

Legal Frameworks, Political Environment and Performance of Biosocial Projects in Informal Settlements in Nairobi County, Kenya

Njeri Simon Ngacha¹, Christopher Mwangi Gakuu² & Kidombo Harriet Jepchumba³

¹ School of Open and Distance Learning, University of Nairobi, Kenya

² Department of Educational Studies, School of Open Distance and e-Learning, University of Nairobi, Kenya

³ Department of Educational Studies, School of Continuing and Distance Education, University of Nairobi, Kenya

Correspondence: Njeri Simon Ngacha, School of Open and Distance Learning, University of Nairobi, P.O. Box 13125-00200, Kenya. Tel: 254-7-2039-3738. E-mail: snnjeri@students.uonbi.ac.ke; snnjeri@gmail.com

Received: September 7, 2020

Accepted: October 15, 2020

Online Published: October 31, 2020

doi:10.5539/jsd.v13n6p99

URL: <https://doi.org/10.5539/jsd.v13n6p99>

Abstract

This scholarly work studied Legal frameworks, political environment and performance of biosocial projects in informal settlements in Nairobi County, Kenya. Purpose of this scholarly work was to ascertain political environment moderate's relationship between legal frameworks and performance of biosocial projects in informal settlements in Nairobi County, Kenya. The variable indicators were derived from legal frameworks and political environment indicators as independent variables against performance of biosocial projects indicators as dependent variable of this scholarly work. The study was premised on project theory for the two independent variables and for the dependent variable theory of constraint. In this study Pragmatism and mixed research approach were embraced to examine political environment, legal frameworks and performance of biosocial projects while descriptive and correlational research designs were adopted. Self dispensed questionnaires were administered to gather quantitative data while interview guides were used to collect qualitative data after the pilot testing of research instruments to test validity through content related method and reliability through test-retest criterion. A sample size of 183 individuals from 61 biosocial projects were selected from a target sample of 70 biosocial projects in Nairobi County through Gakuu, Kidombo and Keiyoro, 2016 sampling formula ($s = (z/e)^2$). Quantitative data was computed from structured questionnaires administered to 61 staff members working in the selected biosocial projects and 61 beneficiaries from the biosocial projects besides qualitative in- depth interviews with 61 key informants from State and non-state actors through purposive sampling technique. The statistical tools of analysis that were used were arithmetic mean and the standard deviation for descriptive data whereas Pearson's Product Moment Correlation (r) in addition to Stepwise Regression (R^2) were used as inferential statistics tools of analysis, hypothesis was tested by use of F-tests. To avoid invalidation of statistical analysis, tests of statistical assumptions were carried out before data analysis. From the data analysis the null hypothesis that stated the relationship between legal frameworks and performance of biosocial projects in informal settlements in Nairobi County is not moderated by political environment was accepted with $F = 15.207$, $p = 0.000 < 0.05$, $r = 0.382$, Adjusted $R^2 = 0.136$ in step one against step two where $F = 6.263$, $p = 0.000 < 0.05$, $r = 0.390$, Adjusted $R^2 = 0.128$ and concluded that Adjusted R^2 decreased from 0.136 to 0.128 and F statistics reduced from 15.207 to 6.263 the effect of relationship of legal frameworks on performance of biosocial projects.

Keywords: legal frameworks, political environment, performance of biosocial projects, project theory, theory of constraint

1. Introduction

Urban poverty rate surge is associated with urban population. Additional people live in urban areas than rural areas, with 50 percent of the global population living in cities. By 2050, it is anticipated world population will increase by 2.5 billion to 9.1 billion, whereas the urban populations will surge by 3.1 billion, to 6.4 billion. This signifies that urban areas would possibly engross all anticipated population growth over the next four decades, (UN, 2007). The segment of the population surviving with less than one dollar a day dripped off in rural areas, but grew in urban areas in between 1993 to 2002.

Worldwide, one in three urban dwellers lives in the informal settlements and urban informal settlements growth

are outdoing urban population growth in developing countries, (United Nations, 2007). Nyonje, Kyalo and Mulwa (2012) postulates, out of a given challenge there emerges an ever increasing demand to have projects to address those confronts. According to Moskalenko & MC Cauley (2009), economic disparities, social cultural and political factors could cause discord amongst discontented factions or segments of the society and on the same annotation, Thomas *et al*; (2007) argues that although the Arab Africa is oil driven economic zone, emergency of disgruntled groupings is in the offing, as most Africa countries are more endowed with natural resources yet the majority of citizens live below the world bank poverty index. According to World Bank (2003) report Poverty attributed by such dissatisfaction and dissension lead to civil wars, abject poverty, and breakage of governance besides legal frameworks, feeble political and democratic structures that affects moral fiber of the society leading to mushrooming of informal settlements and disenfranchised projects performance.

The call for consideration to be given to the wide selection of issues that are faced by People with disabilities by World bank in 2003 remain largely unanswered programmatically, children and youth with disabilities often plummet between the cracks; conventional development programmes for youth rarely include young men and women with disabilities. Program interventions for disabled populations are often no more inclusive, concentrating either on children with disabilities in schools or on the employment and social integration of adults with disabilities. Few development agencies focus on the exceptional psychological, educational, social, and economic needs of youth. The needs of youth with disabilities are strikingly similar to those of their non-disabled peers on matters of education, job training, employment, and inclusion in the social, cultural, religious and economic lives of their families and communities. According to World Bank (2003), what distinguish People Living with disabilities are not their common needs, but the fact that these needs continue to go so largely unmet.

Some of the widest gaps between rich and poor individuals as well as men and women can also be found in Sub-Saharan Africa. For this reason, Africa is highlighted as a specific global issue by the UN due to various and deeply complicated humanitarian concerns embedded on social cultural, economic, political and governance issues. Therefore, there is a genuine concern regarding the prevalence unsatisfactory perception leading to formation of dissatisfied groups to secure hope on economic disparities existing among the citizens in the continent of Africa, Kenya in particular and narrowing down to urban informal settlements in Nairobi where the most at risk are People Living with Disabilities who face limitations due to their nature of body structures and thus cannot access social services and employment respectively. At the national level Kenya has set goals and targets meant to provide a social economic compass meant to provide conducive working environment and a middle income status by 2030.

1.1 Statement of the Problem

One of the vast challenging issues for the considerable majority of African governments and planners is Urbanization. Even though Africa remains the least urbanized continent, it has lately displayed the fastest rate of urbanization in the world, (NCCS, 2012). The continent is undergoing the highest urban growth at 3.5 percent per year and this rate is expected to hold until 2050. The matching rates for other regions are Asia at 2.03 percent, Latin America and the Caribbean at 1.23 percent, North America at 1.04 percent and Europe at 0.36 percent. According to UNFP, (2007), the share of African urban population was about 28 percent in 1990 but it is projected to reach 52 percent by 2025.

Social factors surrounding project environment has been analyzed under the lenses of six factors which are: political, economic, social, technology, ecology and legal, and the same factors are considered to have a strong incentive to shape the performance of a project, (Dekings, 2015). The way employees perceive their work place in terms of power struggles, political climate, control of resources, nepotism, favoritism, ethical decisions, vested interests as well as influence tactics are meaningful since projects that are perceived as more political in nature are also considered less fair besides being less ethical (Vigoda, 2002).

Political combat is one of the main methods of social change; previous study has shown that readiness to participate in such actions is determined by an evaluation of the current situation. The question arises as to how stable beliefs influence such evaluations. This study analyzed the link between such beliefs and readiness to participate in political actions. An assumption that just and dangerous world beliefs are factors that influence readiness to participate in political actions is farfetched. However, these factors' influence was mediated by political efficacy besides it has shown that the more people believe in a just world the less they believed in a dangerous world, the higher their internal and external political efficacy was. Political efficacy, in turn, predicts readiness to play a part in various forms of political action. According to Kacmar and Ferris (1991), internal political efficacy is certainly linked to normative political collective actions, while external political efficacy is negatively linked to normative collective actions. However, the extent of these patterns is dependent on cultural and ethical context within which

the project is operating in.

Once the project has started, the objectives should be regarded as unchangeable since if the alteration of the intended achievements is effected then it can only be assumed that one is starting a new project and would have to start the activity planning again from the start. However, modifications of objectives often happen in small steps called scope creep and do not seem to have a major impact. When these small modifications add up, if unchecked though, they can put the project seriously off target. The project manager compares all decisions on modifications to the original objectives to make sure it does not happen. Programmes do not generally permit modifications to objectives because it would mean a different project to the one they had hitherto approved. The steps to achieving objectives are a different question. Situations change, new information becomes available, project activities may lead to better ways of doing things; all of these things naturally lead to activity modifications. A large part of the project manager's role involves monitoring these modifications and ensuring that they do not threaten achievement of the ultimate objectives. A crucial skill is flexibility and being able to adapt to instant changes devoid of losing sight of objectives.

Collaboration from key stakeholders besides government or political support in addition to substantive investment of time and energy plays a nexus role in project performance. Such partnerships according to Walker (2000) are most successful when there is a common purpose, effective communication and clarity about roles and relationships, positive attitude among stakeholders and member agencies towards the partnership and each other. Conversely, referring to Hunter *et al;* (2011) employment of skilled staff, striking supportive relationships of staff members with partner agencies and communities and implementing consumer or participant input mechanisms provides satisfaction to the target beneficiaries.

Project performance consists of carrying out activities with the aim of delivering the outputs and monitoring progress with the work plan. Monitoring can be expressed as control of the project performance in order to keep the project on track and achieve the end results of the project, (Nyonje *et al;* 2012). The project manager is in control of regular monitoring of project, but the partner organizations should correspondingly contribute actively to the effective inspection of the project. The whole partnership will gain from monitoring of project advancement as it offers assistance for project performance and operates as an indicator of targets being met through feedback activities, it stimulates improvement in project results based upon observations of the value and the quality of the various elements of the project, it provides credibility and reliability of results in view of the fact that it foresees prospective drawbacks in good time and simplifies decision-making, outstandingly if corrective actions are considered necessary.

1.2 Objective of the Study

To ascertain the extent to which political environment moderate relationship between legal frameworks and performance of biosocial projects in informal settlements in Nairobi County, Kenya.

1.3 Hypothesis of the Study

Ha: The relationship between legal frameworks and performance of biosocial projects in informal settlements in Nairobi County is moderated by political environment.

Ho: The relationship between legal frameworks and performance of biosocial projects in informal settlements in Nairobi County is not moderated by political environment.

2. Literature Review

Africans have been slow to respond positively to geopolitics of globalization. A leading global management consulting and market research firm performed a political, economic, social, technological, legal, and environmental (PESTLE) analysis of Kenya to analyze the impact of different macroeconomic indicators of the country on different industries and noted that timely, useful information are key components in building projects and strategic decisions, (Lucintel 2013). In addition, the report highlighted that Kenya economy is expected to outpace the growth of global GDP and grow to \$89 billion at the current prices by 2018. The Kenyan government's strategy to modernize the agriculture sector, strengthen medium and small scale enterprises, and focus on investment in information and communications technology and business services are expected to drive the economy over the forecast period.

Persons with disability in Kenya confront a range of handicapping situation depending on their form of disability thus equally biosocial projects being project working for and with people with disabilities are as well compounded by many challenges like any other given project, may it be a dam project, an irrigation project or road construction projects. According to KNDS (2008) survey, five percent of the Kenyan population has one or other form of disability. Conversely the survey unveiled that persons with disability access to service such as education, health

in addition to economic assistance social support is a big challenge.

In regard toward access to rehabilitation services and assistive aids, majority of people with disability have problem in accessing this needed services and supportive. According to KNHRC (2014) report, educational policy is mentioned to be theoretically supportive to the needs of learners with disability. Apart from being theoretical it faces resounding bottlenecks in its implementation and this directly has a dire implication on the performance of biosocial projects that champion on the welfare of people living with disabilities particularly on accessibility of social needs like health, education and economic empowerment initiatives.

The Government of Kenya has embraced a number of laws and policies pertaining to people living with disabilities, taking account of their rights to productive, have decent work and access basic services. The main legislations are, the 1969 Constitution of Kenya that outlaws discrimination on various grounds such as race, tribe and color, however, it does not refer to discrimination on the basis of disability but on unfair treatment to citizens. The promulgated constitution of Kenya 2010 explicitly prohibits discrimination on the grounds of health status and disability. The other one is The Persons with Disabilities Act, 2003, the act is an all-inclusive law encompassing rehabilitation rights and equal opportunities for people with disabilities. It creates the National Council of Persons with Disabilities as a statutory organ to oversee the welfare of persons with disabilities. The Law also obliges that both public and private sector employer’s reserve five percent of jobs for disabled persons.

Conversely, there is correspondingly the National Security Act, chapter 258, Laws of Kenya, the law alludes to the benefit for worker incapacitated before the established retirement age and National Social Security Fund Act, 1965 (sessional paper number 5 of 1997), amended in 2001, the subject contains a provision which states that mental and physical disabilities shall not be considered as leading to work incapacity. On the same breath, the workmen’s compensation Act, Chapter 236, Laws of Kenya, recognizes disability but only where it has been acquired during and in the course of work. On the same breath free primary education, 2003 scheme which is crucial to the attainment of universal primary education in Kenya eliminates all levies that previously prevented children specifically those from poor economic backgrounds from accessing education. The scheme has been extended to special education and schools for children with disabilities, through the provision of additional funding to meet the needs of children with disabilities in schools.

Power relations, ethics, internal politics, diverse opinions and influence tactics are inherent to the discussion of modern project management. Thompson and Ingraham (1996), have defined organizational politics as the art of competition among individuals while doing all they can for divergent objectives within a project environment, they further suggest that a political analysis of projects contrast with rational models that portray projects as directed toward the achievement of a single set of mutually agreed upon goals. The frequently political and unfair nature of public administration systems can be demonstrated in several ways (Sobel 1993). For instance, by their very nature, public projects are intimately tied to political and governmental systems. According to Peterson (1990), studies have intimated a spillover effect of political skills, attitudes, and behaviors from one ground to another.

2.1 Theoretical Framework

The relationship between the theories and the variables political environment, legal frameworks and performance of biosocial projects in informal settlements is bound by theoretical framework. Devoid of theories knowledge, managers would be expending guess work, instincts, perceptions and hopes which may not be useful into the complex and dynamic organizations (Kidombo *et al*; (2013). Thus to avoid guess work or perceptions this body of knowledge theoretical framework represented two key variables of inquiry as enshrined under the objectives of the study in section 1.2 of this scholarly work. According to Singleton (1998), all studies should be grounded on a particular theory and thus this body of knowledge was grounded on theories that supported application of political environment, legal frameworks and performance of biosocial projects in informal settlements. This scholarly work is premised on the theory of project supporting the independent variables and the theory of constraint supporting dependent variable as stated in the figure below:

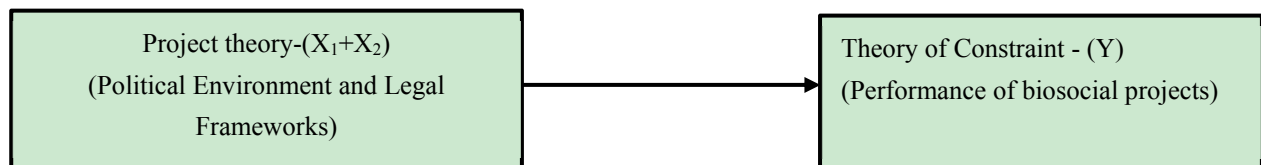


Figure 1. Theoretical framework

Source Author

2.1.1 Project Theory

The theoretical footing emerging from this work has been summarized and used for explaining the novel features of project management methods, which radically deviate from the conventional doctrine of project management. The theory of project is provided by the transformation view on operations (Ballard, 1999), in this body of knowledge it has supported the moderating factor of political environment on legal frameworks and performance of biosocial projects in the informal settlements. In the transformation view, a project is theorized as a transformation of inputs to outputs, and thus a number of principles, by means of which a project is managed (Gakuu *et al*; 2013). These principles suggest, for example, decomposing the total transformation hierarchically into smaller transformations, tasks, and minimizing the cost of each task independently.

In this study, theory of project will support the objective and variable of this scholarly work which is the moderating effect of political environment on legal frameworks and performance of biosocial projects. According to Koskela and Howell 2002, it is made known that the comprehension of a project is premised on three theories, the dispatching model theory, management as Planning model theory and the thermostat model theory. The dispatching model presupposes that planned tasks can be executed by a notification of the start of the task to the executor, in management as planning model theory, management at the operations level is viewed to comprise of the creation, revision and performance of plans. This approach to management analyses a strong causal connection between the deeds of management and products of the organization, thermostat model theory is the cybernetic model of management control that consists of a standard of performance (Grol *et al*; 2004). Performance is measured at the output level; the possible variance between the standard and the measured value used for correcting the process so that the standard can be reached at the project performance output level.

2.1.2 Theory of Constraints

Theory of constraint champions on changing how people manage projects which is tantamount to changing the basic fabric of the business. Clearly, one must approach such change with great care and the right people must be brought into the picture at the right time, in just the right way. The process must move slowly enough to permit identification of essential changes, yet fast enough that it does not lose the momentum that is necessary to sustain continued progress of a project (Goldratt's 1997). The Goldratt's Institute has developed a very robust performance process consisting of six distinct phases. Each phase builds upon the next and each is specifically designed around a logical progression of obtaining the true support and collaboration of the participants.

This research study framed theory of constraint for the reason that it influences the way researcher keenly observes the constraints of the system, assuming such project performance constraints exist (Mabin & Balderstone, 2003). Within TOC, constraints are defined as anything that limits a system from attaining higher performance towards its goal (Gupta & Boyd, 2008). According to Pittman (1994), theory of constraint is employed in project management, in order to address the typical issues experienced by project managers that led to project delays and failures, thus in this study, this is the sole reason it's being considered as one of the supporting pillar of performance of projects.

2.2 Conceptual Framework for the Study

In this body of knowledge, a conceptual framework was used as the model of study to offer guidance on the variables correlation so as to make this publication remain gripped and fixated on the three key undermentioned variables as per the figure 2 below:

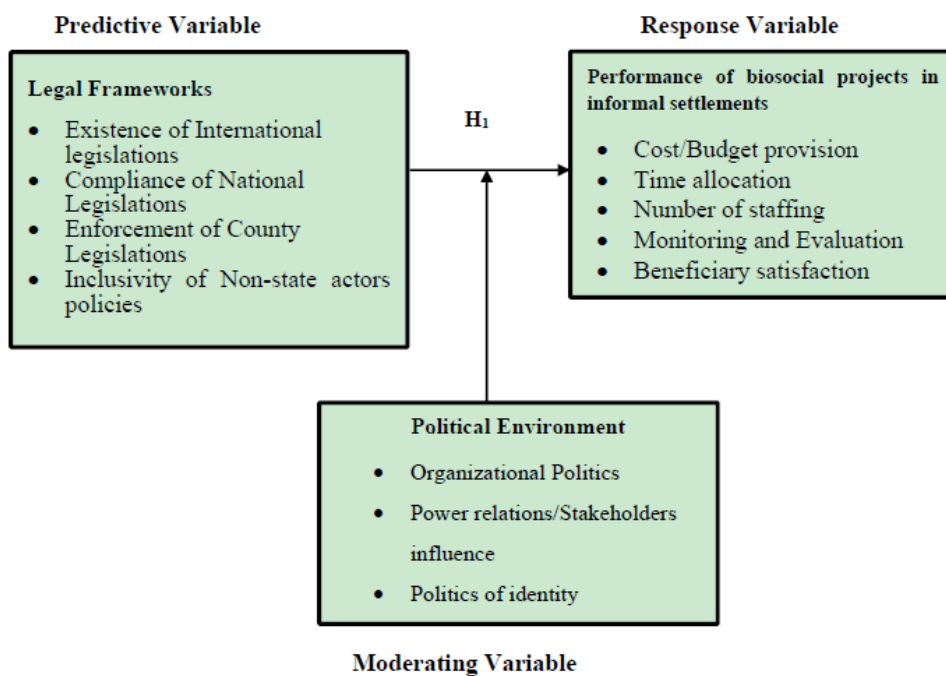


Figure 2. Conceptual framework on political environment, legal frameworks and performance of biosocial projects in informal settlements in Nairobi County

3. Research Methodology

The research design for this body of knowledge was descriptive survey design and correlational research design. The overall strategy that integrates the different components of the study in a coherent and logical way is the research design, a descriptive study is one in which information is collected without changing the environment and can involve a onetime interaction with groups of people well known as cross sectional study or it might follow individuals over time well known as longitudinal study, (Gakuu *et al*; 2016). Descriptive survey design is used to illustrate traits of a population or a phenomenon being examined (Shield and Rangarjan 2013) while on the same breath, Creswell (2012) indicates that correlational research design is the measurement of two or more factors to ascertain the extent of relationship or change in an identifiable pattern.

The target population for this study was staff, direct beneficiaries and stakeholders working with biosocial projects in informal settlements in Nairobi County. Nairobi County has got a total of 65 Projects working for people with disabilities (NCPD, 2014), and thus out of those sixty-five (65), sixty-one (61) projects were selected by use of Gakuu, Kidombo and Keiyoro sampling formular. According to Gakuu, Kidombo and Keiyoro (2016), population is the entire set of relevant units of analysis or data and it may be either finite or infinite besides being a group to which the results of the study are intended to apply. In this research quantitative data was collected by administering questionnaires to the 61 key staff members working in the biosocial projects and 61 direct beneficiaries served by the same biosocial project. Qualitative data was collected by administering interview guides to 61 key informants.

The selection of those three key respondents from each biosocial project targeting PLWD was informed by the understanding that the target population is a complete set of individual instances with some common characteristic to which the research wants to generalize the result of the study (Gakuu *et al*; 2016). Conferring to WHO (2003), 10% of a given population is expected to have one form of disability and therefore, Nairobi having a population of 4,475,000 according to 2019 census means that the 65 projects targets 10% of that population which is 447,500 people living with disabilities of which part of the mentioned population in one way or the other is assumed to benefit from the biosocial projects or they may not and with such notions that’s the sole reason a research was conducted to help unveil the true picture on the ground.

The sample size for the study was 183 respondents from 61 biosocial projects of which in every project 3 key respondents from each biosocial project was targeted thus making a total of 183 respondents for this study.

The sample size was calculated using Gakuu *et al* ;(2016) sampling formula $n = (z / e)^2$

ME=z

Where:

ME = the desired margin error

n= the sample size

z = is the z-score a number relating to the degree of confidence you wish to have in the result. 95% confidence is most frequently used, accepted and thus it is the one that will used in this study.

The value of z confidence is 1.96 for 95% confidence.

e = the error you are prepared to accept, measured as a proportion of the standard deviation. In this study a margin error of 0.25 was accepted. According to Gakuu *et al* ; (2016), a researcher can chose any margin error they like but need to specify it and thus in this body of knowledge a margin error of 0.25 was picked. In this case the degree of confidence adopted was 95%. According to Gakuu, Kidombo and Keiyoro (2016); standard deviation will be based on the objectives set by the study being conducted.

To assess the authenticity and consistent of measurement validity and reliability of research instruments was conducted respectively. Research tools were piloted at Mathare constituency being one of the constituencies with high number of population and also the area being close from the point where research data cleaning and analysis was being executed. Data was analyzed by employing descriptive statistics and inferential statistics whereby hypotheses were tested at the level of significance set at 0.05 and the confidence interval at 95%.Correlation analysis was used to establish the relationship between independent variables political environment and legal frameworks in addition to the dependent variable performance of biosocial projects in informal settlement schemes.

3.1 Tests of Hypotheses

A test of hypothesis was conducted for empirical conclusions to be arrived at; the summary of the research objective, research hypothesis, type of analysis and the interpretation of the results is indicated in Table 1 below.

Table 1. Statistical tests of hypotheses

Objective	Hypothesis	Statistical Analysis	Model	Level of Acceptance/Rejection
To ascertain the extent to which political environment moderate relationship between legal frameworks and performance of biosocial projects in informal settlements in Nairobi County, Kenya.	Ha₁: The relationship between legal frameworks and performance of biosocial projects in moderated by political environment.	Simple Linear Regression and Multiple Regression	$Y = \beta_0 + \beta_1 X_1 + \beta_3 X_3 + \epsilon$	Reject H ₀ if p>0.05 Fail to reject H ₀ if P< 0.05 Strength for relationship for r values will be -1≤r≤+1

The strength of relationship of r values was considered by:

+ 0.10 < r < + 0.29; weak correlation;

+ 0.30 < r < + 0.49; moderate correlation;

+ 0.5 < r < + 1.0; strong correlation.

In stepwise regression modelling, if the considered variable was omitted from the final regression model, HO was accepted. Where HO was rejected Adjusted R² values were considered in determination of the strength of the relationship.

4. Findings and Discussions

Analysis, presentation, interpretation and discussion of the relationships of the objective of this body of knowledge which focused on ascertaining the extent to which political environment moderated relationship between legal frameworks and performance of biosocial projects in informal settlements in Nairobi County, Kenya was conducted.

Accordingly, descriptive research design and correlational research design under mixed mode research approach were used in this study, descriptive, inferential and qualitative statistical analysis were carried out simultaneously in a cross-sectional manner. From the research objective, descriptive analysis was done first by testing mean and the standard deviation followed by inferential analysis through use of Person's Product Moment Correlation analysis to test the relationships of the variables of this body of knowledge. Qualitative analysis was done after the descriptive and inferential statistics since qualitative data was collected through administering interview guides to key informants after administering the questionnaire to primary targets working and being served by the biosocial projects.

4.1 Background Information of the Respondents

A total of 122 questionnaires were administered to the respondents and out of that 117 came out completely filled while 5 were incomplete in some occurrences; this represented a response rate of 95.9% which was good for the study in terms of inferences. Equally, Saunders *et al*; (2003) indicate that 30 to 50 percent response rate is reasonable enough for statistical generalizations and thus with the response rate of 95.9% in this body of knowledge it is thus satisfactory to deduce lessons from the analysis.

Gender of the respondents is as shown in Table 2.

Table 2. Gender of the respondents

Gender	Frequency	Percentages (%)
Male	32	27.4
Female	85	72.6
Total	117	100.0

From Table 2 above results show that 85 (72.6%) of the respondents who participated in the study were female while 32(27.4%) were male. The gender distribution was favorably skewed in respect to gender spread and thus it enhanced the quality of the analysis of results informed by the fact that this study was guided by pragmatism research paradigm which according to Gakuu *et al*; (2016) is the best suited paradigm for mixed method research design as it assimilates multiple realities in research like the gender factor.

4.2 Distribution of Respondents by Age

The age group categorization was done to ascertain proper distribution. There were five categories, that ranged between 20 to 30 years, 30 to 40 years, 40 to 50 years, 50 to 60 years and the last category over 60 years. The distribution is depicted as per the table 3 below:

Table 3. Age of respondents

Age	Frequency	Percentage
20-30	18	15%
30-40	33	27%
40-50	22	18%
50-60	5	4%
Above 60	1	1%
Age not reported	43	35%
Total	122	100%

The glaring challenge was that many respondents could not freely indicate their ages as it is depicted on table 3 above. 43 out of 122 respondents did not state their ages, which was 35% of the entire sample. However, among individuals who reported, the largest age distribution was for those between 30 and 40 years at 27%, then followed by persons who were between 40 and 50 years at 18%, then those between 20 and 30 years at 15%. The least in the category was age above 60 years which was at 1% an indication that this is an age category that is set at the verge of retiring for those working and for the beneficiaries then it can be deduced is the least reached in service provision.

4.3 Test for Statistical Assumptions and Analysis of Likert Type of Data

A number of prior tests were conducted to understand the suitability of the data used and similarly study the distribution and suitability of the data to make inferences. The tests conducted were: Test for normality, multicollinearity, singularity, homoscedasticity and heteroscedasticity. Further, discussion on how type I and type II errors were controlled and the suitability of using the Likert scale in the study were further realized.

4.3.1 Normality Test

In order not to make biased or skewed conclusions it is ideal to check if the data being analyzed is normally distributed. The results of the inference tests would be skewed to one side in the event that the data is skewed on or either side. Regression analysis assumes that data has been collected from normal population of which negation of such normally lead to rejection of the data (Moriya 2008). Rather, the conclusion of the results of the sample may not be generalized to the whole population but could be just in favor of the sample studied. Kolmogorov-Smirnova (KS-test) and Shapiro-wilk (SW-test) normality tests were simultaneously run in order to verify the distribution of the data.

Subsequently, under the Kolmogorov Shapiro-test statistic, we reject the null hypothesis if $p < 0.05$. While testing for normality, the null hypothesis in the study was that the sample population was not normal. In all the variables under investigation, $p < 0.05$ in which case we reject the null hypothesis and conclude that the samples were picked from a normal population. To countercheck the validity of the normality tests from KS-test statistic, Shapiro-Wilk tests (SW-test) were carried out. The P value in SW –test is denoted as Sig. and it's the last column (Shapiro and Wilk, 1965). Kolmogorov-Smirnov test statistic (KS-test) establishes if two datasets vary significantly without making any assumption about the distribution of data.

In addition to calculating the D statistic, KS-test indicates whether the data is normal or lognormal. The test helps researchers to view the data graphically to understand how the data is distributed. The KS-test quantifies a distance between the empirical distribution function of the sample and the cumulative distribution function of the reference distribution, or between the empirical distribution functions of two samples (Corder and Foreman, 2009). Shapiro-Wilk (SW-test), tests the null hypothesis, to countercheck the validity of the normality tests from KS-test statistic.

When testing whether a population is normally distributed by use of SW-test, statistic, the null hypothesis is rejected if the value of W is too small (Shapiro and Wilk, 1965). In this study, all the SW-test statistics were approaching 1 > 0.05 and hence the null hypothesis that the population was not normal was rejected. In conjunction with the W values, the p-values are also checked while using the SW-test statistic. In this case, if the p-value is more than the chosen alpha level, the null hypothesis is rejected and concluded that the set of data values are from a normally distributed population (Shapiro and Wilk, 1965). In this study, the alpha level was 0.05 and in all variables, $p > 0.05$ and hence it was concluded that the research population was normally distributed. The implication to this is that, the results of normative, legal frameworks can be a general picture of the population.

The interpretation of the tests in this body of knowledge observes from the hypotheses that:

Ho: Variable is not normally distributed

Ha: Variable is normally distributed

The results are depicted as per the table 4 below:

Table 4. Results for Kolmogorov-Smirnova and Shapiro-wilk Normality Tests

Statements	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
a) Legal frameworks	.084	64	.200*	.977	64	.279
b) Political environment	.078	64	.200*	.985	64	.603
c) Performance of biosocial projects in informal settlement schemes	.105	64	.075	.977	64	.290

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

4.3.2 Multicollinearity and Singularity Test

In this study, multicollinearity was non-existent between the predictor variables. At some point in data analysis, singularity happens when an independent variable is formed from a combination of other independent variables. On the other hand, multicollinearity is checked by analyzing the tolerance values under collinearity to ensure that the assumption is not violated (Asteriou and Hall, 2011). For instance, 1 - R² values should be more than 0.1 which implies low multicollinearity (Shirley *et al.*, 2005). If two variables are perfectly collinear, singularity is said to exist and an exact linear relationship exists between the two predictor variables with a correlation coefficient equal to 1.0 or -1.0.

The independent variables had a VIF of less than 10, and the mean VIF of 2.593 was less than 4 an indicator that the variables did not have a linear relationship among themselves, particularly there was no multicollinearity. In the event there is multicollinearity the results can have very large standard errors of the beta coefficients hence a higher variability across samples and hence a less chance to represent the population. Multicollinearity may also reduce the contribution of the independent variables making it difficult to assess the individual significance of the predictors. The study adopted this approach and the results are as shown in Table 5 below:

Table 5. Variance inflation factor (VIF) results

Independent Variables	Collinearity Statistics	
	Tolerance	VIF
Legal frameworks	.387	2.586
Political environment	.564	1.774
Mean		2.32

a Dependent Variable: Performance of biosocial projects in the informal settlements in Nairobi County

4.3.3 Tests for Heteroscedasticity and Homoscedasticity-Levene's Test

Homoscedasticity is an assumption that the dependent variable has equal variance across the range of the independent variable; consequently, heteroscedasticity is the nonexistence of homoscedasticity. Homoscedasticity and heteroscedasticity was counter checked by plotting scatter diagrams prior to undertaking correlation analysis. A sequence of random variables in statistics is homoscedastic if all random variables in the sequence have the same finite variance.

Heteroscedasticity in regression analysis can invalidate statistical tests of significance that assume that the modelling errors are uncorrelated and normally distributed and that their variances do not vary with the effects being modelled. A collection of random variables is heteroscedastic if there are sub-populations that have different variabilities from others. Hamsici and Aleix (2007) in Spherical-Homoscedastic distributions, claim that the correlation and residual tables generated by SPSS that are used to test for collinearity can also be used to check for existence of heteroscedasticity. In this study, this assumption was not violated.

Table 6 below stipulates the test of homogeneity of variances

Table 6. Test of homogeneity of variances

Independent Variables	Levene Statistic	df1	df2	P-value
Legal frameworks	2.193	23	54	.099
Political environment	2.228	20	46	.130

The factor in testing homogeneity is performance of projects, while the variables are legal frameworks and political environment. The p-value is more than 0.05 implies the variables have met the assumption of homogeneity of variance that states there is equal variance across the range of the study variables.

4.3.4 Control of Type I and Type II Errors

Rejection of a true hypothesis or fail to reject a false hypothesis may lead to committing either type I or type II error. According to Osborne and Waters (2001) removal of univariate and bivariate outliers may reduce the probability of committing either type I or type II errors and improve the accuracy of results. In cases of simple correlations and regressions, unreliable measurement may cause relationships to be under estimate thus increasing the risks of committing type II errors. For multiple regression or partial correlation, the effect of sizes of other variables may be over-estimated if the covariate is not reliably measured. In this analysis, a correction of low reliability was conducted and obtained a composite Cronbach alpha of 0.944 and this ensured obtaining a true picture of the relationship of the variables and thus minimizing the likelihood of overestimation during multiple regressions.

4.3.5 Analysis of Likert Type Data

In the study on equidistance of Likert-type scales and validation of inferential methods using experiments and simulations, Lantz (2013) indicates that Likert-type data are often assumed to be equidistant by applied researchers so that they can use parametric methods to analyse the data. Since the equidistance assumption is rarely tested, Lantz (2013) argues that the validity of parametric analyses of Likert-type data is often unclear and that the preferred statistical method to analyse Likert-type data depends on the nature of their non-equidistance as well as their skewness. Frauke *et al.* (2008) argue that when a questionnaire is too lengthy, the response rate is low and the quality of the responses is compromised. In addition, Frauke *et al.* (2008) propose that ten objectively constructed items for each research variable in a Likert type scale are sufficient to measure a required construct where mathematical modelling is involved in data analysis thus necessitating the need for coalescing indicators of various variables.

The study had four main variables to test; the four variables had sub-variables which had statements on a Likert scale of 1 to 5 points. The scale ranged from 5=Strongly Agree (SA), 4 = Agree (AG), 3 = Neutral (NE), 2 = Disagree (DS), 1 = Strongly Disagree (SD). The analysis of Likert scale is based on Carifio and Rocco (2007) who contends that the scale be; from 4.2 to 5.0 strongly agree, 3.4 to 4.1 be somewhat agree, 2.6 to 3.3 be neutral, 1.8 to 2.6 be somewhat disagree, and 1 to 1.7 be strongly disagree hence giving an equidistance of 0.8. In addition as recommended by Alan (2001) in the self-administered questionnaire in this study, the questionnaire sections comprised of items in a Likert type scale format using a scale of SD – Strongly Disagree; D – Disagree; N – Neutral; A – Agree; and SA – Strongly Agree.

4.4 Descriptive Analysis on Political environment, Legal Frameworks and Performance of Biosocial Projects in Informal Settlements

Political environment is one of the independent variable of this study. The variable was measured using three indicators namely: Organizational politics, power relations/stakeholders influence and Politics of identity. On each indicator, the respondents were required to rate the extent to which they agreed, were neutral or disagreed on each aspect as undermentioned then a composite mean and standard deviation was derived at the discussion level.

The mean, standard deviation and sample size who responded to each aspect and the standard deviation for each element are shown on Table 7:

Table 7. Mean and standard deviation of political environment

Political environment	n	Mean (M)	Standard Deviation
Organizational politics	122	3.85	1.15
Power relations	122	3.52	1.138
Politics of identity	122	3.21	1.25
Composite mean		3.53	

From the results above, organizational politics had the highest mean of 3.85 which was approximately 4, an indicator that the respondents averagely agreed to the statements which formed the element of organizational politics. The second item was power relations with a mean of 3.52 which was also approximately 4, an indicator of agree. The last item was politics of identity whose mean was 3.21 averagely showing that the respondents were neutral on most of the statements forming politics of identity. The composite mean of 3.53 was approximately 4, an indicator that on average the respondents agreed to most of the statements forming political environment. Each of the indicators forming political environment was further explored to check the distribution of the responses, the results are discussed in the preceding sub-sections.

From the literature review under the study of this variable the expression of the notion project organizational politics has its roots in both political science theory that promote research into individuals' political behavior. In addition, according to Verba, Schlozman, and Brady (1995) conventional management studies recognizes the importance of informal power game in the workplace. Further, Peterson (1990) emphasizes that it is essential to know more about the hidden side of individuals' interest-promotion dynamics in various arenas, which is frequently the essence of any political behavior. Equally, Gandz and Murray (1980) further espouses that as far as management theory is concerned, it turned out to be evident that gauging the political climate of a work unit is a complex task, but is crucial for a better understanding of organizations, their general performance, efficiency and effectiveness.

Political environment as one of the study variable in this body of knowledge was supported by theory of diffusion. Since the theory of diffusion is considered to be the single most influential theory in the broader field of knowledge utilization of which project performance science is a part as championed by Estabrooks *et al.*; (2008). It is then imperative to take into account such notion by ascertaining that under investigation of political environment as an independent variable it provided an array of ideas on where the aspirations of this body of knowledge that tries to decipher its impact and influence on project performance are premised. In addition, the theory of diffusion underscores the significance of intermediary actors that is the opinion leaders, political leaders, change agents and gatekeepers for successful adoption and performance of projects (Rodgers, 2003), which is reflected in roles described in numerous performance determinant frameworks (Blase *et al.*; 2012) and performance strategy taxonomies that suits well the importance of political environment in the progress or success of performance of projects.

Successively, the other independent variable was legal frameworks. Legal framework was to explain performance of biosocial projects in informal settlements as moderated by political environment. Legal framework was measured in terms of four indicators, namely: existence of international laws, compliance of national legislations, enforcement of county legislations and inclusivity of Non-state actor's legislations. Each Legal framework indicator was extensively analyzed in terms of distribution of the responses; the responses were discussed in the literature review by triangulating the theoretical study under the legal frameworks and its relevance in the contemporary study and application. To analyze the effect, the composite indicators were analyzed using mean and standard deviation. The mean, standard deviation and sample size of respondents to each aspect of each indicator are shown on Table 8 below:

Table 8. Mean and standard deviation of legal frameworks

Legal frameworks	N	Mean (M)	Standard Deviation
Existence of International Laws	100	3.43	1.26
Compliance of National Legislation	104	2.74	1.34
Enforcement of county legislations	104	2.96	1.26
Inclusivity of Non-State Actors Legislations	97	3.10	1.28
Composite mean		3.05	

In terms of ranking, existence of international laws had the highest weight, with a mean of 3.43, followed by inclusivity of non-state actors' legislations with a mean of 3.10, then enforcement of county legislations with a mean of 2.96 and finally compliance of national legislation with a mean of 2.74. All the mean responses were approximately 3 an indicator that respondents were neutral on the aspect of legal framework being important to performance.

Other key national legislations apart from the aforementioned that promote opportunities for people with disabilities have been drafted, these consist of; the draft equity bill 2000, which aims to combat discrimination faced by various groups, including people with disabilities (GoK 2012). The bill also prohibits employers from paying employees differently for work of equal value. The draft affirmative action bill 2000 guarantees minority groups including disabled people a minimum of 33 per cent of representation in Parliament and on local authorities. Additionally, according to NCPWD (2003), the draft national disability policy operationalizes the persons with disabilities Act 2003 by providing guidelines for the performance of the Act as equally the draft on special needs education policy, provides a roadmap for the education of children with disabilities.

4.5 Correlation between Political Environment, Legal Frameworks and Performance of Biosocial Projects in Informal Settlement Schemes

In order to establish the direction and magnitude of the relationship between each of the independent variables with the dependent variable, a correlation analysis was done. The results of the correlation are shown on table 9 below:

Table 9. Correlations among Variables

		Performance of projects	Legal framework	Political environment
Performance of projects	Correlation	1	.382**	.313**
	Sig. (2-tailed)		0.000	0.004
	N	106	91	85
Legal frameworks	Correlation	0.382**	1	0.567**
	Sig. (2-tailed)	0.000		0.000
	N	91	102	80
Political environment	Correlation	0.313**	0.567**	1
	Sig. (2-tailed)	0.004	0.000	
	N	85	80	94

The results above show that, the independent variable with the strongest correlation with performance of projects was legal framework which had a correlation magnitude of 0.382. The magnitude implied there was a moderate correlation between Legal frameworks and performance of projects. Political environment had a weak but positive correlation with performance of projects. Importantly about all the correlation was that they were all statistically significant.

The analysis took to investigate the correlation between the particular indicators of the independent variables and performance. Legal framework was a composite of four elements: Existence of international laws, Compliance of national legislations, Enforcement of county legislations and Inclusivity of Non-state actor's legislations.

The results of the correlation are presented on Table 10 below:

Table 10. Correlation between Legal Frameworks and Performance of Biosocial Projects in Informal Settlements

	Existence of International laws	Compliance of National Legislations	Enforcement of County Legislations	Inclusivity of Non-State Actors Legislations
Pearson Correlation	.284**	.416**	.361**	.397**
Performance of biosocial projects in informal settlements				
Significance level (2-tailed)	.004	.000	.000	.000
N	100	104	104	97

** Correlation is significant at the 0.01 level (2-tailed)

The results show that all the indicators of legal framework are significantly positively correlated with performance of biosocial projects in informal settlements. In terms of the magnitude compliance of national legislations is the highest with $r=0.416$, followed by inclusivity of Non-state actors legislations with $r=0.397$, then enforcement of county legislations with $r=0.361$ and finally existence of international laws with $r=0.284$. Notably all the correlations were moderate. Political environment was defined by; Organizational politics, Stakeholders influence and Politics of identity. The results of the correlation between the indicators of political environment and performance of projects are presented on Table 11 below:

Table 11. Correlation between Political Environment and Performance of Biosocial Projects in Informal Settlements

	Organizational politics	Stakeholders influence	Politics of identity
Performance of biosocial projects in informal settlements			
Pearson Correlation	.113	.331**	.311**
Sign. (2-tailed)	.278	.001	.002
N	95	104	94

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Results on Table 11 above show that organizational politics does not have a significant correlation with performance, since its p-value 0.278 is greater than both 0.05 and 0.01. Stakeholders influence and Politics of identity had a positive significant correlation with Performance of biosocial projects in informal settlements nonetheless the correlation was moderate for both cases. In terms of ranking Stakeholders influence was higher with $r=0.331$ followed by Politics of identity with $r=0.311$ and organizational politics being the lowest with $r=0.113$ indicating a weak correlation.

4.6 Inferential Analysis of Influence of Legal frameworks on Performance of Biosocial Projects in Informal Settlements in Nairobi County Kenya

In order to establish causality between the independent variables and the dependent variable a regression model was run using the Ordinary Least Square method. The regression was conducted to determine whether there is a statistical relationship between the indicators of each dependent variable and performance of biosocial projects in informal settlements. The analysis of this relationship coincides with testing of the hypothesis.

On qualitative data, interview guides were administered to sixty one key informants who were state and Non-state actor's stakeholders working with biosocial projects. Purposeful sampling procedure was employed with intent to reach deliberately to the state and non-state actors supporting biosocial community in Nairobi County. Themes under the interview guide were: Effect of social influence by stakeholders during performance of biosocial projects

in the informal settlement schemes, conditions that limit PLWD execute their mandates at the household level and also during performance of biosocial projects in informal settlement schemes, how local leaders influence the day to day running of PLWD projects, how performance of projects fair within the informal settlement schemes given the myriad of issues surrounding the biosocial community and understanding of how legal frameworks, normative action and informal settlement schemes affect performance of biosocial projects.

The results were discussed as per the study hypothesis as follows:

4.6.1 Hypothesis 1

The fourth objective of the study was to find out the extent to which political environment moderate relationship between legal frameworks and performance of biosocial projects in informal settlements in Nairobi County. In order to find out this relationship two steps were followed, step one involved running a regression where legal framework is the only independent variable and then observing the adjusted R squared coefficient. The second step involved running a multiple regression model which encompasses both legal framework and political environment as the explanatory variables for performance of biosocial projects in informal settlements in Nairobi County.

H₀₁: The relationship between legal frameworks and performance of biosocial projects in informal settlements in Nairobi County is not moderated by political environment.

Regression model

The mathematical model that was used to test the null hypothesis was as follows:

Performance of biosocial projects in informal settlements = f (legal framework, political environment)

$$Y = f(X_1, X_2, \epsilon)$$

$$Y = \beta_0 + \beta_1 X_1 + \beta_3 X_3 + \epsilon$$

Where

Y = Performance of biosocial projects in informal settlements

X₁ = Legal Framework

X₂ = Political Environment

β₀ = Constant term

β₁, β₂ = Beta Coefficients

ε = Error term

Step one: Legal frameworks and Performance of biosocial projects in informal settlements

In the first step, the dependent variable was performance of biosocial projects in informal settlements while the independent variable was legal frameworks for people living with disabilities. The results of step one of the regression model is presented in Table 12 below.

Table 12. Legal frameworks and performance of biosocial projects in informal settlements

Model Summary					
Model	R	R square	Adjusted R Square	Std. Error of the Estimate	
	.382 ^a	.146	.136	9.819	
a. Predictors: (Constant) Legal frameworks for People living with Disabilities					
ANOVA					
Model	Sum of squares	Df	Mean Square	F	
Regression	1466.044	1	1466.044	15.207	.000 ^b
Residual	8580.110	89	96.406		
Total	10046.154	90			
a. Dependent Variable: Performance of biosocial projects in informal settlements					
b. Predictors: (Constant) Legal frameworks					
Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	75.256	4.224		17.817	.000
Legal frameworks	.218	.056	.382	3.900	.000
Dependent Variable: Performance of biosocial projects in informal settlements					

The results of the regression model on (Table 12) above denotes that the coefficient of legal frameworks for people living with disabilities was statistically significant, however what to observe is the adjusted R squared of 0.136 when we run step two below on Table 13.

Step two: Legal frameworks, Political environment and Performance of biosocial projects in informal settlements

In this second step, the moderator variable, political environment was introduced in the model between legal framework and Performance of biosocial projects in informal settlement. The results of the regression model are seen on Table 13 below:

Table 13. Legal frameworks, political environment and performance of biosocial projects in informal settlements

Model Summary					
Model	R	R square	Adjusted R Square	Std. Error of the Estimate	
	.390 ^a	.152	.128	9.900	
b. Predictors: (Constant) Legal frameworks, Political environment					
ANOVA					
Model	Sum of squares	Df	Mean Square	F	
Regression	1227.777	2	613.889	6.263	.003 ^b
Residual	6861.209	70	98.017		
Total	8088.986	72			
c. Dependent Variable: Performance of biosocial projects in informal settlements					
d. Predictors: (Constant) Legal frameworks					
Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
Constant	63.319	8.308		7.621	.000
Legal frameworks	.100	.080	.163	1.245	.217
Political environment	.220	.105	.276	2.103	.039
Dependent Variable Performance of biosocial projects in informal settlements					

In introduction of political environment, the explanatory power of legal frameworks reduced. Particularly, the adjusted R squared statistics reduced from 0.136 in step one to 0.128 showing that political environment moderates the influence of legal framework on performance of biosocial projects in informal settlements downwards. The explanatory power of legal framework to performance of biosocial projects in informal settlements reduces by 0.8% (0.136 – 0.128). Rather, there is a significant moderation effect of legal framework on performance of biosocial projects in informal settlements by political environment. The conclusion to this is that, political environment does not boost the influence of legal framework on performance of biosocial projects in informal settlements rather it reduces it. With that the Null hypothesis is accepted that state the relationship between legal frameworks and performance of biosocial projects in informal settlement in Nairobi County does not depend on political environment.

Political environment being one of the predictor variables in this body of knowledge and having thus tested and agreed that it does not have significant influence on the relationship between legal frameworks and performance of biosocial projects it is thus imperative to note that studies carried out by Baron and Kenny (1999) and Michael *et al*; (2004) suggest that a predictor variable known to influence the outcome of a given dependent variable may not always moderate a relationship between another independent and the same dependent variable.

In this study, political environment was identified as a moderating variable and studies carried out by Baron and Kenny (1999) argue that within a correlational analysis framework, a moderator is third variable that affects the zero-order correlation between two other variables thus in the analysis of variance (ANOVA) therefore, a basic moderator effect can be represented as an interaction between a focal independent and a factor that specifies the appropriate conditions for its operations. On the same note, Michael *et al*; (2004), describes that a variable is said to be a moderator to the extent it explains the relationship between the predictor and the dependent variable.

Qualitative data generated through administering of the interview guide on how performance of projects fairs within the informal settlement schemes given the myriad of issues surrounding the biosocial community proposed a number of issues. The first aspect was targeting projects. Views were if projects are well targeted, then they are likely to perform well. One of the view was:

“When projects target and involve the community, it leads to project success and improvement of living standards of people”

The second aspect observed in the informal settlements is tribalism. Many of the views mentioned tribalism actually negatively influences project performance, one of the respondents noted that:

“In a project, tribalism is a challenge, whereby people of the same tribe are given the opportunities due to tribal lineage. This may at times lead to project failures”

The CBOs at the community level and government agencies have failed on public transportation thus it is not convenient for PLWD due to distance and locations. The third aspect was about the staff involved in projects. A number of the respondents noted that several staffs involved in the projects are either unqualified or not very skilled. This was noted to affect performance of the projects. Some of the views were:

“Some projects have few and unqualified staffing which lead to project unsustainability” “They should emphasize on hiring skilled staff members to enhance project performance”

Finally, the other pertinent issue was monitoring of the projects. From the responses, it was observed that monitoring and evaluation of the projects was key in boosting performance of the projects. One of the view was: *“There is poor monitoring of project progress and collaborations between existing biosocial projects”*

5. Conclusion and Recommendations

This section discusses the summary of the findings based on the objective and hypothesis that was being tested. The findings are mainly based on the F statistic which helps to determine if there is a significant relationship between the response variable and the predictive variable. The F statistic was judged based on the p-value. In the event the p value was less than 0.05, it was an implication that the F statistic was statistically significant a further implication that the independent variable statistically explained the dependent variable.

The objective of the study was to ascertain the extent to which political environment moderates the relationship between legal frameworks and performance of biosocial projects in informal settlements in Nairobi County, Kenya. The null hypothesis tested was; the relationship between legal frameworks and performance of biosocial projects in informal settlements in Nairobi County is not moderated by political environment. The analysis was done in two steps, the first step was regressing legal framework and performance alone then in the second step running a multiple regression by introducing the moderating factor political environment. The results from the first step were $F = 15.207$, $p = 0.000 < 0.05$, $r = 0.382$, $Adjusted R^2 = 0.136$. On introduction of political environment to the model, there were various changes, particularly, the correlation coefficient, increased from 0.382 to 0.390, the Adjusted R^2 decreased from 0.136 to 0.128, which was a decline of 0.08%. However small the magnitude was, it still implied that political environment moderated the influence of legal framework on performance of projects. The decline in the F statistic as well affirmed the moderating effect; particularly political environment reduced the effect of legal framework on performance of biosocial projects in informal settlements in Nairobi County leading to acceptance of null hypotheses.

Table 14 below present summary of tests of Hypotheses and results

Table 14. Summary of tests of hypotheses and results

Research Objective	Hypotheses	Results	Table	Remarks
To ascertain the extent to which political environment moderate relationship between legal frameworks and performance of biosocial projects in informal settlements in Nairobi County, Kenya.	Ho: The relationship between legal frameworks and performance of biosocial projects in informal settlements in Nairobi County is not moderated by political environment.	<p>Step 1:</p> <p>$F = 15.207$</p> <p>$p = 0.000 < 0.05$</p> <p>$r = 0.382$</p> <p>$Adjusted R^2 = 0.136$</p> <p>Step 2:</p> <p>$F = 6.263$</p> <p>$p = 0.000 < 0.05$</p> <p>$r = 0.390$</p> <p>$Adjusted R^2 = 0.128$</p>	Table 12 and Table 13	<p>Accept the null hypotheses.</p> <p>R^2 decreased from 0.136 to 0.128 and F statistics reduced from 15.207 to 6.263 the effect of relationship of legal frameworks on performance of biosocial projects</p>

The objective of this study was concerned with the moderating effect of political environment on legal frameworks and performance of projects. The results showed that political environment moderated the influence of legal framework on performance of biosocial projects in informal settlements. Particularly, political environment reduced the influence of legal framework to performance of biosocial projects in the informal settlements in Nairobi leading to acceptance of null hypotheses.

The study also points out that there is a need for accountability of people in higher positions on service delivery. Particularly having leaders or project managers who are transparent during implementation of biosocial projects. This will have an effect on increase of job opportunities to people living with disabilities. In order to sustain it a need to increase in numbers of centers that care for people living with disabilities is also recommended and in addition terms of business opportunities and representation given to people with disabilities should be fair, equal and without bias.

The study recommends further exploration on legal frameworks as a moderating variable on the influence of political environment on performance of biosocial projects in formal settlements as opposed to informal settlements in the current scholarly work.

References

- Alan, B. (2001). *Social Research Methods*. Oxford University Press.
- Balderstone, S. J., & Mabin, V. J. (1998). A Review of Goldratt's Theory of Constraints (TOC) – Lessons from the international literature. *Proceedings of the 33th Annual Conference of the Operations Research Society of New Zealand*.
- Baron, R. M., & Kenny, D. A. (1999). The moderator-mediator variable distinction in social psychology research: conceptual, strategic and statistical considerations. *Journal of personality and social psychology*, *51*, 1173-1182. <https://doi.org/10.1037/0022-3514.51.6.1173>
- Corder, G. W., & Foreman, D. I. (2009). *Nonparametric Statistics for Non-Statisticians: A Step-by-Step Approach*. Wiley. <https://doi.org/10.1002/9781118165881>
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating Quantitative and qualitative research*. Upper Saddle River, NJ: Prentice Hall.
- Goetz, A. M., & Jenkins, R. (2002). 'Voice, Accountability and Human Development: The Emergence of a New Agenda', Background Paper for the Human Development Report 2002: Deepening Democracy, UNDP, New York.
- Goldratt, E. M. (1997). *Critical Chain*. Great Barrington, MA: The North River Press.
- Gupta, M. C., & Boyd, L. H. (2008). Theory of constraints: a theory for operations management. *International Journal of Operations & Production Management*, *28*(10), 991–1012. <https://doi.org/10.1108/01443570810903122>
- Hunter, B., MacLean, S., & Berends, L. (2011). Using Realist Synthesis to develop an evidence base from an identified data set on enablers and barriers for alcohol and drug program Performance. *Qualitative Review*.
- Kacmar, M. K., & Gerald, R. F. (1991). Perceptions of organizational politics Scale (POPS): Development and construct validation. *Educational and Psychological Measurement*, *51*(1), 193-205. <https://doi.org/10.1177/0013164491511019>
- Kenya National Human Right. (2014). Commission report.
- Kenya National Survey for Persons with Disabilities. (2008). Preliminary report.
- Kidombo, G., & Keiyoro. (2013). *Fundamentals of Management: Theories, concepts and Practices*. Kenya Aura Publishers.
- Koskela, L., & Howell, G. A. (2002). *The theory of project management – Problem and opportunity*. Working paper. VTT Technical Research Centre of Finland & Lean Construction Institute.
- Lantz, B. (2013). Equidistance of Likert-Type Scales and Validation of Inferential Methods Using Experiments and Simulations. *The Electronic Journal of Business Research Methods*, *11*(1), 16-28.
- Mabin, V. J., & Balderstone, S. J. (2003). The performance of the theory of constraints methodology: Analysis and discussion of successful TOC applications. *International Journal of Operations & Production Management*, *23*(6), 568–595. <https://doi.org/10.1108/01443570310476636>
- Moriya, N. (2008). *Noise-Related Multivariate Optimal Joint-Analysis in Longitudinal Stochastic Processes in*

Progress in applied mathematical modeling" In Fengshan Yang. Progress in 224 Applied Mathematical Modeling. Nova Science Publishers, Inc. pp. 223–260.

Nairobi Cross-sectional Slums Survey (NCSS). (2012). Population and Health Dynamics in Nairobi's Informal Settlements, Nairobi, Kenya.

Nyonje, K., & Mulwa. (2012). *Monitoring and Evaluation of Development projects and programmes*. Kenya Aura Publishers.

Peterson, S. A. (1990). *Political behavior*. Newbury Park, CA: Sage.

Pittman, P. H. (1994). *Project management: A more effective methodology for the planning and control of projects*. Unpublished PhD Dissertation. Athens, GA: University of Georgia at Athens.

UNDP. (2017). Annual report.

Vigoda-Gadot, E. (2003). Developments in organizational politics: *How political Dynamics affect employee performance in modern work sites*. Cheltenham, UK: Edward.

WHO/World Bank. (2011). *World Report on Disability*. Geneva: WHO. Retrieved March 9, 2014, from http://www.who.int/disabilities/world_report/2011/en/

World Bank. (2003). *Adolescents and Youth with Disability: Issues and Challenges. International Policy and Program Review with Recommendations*. Washington, DC: World Bank. Retrieved March, 2014, from [http://siteresources.worldbank.org/EXTLACREGTOPHIVAIDS/Resources/Adolescents and Disability Final.pdf](http://siteresources.worldbank.org/EXTLACREGTOPHIVAIDS/Resources/Adolescents_and_Disability_Final.pdf)

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

Author Profile



Ngacha Njeri is a PhD candidate at the University of Nairobi, Pursuing Project Planning and Management. By profession he is a Monitoring and Evaluation Specialist focusing on project implementation tracking indicators and has vast experience on qualitative research, Grant and Proposal writing skills.

Email: snnjeri@gmail.com