

# **RESOURCE SCHEDULING AND PROJECT PERFORMANCE OF INTERNATIONAL NOT-FOR- PROFIT ORGANIZATIONS IN NAIROBI CITY COUNTY, KENYA**

**Obegi Dismus Obuba**

Master of Business Administration (Project Management), Kenyatta University, Kenya

**Gladys J. Kimutai**

Lecturer, Management Science Department, School of Business, Kenyatta University, Kenya

©2017

**International Academic Journal of Information Sciences and Project Management  
(IAJISPM) | ISSN 2519-7711**

**Received:** 30<sup>th</sup> November 2017

**Accepted:** 4<sup>th</sup> December 2017

Full Length Research

**Available Online at:**

[http://www.iajournals.org/articles/iajispm\\_v2\\_i2\\_199\\_217.pdf](http://www.iajournals.org/articles/iajispm_v2_i2_199_217.pdf)

**Citation:** Obegi, D. O. & Kimutai, G. J. (2017). Resource scheduling and project performance of international not-for-profit organizations in Nairobi City County, Kenya. *International Academic Journal of Information Sciences and Project Management*, 2(2), 199-217

## **ABSTRACT**

Due to project management requirements for tight end-date-drive schedules it is imperative that resource scheduling takes centre stage to ensure high project performance. Resource scheduling would ensure constraints associated with time and resources are identified as a step towards better resource control. The purpose of this study was to assess resource scheduling and project performance of international not-for-profit organizations in Nairobi County, Kenya. The specific objectives were: To determine how budgeting influences project performance of International Not-For-Profit Organizations in Nairobi County; To identify how staffing influences project performance of International Not-For-Profit Organizations in Nairobi County; To interrogate how project changes influence project performance of International Not-For-Profit Organizations in Nairobi County and; To determine how project equipping influences project performance of International Not-For-Profit Organizations in Nairobi County. The target population for the research was 187 INGOs operating from Nairobi County. Using simple random sampling the study sampled 50% of the INGOs operating from Nairobi County, giving a total of 94 INGOs covered by the study. Questionnaires were administered to 94 Project Managers from each of the INGOs that were sampled. Archival information was also collected from project performance reports. The researcher used face validity to determine whether the questionnaire was logical and accurately measured the study variables. The researcher sought the opinion of experts including the supervisor and peers in counter checking the validity of the

questionnaire. In ensuring reliability, data collection instruments were pilot tested with a sample size of 5 INGOs representing 5% of the total number of INGOs that were included in the study. The results of the pilot test were calculated using Cronbach alpha with alpha coefficient ranges in value from 0 to 1. In data analysis, the study employed descriptive statistics to describe the characteristics of each variable. Using linear regression model and analysis of variance, the research determined the relationship between the four independent variables and the dependent variable. The research utilized data presentation methods of tables and figures. The major findings of the research included: There exists periodic budget monitoring to measure expenditures against budget; Project staff complete their assignments as allocated; A number of project changes are made during implementation; Project equipment is assigned to staff for use during project implementation; The organization measures its project performance periodically and; There exists a supporting learning environment in the organization. Conclusions from the study were: Majority of the INGOs covered in the study had periodic budget monitoring to measure expenditures against budget; Most of the INGOs that responded in the study project had project staff completing their assignments as allocated; Most INGOs in the study assigned project equipment to staff for use during project implementation. Most INGOs that responded to the study undertook a number of project changes during implementation. The study recommended that INGOs should continue with good practices of ensuring resources are allocated to projects from inception until

closure. Such good practices could be learning avenues that other sectors of society can adopt. INGOs should also continue placing importance on their staff, with periodic appraisals and allocation of equipment for successful implementation of projects. Further research could be done on how organizations measure their

performance in project management and on identifying other factors that account for the remaining 48.7% contribution to project performance of INGOs in Nairobi County.

**Key Words:** *resource scheduling, project performance, international not-for-profit organizations, Nairobi City County, Kenya*

## **INTRODUCTION**

Project management was a relatively modern approach that was characterized by methods of restructuring management and adapting special management techniques, with the purpose of obtaining better control and use of existing resources. Forty years ago project management was confined to US Department of Defense contractors and construction companies. More recently, the concept behind project management was applied in such diverse industries and organizations as defense, construction, pharmaceuticals, chemicals, banking, hospitals, accounting, advertising, law, state and local governments and the United Nations (Kerzner, 2013).

Kerzner (2013) defined project management as the planning, organizing, directing, and controlling of company resources for a relatively short-term objective that was established to complete specific goals and objectives. Project management utilized a systems approach to management by having functional personnel (the vertical hierarchy) assigned to a specific project (the horizontal hierarchy).

Project performance was varied across different international not-for-profit organizations attributed to various factors such as: timely availability of funding from external donors; effective project cycle management; increased ownership by beneficiaries etc. This notwithstanding, the study demonstrated why scheduling was a major factor influencing project performance of international not-for-profit organizations. The measures of project performance were based on project performance metrics such as: Resources – cost/budget, resource utilization; Progress – development progress, milestone completion; Technical – design and; Quality (Centre for Business Practices, 2000).

### **Resource Scheduling**

According to Project Management Institute (2013), resource scheduling was a process of project management that was a listing of a project's milestones, activities, and deliverables, usually with intended start and finish dates. Those items were often estimated in terms of resource allocation, budget and duration, linked by dependencies and scheduled events. Scheduling of resources and costs fell under project planning, which was the second process in project management, the others being: project initiation; project execution; project monitoring and; control and project closure.

This study was necessitated by an experience on the importance of working out resource scheduling in project planning for not-for-profit organizations in Nairobi County, Kenya. Since most of the international not-for-profit organizations were heavily dependent on external funding from donors (NGOs Coordination Board, 2009), project performance was a main consideration on whether these organizations could retain their funding or attract new funding, without which they would end their operations. This could therefore not be over emphasized as an issue of great public interest since these organizations provide much needed services to their beneficiaries.

According to Centre for Business Practices (2005), resource measures included measure on costs versus budget, normally designated as budget versus actual analysis. Resource utilization measures included number of staff and their experience levels. Progress measures included development progress and milestone completion. Technical measures included design suitability. Quality measures included checking on minimum amount of errors and represented how close the project outputs and deliverables came to meeting the beneficiaries' requirements and expectations.

### **NGOs in Kenya**

NGOs Coordination Board (2009) identified NGOs in Kenya as found in every conceivable sector of the economy and every part of the country running development and humanitarian programmes targeting poverty stricken communities. The vision of the NGOs' sector was to promote the provision of goods and services in the most equitable and transparent way while being accountable to both the donors and societies they were serving.

There were many national, regional and international NGOs in Kenya. Brass (2010) identified more than 6,000 NGOs registered in Kenya, with the sector employing more than 300,000 people full time. Some of these dealt with issues such as gender, human rights, environment, advocacy and participatory development. NGOs were involved in all spheres of life.

Brass (2010) went on to stipulate that activities of NGOs had increased over the decades, since 1980s. The 1980s and 1990s was a period in which Kenyan NGOs changed in several ways. They shifted their focus away from concerns about relief to more general interests in development. They increased their involvement in socio-economic matters. The range of activities in which they began to involve themselves widened to include sectors such as energy, environment, primary health care, nutrition, education, and vocational training. The government of Kenya and development partners recognized the role of NGOs as agents of development and positive change.

Journal of Practical Consulting (2012) stipulated that some international not-for-profit organizations may not have had a systematic approach to resource scheduling since they were not run as business entities where profit was a motivator. For example, of the 4 organizations that the researcher worked with for over 15 years in Kenya, only two viewed resource scheduling from a systematic approach. In these two organizations resource scheduling was

part of project design, which was prerequisite to project management, a major function of the organizations. This study documented the resource scheduling processes employed in INGOs as part of their project management function and analysed this against best business practice.

## **STATEMENT OF THE PROBLEM**

Resource scheduling was identified as important in ensuring the success of any project. There was recognition that project network times were not a schedule until resources were assigned and cost estimates were not a budget until they were time-phased. The implicit assumption was that resources would be available in the required amounts when needed and that adding new projects required making realistic judgments of resource availability and project durations (Larson and Gray, 2012). Omeri (2015) indicated that a major symptom of the resource scheduling problem in INGOs is that there was no demonstrated impact of projects' implementation. This led to a lot of criticism of the work of INGOs in Kenya, for instance in 2014, 510 NGOs were deregistered by the government because of not meeting the statutory reporting requirement. For instance of the 4,211 organizations listed in the Kenya's government NGO Board database in December 2006, only 663 (about 16%) submitted a return with funding source information in the most recent return year, 2005. Omeri (2015) continued to argue that there was over reliance by NGOs on ad hoc resource scheduling that was not well documented/standardized. As a result, this led to INGOs not being able to measure their outright performance and thus being exposed to diminishing resource base due to donor withdrawal. Performance measurement was measured against resource scheduling, thus leaving out a critical analysis that would link to the study variables discussed below. Because of associated problems, international not-for-profit organizations were not able to ensure high performance of projects which led to projects not being sustainable in the long run. There was scanty literature in the not-for-profit sector on resource scheduling and project performance. Much of this type of work was done for profit making organizations whereby resource scheduling was developed as an aspect of project management. Kerzner (2013) amplified the importance of resource scheduling in identification of time limits and knowing when objectives would not be achieved or exceeded. Due to project management requirements for tight end-date-drive schedules it was imperative that resource scheduling took centre stage to ensure high project performance. Resource scheduling would ensure constraints associated with time and resources were communicated to line managers as a step towards better resource control. Other studies had shown that resource scheduling problem in project management using Programme Evaluation and Review Technique (PERT) and Critical Path Method (CPM) was a theoretical challenge. This was because in practice activities did not get completed on their own, they consumed resources on their progress. Herroelen et al (1996) identified that resource constrained resource scheduling was used in processing and manufacturing industries and most research was traditionally focused on deterministic machine scheduling. In this context the type of resource was traditionally considered to be a machine that can perform at most one activity at a time. The activities were commonly referred to as jobs and it was usually assumed that a job was processed by at most one machine at a time. The purpose of the study was to determine resource scheduling and project performance of international not for profit organizations in Kenya.

## **GENERAL OBJECTIVE**

The purpose of this study was to assess resource scheduling and project performance of international not-for-profit organizations in Nairobi County, Kenya.

## **SPECIFIC OBJECTIVES**

1. To determine how budgeting influences project performance of International Not-For-Profit Organizations in Nairobi County.
2. To identify how staffing influences project performance of International Not-For-Profit Organizations in Nairobi County.
3. To interrogate how project changes influence project performance of International Not-For-Profit Organizations in Nairobi County.
4. To determine how project equipping influences project performance of International Not-For-Profit Organizations in Nairobi County.

## **THEORETICAL REVIEW**

### **General Systems Theory**

Started by Von Bertalanffy (1968), General Systems Theory had contribution from almost every field of science (physical, social, and mathematical) in its development. The theory implied the creation of a management technique that was able to cut across many organizational disciplines – finance, manufacturing, engineering, marketing, and so on – while still carrying out the functions of management. General Systems Theory was in existence for more than four decades. More recently, project management was viewed as applied systems management. General Systems Theory was classified as a management approach that attempted to integrate and unify scientific information across many fields on knowledge. Systems theory attempted to solve problems by looking at the total picture, rather than an analysis of the individual components (Kerzner, 2013).

The study drew upon general systems theory by applying the theory to analyse development and humanitarian projects supported by INGOs in Kenya. The theory was important in arguing out the concept of resource scheduling as it applies to Not-For-Profit sector.

### **Theory of Performance**

The Theory of Performance (Elger, 2007) identified attributes of performance as: quality of results or products; cost effectiveness; capacity and capability; levels of knowledge and skills and; identity and motivation. These components were applied by the study in identifying what INGOs in Kenya consider to be indicators on project performance and how these were applied in measuring project performance.

The theory also indicated some factors of performance were unchangeable; most factors were influenced by the individual performer or by other individuals. This implied a behavioural

approach to project performance and highlighted the importance of the project team. This theory was very useful in the study since INGO's were considered to be in the social sector which had a major emphasis on software aspects such as people relations and competencies in the measurement of organizational and project performance.

Another application of Theory of Performance in this study came in budgeting. Mitchell and Thurmaier (2010) identified budgeting had to do with holding organizations accountable for program results, promoting a focus on results and citizen satisfaction, planning to meet program objectives, and improving legislative oversight by providing useful data for consideration. This association of accountability to budgets may not always hold since it presupposed that organizations would consider budgets to be a performance aspect. Helmuth (2011) further discussed performance budgeting as budgeting that follows the rationale that a relaxation of input controls and an increased flexibility improved managers' performance as long as results were measured and managers were held accountable for their results. This theory assumed that budgets were openly shared by all managers, which might not have been the case for most organizations.

Budgeting was about allocation of scarce resources by organizations to be able to meet organizational objectives. The budgeting process included both revenues and expenditures. The drawback of this stipulation was that INGOs may not always have considered both revenues and expenditures in budgeting. Thus this did not fall in the realm of budgets, going by such a description. For INGOs budgets were mainly showing expenditures rather than revenues.

### **Project Management Theory**

In his attempt to define a Project Management Theory, Morris (2004) identified project management as the involvement of a combination of scope management, activity scheduling (time management), and cost and resource management. Morris further argued that managing people was generally an important aspect of most management, including communications, leadership and team working. This study applied this theory in staff allocation/assignment to projects and resource scheduling. However, Morris concluded that there was no one theory that could encompass project management, thus it was a collection of various theories. This study agreed with the above argument.

## **EMPIRICAL REVIEW**

### **Organizational Project Performance**

Muturi et al (2015) argued that there was need for certain variables to be in place to measure organizational performance. They viewed organizational performance as a measure on how organizations were managed, the value they gave to their customers and being able to meet their objectives. Muturi et al also stated that organizations' objectives were varied according to sectors, with the profit sector having the aim to increase profit and turnover and not for profit sector having an aim of sustainability.

While agreeing with Muturi et al (2015), this study recognized the importance of internal review of project performance of INGO's in Kenya. This made considerations on set variables that were agreeable to the project team, with the project manager taking lead.

According to Wanguku (2013), INGOs in Kenya had different levels of measurement in their project performance using Balanced Score Cards (BSC). Such measurements included the use of financial and non-financial metrics. The study used cross sectional survey approach to collect data from 34 large INGOs in Kenya. Although the study illuminated performance measurement, it did not directly link project performance to the use of BSC and was broad in approach on organizational strategies.

Mudalige (2015) argued out the need to include non-financial factors in the measurement of organizational performance to have a multi-dimensional perspective. Jagdale and Bhola (2014) argued out that leadership is a major determinant of effectiveness and performance of organizations.

While agreeing with both Mudalige (2015) and Jagdale and Bhola (2014), this study identified non-financial factors in the measurement of project performance in INGOs in Nairobi County, Kenya. This was because it was not only financial factors that were considered in measuring performance and leadership was a major requirement for this to happen.

Some measures of organizational project performance (Centre for Business Practices, 2005) included: Number of project completions per year; Percentage of cost, schedule, and performance (CSP) deliveries per year (performance = scope & quality); Number of authorized changes to CSP during implementation phase (per project); Number of cancellations by phase; Project manager turnover; Team turnover within phase; Number of active projects; Number of on-hold projects; Number of process exceptions per month; Number of process changes per year. These measures were inclined towards business oriented organizations and some may not have applied to INGOs in Nairobi County, Kenya. However, the study attempted to utilize most of these in enumerating the variables as measures for project performance. Although this publication was mainly concerned with Information Technology ventures, it came in handy for Not-For-Profit organizations.

Elger (2007) brought out the definition of the theory of performance and argued out the importance of making consideration of the behavioural aspects of individuals in performance. These augured well with INGOs since they were mainly concerned with the software aspects of project management. The study utilized this publication in defining the theory of performance in organizations.

Arasa and Kioko (2012) in an examination of NGO competitive environment in the health sector in Kenya, identified that NGOs needed to continuously analyse the external environment due to high competition for resources. Using descriptive survey design the study collected data from 31 NGOs representing 10% of the target population. Arasa and Kioko did

not provide specific recommendations to deal with internal resource scheduling and mainly focused on competition for external resources.

Looking at the above empirical review brought out a cause-effect relationship between the independent variables and the dependent variable. The studies on budgeting, staff, time and quality indicated that the application of these in project management would lead to an effect on organizational performance, which was in line with the subject matter of the this study. It was indicative that there was broad content on the variables that were used in this study since there were various elements that were considered as measures of the variables. A selection of what was measured was determined by the scope and context of this study to ensure a focused approach.

### **Budgeting and Project Performance**

Reka et al (2014) identified budgeting as a way of projecting incomes and expenditures and budgets had, with time, become evaluators of organizational performance. They further stated that the purpose of budgeting was to give those targets and plans financial values, making the progress easily measurable and to transform the strategic ideas into understandable operative actions. Reka et al also argued that there should be two ways of analysing budgets: technical and behavioural. The technical aspect was concerned with the mathematical calculations of projected costs and expenses whereas the behavioural aspect was concerned with the ability to achieve the technical aspects with the use of people.

While agreeing with Reka et al (2014), the study recognized that some INGOs may not have disclosed incomes in their budgeting processes. This is because income information was privy information utilized by a few managers within the organizations. Nevertheless, the study attempted to gather such information that was useful in getting a complete picture of the budgeting process. Robinson and Brumby (2005) identified that performance budgeting was concerned with measures to strengthen the links between funds to public organizations and their outcomes/outputs through a formal performance information in resource allocation and decision making. In stating the above Robinson and Brumby (2005) brought out clarity of linking project performance in organizations with budget allocation and utilization. This study attempted to bring out this discussion based on the findings.

Some measures of budgeting included (Centre for Business Practices, 2005): Return on Investment; Return on Capital Employed; Economic Value-Added; Sales Growth %; Sales Growth; Productivity; Cost Savings; Earnings Per Share; Cash Flow Per Share. It is worth noting that not all these applied to INGOs since they are business oriented. The study adopted relevant measures in its analysis.

### **Staffing and Project Performance**

Butler et al (2004) indicated two areas of emphasis in high performance management in organizations: the use of task formulation and; the management of human resources. They argued that any construct had three areas: production management; work organization and; employee relations. They further argued that over the years there were various scholars

analysing the human resources in the work environment. However, they identified that such studies represented artificial divisions that were evolving with time. Ernst et al (2004) identified various steps in staff scheduling and rostering from: demand modelling i.e. how many staff were needed for a particular job?; days of scheduling i.e. how rest days were to be intermingled with work days; shift scheduling i.e. identifying which shifts will be worked with by which staff and; staff assignment i.e. the assignment of individual staff to the lines of work; amongst others.

### **Project Changes and Project Performance**

Project Insight (1997-2016) identified project changes as unavoidable in any project and should be anticipated by project managers at the onset of the project cycle. In this respect Changes should be quantified, analysed and prioritized to facilitate decision making in an objective manner. Darter (2014) indicated the following important things that must happen when changes occur in projects: communication of all the project to both the team members and stakeholders; documentation of the changes and keeping to prevent poor decision making based on inaccurate data; updating the project schedule to reflect the impact of the changes and; identifying any lessons learned that could be usefully applied to future projects. He further argued that most projects encountered changes during their life cycle; it is how those changes were handled that made the difference between a positive or negative experience for everyone involved on the project. The importance of managing project changes was clear and this study identified whether this aspect was practiced within INGOs in Nairobi County, Kenya. The measures of project change were percent change to product baseline per month and product stability

### **Project Equipment and Project Performance**

Bright hub project management (2013) identified that project managers needed to make decisions on which equipment to assign to people and for how long. The project manager needed to ensure that the right equipment was available and it was in working order. The costs of equipment can be assigned to the project and required to be tracked over the lifetime of the project. Bright hub project management also indicated that in the case of multiple projects, the project manager had to keep track of product warranties and any type of routine maintenance that needed to be done. Project Management 101 (2016) identified that a project manager must manage the equipment used for the project depending on the type of project. Both publications agreed that the management of equipment is the same as managing project staff. Some project equipment measures included: cost of equipment/budget; equipment assignment to staff; equipment utilization by staff (Centre for Business Practices, 2005).

### **Learning Organization and Project Performance**

Harvard Business Review (2008) identified the following three broad factors of a learning organization: a supportive learning environment; concrete learning processes and practices; and leadership behaviour that provides reinforcement. A supportive environment included: psychological safety, whereby employees were able to express their thoughts about work;

appreciation of differences; openness to new ideas and; time for reflection. Senge et. al. (1999) identified five disciplines in organizational learning: personal mastery that is a coherent picture of what people must learn; mental models that develops awareness of attitudes and perceptions for thought and interaction; shared vision that is a sense of commitment to the organization; team learning as a discipline of group interaction and; systems thinking whereby people learn to better understand interdependency and change. The measures of learning organization were: a supporting learning environment; concrete learning processes and practices; shared vision and; systems thinking.

## **RESEARCH METHODOLOGY**

### **Research Design**

The research used descriptive design, which gathered quantifiable information that could be used for statistical inference on the target audience through data analysis (Penwarden, 2014). The reason for selecting descriptive research design was mainly that the nature of study required a demonstration of the association between the research variables; an interaction with research participants and; data collection using existing records.

### **Target Population**

The population for the research was the 850 INGOs in Kenya (Wanguku, 2013). Out of this number 22% (187) operated from Nairobi (NGO Coordination Board 2009). The study targeted the 187 large INGOs operating from Nairobi. The NGO Coordination Board classified large INGOs as those providing support to large scale social projects and supporting other NGOs (Wanguku, 2013).

### **Sampling Design**

In order to ensure representativeness of the sample and enhanced accuracy (Omair 2014) the study used simple random sampling with a sample 50% of the INGOs operating from Nairobi County, giving a total of 94 INGOs that were covered by the study. Questionnaires were administered to 94 Project Managers from each of the INGOs that were sampled.

### **Data Collection Instruments**

Both primary and secondary data was collected. The research utilized questionnaires to collect primary data on scheduling of resources and project performance. Archival information was also collected from project performance reports and publications as secondary data.

### **Data Collection Procedure**

A research permit was sought from the relevant authorities before any data collection was done. Data collection was done through key informant interviews of representatives of the 94 INGOs who are Project Managers. The sample population was administered with a questionnaire either physically or through email. The research sought archival information

from historical communications e.g. reports and publications. The main reason why the above methods were selected was because of the researcher's proximity to the study population. Data collection took a maximum of four weeks.

### **Data Analysis**

Collected data was edited for grammatical checks on sentence structure, meaning in line with the intended purpose of the study. Through this association of the variables was established. Data coding was also carried out to assign numerical numbers to the various variable measurements. Open ended responses were categorised by theme and assigned codes to ensure measurement. Data entry was carried out using Statistical Package for Social Sciences (SPSS) and Microsoft (MS) Excel application. The research utilized data presentation methods of tables and figures. The tables were a summary presentation of percentages and frequencies. The figures showed the relationships of the variables. The study employed descriptive statistics to describe the characteristics (i.e. measures of central tendency and measures of dispersion) of each variable. Using multiple regression model the research determined the relationship between the four independent variables and the dependent variable. The assumption was that the four independent variables had a linear relationship with the dependent variable with the following model:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4$$

Where:  $Y$  was the predicted or expected value of the dependent variable,  $X_1$  through  $X_4$  were  $p$  distinct independent or predictor variables,  $\beta_0$  was the value of  $Y$  when all of the independent variables ( $X_1$  through  $X_4$ ) were equal to zero, and  $\beta_1$  through  $\beta_4$  were the estimated regression coefficients.

Each regression coefficient represented the change in  $Y$  relative to a one unit change in the respective independent variable. Statistical tests were performed in SPSS to assess whether each regression coefficient was significantly different from zero.

### **RESEARCH RESULTS**

The purpose of this study was to assess resource scheduling and project performance of international not-for-profit organizations in Nairobi County, Kenya. The following were the specific objectives that guided the study: To determine budgeting and project performance of International Not-For-Profit Organizations in Nairobi County; To identify staffing and project performance of International Not-For-Profit Organizations in Nairobi County; To interrogate project changes and project performance of International Not-For-Profit Organizations in Nairobi County and; To determine project equipping and project performance of International Not-For-Profit Organizations in Nairobi County.

The purpose and objectives were informed by the researcher's proximity to the subject matter of the study and was aimed at providing information that would support INGOs in understanding main considerations in resource scheduling and its relation to project performance. The study was also expected to inform other organizations, including

government agencies of the subject matter. The study is expected to benefit academia in providing information for discourse and also identification of further areas of research.

The methodology included descriptive design used to collect quantifiable data; sampling design, identification of target population and sample of 94 INGOs; collection of both primary and secondary data; securing a research permit; actual data collection using questionnaire; data analysis and presentation using MS Excel and SPSS and; report writing.

### **Budgeting and Project Performance**

The statement that there exists periodic budget monitoring to measure expenditures against budget was agreeable to most of the respondents with a standard deviation of 0.58. The statement also had a significant regression coefficient ( $\beta_1=0.410$ ). This implied that most of the organizations in the study had systems in place to periodically monitor project budgets as a means of measuring project performance. As a key project management tool, monitoring of budgets would assure organizations that they are performing as per expected standards. Such standards are informed by organizational capacity to absorb donor funding in delivering project results. Donor funded projects entail activity based budgeting, with each activity being represented by a budget line. Budget monitoring as an activity involves the key project staff going through each budget line and analysing the level of expenditure based on a work plan. Any deviations are discussed and documented for further follow up actions. Therefore project budgeting is an important aspect of measuring the performance of INGOs due to reliance on donor funding. Donors would most times demand for accountability and positive impact on beneficiaries.

### **Staffing and Project Performance**

The statement that project staff complete their assignments as allocated was agreeable to most of the respondents with a standard deviation of 0.52. The statement also had a significant regression coefficient ( $\beta_3=0.183$ ). Project staff allocation is a prerequisite for onset of implementation. It is staff that carry out activities that are allocated to them by a project manager. Staff performance is measured against successful completion of project activities. This implied that organizations have human resource management policies that measure project performance and include reward schemes for staff motivation. This implied that most of the organizations in the study placed importance in ensuring staff allocated to project completed their assignments as an important aspect of project performance. Another implication of this is that most of the INGOs in the study had a well-developed human resource development function.

### **Project Changes and Project Performance**

The statement that a number of project changes are made during implementation was agreeable to most of the respondents with a standard deviation of 0.43. However, the statement did not have a significant regression coefficient ( $\beta_2=-0.008$ ). This was the only independent variable in the study that did not have a significant correlation with project performance of INGOs in Nairobi County. This implied that making changes to projects after

inception was not important to most of the organizations in the study as a way of making sure the intended objectives were met. Another implication is that project changes may not be necessary to ensure a good fit between the project deliverables and an evolving operational context. Therefore, with proper project design, changes may not be necessary to ensure project performance for organizations.

### **Project Equipping and Project Performance**

The statement that project equipment is assigned to staff for use during project implementation was agreeable to most of the respondents with a standard deviation of 0.58. The statement also had a significant regression coefficient ( $\beta_4=0.209$ ). Just like the other significant variables, equipping is a prerequisite at inception of projects and this plays a big role in ensuring smooth implementation of projects. This implied that most of the organizations in the study allocated equipment to project staff to ensure successful project implementation. Another implication is that organizations would ensure equipping resources are set aside for each project, thus ensuring the staff have necessary equipment to deliver projects.

### **REGRESSION ANALYSIS**

The researcher conducted multiple regression analysis to establish how budgeting, staffing, project changes and project equipping influence project performance of International Not-For-Profit Organizations in Nairobi County. Below are the findings;

**Table 1: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.716	0.513	0.491	0.344

The table above shows budgeting, staffing, project changes and project equipping explains 51.3% of project performance of INGOs in Nairobi City County. Other variables that influence project performance of INGOs in Nairobi City County, but not included in the model account for the remaining proportion of 48.7%.

**Table 2: ANOVA**

Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.858	4	2.715	22.918
	Residual	10.305	87	0.118	
	Total	21.163	91		

The table above shows the significance level of the model under consideration. Results show the model was statistically significant ( $p$ -value=0.000).

**Table 3: Regression Coefficients**

Model		Unstandardized Coefficients			
		B	Std. Error	t	Sig.
1	(Constant)	0.885	0.449	1.971	0.052
	Budget allocation to projects	0.410	0.068	6.047	0.000
	Project changes	-0.008	0.086	-0.091	0.928
	Staff assigned to projects	0.183	0.074	2.458	0.016
	Project equipment	0.209	0.067	3.135	0.002

The resultant regression equation is;

$$Y = 0.885 + 0.410X_1 - 0.008X_2 + 0.183X_3 + 0.209X_4$$

Where Y is the project performance of international not-for-profit organizations in Nairobi County;  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$  and  $\beta_4$  are the regression coefficients and  $X_1$ ,  $X_2$ ,  $X_3$  and  $X_4$  represent budgeting allocation to projects, project changes, staff assigned to projects and project equipment respectively.

A unit increase of budgeting allocation to projects while all other factors held constant results in 0.410 improvement in project performance of INGOs in Nairobi County. A unit increase in project changes with other factors held constant leads to 0.008 decrease in project performance of INGOs in Nairobi County. Similarly a unit increase in staff assigned to projects while other factors held constant, leads to a 0.183 increase in project performance of INGOs in Nairobi County. A unit increase in project equipment with other factors held constant leads to a 0.209 improvement in project performance of INGOs in Nairobi County. Therefore, project changes during implementation was not significantly correlated with project performance of INGOs in Nairobi County.

From the study, it was evident that INGOs periodically measured their project performance based on periodic budget monitoring to measure expenditures against budget; project staff completing their assignments as allocated and project equipment assigned to staff for use during project implementation. This agrees with Wanguku (2013), Muturi et al (2015) and Mudalige (2015). It is succinct that there is a relationship between the budgeting, staffing and equipping with project performance of INGOs in Nairobi County.

## CONCLUSIONS

Majority of the INGOs covered in the study had periodic budget monitoring to measure expenditures against budget. This ensured that the success of projects is assured from the start of implementation. This could be attributed to goodwill from donors, which ensures full project budgetary support. Continuous project budget monitoring ensured that organizations were abreast with any arising performance issues that required remedial actions before end of project implementation.

Most of the INGOs that responded in the study had project staff completing their assignments as allocated. This highlighted importance of professional staff recruited for projects. Guided

by international standards, which INGOs abide to e.g. People in Aid Code of Conduct, has led to development of human resource management as an important aspect of organizational performance. Staff completing their assignments successfully implied that the organizations had well established human resource development functions that recognised staff performance.

Most INGOs that responded to the study undertook a number of project changes during implementation. This was an indication of continuous improvement based on field experience during implementation and ever changing contextual environment. It was also an indicator of robust project management systems. However, project changes during implementation were not necessary for measuring project performance of INGOs in Nairobi County.

Most INGOs covered in the study measured project performance periodically. The measurement of project performance had significant correlation with budgeting, staffing and equipping but with no positive significant correlation with project changes. This was an indication of well-established organizations that were well structured and had robust project design systems.

Most INGOs in the study assigned project equipment to staff for use during project implementation. This implied that not only did the organizations assign staff to projects, but also ensured that project staff were well equipped to implement the projects successfully. Equipment was included as part of the proposals to donors who would accept such requests given that the success of project implementation was dependent on how well equipped the staff were.

## **RECOMMENDATIONS**

The study recommends that INGOs in Nairobi County should continue with good practices of ensuring resources are allocated to projects from inception until closure. Such good practices could be learning avenues that other sectors of society can adopt.

INGOs in Nairobi County should continue periodic project budget monitoring as a measure of successful implementation. This is one of the main ways of early identification of any implementation problems and seeking solutions before the project ends.

INGOs in Nairobi County should continue placing importance on project assigned staff to ensure their retention and successful completion of assignments. This would ensure the staff are motivated to successfully implement projects.

INGOs in Nairobi County should continue having proper project design that minimize project changes during implementation. However, there should still be room for project changes during project implementation, especially changes related to contextual environment.

INGOs in Nairobi County should continue placing importance on their staff by allocating them equipment for successful implementation of projects. Such equipment should be

entirely dedicated to project staff for the entire project cycle with disposal policies in place. This would ensure efficiency of delivery of projects.

## REFERENCES

- Arasa R & Kioko M. (2013), *An examination of the NGO sector competitive environment in Kenya*, International Journal of Science and Research (IJSR)
- Brass J.N. (2010), *Surrogates for government? NGOs and the state in Kenya*, University of California, Berkeley. Website: [http://digitalassets.lib.berkeley.edu/etd/ucb/text/Brass\\_berkeley\\_0028E\\_10920.pdf](http://digitalassets.lib.berkeley.edu/etd/ucb/text/Brass_berkeley_0028E_10920.pdf)
- Right hub project management (2013), *How to Plan Your Project's Resource Capacity*. website: <http://www.brighthubpm.com/resource-management/13031-how-to-plan-your-projects-resource-capacity/>
- Butler P., Felstead A., Ahston D., Fuller A., Lee T., Unwin L & Walters S. (2004), *High performance management: A literature review*.
- Caltrans (2012), *Project risk management handbook: A scalable approach*. website: [http://www.dot.ca.gov/hq/projmgmt/documents/prmhb/PRM\\_Handbook.pdf](http://www.dot.ca.gov/hq/projmgmt/documents/prmhb/PRM_Handbook.pdf)
- Carole L. Kimberlin & Almut G. Winterstein (2008), *Validity and reliability of measurement instruments used in research*, Vol 6
- Centre for Business Practices (2005), *Measures of project management performance and Value*
- Darter K. (2014), *How to make changes on a project*. website: <https://www.projectsart.co.uk/how-to-make-changes-on-a-project.php>
- Dean J.W. & Bowen D. E. (1994), *Management theory & total quality*. website: <http://amr.aom.org/content/19/3/392.full>
- Elger Don (2007), *Theory of performance*, University of Idaho. website: [http://www.webpages.uidaho.edu/ele/scholars/Results/Workshops/Facilitators\\_Institute/Theory%20of%20Performance.pdf](http://www.webpages.uidaho.edu/ele/scholars/Results/Workshops/Facilitators_Institute/Theory%20of%20Performance.pdf)
- Ernst A. T., Jiang H., Krishnamoorthy M. & Sier D. (2004), *Staff scheduling and fostering: A review of applications, methods and models*
- Harvard Business Review (March 2008), *Is yours a learning organization?*
- Helmuth Utz (2011), *The impact of performance budgeting on public management*, University of St. Gallen.
- Herroelen W., Demeulemeester E. & De Reyck B. (1996), *Resource-constrained project Scheduling*. website: [http://www.academia.edu/17598699/Resource-constrained\\_project\\_scheduling](http://www.academia.edu/17598699/Resource-constrained_project_scheduling)
- Jagdale D. & Bhola S.S. (2014), *Entrepreneurial leadership and organizational performance with reference to rural small scale engineering industry in Pune District*. website: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.641.5541&rep=rep1&type=pdf>

- Jon M. Shane (2005), *Activity-based budgeting: Creating a nexus between workload and costs* Journal of Practical Consulting (2012), *Introducing strategic thinking into a Non-profit Organization to develop alternative income streams*, Vol. 4 Iss. 1, Fall/Winter 2012, pp. 32-42. Regent University School of Business & Leadership, ISSN 1930-806X | Virginia Beach, Va. USA
- Kenyatta University (2012), *School of Business, Post graduate Dissertation Handbook*
- Kerzner H. (2013), *Project management: A systems approach to planning, scheduling and controlling*
- Larson Erik W. & Gray Clifford F. (2012), *Project management, The managerial process*, 5th edition
- Lund Research Ltd (2013), *Standard Deviation*. Website: <https://statistics.laerd.com/statistical-guides/measures-of-spread-standard-deviation.php>
- Omair 2014, *Sample size estimation and sampling techniques for selecting a representative sample*, Journal of Health Specialties, October 2014 / Vol 2 | Issue 4.
- Omeri K. L. (2015), *Factors influencing financial sustainability of Non-Governmental Organizations: a survey of NGOs in Nakuru County, Kenya*, International Journal of Economics, Commerce and Management. website: <http://ijecm.co.uk/>
- Mindavation (undated), *Key components of project management*. website: [www.mindavation.com](http://www.mindavation.com)
- Mitchell D. & Thurmaier K. (2010), *Currents and undercurrents in budgeting theory*, Northern Illinois University
- Morris (2004), *Science, objective knowledge and the theory of project management*.
- Mudalige D. (2015), *A dynamic capabilities perspective of internationalization and performance of SMEs in South Asia: A conceptual framework*. website: <http://www.jitbm.com/jitbm%2035th%20volume/darshana.pdf>
- Muturi D., Ochieng J. & Njihia S. (2015), *Impact of ISO 9001 Implementation on Organizational Performance in Kenya*. Website: [https://www.researchgate.net/profile/Jackie\\_Ochieng/publication/275954897\\_Impact\\_of\\_ISO\\_9001\\_on\\_organization\\_performance\\_in\\_Kenya/links/554b1b070cf29752ee7c3ac4.pdf](https://www.researchgate.net/profile/Jackie_Ochieng/publication/275954897_Impact_of_ISO_9001_on_organization_performance_in_Kenya/links/554b1b070cf29752ee7c3ac4.pdf)
- NGOs Coordination Board (2009), *Report on the national validation survey of NGOs*
- Press Books (2016), *Project management for instructional designers*
- Project Management Institute (2013), *A guide to the project management body of knowledge*, 5<sup>th</sup> edition
- Project Insight (1997-2016) website: [www.projectinsight.net](http://www.projectinsight.net). website: <http://pm4id.org/chapter/11-1-defining-risk/2/>
- Project Quality Management (2008), *Project management for development organizations* Southern Polytechnic State University (undated), *Project management: Scheduling resources and costs*
- Reka C. I., Stefan P. & Daniel C. V. (2014), *Traditional budgeting versus beyond budgeting: A literature review*

- Robinson M. & Brumby J (2005), *Does performance budgeting work? An analytical review of the empirical literature*
- Senge, P. M., Charlotte Roberts, Rick Ross, George Roth, Bryan Smith, & Art Kleiner (1999). *The dance of change: The challenges of sustaining momentum in learning organizations*. New York, Currency/Doubleday. Page 32
- UNDP Evaluation Office (2002), *Handbook on monitoring and evaluating for results*
- UNWOMEN (2012), *Annual report 2012-2013*
- Von Bertalanffy (1968), *General system theory*. website: [http://monoskop.org/images/7/77/Von\\_Bertalanffy\\_Ludwig\\_General\\_System\\_Theory\\_1968.pdf](http://monoskop.org/images/7/77/Von_Bertalanffy_Ludwig_General_System_Theory_1968.pdf)
- Wanguku (2013), *Adoption of the balance score card as a strategic approach by large international non-governmental organizations in Kenya, a research project submitted in partial fulfilment of the requirements for the award of the degree of Master of Business Administration, School of Business, University of Nairobi*.
- William Trochim (2001), *The research methods knowledge base*, Second edition, <http://trochim.cornell.edu/kb/>