

# **The Role of Risk Management Practices in the Success Performance of Constituency Development Fund Projects: A Survey of JUJA Constituency Kiambu- Kenya**

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## **ABSTRACT**

The principal purpose of this study was to examine the role of risk management practices in the management of CDF projects to establish if such projects apply the PMBOK® (2000) recommended techniques of mitigating project risk that limit their success. The study focused on CDF projects in JUJA constituency in Kenya. It was based on the premise that CDF projects fail to achieve their intended objectives due to their constant exposure to risk factors that derail their planned budget, schedule and quality of their deliverables.

To understand the role of risk management in CDF projects, this work aimed at identifying the success performance of the projects against the level of application of the recommended PMBOK® risk management practices and the extent of application of each level of risk management. The target population was 239 projects in Juja constituency selected on the criteria of budget allocation of Ksh 200,000 and conducted between the periods of 2007- 2009. A representative sample size of 24 projects was picked using simple random sampling technique. The method used to gather data was researcher administered questionnaire on the PMC team leader who controlled the day to day project activities. An observation of each project was done to ascertain the actual status of the project. Data was analyzed both qualitatively and quantitatively using statistical representation such as percentages, mean score, tables and graphs.

These work revealed that the level of the application of risk management practices in CDF projects was minimal. A vast majority of the project managers attested to their ignorance to risk management levels of risk identification, risk quantification, risk responses and risk responses control to the full cycle of the project. The research recommended that Project management committees be provided with basic training of risk management and be provided with templates and models of managing real and perceived risks in CDF projects and operations to enhance their success performance.

## **1.1 Background to the study**

Project risk management is a systematic process of identifying, quantifying, analyzing and responding to the project's risks. In many projects the success rate is determined by a number of factors but most importantly by the project's team ability to deal with events that can derail the project from achieving its objectives or deliverables. It is documented that globally 30% of projects must be reworked while 50% must have their targets changed, meaning they are usually late, overspent and performance requirement reduced. The remaining 20% get cancelled mid way. (James. P. Lewis 2006).

Most of the reasons for these failures are consistently due to lack of adequate application of project management skills and techniques fundamentally because majority of the organizations/institutions do not embrace or recognize project management as a profession which is different from the general management. This is based on the fact that projects are unique onetime effort limited by time, budget and performance specification (quality) to meet customer needs. (Gray. F 2008).

The PMBOK® definition for project management is the application of a set of tools, techniques and knowledge to achieve the three constraints of quality, cost and time. Any event in any stage of the project cycle that leads to time slippage, cost overrun and change of performance expectation of the deliverables is classified as risks characterized by uncertainties associated with future outcomes or events.

Most projects globally face unexpected risks which have not been assessed or planned for and have to be dealt with on emergency basis rather than be defended against in a planned measured manner early in the preparation and planning stage so that potential risks are identified ,categorized and evaluated. It is much more effective to identify risks and group them into categories or draw up a list or register of categories and then identify potential risks, their impacts and likely hood within each category( C.J Williams 2012).To achieve this level of management a systematic risk management approach with a foundation of awareness, understanding and action from those administering the project is paramount. The pertinent question is how the risk is managed when it arises without the expertise, experience and capabilities of the team, individuals and organizations that would be required to deal with the

risk. Practically due to lack of adequate skills the project team may not be able to successfully deal with it effectively prompting the need to evaluate and determine whether there is the capability to manage risks successfully and where gaps exist, they are identified and appropriate action taken.

In the United States and many other countries, there is a preference for action rather than planning, where the need is to get the job done and planning is viewed as a waste of time (James Lewis 2006). This is probably the reason why most projects are run and managed by non professional project managers resulting to high percentage of project missing the intended objectives.

Accenture 2011 global risk management study observes that risk management is of higher priority today more than it was two years ago (Munywoki 2011). The survey reveals the challenges faced by risk management and explores current trends in how risk is being experienced and addressed, what challenges lie ahead and how risk masters differ in capabilities to help drive strategic advantage. It observes that risk masters and the capabilities needed to manage risks lead to high performance of projects with regards to beating the three pillars of the project which are, cost, time and quality. To say the least many organization managers know of risk management but admittedly this is a practice they are yet to incorporate into the strategic management plan or overall organization structure. Public institution projects are more prone to risk exposure and consequently their adverse effects.

This study deals specifically with CDF funded projects which is a public funded kitty which targets development at the grass root level. The fund was established through the CDF act in the Kenya gazette supplement No. 107 (Act No. 11) of 9<sup>th</sup> January 2004. The fund is administered by an officer under the direction of a National management committee (NMC) which comprises an annual budgetary allocation of 2.5% of the government revenue. About 75% of the fund is allocated equally amongst all 210 constituencies and the remaining 25% allocated as per the constituency poverty levels ostensibly to mitigate and harmonize the spread of development throughout the country. The members of the constituency are responsible for identifying development projects qualified on a priority basis.

The funds are managed by the National management committee (NMC) and the Constituency Development fund committee (CDFC) at the national level. The District projects committee (DPC) and the constituencies Development Committees (CDC) are the grass root committees. The CDC is established within each constituency with an MP who serves as the chairman and 14 additional members. These committees approve project proposals, requests for funding and determine allocation. A project management committee is created for every CDF project to monitor ongoing projects. The Government provides the technical experts and gives advice and guidance to NMC on the choice of projects by CDCs and advice on the actual implementation of the project based on technical matters and the indicators to look for during the supervision. (CDF act 2003).

Most of these projects however stretch over the scheduled timelines, spending more than the baseline budget and missing the intended scope, settling for a poor performance than the initial target. It is notable that a number of these projects do not meet their completion stage turning into “white elephant”. The Public Expenditure Review policy for 2010/12 notes that despite the 10 fold spending under the CDF there has been limited realization of services and the number of projects with low quality works and ghost projects, unaccounted funds and irregular payments has increased. The project’s completion rate has deteriorated from 45% in 2003/4 to only 17% in 2007/8 (The open society initiative for East Africa 2011) leading to huge wastage of resources.

## **1.2 Statement of the problem**

Today effectively managing risks is an essential element of successful project management. Failure to this could cause projects to exceed budget estimates, fall behind schedule and miss critical performance targets or even exhibit any combination of these troubles (Thomas .A. carbon 2004).

There is a fundamental need to study why despite the CDF initiative of ensuring a portion of the government annual revenue is earmarked for constituencies to finance development projects at the grass root level, some of them do not meet the intended performance level, they spend more than the reasonable budget estimates and slip over their schedule leading to some getting cancelled and turning into a “white elephant”. The Public Expenditure Review policy for 2010/12 notes that despite the 10 fold spending under the CDF there has been limited realization of services and a number of projects with low quality works, unaccounted funds and irregular payments an evidence that an inherent problem is underlying the program with regards to management of risk factors the project are exposed to e.g technical, economic, sociopolitical, environment, and conflict over resources (Dennis lock 2003). This demonstrates the need for project administrators who are well endowed with risk management skills and techniques to caution projects from such risks on regular basis.

## **2.0 LITERATURE REVIEW**

### **2.1 Theoretical frame work**

A guide to the project management body of knowledge PMBOK® defines the risk management as a process comprising of risk identification, quantification, response and response monitoring and control (PMI 2000). It continues to define Project risk as an uncertain event or condition that if it occurs at any stage of the project cycle has a positive or negative effect on the success performance of the project. The aspect of the risk detection/identification is a significant requirement for the risk analysis. It is a process of capturing all those risks that could affect the



projects regardless of their size and scope are prone to factors that lead to budget overrun, time slippage and miss critical performance targets. According to a Standish group report (1999) only 26% of software projects were successful. Adams Marjorie 2004 points out that only 25% of all types of projects become a market success. Datta and Murkerjee (2001) stated that successful project completion depends to a great extent on the early identification of immediate risks and adequate risk management application.

### **2.3 Success performance of the project**

The project success performance is measured by ascertaining whether the three parameters of the project have been executed as per the plan. These parameters are, budget, schedule and quality of the project deliverables. According to PMBOK® (2000) project success is measured by the ability of the project management team to guard against time slippage, cost overrun and change of performance specifications. Time refers to the planned schedule of the project from the initiation to the close out. Quality refers to the level of performance of the project deliverables, sustainability and fulfillment of the expected objectives. Cost refers to the planned budget on the resources such as labour, materials, equipment etc.

### **2.4 Critique of literature to this study**

While the literature on projects risk management is plentiful, most of it is based on research conducted in developed countries like the Standish group reports in the UK. Therefore most of the models and theories on project risk management are based on those countries sociopolitical and economic environment. This makes it difficult for the developing countries to fully adopt such models and theories in their disadvantaged situations, an insight to the reason why there has been sluggish adoption of risk management as a policy in driving strategic management by organizations in developing countries.

### **3.0 Research design**

This study is based on explorative and descriptive research design. Descriptive research was used to describe the characteristics of a particular project on the thematic area of study. While exploratory research involved actual visit of the representative projects and making observation on the ground. These designs were selected based on the desire for sufficient and precise data relevant to meet the specific objectives of the study by providing enough protection against bias and maximize reliability. The population of this study focused on the CDF sponsored projects in Juja constituency in Kenya .The categories of projects were sampled based on project's budget allocation and schedule. Under this category 239 projects formed the population derived from total of 514 projects sponsored through CDF implemented between the years 2007-2012.

A Simple random sampling technique was used on an optimum sample size of 24 projects which fulfilled the requirements of efficiency, representativeness, reliability and flexibility (Kothari 1999), using 10% of the total number of projects in the selected group (N). In this study the respondent was the PMC member who runs the daily activities of the project. A researcher administered questionnaire and field observation of the projects was used for data collection. A pilot study was conducted on one of the projects in the population that was picked randomly. The aim was to get feedback about the clarity and comprehensibility of the instrument and make changes where possible.

After collecting data through the questionnaire, the information obtained was organized and summarized. Qualitative data was analyzed through coding, editing and summarized. Quantitative data was analyzed using descriptive statistics which included computing means, frequency distribution and percentages. Quantitative data was also presented using tables and charts.

#### **4.0 Research findings discussion**

##### **4.1 Response rate**

A total of 24 questionnaires were floated to the project management committees (PMC) of the selected projects to be filled by the member who is responsible for the daily activities of the project. In most cases these were area chiefs, the area security chair persons, headteachers and principals of schools. Out of the 24 projects that were selected randomly 21 responded representing 88% response rate.

##### **4.2 Extent of application of Risk management in projects.**

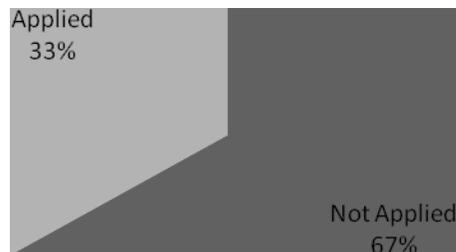
It is the assumption of this research project that constant and consistent application of risk management in any project will enhance its prospects of success. In this variable the researcher wanted to find out whether or not there was application of risk management and how often project managers solved the challenges facing projects using the recommended risk management techniques.

###### **4.2.1 The responses for the application of risk management practices.**

Table 4.1

Applied	Frequency	Percentage (%)	Cumulative %
YES	7	33%	33%
NO	14	67%	100%
TOTAL	21	100%	

These percentages showed usage and non usage of risk management and were further represented in a chart to give an illustrative aspect.



**Figure 4.1** Pie chart to illustrate extent of application of risk management in CDF projects.

This data portrayed the exact expected results that majority of the projects (67%) were done unconventionally majorly due to lack of knowledge by the project managers entrusted on them. All the respondents in this category said it was due to lack of awareness of the existence of such techniques. None of them affirmed to lack of resources, lack of time and inability to apply them.

On those that applied risk management (33%), it was observed that some had deployed some technical experts and others had some basic training on project management as shall be seen in the proceeding results.

#### **4.2.2 Frequency of application of each level of risk management**

The researcher wanted to further find out the most frequently applied technique through the aggregate score and mean score for each technique and the results were as follows:

**Table 4.2** Frequency of application

Level	n	Extent of application of each level of management technique			
		1	2	3	4
Identification	21	6	3	5	6
Quantification	21	16	1	1	2
Response	21	6	5	7	2
Control	21	6	3	9	2

Key: 1=never use, 2=occasionally use, 3=frequently use, 4=Always use.

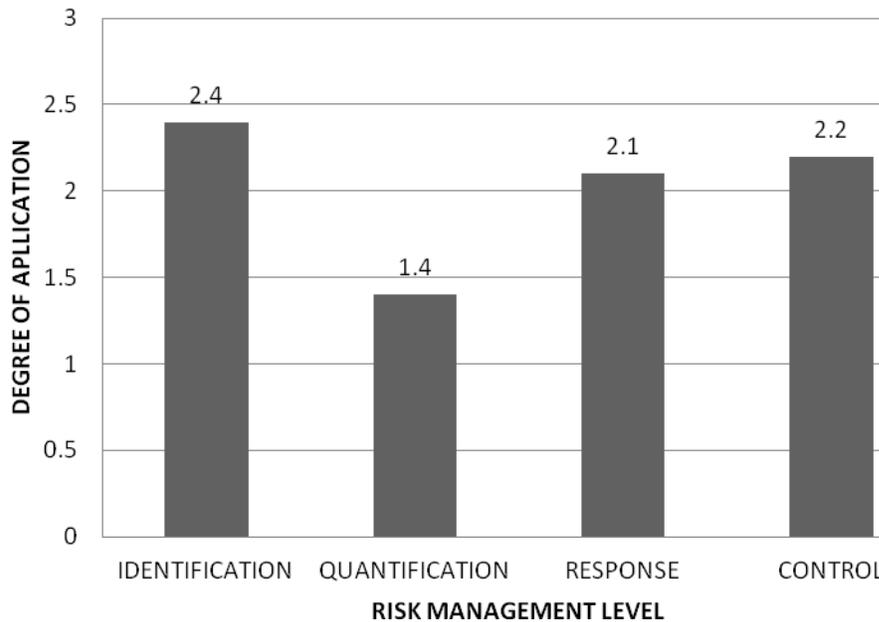
n= Sample size

These results showed the frequency of usage of each level of risk management by each project's respondent which were further processed to show the aggregate score, mean score and ranking the extent of application of each level of risk management.

Table 4.3 Processed data for extent of application.

Level	n	Aggregate	Mean score	Rank
Identification	21	51	2.4	1
Quantification	21	29	1.4	4
Response	21	45	2.1	3
Control	21	47	2.2	2

This table shows the mean score of application of each technique on all respondents and the ranks of usage. It is further illustrated using a graph for more clarity.



**Figure 4.2** graph extent of application of each level.

This data clearly underscores the fact that risk identification on average was occasionally (2.4) used, Control ranked 2<sup>nd</sup> with 2.2 which meant that it was occasionally used, Response ranks 3<sup>rd</sup> with 2.1 which was occasionally used and quantification was last with 1.4 which means it was never used. This replicates the degree of knowledge that was earlier manifested in the preceding variable and that lack of knowledge translates to minimal application of the technique.

## **4.2 The success performance of the projects**

This represented the dependent variable of the survey. Its aim was to establish whether the projects were successively completed on schedule, within the planned budget and eventually produced the planned quality of the deliverables. Each of the three parameters was analysed independently.

### **4.2.1 Project schedule**

Projects are a one time endeavour that must be completed within a given time line PMBOK® (2000); Darwish (2015). Therefore one of the indicators of a project success is whether or not it was completed within the planned time lines. The respondents were expected to indicate when the project was started and when completed and whether it was completed on schedule.

**Table 4.4** Responses as to whether the project was completed on planned schedule.

Response	Frequency	Percentage (%)	Cummulative percentage (%)
YES	14	67%	67%
NO	7	33%	100%
TOTAL	21	100%	

This data clearly shows that 67% of the projects were completed on schedule and 33% had time slippage. Effectively this meant that most of the CDF projects in Juja constituency were completed as per the set schedule despite other shortcomings. It was notable that most projects were to be completed within a given financial year and the PMC had no option to compromise on time but on quality of the project as shall be witnessed in the proceeding indicators.

#### 4.2.2 Project Budget

According to PMBOK® (2000), the cost of the project is a key constraint at the heart of the management. In this research project it is an indicator used to measure whether or not the project was implemented successfully depending on whether all the planned deliverables were met within the planned budget. The respondents was to indicate whether there was a budget for the project and if indeed it was implemented within it.

**Table 4.4** Response as to whether the projects were completed within the planned budget.

Response	Frequency	Percentage (%)	Cummulative percentage (%)
YES	10	48%	48%
NO	11	52%	100%
TOTAL	21	100%	

It was apparent that indeed all the projects had budgets on which their approval was based. According to this table 52% of the projects were unsuccessful in budget management while 48% were completed within the set budget. This meant that majority of the projects in Juja

constituency spent above the planned cost or were incomplete due to overspending. On the other hand 10 of the projects representing 48% were indeed completed within planned cost and on actual observation most of them offered quality and sustainable services like classrooms, science laboratories and renovation of dispensaries.

### **4.2.3 Project quality**

This refers to the level of performance of the project deliverables, sustainability and fulfilment of the intended objectives. It was measured by asking respondent whether in their view the project provided the envisaged services. It was critical to confirm their responses by exploring the projects and interview a few beneficiaries to ascertain these information.

**Table 4.5** Response as to whether the projects met the planned quality in their performance.

Response	Frequency	Percentage (%)	Cummulative percentage (%)
YES	9	43%	43%
NO	12	57%	100%
TOTAL	21	100%	

This data clearly demonstrates that 43% of the projects succeeded in delivering the quality of services that had been planned while 57% failed to deliver. Towards this end majority of the projects were either incomplete or poorly implemented. This is the ultimate indicator of the projects success because if they were able to meet all other constraints but were unable to deliver the intended quality then the overall project success was a mirage.

## **SUMMARY, CONCLUSION AND RECOMMENDATION**

### **5.1 SUMMARY**

The purpose of this study was to examine the role of risk management as a skill in the management of CDF projects to establish if such projects apply the PMBOK® (2000) recommended techniques of mitigating the projects risk that limit their success. To be able to understand the role of risk management it was paramount in the study to try and establish how certain variables affect the application of the skills in the CDF projects.

### **5.2.2 The extent of application of risk management practices**

The survey set to establish how often each of the risk management techniques was applied. Risk identification was frequently used; risk quantification was never used while risk response and responses control were occasionally used. It was however clear that the method used to identify risk was mostly brainstorming among the PMC members, risk responses that were used were avoidance and retention while in response control regular meetings were held to monitor and evaluate progress. It was also evident in this study that most of the respondents did not understand these techniques even when they applied them.

### **5.2.5 Performance of the project**

This project study measured success performance of the project by finding out whether the three constraints of a project i.e time, budget and quality were managed according to the plan. On time management majority of the projects were completed on schedule e.g classrooms, laboratories, repair of dispensaries, security and chief's camps while a few were behind schedule or abandoned e.g electrification of marginal areas, public schools toilets etc. In the budget management majority went beyond their planned allocation and indeed remain incomplete due to lack of funds e.g repair of some dispensaries, electrification of some schools in marginal areas. However an all most equal number of projects were successful to manage their budgets properly e.g class rooms, school laboratories, repair of dispensaries which are projects all found in institutions that have established management systems. The most critical constraint was quality management which was measured by finding out the performance of the project product in the provision of the intended services to the citizens. Only a minority of projects succeeded in quality management especially those that were done in formal institutions with established systems like schools and hospitals. It was noted that even the projects that did well in time and budget management they performed poorly in service provision e.g public bore holes, some security and chiefs camps, leading to a majority of projects failure in quality management.

## **5.3 CONCLUSION**

The research findings of this study is significant to the management of public projects especially CDF projects which are basically meant to promote development at the grass root level. The survey is informed by the need to adopt the modern contemporary skills of managing projects recommended by the PMI through deliberate installation of measures to manage, time, budget and quality constraints of any project. It revealed that the level of knowledge of these modern skills is not impressive. It was further found that most of the project administrators lack awareness of existence of risk management skills and technique and therefore do not apply them at all in their projects. This state of affairs clearly explains why majority of projects

succeeded in time management but majority failed to deliver in budget and more importantly failed to deliver the desired services to the intended clients.

## **5.4 RECOMMENDATIONS**

On the basis of the findings of this study, discussions and conclusion, the following recommendations for improving the management of CDF projects were arrived at;

1. Enactment of a policy framework that make it mandatory that those entrusted with managing CDF projects at PMC level are made privy to risk management practices through regular training and seminars.
2. Development of templates and models for management of real and perceived risks in CDF projects and operations.
3. Recruitment of professionally trained project managers at national and constituency level to offer continuous training and to monitor and evaluate progress of CDF projects.

It was the view of the researcher that the following areas related to this study need further research to fill the gaps revealed here;

1. The role of the politicians and citizens in the success or failure of CDF and other public projects.
2. The role played by other knowledge areas in project management such as scope, procurement, human resource management in success or failure of CDF and other public projects.

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