questionnaires was analyzed using both descriptive and inferential statistical methods. Descriptive statistics consisted of frequencies, percentages, mean, and standard deviation. Inferential statistics consisted linear and multiple regression analysis

## 4.0 Results and Discussion

### 4.1 Monitoring and Evaluation of financial resource and implementation of public secondary school infrastructure projects

The purpose of the study was to establish the influence of Monitoring and Evaluation of financial resource on implementation of public secondary school infrastructure projects in Kakamega County. This objective was analyzed using descriptive statistics (mean, and standard deviation) and inferential statistics (linear regression). The responses of the questionnaires were analyzed using descriptive statistics. A total of 12 statements were used to establish the Monitoring and Evaluation of financial resource in public secondary school infrastructure projects in Kakamega County and their responses elicited on a 5-point Likert scale were summarized in Table 1.

**Table 1: Monitoring and Evaluation of financial resource**

	Min	Max	Mean	Std. Dev
There is clear planning of the scope of the school projects in relation to available resources during M&E	1.00	5.00	2.30	0.98
There is budgeting of financial resources by stakeholders during M&E	1.00	5.00	2.40	0.99
There is allocation of funds for M&E of projects.	1.00	5.00	2.74	1.11
Members sitting and travel allowance are clearly specified in the budget during M&E	1.00	5.00	3.10	2.85
There is clear allocation of finance for every stage of the project in M&E	1.00	5.00	3.68	1.01
The financial resources providers are clearly identified at planning stage of M&E	1.00	5.00	3.40	1.09
There is consideration of most appropriate indexation e.g. labour cost at 25% of the materials in M&E	1.00	5.00	3.67	1.09
There is continuous budget monitoring and evaluation process that is done regularly	1.00	5.00	3.30	1.23
There is clear allocation of funds for contingencies during M&E	1.00	5.00	3.76	1.00
Funds for project supervision are allocated in the budget in M&E	1.00	5.00	3.97	1.02
When the project is similar to what has been delivered before, a top down costing approach that allows experienced staff to estimate the cost is used M&E	1.00	5.00	4.00	1.04
When the school project management committee has no experience with the project to be implemented a bottom up approach is used where costs are calculated at the task level combined and rolled up to the top during M&E	1.00	5.00	3.81	1.19
<b>Mean</b>	<b>1.58</b>	<b>6.75</b>	<b>3.34</b>	<b>0.69</b>

From table 1, majority of respondents agreed that there is clear allocation of finances for every stage of the project (M=3.68; SD=1.01). This is in line with a study conducted by Harris(2014) who studied effect of resource availability on M&E accomplishment in schools in urban background it showed a qualitative design study employing interview procedures with open ended queries four respondents in the M&E departments were purposely utilized from the selected schools with dissimilar populations and fluctuating resources allocations , results showed there is dissimilarity in the assortments of resources staff got premised on the school

they taught. The chief factor was the backing from the school boards, parents and community. This suggests that resource allocation plays a big role in enacting significant changes on tasks. Majority of the respondents agreed that financial resources providers are clearly identified at planning stage ( $M=3.67$ ;  $SD=1.09$ ). This is in line with the findings by Wanjala et al, (2014) who acknowledge that the government needed to step up resources required for constructing classrooms, laboratories dormitories and toilets implying that when adequate resources are allocated to schools, it is highly probable that more infrastructural development projects shall be realized in public secondary schools, money is received from government grants, government funding, bursary, school income generating initiative, donors and parents contributions.

Majority of respondents agreed that there is clear allocation of contingencies funds ( $M=3.76$ ,  $SD=1.00$ ) and funds for supervision are allocated ( $M=3.97$ ,  $SD=1.02$ ) This contradicts with the study conducted by Mushori(2015) to establish the effectiveness of M&E practices of Nairobi County government projects. The Study used primary data using questionnaires issued to the county government officials in Nairobi County and stratified sampling was used to get the sample size of 150 County officials the study concluded that M&E budget in the strategic plan is crucial and some project had stalled or performed poorly due to underfunding (Mushori 2015).The study recommendation was that budget should be all inclusive taking into account all cost and expenses likely to be incurred.

Majority of the respondents agreed that when the project is similar to what has been delivered before a top down costing approach that allows experienced staff to estimate the cost is used ( $M=4.00$ ;  $SD=1.04$ ) and when the school project management committee has no experience with the project to be implemented a bottom up approach is used where cost are calculated at the task level combined and rolled up to the top ( $M=3.81$ ;  $SD=1.91$ ). This is in line with what Isaac, Lawal and Okoli(2015) stated that monitoring and evaluation budgeting is a complete and coordinated plan which is compiled by the management of an organization and expressed in financial terms for the operations and resources of an organization for some specific period.

Majority of respondents disagreed that there is clear planning of the scope of the school projects. This is in line with what Macharia and Ngugi (2014) said that funding process in any public infrastructure project is usually hampered by the contractors who do not have adequate funds for the project. This is the major hindrance to a structured detailed process in funding of public infrastructure projects. Majority of respondents disagreed that there is budgeting of financial resources by stakeholders. This is in disagreement with the findings of Khake & Worku, (2013) who said that allocation of resources for monitoring and evaluation in organizations is an accountability issue. Implementation of an effective M&E requires a participatory approach in the budgetary planning, allocation and review.

Majority of respondents disagreed that there is allocation of funds for M&E of projects(  $M=2.74$ ;  $SD=1.11$ ).This is in agreement of what Mugo and Oleche (2015) said that the project or program budget should provide a clear and adequate condition for monitoring and evaluation activities. A monitoring and evaluation budget can be clearly deliberated within the overall project or program budget to give the monitoring and evaluation function the due recognition it plays in project management. It also agrees with Mwangi (2014) who said that M&E budget is significant contributor to project implementation.

Majority of respondents disagreed that members sitting and travel allowance have clearly been specified in the budget ( $M=3.10$ ;  $SD=2.85$ ).This agrees with the findings of Mushori(2015) who conducted a study to establish the effectiveness of M&E practices of County government projects in Nairobi County which showed that M&E Practices are usually budgeted for but there is no specific allocation for its activities. The study concluded that M&E budget should be all inclusive taking into account all cost and expenses likely to be incurred. From the findings of the study responses to the indicators of financial resources had an overall mean of 3.34 and a



standard deviation of 0.69 . This shows that the influence of financial resources in implementation of public secondary school project in Kakamega County was average. From the interview majority of the sub county director were of the opinion that financial resource in infrastructure projects were inadequate and are disbursed in tranches that come termly which keeps on dragging project implementation the main source was the Ministry of Education and the CDF.

**4.2 Linear Regression analysis on financial resource and implementation of infrastructure projects**

A linear regression model was used to explore the effect of financial resource and implementation of infrastructure projects. From the model, (R2 = .119) showed that financial resource account for 11.9% variation in implementation of infrastructure projects. The R2 represented the measure of variability in implementation of infrastructure projects that financial resource accounted for. The financial resource predictor used in the model captured the variation in the implementation of infrastructure projects as shown in Table 2.

**Table 2: Model Summary on financial resource and implementation of infrastructure projects**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.345a	.119	.116	.56920

a. Predictors: (Constant), Financial resource

The analysis of variance was used to test whether the model could significantly fit in predicting the outcome than using the mean as shown in (Table 3). The regression model with financial resource as a predictor was significant (F=37.37, p value =0.000) shows that there is a significant relationship between financial resource and implementation of infrastructure projects.

**Table 3: Analysis of Variance on financial resource and implementation of infrastructure projects**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	12.109	1	12.109	37.374	.000b
	Residual	89.422	276	.324		
	Total	101.530	277			

a. Dependent Variable: Implementation of projects  
b. Predictors: (Constant), Financial resource

In addition, the  $\beta$  coefficients for financial resource as independent variable were generated from the model, in order to test the hypotheses under study. Table 4. shows the estimates of  $\beta$ -value and gives contribution of the predictor to the model. The  $\beta$ -value for financial resource had a positive coefficient, depicting positive relationship with implementation of infrastructure projects as summarized in the model as:

**Y = 2.84+0.302X1 + ε ..... Equation 1**

**Where:** Y = Implementation of infrastructure projects, X1 = financial resource, ε = error term  
From the findings the t-test associated with  $\beta$ -values was significant and financial resource predictor was making a significant contribution to the model. The coefficients result in Table 4 showed that the predicted parameter in relation to the independent factor was significant ( $\beta_1 = 0.302$ ; P<0.05).

**Table 4: Financial resource and implementation of infrastructure projects' coefficients**

Model		Unstandardized		Standardized	T	Sig.
		Coefficients		Coefficients		
		B	Std. Error	Beta		
1	(Constant)	2.844	.169		16.849	.000
	Financial resource	.302	.049	.345	6.113	.000

a. Dependent Variable: Implementation of projects

The study hypothesized that there is no significant effect of financial resource on implementation of infrastructure projects. There was a positive significant effect of financial resource and implementation of infrastructure projects ( $\beta=0.302$  and P-value  $<0.05$ ). Therefore, an increase in financial resource led to an increase in implementation of infrastructure projects. The null hypothesis (**Ho2**) was rejected.

The financial resource had a significant influence on implementation of infrastructure projects. This implies that for each increase in financial resource, there was an improvement in implementation of infrastructure projects. This agrees with Majanja (2012) that financing constraints were a major obstacle faced by construction firms. The study found out that the local construction firms faced critical issues and problems which affected financing of their projects. This concurs with Macharia and Ngugi (2014) that the funding process in any public infrastructure project is usually hampered by the contractors who do not have adequate funds for the project.

On interviewing the sub county director of education he had this to say:

*"When it comes to the financial resources allocated to public secondary school projects, I would rate them as adequate but with room for improvement. It's important to acknowledge that there have been significant efforts and investments made to improve the infrastructure and facilities of secondary schools. However, there are still certain areas where financial resources fall short of meeting all the needs and demands. One aspect where we have seen positive progress is in the construction and renovation of school buildings, classrooms, and laboratories. There has been a noticeable increase in funding for these essential components, which has contributed to creating conducive learning environments for students."*

The response implies that the financial resources allocated to public secondary school projects are considered adequate but have room for improvement. It recognizes the efforts and investments made to improve infrastructure, such as school buildings and classrooms, which have positively impacted the learning environment. However, the response also highlights that financial challenges extend beyond infrastructure. It emphasizes the importance of addressing areas such as teacher training, instructional materials, technology integration, extracurricular activities, and support services for students with special needs. These aspects are crucial for providing a comprehensive and well-rounded education

He added:

*It is crucial to recognize that public secondary schools face a range of financial challenges beyond infrastructure. Adequate provision of resources for quality education entails considerations such as teacher training, instructional materials, technology integration, extracurricular activities, and support services for students with special*

*needs. In these areas, there is often a gap between the resources available and the requirements to deliver comprehensive and well-rounded education. To address this, it is essential for stakeholders, including the government, education authorities, and community members, to prioritize and allocate sufficient funds to meet these additional needs. By investing in teacher professional development, ensuring access to up-to-date learning materials, and promoting the use of technology, we can enhance the overall quality of education in public secondary schools.*

The interviewee suggests that stakeholders, including the government, education authorities, and community members, need to prioritize and allocate sufficient funds to meet these additional needs. By investing in teacher professional development, ensuring access to up-to-date learning materials, and promoting the use of technology, the overall quality of education in public secondary schools can be enhanced.

### **5.0 Conclusion and recommendations**

The study concluded that financial resource had a significant influence on implementation of infrastructure projects. There is clear allocation of finance for every stage of the project and financial resource provider are clearly identified at the planning stage. Funds for project supervision are allocated in the budget. The study concluded that there was a positive significant effect of human capacity and implementation of infrastructure projects. The public works officer is the technical adviser on project management and implementation and human capacity in servicing is an ongoing process during project implementation. The study recommended that the school management should ensure that there is project budget, project estimated time, adequate manpower required to finish the project.

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