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PROJECT COST MANAGEMENT AND SUSTAINABILITY OF INUA JAMII CASH TRANSFER COMMUNITY DEVELOPMENT PROGRAM IN KIAMBU COUNTY, KENYA

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ABSTRACT

The main objective of this study was determining the effect of project cost management on sustainability of Inua Jamii cash transfer community development programs in Kiambu County. The specific objectives were to examine effect of cost estimation, and cost budget on sustainability of Inua Jamii cash transfer community development programs in Kiambu County. The study employed a descriptive research design. The study population comprised of the four Inua Jamii Cash Programs. The unit of observation was the County Social Development Officer (SDC), assistant social development officers in the 12 sub counties, and community development extension officers spread in the 60 ward. The study sample was 73 hence census. Questionnaires were used for data collection. A pilot test was conducted with 7 staff representing 10% of the sample. This study used content and construct validity. Cronbach's Alpha test was used to ensure reliability. Data analysis was analyzed to generate both descriptive (frequency, percentage, mean) and inferential statistics (correlation, and regression). Significance was less than 0.05. Data was tabulated. Findings show that; a strong significant relationship between cost estimation and program sustainability (r=0.863, p=0.000), a strong significant relationship between cost budget and program sustainability (r=0.868, p=0.000). Recommendations are; this program managers should; adopt suitable cost estimation methods which are key element of project cost management that enhance sustainability of programs, adopt best practices to monitor the Inua Jamii cash programs, and adopt use of innovative methods to accurately control project costs.

Key Words: Project Cost Management, Cost Estimation, Cost Budget, Sustainability, community development programs, Kiambu County

Background of the Study

The sustainability of a development project is the cornerstone of any development endeavor that cannot be attained in one day because it is a life-long process. The sustainability of funded projects entails continued benefits after significant assistance from donors or sponsors has been completed or withdrawn. It serves as a foundation for development projects in society, and failure to have it leads to wastage of resources and efforts committed to a project (Ye & Gong, 2021). The PMBOK (2017) explained that the project cost management process consists of estimate costs, and determine budget. Moreover, project cost management is predominantly concerned with the cost of the resources required to complete scheduled project activities during the execution stage and this includes the cost of using in tendering, construction, maintaining, and supporting results of the project. Ronald and Agung (2018) stated that the process in cost management involves various work phases that include the initial stage, the implementation stage and the completion stage. Project cost management has become a requirement for the project's success. Successful projects required project cost management to manage and evaluate the progress of the project. The successful end of projects across different sectors and industries is one of the most significant reasons that determine the development and growth of many nations.

Project resource planning involves determining what resources (people, equipment, materials) and what quantities of each should be used to perform project activities. Resource planning is an initial phase of a project. A project manager needs to declare the project activities and project resources. It is also known that by inspecting the site, the manager would know what are the resources needed for the project. If the types and quantities of such resources are known, then the associated costs can be determined (Hendrickson, 2018). Project cost estimation is the process of developing an approximation (estimate) of the costs of the resources needed to complete project activities including labor, equipment, materials, services, and any contingency costs. In approaching cost, the estimator considers the reasons of variation of the final estimate for purposes of better outcome. It involves identifying and considering various costing alternatives (Rajapakse, 2017). Determining the budget involves allocating the project cost estimate to individual material resources over time. These material resources are centered on the activities in the work breakdown structure for the project. The main objective of the cost budgeting process is to produce a cost baseline and to determine project-funding requirements (Sunidjijo, 2015).

Statement of the Problem

Cash transfer programs have a positive impact to its beneficiaries. This is through enhancing household purchasing power, promoting local economy, and significant reduction in poverty levels. The current level of investment in the Inua Jamii Senior Citizens' Scheme benefits amounted to approximately Ksh 12.8 billion (0.13% of GDP) in its first year after implementation. Currently, the program accounts for 0.8% GDP that is equivalent to 3% of total government budget (Malu, 2018). Despite its benefits, the program is vulnerable to error and fraud. Ensuring sustainability of the program is also a challenge, as its survival will depend on the political good will by the government and availability of funds (Winnie, 2016).

Mwangi (2020) observed that the requirement of Kenyan citizenship is validated by possession of national identity card which is problematic particularly where it's hard to identify genuine citizens, some denying vulnerable Kenyans a chance to benefit from these program. The program is also faced by other challenges such as inadequacy of the funds, delay in disbursement, and the frequent changes in dispensation of the cash. Nawoton (2020) revealed that one of the main constraints faced by cash transfers is the poorly defined responsibility for coordination of cash transfers. There has also been a public outcry in Kaimbu County which hosts the most populated sub-county in Kenya, Ruiru sub-county and the funds has not been sufficient for the many beneficiaries. Thousands of Kiambu county's residents are squatters who work on tea and coffee farms for a dollar a day. Inequality is rampant in Kiambu, and the gap between the county's rich and poor continues to widen (CIDP, 2018-2022). High rates of social exclusion from social and development activities in Kiambu County leave the older persons at risk of poverty, hunger, and HIV/AIDS in rural settings. There is a wide scope of registration in Kiambu County that allowed the researcher to have a multifaceted approach to this social program

There exists various studies on project cost management. Betru (2021) study on the effect of project cost management on project success on selected real estates in Addis Ababa found that Plan cost management, estimate costs have high effect on success of the projects. Onyango (2021) on influence of cost management on implementation of construction projects in Elgeyo Marakwet County revealed that technical imprecisions, funding and regulatory policies costs affect implementation of construction projects. Nawoton (2020) on influence of cash coordination on efficacy of cash transfer programming in Turkana County concluded that cash coordination has less influence on efficacy of Cash Transfer Programming in Turkana County, Kenya. However, there is study limitation effect of project cost management on sustainability of Jamii cash transfer programs. This study sought to fill this research gap by examining the effect of project cost management on sustainability of Inua Jamii cash transfer community development programs in Kiambu County.

Research Objectives

i. To examine the effect of cost estimation on sustainability of Inua Jamii cash transfer community development programs in Kiambu County.
ii. To assess the effect of cost budget on sustainability of Inua Jamii cash transfer community development programs in Kiambu County.

LITERATURE REVIEW

Theoretical Review

Behavioral Finance Theory

Behavioral finance theory was developed by Kahneman and Tversky in 1979. Kumar (2017) argues that the theory is a modern area of study in finance, which aims at combining behavioural and cognitive psychological theory with conventional economics, and finance, to provide explanations for the reasons why people make irrational financial decisions. Jureviciene and Ivanova (2013) postulate that the theory investigates emotional characteristics to explain subjective factors and irrational anomalies in financial markets. Hammond (2015) provides the reason why behavioral finance exists by stating that, since not every person can possibly have and invest upon the same amount of information, this leads to what every person will view the things they see differently. According to Barberis and Thaler (2003) behavioral finance theory is subdivided into two building blocks. The first is cognitive psychology, which documents patterns regarding how people behave. Some of these patterns are overconfidence and conservatism. The second part deals with limits to arbitrage, which argues that when market is inefficient, it can be difficult for rational traders to undo the dislocations caused by less rational traders.

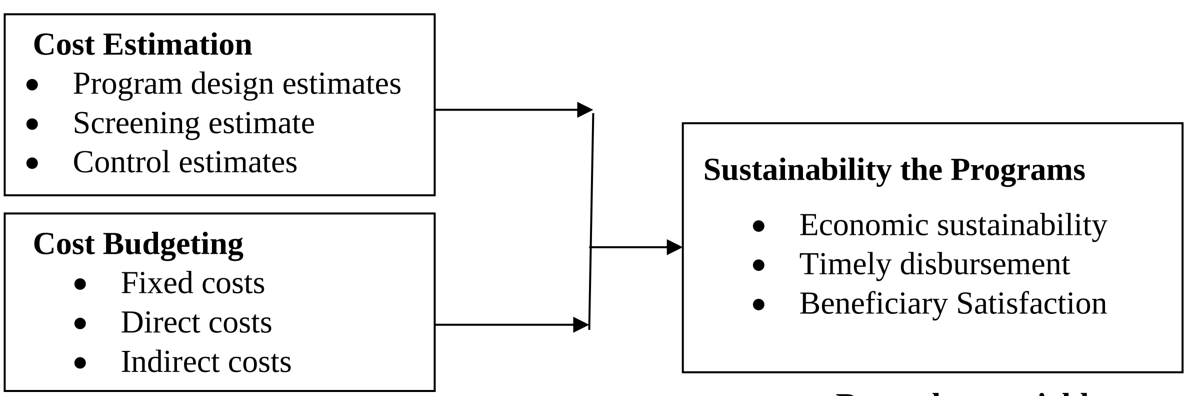
Kumar (2017) continues by showing that investors behave irrationally when they do not correctly process all the available information while forming their expectations of a company's future. Thus, Statman (1995) argues that behavioral finance theory contributes to the world of finance by making sense of normal investor behavior. Regarding the budgeting, Biondi and Marzo (2010) conclude that the accepted approach to capital budgeting leaves decision makers without appropriate guidance, because it ignores the cognitive, organizational, and institutional dimensions of their decision. Regarding the above study, Jahanzeb and Rehman (2012) explains that behavioral finance theory does not claim that every investor will suffer from similar illusion; instead, it sheds light on how to take necessary initiatives to avoid such illusions, which influence the process of decision-making, particularly while making investments. The theory relates to the objective on cost budgeting as it guides program managers on the program budgeting.

Transactional Cost Theory

The Transactional Cost Theory (TCE) was first introduced by Williamson in 1985. Williamson focused on the economic factors. TCE has traditionally examined the customer-supplier relationship in the context of a contractual arrangement. This relationship is associated with transaction costs including; costs of information, negotiation, competitive advantage, contract administration and management, market structure, enforcement, and measuring/monitoring performance (Melese & Franck 2005, Heide &Stump 1995). The actual cost of a project is comprised of not only production costs, but also transaction costs. Transaction costs include but are not limited to the costs of preparing the bidding package, drawing up a contract, administering the contract, and dealing with any deviations from contract conditions. Transaction costs constitute an important part of the project owner's budget.

Turner and Simister (2001) list the following transaction costs incurred in all phases of a project: the costs of specifying the product in the tender documentation, specifying the work methods in the tender documentation, managing variations to the specification of the product during project delivery, and managing variations in specification of the process during project delivery. However, Hughes et al. (2006) classify transaction costs by project phase, namely pre-tendering, tendering and post tendering costs. Likewise, Whittington (2008) considers transaction costs in project phases from the time funds are initially allocated to the project, to the process of publishing an advertisement and accepting bids. Under the guidance of transactional cost theory, program managers may be able to control the costs involved while transacting the funds. They may therefore adopt the platform that will offer favorable transaction costs.

Conceptual Framework



Dependent variable

Independent variables

Figure 2.1: Conceptual Framework

Cost Estimation

Cost estimation in project management is the process of forecasting the financial and other resources needed to complete a project within a defined scope. Cost estimation accounts for each element required for the project from materials to labor and calculates a total amount that determines a project's budget (Jørgensen & Wallace, 2017). Cost estimating produces a quantitative estimation of costs, which is used in pricing, bidding, and negotiations during the preparation phase of the project. Project cost estimation applies to everything from building a bridge to developing a new app. Cost estimates are typically revised and updated as the project's scope becomes more precise and as project risks are realized (PMBOK, 2018). Cost estimating is an iterative process that requires constant review and update as circumstances change and new facts emerge. Project cost estimate requires a reasonable level of accuracy, reliability, efficiency and transparency and has to be justified with underlying assumptions clearly documented. The data forming the cost estimation bases must be relevant, current, appropriate, and of good quality and value (Valtanen, 2020).

Rahikkala, Leppänen, Ruohonen, and Holvitie (2015) stated that less than 20% of the cost estimators use proper estimation methodologies. Inaccurate cost estimation is a major challenge project teams encounter that cause cost overrun and project delays. Bottom up estimating is the most reliable method for cost estimating when the work scope is properly defined and the work can be broken down into smaller packages known as Work breakdown Structures (WBS) (Goh, 2015). The cost of each of the smaller packages or deliverables are separately determined more precisely and aggregated to determine the project cost estimate. However, the development of the

Packages or deliverables is usually time consuming, especially for complex projects. This belongs to the detailed estimating group as it can only be done when detailed information about the project is available. The detailed cost is then summarized or rolled up to higher levels for subsequent reporting and tracking purposes. The cost and accuracy of bottom-up cost estimating are typically influenced by the size and complexity of the individual activity or work package. The major limitation of this technique is the great amount of details required and time required. On the other hand, the process for deriving the cost estimate is easily understandable and repeatable.

Parametric estimating method uses independent variables from historical data and parameters. It is very popular in project estimating. This technique is based on the building of "Cost Estimation Relationships" (CERs) which are simple mathematic relations between the costs of a work element and some of its parameters called 'cost drivers' (Chan, 2015). Osmanbegović et al. (2017) referred to poor planning as one main cause of inaccurate cost estimation. Lichtenberg (2016) identified the biased assessment of project cost as one of the main reasons for cost overruns.

Cost Budget

Cost budgeting is the process of allocation of the cost estimates to specific activities or work packages, with the aim of establishing a cost baseline for a project. Budget plan preparation involves among other things assessing variances between revenue and actual spending, prioritization of project needs according to its set of objectives, forecasting and evaluation of incoming revenues, trends of spending and risks that can impact funds (Schmidt, 2019). Budgeting process considers cost factor. Cost of items is always a major consideration during budgeting process. Affordability of items affects prioritization of spending because it determines the decision for spending (Goodwin, 2013). However, cost is influenced by other factors such as time for expenditure and location of spending.

Shtub, Bard and Globerson (2018) observe that budgeting is the tactical implementation of a business plan. Budgeting serves as a control mechanism where actual costs can be compared with and measured against the budget. A project budget is the total sum of money allocated for the particular purpose of the project for a specific period. To develop the budget, the applicable cost factors associated with project tasks are identified. Eyibio and Daniel (2020) indicate that the development of costs for each task should be simple and direct and consist of labor, material, and other direct costs. The cost of performing a task is directly related to the personnel assigned to the task, the duration of the task, and the cost of any non-labor items required by the task. The goal of budget management is to control project costs within the approved budget and deliver the expected project goals.

Empirical Studies

Cost Estimation and Project Sustainability

Nakhleh (2019) examined the relationship between time estimation, cost estimation, and project performance in Qatar. The study adopted a correlational research design. Results showed a significant linear relationship between time estimation and cost estimation on project performance. Teakon (2021) examined the relationship between project cost estimates; project scheduling, and project success. Data was collected from 110 construction companies in Liberia. The results showed that project cost estimates, project scheduling have a statistically significant effect on project success. Egboga, Cross, and Abubakar (2022) investigated the effect of cost estimation on project performance in construction firms in Abuja. The results showed that both bottom-up estimation and parametric cost estimating are both positively and significantly influenced by scope/specifications, time/schedule and cost. The study concluded that project managers should focus on developing estimates and schedules using modern project management tools that would project accurate costs and schedules.

Siborurema, Shukla, and Mbera (2015) studied the effects of projects funding on their performance in Rwanda. Data was collected using questionnaires, consultation of existing documents and interview guides. Findings revealed that both the cost estimation and technical design interfere with the projects funding policy and affect negatively the scheduled projects implementation time. Zelalem (2017) assessed effect of accuracy of cost estimation on project success in Ethiopia. Data was collected using questionnaires. The findings indicated most of the estimated cost of the projects is either under-utilized or over utilized which shows there is undeniable inaccuracies in the project's cost estimation.

Cost Budget and Project Sustainability

Aggor (2017) examined the relationship between project budget and project sustainability in Ghana. The study adopted a correlational study design. The study sample was 116 project managers. The results indicated a weak positive correlation exists between the project budget and sustainability of projects based on environmental, social, and economic impact. Makweri (2015) effect of budgeting on financial sustainability of NGO projects. The study adopted a qualitative research approach whereby data was collected from the project financial reports. Interviews were as well conducted with the representatives of the best performing projects. The study found that cost budgeting is based on the idea of different costs being related to various cost objects. There are different costs that in different fields and domains can vary quite largely from each other. Jakait (2018) examined the relationship between budgetary control and financial performance of International non-governmental organizations in Uganda. The study adopted a descriptive cross-sectional survey design. Findings showed that budgetary control positively influences financial performance in strengthening decentralization for sustainability programs in Uganda.

Komakech (2022) investigated financial cost management and sustainability of rehabilitated community water distribution projects in Wau County, South Sudan. The study adopted a descriptive research design. The target was 42 community water management committee members. Questionnaires were used to collect data. Findings shows that budgeting outlines the financial resources available, which further determines the human resources that are required. Furthermore, controlling costs lowers the overall expenses in an organization. Wanga (2022) studied the relationship between budget tray control and financial stability of NGO projects in Kenya. The study target was 60 respondents and questionnaires were used to collect data. Results showed that there is a significant relationship between budget control and financial sustainability of NGOs.

Munyao (2018) evaluated the relationship between various financial management practices and financial sustainability in the County Government of Nakuru. The study employed descriptive research design. The study population was 84 accountants, finance officers, auditors, revenue officers, and sub-county administrators. Findings revealed that there is a weak insignificant relationship between budget management and financial sustainability. Junge, Bosire, and Kamau (2014) analyzed the effect of budgetary practices and performance of public secondary schools in Nakuru municipality targeting twenty-two public secondary schools in the municipality. The study noted that budget practices such as budget estimation, determination and control positively influenced performance of the schools. In the study, it was also noted that budget allocation and annual budget planning were important aspects that improved financial management in organizations in the public sector.

RESEARCH METHODOLOGY

This research employed a descriptive research design. The study population comprised of the four Inua Jamii Cash Programs; (i) Cash Transfer for Orphans and Vulnerable Children (CT-OVC), (ii) Older Persons Cash Transfer (OPCT), (iii) Persons with Severe Disabilities Cash Transfer (PWSD-CT), and (iv) Hunger Safety Net Programme (HSNP). The unit of observation was the; County Social Development Officer (SDC), assistant social development officers in the 12 sub counties, and community development extension officers spread in the 60 wards. The SDCs are in charge of registering persons with disabilities, poor and vulnerable individuals for social development programs. In this study, the sampling frame was 73 officers involved in management of the cash programs. Questionnaires were used for data collection. Questionnaires were coded and keyed into SPSS Version 28. Data analysis was analyzed to generate both descriptive (frequency, percentage, mean) and inferential statistics (correlation, and regression). Significance was less than 0.05. The regression equation was used.

RESEARCH FINDINGS AND DISCUSSIONS

The study sampled 73 respondents and 7 used for piloting. Questionnaires were hence administered to 66 respondents and 60 returned answered questionnaires hence 90.9% response rate. The high response rate was a result of close follow up of the data collection procedure and constant contact with the sampled respondents. The respondents were adequately oriented on the purpose of the study to ensure that they understood the purpose of the study.

Cost Estimation

The first objective aimed at examining the effect of cost estimation on sustainability of Inua Jamii cash transfer community development programs in Kiambu County. Respondents were asked to tick on the extent to which the agreed/disagreed with listed statements related to cost estimation. Findings are presented in Table 1.

Table 1: Cost Estimation

Key; SD (Strongly disagree), D (Disagree), N(Not Sure), A(Agree), SA(Strongly agree), M(Mean)

Statements	SD		D		N		A		SA		M
	F	%	F	%	F	%	F	%	F	%	
Project managers perform excellently in proper cost estimation	28	46.7	13	21.7	6	10.0	6	10.0	7	11.7	2.42
Project managers use actual costs of a previous project to estimate the costs of planned project	8	13.3	5	8.3	4	6.7	30	50.0	13	21.7	3.58
The cost plan is clear and detailed on drawing of specifications	0	0	5	8.3	7	11.7	29	48.3	19	31.7	3.97
Estimating activity duration depends on the time allowed for preparing cost estimates	9	15.0	10	16.7	7	11.7	24	40.0	10	16.7	3.73
Estimating activity duration depends on the governments financial capabilities	4	6.7	4	6.7	2	3.3	36	60.0	14	23.3	3.87

N=60

Findings show that the respondents agreed that; the cost plan is clear and detailed on drawing of specifications (m=3.97), estimating activity duration depends on the governments financial capabilities (m=3.87), estimating activity duration depends on the time allowed for preparing cost estimates (m=3.73), and project managers use actual costs of a previous project to estimate the costs of planned project (m=3.58). Respondents however feel that project managers do not perform excellently in proper cost estimation (m=2.42).

Findings imply that cost estimation helps to allocate adequate funds for a program. The project timelines depends with the funds availed by the government. The time allowed to prepare cost estimates of a program is determined by the duration of the programs and the program managers use previous reports to estimate costs of current programs implemented. The program managers however are not very perfect in estimating project costs. Findings support Siborurema, Shukla, and Mbera (2015) that cost estimation interfere with the projects funding policy and affect scheduled projects implementation time.

Cost Budget

The second objective aimed at assessing the effect of cost budget on sustainability of Inua Jamii cash transfer community development programs in Kiambu County. Respondents were asked to tick on the extent to which the agreed/disagreed with listed statements related to cost budget. Findings are presented in Table 2.

Table 2: Cost Budget

Key; SD (Strongly disagree), D (Disagree), N(Not Sure), A(Agree), SA(Strongly agree), M(Mean)

Statements	SD		D		N		A		SA		M
	F	%	F	%	F	%	F	%	F	%	
Operating the project within the set budget helps reduce unwanted transaction costs	2	3.3	3	5.0	4	6.7	38	63.3	13	21.7	3.95
Frequent review of the budget has enhanced transparency in funds disbursement	0	0	7	11.7	2	3.3	39	65.0	12	20.0	3.93
Including miscellaneous expenses in the budget helps during emergencies	6	10.0	14	23.3	3	5.0	17	28.3.	20	33.3	3.67
The budget is flexible and can be changed if need arises	2	3.3	5	8.3	3	5.0	34	56.7	16	26.7	3.95
The budget allocations are agreed upon by all stakeholders	2	3.3	7	11.7	7	11.7	28	46.7	16	26.7	3.82
The budget implementation is closely monitored	27	45.0	19	31.7	5	8.3	5	8.3	4	6.7	2.00
The budget is subject to amendments during its implementation	5	8.3	8	13.3	7	11.7	27	45.0	13	21.7	4.20

N=60

Findings show that respondents agreed that; the budget is subject to amendments during its implementation (m=4.20), operating the project within the set budget helps reduce unwanted transaction costs (m=3.95), the budget is flexible and can be changed if need arises (m=3.95), frequent review of the budget has enhanced transparency in funds disbursement (m=3.93), the budget allocations are agreed upon by all stakeholders (m=3.82), and including miscellaneous expenses in the budget helps during emergencies(m=3.67). Respondents disagreed that the budget implementation is closely monitored (m=2.00). Findings imply that the programs are budgeted for effectively. Stakeholders are engaged in program budgeting which enhances accountability of the program funds. The budget is also flexible to accommodate program changes which may lead to an increase in project costs. The budget is also reviewed regularly to keep track on funds utilization. There is however poor monitoring of the program budget which may create loopholes for funds embezzlement since there is no clarity on the annual actual income and expenditure for the program funds. Findings are in agreement with Junge, Bosire, and Kamau (2014) that budget allocation and annual budget planning are important aspects that improve program management.

Program Sustainability

In order to measure the sustainability of inua Jamii cash transfer programs which was the study dependent variable, respondents were requested to tick on level at which they agree/disagreed with listed statements on program sustainability. Results are presented in Table 4.7.

Table 3: Program Sustainability

Key; SD (Strongly disagree), D (Disagree), N(Not Sure), A(Agree), SA(Strongly agree), M(Mean)

Statements	SD		D		N		A		SA		M
	F	%	F	%	F	%	F	%	F	%	
The programs are economically sustainable	1	1.7	4	6.7	6	10.0	34	56.7	15	25.0	3.97
The cash is dispersed on time to meet the needs of the beneficiaries	12	20.0	39	65.0	2	3.3	6	10.0	1	1.7	1.97
There are few complaints regarding cash disbursement	11	18.3	37	61.7	2	3.3	6	10.0	4	6.7	1.92

Findings show that the respondents agreed that the programs are economically sustainable (m=3.97). The respondents disagreed that; cash is dispersed on time to meet the needs of the beneficiaries (m=1.97), and there are few complaints regarding cash disbursement (m=1.92). Findings imply that although the programs are economically sustainable, the cash is delayed which contributes to many complaints regarding cash disbursement. Findings are in agreement with Mwangi (2020) that the inua jamii program is faced by challenges such as inadequacy of the funds, delay in disbursement, and the frequent changes in dispensation of the cash.

Correlation Analysis

The study further conducted a correlation analysis to establish the strength of relationship between the independent and dependent variable. Table 4 shows the Pearson correlation results.

Table 4: Coefficient of Correlation

Variables		Performance	Cost estimation	Cost budget
Sustainability	Pearson Correlation	1		
	Sig. (2-tailed)			
Cost estimation	Pearson Correlation	.863**	1	
	Sig. (2-tailed)	.000		
Cost budget	Pearson Correlation	.868**	.920**	1
	Sig. (2-tailed)	.000	.000	

Findings show that; a strong significant relationship between cost estimation and program sustainability (r=0.863, p=0.000), a strong significant relationship between cost budget and program sustainability (r=0.868, p=0.000), Findings are in agreement with; Teakon (2021) that project cost estimates, project scheduling have a statistically significant effect on project success, Wanga (2022) that there is a significant relationship between budget and financial sustainability.

Regression Analysis

Regression analysis was conducted to understand how a unit change in the independent variable may cause a change in the dependent variable. The coefficient of determination shows how a statistical model is expected to predict future results. Table 5 presents the Model Summary.

Table 5: Model Summary

Model	**R**	**r^2**	**Adjusted r^2**	**Std. Error of the Estimate**
1	0.891	0.744	0.779	.362

Predicators: (constant) cost estimation, cost budget

The results in table 5 show that adjusted R squared was 0.744 implying that there was 74.4% variation of program sustainability due to the changes in resource planning, cost estimation, cost budget, and cost control. This means that other project costs practices that this study did not focus on contribute to 25.6% of program sustainability.

An analysis of variance was performed on the relationship between independent variables and dependent variable. ANOVA results are presented in Table 6.

Table 6: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.745	4	6.936	53.071	.000[b]
	Residual	7.188	55	.131		
	Total	34.933	59			

Predicators: (constant) cost estimation, cost budget

Results show that regression model had an F value of 53.071 (p= 0.000). The significance value of 0.000 indicates that the regression relationship is highly significant in predicting how project cost management would cause changes in sustainability of inua jamiii cash programs. The F calculated is greater than 1 showing that the overall model is suitable for running a regression analysis.

Multiple regression shows how a change in the independent variable would predict a unit change in the dependent variable. Table 7 presents the regression coefficients.

Table 7: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant/Y Intercept	3.490	1.490		2.343	.023
Cost estimation	.538	.112	.606	4.516	.000
Cost budget	.678	.158	.715	4.783	.000

Program sustainability = 3.490 + 0.538 (cost estimation) + 0.678 (customer service change)

A change in cost estimation would cause a change in program sustainability by a factor of 0.538, a change in cost budget would cause a change in performance by a factor of 0.678. The t statistics show that cost budget had the greatest effect on program sustainability (4.783), cost estimation (4.516). The changes on program sustainability as a result of changes in project cost management are significant ($p<0.05$).

Conclusion

Although the project costs are estimated before implementation, there is lack of qualified professionals to estimate the cost of the inua jamii cash programs. This may lead to over or under estimation of the program costs which may affect its sustainability. Cost estimation is vital in managing costs in a project and ensure sustainability. This is because it provides a distinct overall value with some having constituent values. Cost estimations are made possible by breaking down a program total scope into convenient parts thus it enables resource assigning and costing.

Program budget is flexible to allow or its amendments during its implementation. Miscellaneous are included in the budget which greatly helps during emergencies. The budget is also reviewed regularly to keep track of the program expenses. Stakeholders are also included in budgeting which promotes accountability and transparency. Cost budgeting is also important since it gives a baseline by which real expenditure and the foreseen ultimate costs of the programs are provided.

Recommendations

Program managers should adopt suitable cost estimation methods which are key element of project cost management that enhance sustainability of programs. Program managers should be fully abreast of estimating techniques that include the use of cost estimation tools for estimation of work elements through adequate and related intensive project training and an awareness campaign.

The program managers should adopt best practices to monitor the Inua Jamii cash programs. This will promote accountability and transparency in managing the costs of the programs. They should also improve on stakeholders engagement in the program budgeting to have diverse views from the stakeholders on what to budget for especially on the program costs as well as on recruitment of service providers.

Areas for Further Study

A similar study on relationship between project cost management and sustainability of inua jamii programs in Kenya to determine if the findings differ or are similar to the current study that was conducted in Kiambu County. A study focusing other project cost practices that may affect sustainability of inua jamii programs.

REFERENCES

Aggor, K. (2017). *Relationship Between Budget and Project Success Factors in the Ghanaian Building Construction Sector.* Unpublished Thesis, Walden University

Betru, E. (2021). *The Effect of Project Cost Management on Project Success: The Case of Selected Real Estates in Addis Ababa*. Unpublished Masters' Thesis, Addis Ababa University

Egboga, I., Cross, D., & Abubakar, L. (2022). Effect of Cost Estimation on Project Performance in Construction Firms in Abuja. *Turkish Online Journal of Qualitative Inquiry*, 13(1) 1052-1063.

Eyibio, O. N., & Daniel, C. O. (2020). The Effective Resource Budgeting as a Tool for Project Management. *Asian Journal of Business and Management*, 8(2).

Goh, J. & Hall, N.G. (2015). *Total cost control in project management via satisficing. Working paper, revised for publication, Fisher College of Business*. The Ohio State University, Columbus, Ohio

Hendrickson, C. (2018). *Project Management for Construction: Fundamental Concepts for Owners, Engineers, Architects, and Builders. 1st Edition,* Prentice Hall, ISBN 0-13-731266-0, 1989

Jakait, J. (2018). *Budgetary control and financial performance of International non-government organisations in Uganda.A case of cardno- strengthening decentralistion for sustainability programme*. Uganda Management Institute

Jørgensen, T., & Wallace, S. W. (2017). Improving project cost estimation by taking into account managerial flexibility. *European Journal of Operational Research, 127(2), 239251.*

Kamau, S., Gesimba, P. O., & Gichuhi, D. (2022). Cost control and realization of national government constituencies development fund projects in Kikuyu constituency, Kiambu county, Kenya. *International Journal of Research in Business and Social Science (2147-4478), 11*(7), 226–233

Komakech, C. (2022). *Financial Cost Management and Sustainability of Rehabilitated Community Water Distribution Projects in Wau County, South Sudan*. Unpublished

Masters Thesis, Kenyatta University

Lichtenberg, S. (2016). Successful control of major project budgets. *Administrative Sciences*, 6(3), 8.

Makweri, C. E. (2015). *Financial Sustainability Through Budgeting for a Non-Profit Project Case Study*. Haaga-Helia University of Applied Sciences.

Malu, V. (2018). Delivering Cash Transfers Through More Innovative Approaches – Case for Kenya. Available at: https://spc.socialprotection.or.ke/images/downloads/presentations/Victor-Malu-DeliveringCash-Transfers-Through-Innovative-Approaches.pdf.

Munyao, N. (2018). *Relationship Between Financial Management Practices and Financial Sustainability of the County Government of Nakuru, Kenya*. Unpublished Masters Thesis, Jomo Kenyatta University of Agriculture and Technology

Nakhleh, E. (2019). *Relationship Between Time Estimation, Cost Estimation, and Project Performance Project Performance*. Unpublished Thesis, Walden University

Nawoton, E. (2020). *Influence of Cash Coordination on Efficacy of Cash Transfer Programmes in Turkana County, Kenya.* Unpublished Masters' Thesis, Masinde Muliro University of Science and Technology

Onyango, O. (2021). *Cost Management and Implementation of Construction Projects in Elgeyo Marakwet County, Kenya*. Unpublished Masters' Thesis, Kenyatta University

Osmanbegović, E., Suljić, M., & Agić, H. (2017). A review of estimation of software products development costs. Ekonomski Vjesnik, 30, 195.

Rahikkala, J., Leppänen, V., Ruohonen, J., & Holvitie, J. (2015). Top management support in software cost estimation. *International Journal of Managing Projects in Business*, 8, 513-532

Rajapakse, R. (2017). *Construction Engineering Design Calculations and Rules of Thumb*

Ronald , M. A., & Agung, M. (2018). Analysis of Project Cost Management and The Effect On Cost Overrun In Construction Projects. *International Journal of Innovative Research in Science, Engineering and Technology*, 8050

Shtub, A., Bard, J. F., & Globerson, S. (2018). *Project management: engineering, technology, and implementation*. Prentice-Hall, Inc

Siborurema, J., Shukla, J. & Mbera, Z. (2015). The Effects of Projects Funding on their Performance in Rwanda a Case Study ff Bukomane-Gikoma Road. *International Journal of Economics, Commerce and Management, 3(8)* 564-595.

Sunidjijo, R. Y. (2015). Project management skills for improving project performance. *International journal of business performance management*, 67-83

Teakon, J.(2021). *Relationships Between Cost Estimates, Scheduling and Project Success in the Construction Sector Success in the Construction Sector*. Unpublished Thesis, Walden University

Valtanen, A. (2020). *Project Cost estimation: Promoting quality of cost estimation to reduce project variance.* MSc Thesis, Faculty of Management and Business, Tampere University

Wanga, C. (2022). *Budgetary Control and Financial Sustainability of Local Non-Governmental Organizations in Kenya*. Unpublished Masters Thesis, Nairobi University.

Zelalem, T. (2017). *Assessment of Project Cost Estimation Practices : The Case of Menschen Fur Menschen Foundation.* Unpublished Masters Thesis, St. Mary's University