



**EFFECTS OF PUBLIC PRIVATE PARTNERSHIPS FRAMEWORKS ON PERFORMANCE OF PUBLIC PRIVATE PARTNERSHIP ROAD PROJECTS IN KENYA**

**Pedo, M. O.,<sup>1</sup> Kabare, K.,<sup>2</sup> & Makori, M.<sup>3</sup>**

**EFFECTS OF PUBLIC PRIVATE PARTNERSHIPS FRAMEWORKS ON PERFORMANCE OF PUBLIC PRIVATE PARTNERSHIP ROAD PROJECTS IN KENYA**

**Pedo, M. O.,<sup>1</sup> Kabare, K.,<sup>2</sup> & Makori, M.<sup>3</sup>**

<sup>1</sup>PhD Scholar, Jomo Kenyatta University of Agriculture and Technology, Kenya

<sup>2</sup>PhD, Lecturer, Jomo Kenyatta University of Agriculture and Technology, Kenya

<sup>3</sup>PhD, Lecturer, Jomo Kenyatta University of Agriculture and Technology, Kenya

**Accepted: January 4, 2017**

**ABSTRACT**

*This study sought to examine the effect of public-private partnerships frameworks on the performance of Public Private Partnership Road Projects in Kenya. Specifically, the study examined the effect of capital markets framework, stakeholder management framework and Government Policy on the performance of Public Private Partnership Road Projects in Kenya. The study used both exploratory and descriptive research designs to study the problem. The population of the study was One Hundred and eleven organizations involved in the road sector PPPs either as regulators, project implementers, financiers or as interest groups involved in PPP Project process. The study was a census of the entire population since the population was not homogenous in character. A self-administered, semi-structured questionnaire was used to collect the data. Data was analyzed and descriptive statistics presented, from which inferences were made as well as the conclusion and recommendation. The collected data was analyzed using descriptive and inferential statistics. Descriptive statistics included the mean, median, standard deviation and frequency distribution while inferential statistics involved use of correlations and regression analysis. The study established that from the regression model the Capital Markets Framework and Stakeholder Management Framework had a significant and positive influence on the Performance of public private partnerships in road projects in Kenya. Further, the government policy had a moderating influence on the relationship between PPPs framework and performance of public private partnerships in road projects in Kenya. The study recommended that impact of reforms on PPP program to improve liquidity and deepening of the capital markets, which would be an enabler in the PPP rollout program. It is important that the Government formulates a proper procedure of investor selection and market sounding which is transparent, fair and competitive. The government should consider capacity building the public and private partnership unit to enable it become an excellent service delivery unit. This would enable the government develop excellent and more robust policies that meet the necessities of PPP projects.*

**Keywords:** *Capital Markets Framework, Stakeholder Management Framework, Performance of public private partnerships in road projects*

## Statement of the Problem

Earlier attempts by the Government to initiate PPPs in the road sector in Kenya failed due to lack of proper project frameworks on the concessionaire of Mtwapa and Nyali Bridge, proposed Nairobi Urban Toll Road Project and the concessionaire of the Kenya Railways Corporations (GoK; PPP Policy, 2011). The current Road Tolling Policy, which was approved by the Cabinet, targets users of Mombasa to Nairobi, Nairobi to Mau Summit (Nakuru), Thika Superhighway, the Likoni-Nyali Bridge and the Southern bypass (PPPU, 2016). Motorists driving from Mombasa to Nakuru, a distance of 641 kilometres are expected to pay approximately KSh. 3,200 (USD. 31). There has been uproar from members of the public, who were concerned that the charges will raise the cost of transport through double taxation. Street tolling raises profound human rights, value and decency issues. It has been effectively contended in numerous locales that presenting tolls on real streets without giving suitable sans toll choices adds up to a rupture of nationals' entitlement to free development while charging tolls on specific streets and leaving others free adds up to separation of subjects construct simply in light of where they live. The extra tax collection adds up to an additional weight on nationals who have assimilated other real increments in demands in the past as the administration hopes to subsidize its multi-trillion shilling yearly spending plans (Akinpelu, 2017). The success of PPP road projects in Kenya is threatened by a number of issues such as road enforcement of the toll management legal framework in the National Transport and Safety Authority Regulations (2012); public financial management framework on accounting standards for PPPs (OECD, 2012; GoK, 2016, Delmon, 2015), land rights and acquisition, lack of road alternatives in the regulation (PPP Act, 2013), ways of project cost/tariff recovery, user payment modalities, county/devolved Government

role in the implementation of the PPPs projects and stakeholder engagement at whole project life cycle. For the 2<sup>nd</sup> time, lack of proper PPP frameworks could slow if not fail the performance of the PPP road projects due to the fact that they are new activities and begin at the development stage where the significant dangers are delays in fruition and the beginning of venture money streams; cost overwhelms with an expansion in the capital expected to finish development; and the bankruptcy or absence of experience of contractual workers or key providers. Development expenses may surpass gauges for some, reasons, including mistaken building and outline, heightening in material and work costs, and postponements in venture start-up. Cost overwhelms regularly are taken care of through a settled cost and settled term contract, with motivations for fruition and for meeting pre-determined venture objectives. Different difficulties incorporate arrangement for extra value mixtures by the support or standby understandings for extra obligation financing, stakeholder resistance and reluctance to accept the services offered by the PPP road projects (Estache et al, 2007).

PPP Projects can “fail” at different places in the project life-cycle, and for different reasons, Akinpelu, (2017). The public sector's strategy for remedying failure must be designed to reflect the unique circumstances of the project and the success of PPP road projects in Kenya would only be accomplished through processes, using project management knowledge, skills, tools and techniques that receive input and generate outputs (PMI, 2004). This study aimed to address how PPP Frameworks can help Road Projects deliver better to achieve real efficiency gains to enable the partnership grow and succeed. A study carried out by PwC (2014) on capital projects and infrastructure in East, Southern and West Africa indicated that the most prominent risk faced in the development of infrastructure in East Africa is completion on time

and within budget. In addition, other significant challenges include the impact of political risk and government interference on project completion and the inhibiting regulatory and policy framework. This therefore leads to the following questions: how can current infrastructure output, reliability, costs and revenues be optimized? How should programmes and projects be prioritized and sequenced to create the greatest impact on economic growth, social uplifting and sustainability? How can project governance, oversight and control be improved to ensure projects are delivered on time and within quality and budget?

### **Objectives of the Study**

The purpose of the study was to examine the effect of public-private partnerships frameworks on the performance of PPPs Road Projects in Kenya. The specific objectives of the study were as follows:

- To examine the effect of capital markets framework on the performance of Public Private Partnership Road Projects in Kenya.
- To examine the effect of stakeholder management framework on the performance of Public Private Partnership Road Projects in Kenya..
- To determine how government policy moderates the relationship between PPPs framework and performance of Public- Private Partnerships Road Projects in Kenya.

### **Research Hypotheses:**

The study was guided by the following research hypotheses:

**H<sub>a1</sub>:** There is a significant relationship between capital markets framework and performance of Public Private Partnerships Road Projects in Kenya.

**H<sub>a2</sub>:** There is a significant relationship between stakeholder management framework and performance of Public Private Partnerships Road Projects in Kenya.

**H<sub>a3</sub>:** Government Policy does moderates relationship between PPPs framework and performance of Public- Private Partnerships Road Projects in Kenya.

## **LITERATURE REVIEW**

### **Theoretical Framework**

The 1<sup>st</sup> Capital Markets Theory guiding this study is the Agency theory, additionally alluded to as the key specialist show, is especially applicable to the investigation of PPPs. PPP researchers frequently utilize this hypothesis as a state of correlation while recognizing genuine or synergistic associations from other organization like courses of action (Irfan, 2015). Organization hypothesis typically portrays a contracting connection between at least two gatherings whereby one gathering (the key) contracts with at least one gatherings (the operator/s) for reasons of cost and skill. A foremost enters a between hierarchical plan with an operator when it does not have the aptitude or assets required to deliver a decent or administration inside its own particular authoritative area in their systems, PPP researchers typically allude to the general population performing artists as principals and private gatherings as specialists (Klijn et al, 2011). Organization hypothesis depends on two suspicions: objective clash between the key and the operator because of the utility augmenting conduct of each gathering, and data asymmetry bringing about entrepreneurial conduct.

Because of the previously mentioned suspicions, the important may utilize impetuses, authorizes, and force revealing prerequisites on the operators in order to guarantee objective arrangement between the two gatherings. It is trusted that principals are less inclined to encounter operator advantage and objective dissimilarity when they give clear motivators, for example, contract reestablishment and solidness, caution and adaptability in program usage, reputational upgrade, and cautious observing through a heap of

formal and casual systems. Office hypothesis predicts an awry adjust of association in which an important enters a between hierarchical course of action to seek after the thought processes of effectiveness. The hypothesis does not obviously clarify the thought processes of specialists going into these game plans. One explanation behind this is the investigation and utilization of organization hypothesis is for the most part done from the essential's point of view. This theory will guide in the evaluation of stakeholder influence and capacity of project management team to form rent seeking behavior and hence the principal which is the government may find the rationale of formulating a regulatory framework to check the possibility of rent seeking. The 2<sup>nd</sup> capital markets theory guiding the study is the exchange theory, by and large alludes to a trade between associations in light of intentions of correspondence whereby the procedure of linkage arrangement commonly will be described by adjust, concordance, value, and shared help, instead of by intimidation, struggle, and control. Notwithstanding, this does not really imply that the trading of assets is constantly equivalent and corresponding. Outright balance in this sense would be to a great degree hard to achieve and is not looked for. Rather symmetry implies similar as opposed to a flat out fairness in the trading of assets. One normal purpose behind the development of PPPs that fits the precepts of trade hypothesis is that associations enter such game plans to seek after normal or commonly gainful objectives or interests. Despite the fact that the idea of asset shortage supports both asset reliance and trade hypotheses, it is probably going to prompt participation rather than rivalry in the perspective of the last mentioned. This theory will help the current study to evaluate how different stakeholders evaluate the capital market and make choices to invests or not to invest in the PPP projects. The stakeholder theory guiding the study is Behavioral School. The key researcher under this

class is Elton Mayo. The birthplace of behavioralism is the human relations development that was an aftereffect of the Hawthorne Works Experiment completed at the Western Electric Company, in the United States of America that began in the mid 1920s Elton Mayo and his partners' examinations refuted Taylor's convictions that science managed that the most elevated efficiency was found in 'the one most ideal way' and that way could be gotten by controlled investigation (Halvorson, 2012). The Hawthorne thinks about endeavored to decide the impacts of lighting on specialist efficiency. At the point when these examinations demonstrated no reasonable relationship between light level and efficiency the tests at that point began taking a gander at different variables. These components that were considered when Mayo was working with a gathering of ladies included rest breaks, no rest breaks, no free suppers, more hours in the work-day/work-week or less hours in the workday/work-week (Halvorson, 2002). With each of these progressions, efficiency went up. At the point when the ladies were returned to their unique hours and conditions, they set a profitability record. These analyses demonstrated five things, as expressed by (Denhardt, 2008). To begin with, work fulfillment and subsequently execution is essentially not monetary – depends more on working conditions and states of mind - correspondences, positive administration reaction and consolation, working condition. Second, it rejected Taylorism and its accentuation on worker self-intrigue and the guaranteed superseding motivator of money related prizes. Third, extensive scale tests including more than 20,000 representatives indicated exceptionally positive reactions to, for instance, upgrades in workplaces (e.g., enhanced lighting, new welfare/rest offices), and articulations of thanks and support instead of pressure from administrators and managers. Fourth, the impact of the associate gathering is high – subsequently, the significance of casual gatherings inside the work

environment. At last, it condemned 'riffraff theories' that society is a swarm of chaotic people (acting) in a way ascertained to secure his or her self-conservation or self-intrigue (Dogan, 2011).

These outcomes demonstrated that the gathering elements and social cosmetics of an association were a critical power either for or against higher profitability. This result caused the call for more noteworthy interest for the specialists, more prominent trust and receptiveness in the workplace and a more prominent thoughtfulness regarding groups and gatherings in the work put (James, 2006). At last, while Taylor's effects were the foundation of the modern building, quality control and faculty offices, the human relations development's most prominent effect came in what the association's initiative and staff office were doing. The apparently new ideas of "amass progression", "cooperation", and authoritative "social frameworks", all come from Mayo's work in the mid-1920s (Ezeani, 2006).

### Conceptual Framework

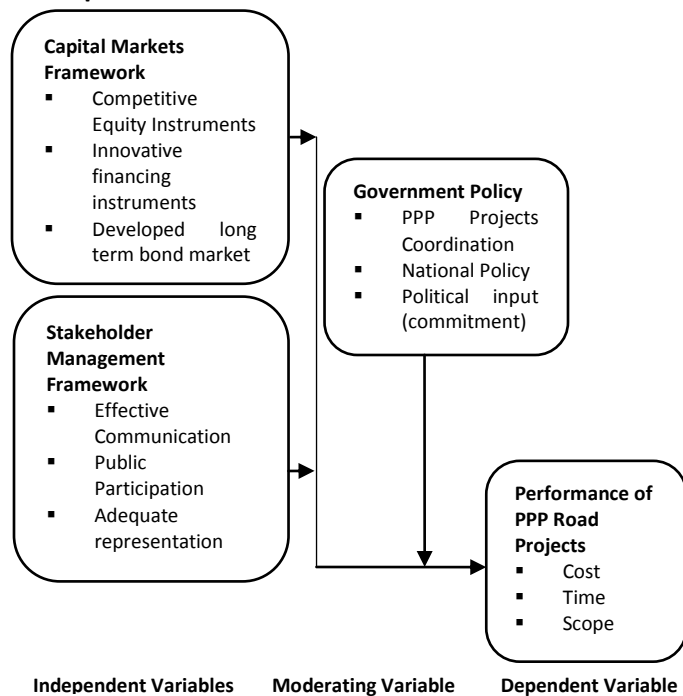


Figure 1: Conceptual Framework

## RESEARCH METHODOLOGY

According to the study objectives and as illustrated under conceptual framework, the study adopted both descriptive and explanatory research design. The population of the study was one hundred and eleven (111) organizations involved in the road sector PPPs as at 1<sup>st</sup> January, 2017 either as regulators, project implementers, financiers or as interest groups involved in PPP Project process (PPPU, 2015). The target group was CEOs, Senior Officers and Middle Level Managers of these organizations.

## RESULTS AND DISCUSSIONS

### Descriptive Analysis

#### Capital Market Framework

The study sought to establish the extent of influence of Capital Market Framework on performance of road projects done through public-private partnerships. The Table 1 showed that the descriptive statistics describing the data in details. The findings of the study showed that a majority of the respondents strongly agreed with the statement that most developed long term bond market may affect performance of PPP Road projects as shown by a mean score of 4.51 and that the public debt market for /national debt issues had been formalized in Kenya as shown by a mean score of 4.68. In addition, a majority of the respondents also agreed with the statement that the debt market was trading in the same platform as the national stock exchange as shown by a mean score of 4.34 and that there was a well-developed public capital market in the country that could enable the government to issue debt securities to finance infrastructure needs as shown by a mean score of 4.21. Further, many of the respondents indicated that they agreed with the statement that issuances of debt by public and private entities were considered important asset classes for investment (savings repository) purposes by investors in Kenya as shown by a mean score of 4.16 and that the

formalized public debt market had been extended to issuances by non-government entities (i.e., companies/corporations and other private issuers as shown by a mean score of 3.76. This could be inferred that capital markets affected PPPs road projects in Kenya. The study findings were in agreement the findings by Klein (2012) who found out that absence of sufficient market structure debilitates financial productivity and counteracts showcase section by private players. To choose about part change arrangement choices in a savvy form, and in light of the neighborhood conditions, approach creators needed to comprehend the engineering choices for foundation strategies and the different building pieces and how they could fit together. Gets to Long-Term Finance PPPs required long haul back, however residential subsidizing was regularly compelled. For instance, Africa's foundation needs were identical to add up to government incomes. Access to nearby capital markets could help relieve the outside trade dangers for PPP, contingent upon trade streams

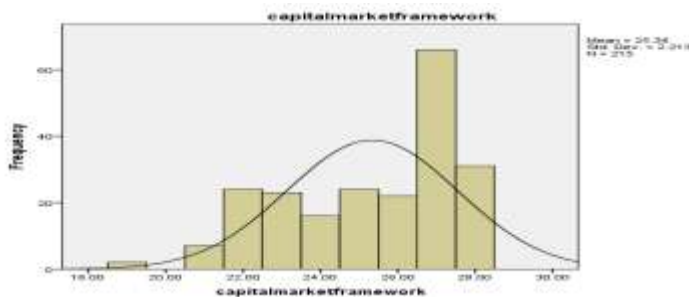
designated out neighborhood monetary standards, for instance, water or power utilities (World Bank, 2012). Further, the results were in agreement with those of Regan, Smith and Love, (2010), who argued that the fall of capital markets could have an effect of the subsidizing courses of action for financial, social foundation (streets) and influences the plausibility of secretly financed framework and particularly people in general private organization strategy for acquisition ventures since they assumed a basic part in subsidizing PPPs, influencing the present economic situations and PPP practicality. They additionally hypothesized that PPPs were profoundly subject to capital markets for some, administrations including: raising value capital through IPOs, obligation fund, budgetary hazard administration, intermediation, credit protection, and related administrations. Hence, unpredictability in the capital market could restrict the accessibility of value, obligation capital and a higher cost of capital.

**Table 1: Descriptive Analysis on Capital Market Framework and Performance**

	N	Mean	Std. Deviation
There is a well-developed public capital market in the country that can enable the government to issue debt securities to finance infrastructure needs	215	4.21	.625
Developed long term bond market affect performance of PPP Road projects	215	4.51	.588
The public debt market for /national debt issues has been formalized in Kenya	215	4.68	.628
The formalized public debt market has been extended to issuances by non-government entities (i.e., companies/corporations and other private issuers)?	215	3.76	1.277
Issuances of debt by public and private entities are considered important asset classes for investment (savings repository) purposes by investors in Kenya?	215	4.16	.639
The debt market is trading in the same	215	4.34	.636

platform as the national stock exchange

The variable Capital Market Framework data file contained several rows for representing aspect of the same variable. Using SPSS the data was summarized into a single line by averaging the aggregate sum of the values of the aspects that represented Capital Market Framework. The findings from the study also showed that the responses from participants of the study were skewed to the left. The responses being negatively skewed implied that most of the respondents strongly agreed, agreed or slightly agreed with the questions they were asked about how Capital Market Framework on performance of road projects done through public-private partnerships. If we drew a normality graph to show symmetry then the bulk of the data would be concentrated to the right of the graph and the left tail would be longer as shown by figure 2 below.



**Figure 2: Distribution of Capital Market Framework Data**

### Stakeholder Management Framework

The study sought to establish the extent of influence of Stakeholder Management Framework on performance of road projects done through public-private partnerships. The table below showed that the descriptive statistics describing the data in details. The findings of the study showed that a majority of the respondents agreed with the statements that appropriate stakeholder engagement should be fostered in project activities throughout the project life cycle as shown by a

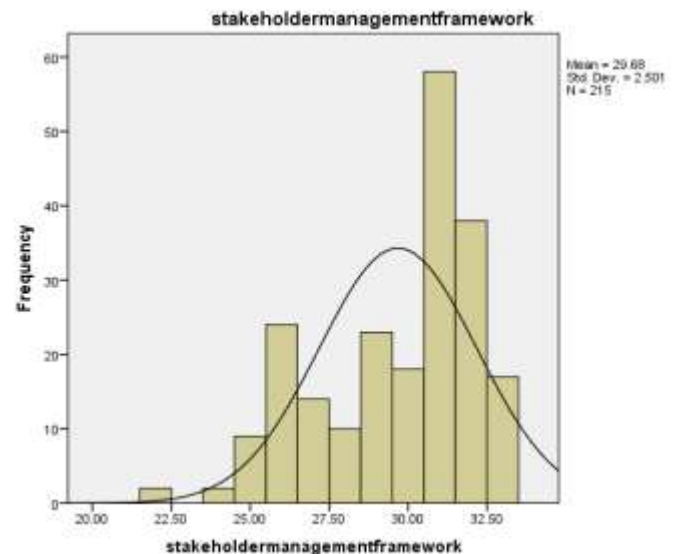
mean score of 4.48, that the ability to understand and manage the roles and requirements of various stakeholders was a critical task for project managers as shown by a mean score of 4.41 and that communication was a critically important component of project management as shown by a mean score of 4.34. In addition, majority of the respondents agreed with the statements that most PPPs had stakeholders who were impacted or could impact the project in a positive or negative way as shown by a mean score of 4.30, that PPP projects experienced many conflicts setting project objectives as shown by a mean score of 4.27 and that project communication was an informative tool which communicated to all relative groups what was happening in the project as shown by a mean score of 3.76. The study findings implied that stakeholder management framework enhanced performance of public private partnerships road projects in Kenya. Brady, Davies & Gann, (2013), results were in concurrence with the findings from the study. They determined that PPPs needed to both to consider and satisfy a variety of stakeholders by having the ability to understand and manage the roles and requirements of various stakeholders, as it was a critical task for project managers. They argued that effective communication was the best tool because it was an informative tool, which communicated to all relative groups what was happening in the project and could be used as an orientation mechanism to since success of the activities relied strongly on communication. Hoering, (2013), were in agreement with the study findings since he established that the framework of management did not incorporate the input of all the stakeholders then the success of the PPPs would be in jeopardy.



**Table 2: Descriptive Analysis on Stakeholder Management Framework and Performance**

	N	Mean	Std. Deviation
PPP projects experience many conflicts setting project objectives	215	4.27	.655
The ability to understand and manage the roles and requirements of various stakeholders is a critical task for project managers	215	4.41	.588
Communication is a critically important component of project management	215	4.34	.581
Project communication is an informative tool, which communicates to all relative groups what is happening in the project	215	3.76	1.277
Every Project has stakeholders who are impacted or can impact the project in a positive or negative way	215	4.30	.659
Appropriate stakeholder engagement should be fostered in project activities throughout the project life cycle	215	4.48	.562

The variable Stakeholder Management Framework data file contained several rows for representing aspect of the same variable. Using SPSS the data was summarized into a single line by averaging the aggregate sum of the values of the aspects that represented Stakeholder Management Framework. The findings from the study also showed that the responses from participants of the study were skewed to the left. The responses being negatively skewed implied that most of the respondents strongly agreed, agreed or slightly agreed with the questions they were asked about how Stakeholder Management Framework influences performance of road projects done through public-private partnerships. If we drew a normality graph to show symmetry then the bulk of the data would be concentrated to the right of the graph and the left tail would be longer as shown by figure 3 below.



**Figure 3: Distribution of Stakeholder Management Framework Data**

**Government Policy**

Government policy is a variable that impacts the relationship between the independent and dependent variable and they can alter the results of the research. The study therefore sought to

determine the effect that the Government policy had on the performance of PPP road projects. A majority of the respondents indicated that PPP road projects had been delayed by political factors due to infighting and interests by political leaders and in some cases ending in courts of law. Some also indicated that government policies, practices and procedures in the PPP road projects promoted positive engagement of the client in projects administration. The study further sought to determine how private finance initiative affected performance of PPP road projects. A majority of the respondents indicated that the private sector offered a complete service and had the potential for increased integration within the project value chain. Other respondents indicated that private finance initiative provided realistic, challenging but achievable availability and performance standards for the PPP road projects. Some respondents argued that private finance initiative reduced the net cost of financing the PPP road projects by evolving institutional structures to reduce the cost of financial functions by pooling resources, managing risk and transferring resources through time and space.

The study also sought to determine the extent to which Government policy affected performance of PPP road projects. The response was rated on a scale of 1-5 on which: 1= to a very low extent, 2= to a low extent, 3= to a moderate extent, 4= to a great extent and 5= to a very great extent. The responses were as shown in the table below: The findings of the study showed that 32.1% of the respondents indicated that Government policy affected

performance of road projects to very great extent while 56.7% of the respondents indicated that Government policy affected performance of PPP road projects to great extent. 11.2% of the respondents indicated that Government policy affected performance of PPP road projects to a moderate extent. In addition, none of the respondents indicated that Government policy affected performance of PPP road projects to a low extent and to no extent at all respectively. The study findings could be inferred that government policy affected performance of PPP road projects. The study findings were in agreement with literature review by Bovaird (2014) asserts that the government needed to form and develop an appropriate policy regarding partnerships. In this case, the government could harmonize the PPP policy with other policies, which could make larger contributions to good governance of the PPPs projects. Haque (2014) points out that it was necessary to identify an overall development vision in a country and determine how PPPs fit in the vision. Strategic vision regarding PPPs might be particularly useful in transitional countries, as it specified the policy direction, the government expectations and the PPP governance strategy that the government intended to employ. The PPP governance strategy may included guidelines and regulations regarding formal governance contracts. Additionally, the government may develop its vision of relational governance in PPPs, for example, how parties should resolve disputes to enhance performance of the PPPs projects.

**Table 3: Descriptive Analysis on Government Policy and Performance of PPPs**

Scale	Frequency	Percentage
To a very Low Extent	0	0.0%
To a Low Extent	0	0.0%
To a moderate Extent	24	11.2%
To a great Extent	122	56.7%
To a very great Extent	69	32.1%

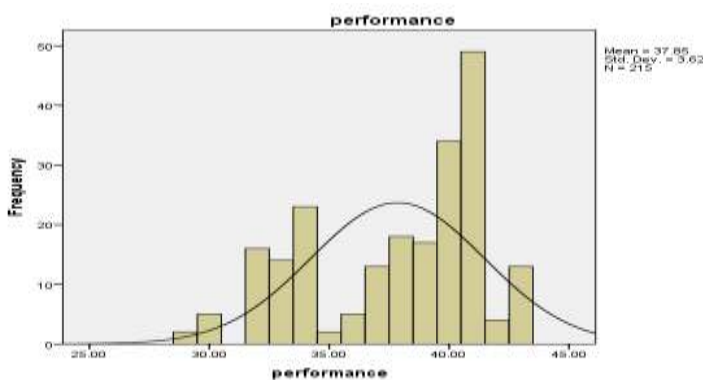
Total	215	100.0
<b>Performance of PPP Road Projects</b>		
The study sought to establish the extent of agreement by the respondents on statements about performance of PPP road projects. Table below showed the descriptive statistics describing the data in details. The results from the study indicated that a majority of the respondents indicated that they strongly agreed with the statement that PPP road projects in Kenya enhanced innovation in roads construction thus allowing for improvement in the public facilities as shown by a mean score of 4.73, that PPP road projects in Kenya had enhanced service delivery as shown by a mean score of 4.61 and that PPP road projects in Kenya had allowed road projects in Kenya to run within budget and schedule as shown by a mean score of 4.56. In addition, a majority of the respondents indicated that they agreed with the statement that PPP road projects in Kenya offered superior quality as it was able to tap private sectors technical, management and financial resources as shown by a mean score of	4.34, that road projects helped in developing local economy through reduced costs and operation efficiencies as shown by a mean score of 4.24 and that PPP road projects in Kenya offers quality thereby reducing accidents rates and enhancing transportation as shown by a mean score of 4.19. Further, it was established that a majority of respondents indicated that they agreed with the statements that recent PPP road projects in Kenya are a true reflection of value for money as shown by a mean score of 4.24, that road projects in Kenya had also enhanced infrastructure development as shown by a mean score of 3.76. Moreover, a good number of the participants in the study were also in agreement with the statements that PPP road projects offered ways to achieve certain public agency objectives with greater cost and within scheduled certainty by incorporating the private sector's knowledge, expertise and capital as shown by a mean score of 3.76.	

**Table 4: Descriptive Analysis of Performance of PPPs Road Projects**

	N	Mean	Std. Deviation
Road Projects' in Kenya have enhanced service delivery	215	4.41	.588
Road Projects' are a true reflection of value for money	215	4.34	.581
Road Projects' in Kenya have enhanced infrastructure development	215	3.76	1.277
Road Projects in Kenya have allowed road projects in Kenya to run within budget and schedule	215	4.21	.625
Road Projects in Kenya enhances innovation in roads construction thus allowing for improvement in the public facilities	215	4.41	.588
Road Projects in Kenya offers superior quality as it is able to tap private sectors technical, management and financial resources	215	4.34	.581

Road Projects offers ways to achieve certain public agency objectives with greater cost and within scheduled certainty by incorporating the private sector's knowledge, expertise and capital	215	3.76	1.277
Road Projects helps in developing local economy through reduced costs and operation efficiencies	215	4.21	.625
Road Projects in Kenya offers quality thereby reducing accidents rates and enhancing transportation	215	4.41	.588

The variable performance data file contained several rows for representing aspect of the same variable. Using SPSS, the data was summarized into a single line by averaging the aggregate sum of the values of the aspects that represented organizational effectiveness. The findings from the study also show that the responses from participants of the study were skewed to the left. The responses being negatively skewed implied that most of the respondents strongly agreed, agreed or were neutral with the questions they were asked about how performance had been influenced by various aspects of PPPs. If we drew a normality graph to show symmetry, then the bulk of the data would be concentrated to the right of the graph and the left tail would be longer as shown by figure 4 below.



**Figure 4: Distribution of Performance Data**

The study sought to establish from the respondents the difference in the performance of PPP road

projects in the traditional form and the use of the PPPs for the last one year. The purpose of the study was to come out with the best performance model to be adopted to enhance performance of PPP road projects in Kenya. The indicators used to measure performance of PPP road projects were on a continuous scale in terms of completion of projects within budget (cost) that is reduction of cost overruns; completion of the PPP road projects within time that is reduction of time overruns and completion of the projects within scope that was the percentage of the specified tasks completed in the last one year (2016).

On the traditional form, the performance measures were analyzed with the mode as the measures of central tendency. The results were presented in Table 5. The first indicator for the dependent variable required to know the performance of PPP road projects in terms of reduction of cost overruns, 35% of the respondents indicated less than 1%, 25% posited 1%-10%, 15% stated 11%-30%, 15% indicated 31%-40% , 15% indicated over 40% The mode was found to be 1 which implied that on average the reduction of cost overruns in PPP road projects in the traditional form was less than 1%. The next indicator required the respondents to state level of performance of road projects in terms of reduction of time overruns. The study results showed that 45% of the respondents indicated less than 1%, 25% had 1%- 10%, 10% stated 11% - 30%, 0% indicated 31%-40% and 20% indicated over 40%.

The mode was found to be 1 which implied that on average performance of PPP road projects in the traditional form in terms of reduction of time overruns was less than 1%.

When the respondents were asked what the level of performance of road projects in terms of percentage of tasks completed, 55% of the respondents stated less than 1%, 15% of the respondents stated between 1%-10%, 20% stated 11%-30%, 0% indicated 31%-40% , 0% posited over 40%. The mode was found to be 1 which imply that on average the level of performance of road projects in the traditional form in terms of completion of specified tasks was less than 1%. This implies that performance of the PPP road projects

**Table 5: Performance Road Projects (Traditional Form)**

	<1%	1%- 10%	11%- 30%	31%- 40%	Above 40%	Modal Class
Reduction of cost overruns	35%	25%	15%	15%	10%	1
Percentage of tasks completed	45%	25%	10%	0%	20%	1
Reduction of time overruns	55%	15%	20%	10%	10%	1

On the PPPs model form, the performance measures were analyzed with the mode as the measures of central tendency. The results were presented in Table 5. The first indicator for the dependent variable required to know the performance of PPP road projects in terms of reduction of cost overruns, 5% of the respondents indicated less than 1%, 5% posited 1%-10%, 10% stated 11%-30% , 35% indicated 31%-40% , 45% indicated over 40% The mode was found to be 5 which implied that on average the reduction of cost overruns in road projects in the PPPs model form was over 40%. The next indicator required the respondents to state level of performance of road projects in terms of reduction of time overruns. The study results showed that 5% of the respondents indicated less than 1%, 5% had 1%- 10%, 20% stated 11% - 30%, 20% indicated 31%-40% and 50% indicated over 40%. The mode was found to be 5, which implied that on average performance of road

in Kenya was poor in the traditional form in terms of scope, cost and time. This was attributed to the poor implementation PPPs framework to enhance performance of PPPs in road projects (WB, 2015). The study findings were in agreement with the findings by Marenjak et al., (2008) who established that traditional form of procurement of Road Construction projects specification of asset requirements were defined by the Client who mainly lacked expert knowledge to express the needs, and usually covered separated project functions – design, construction and operation. With lack of this synergy, project outcomes often did not reach expected performance in terms of reduction of cost and time overruns.

projects in the PPPs model form in terms of reduction of time overruns was over 40%.

The study sought to establish from the respondents on the level of performance of PPP road projects in terms of percentage of specified tasks completed, 1% of the respondents stated less than 1%, 2% of the respondents stated between 1%-10%, 15% stated 11%-30%, 27% indicated 31%-40%, 55% posited over 40%. The mode was found to be 5 which implied that on average the level of performance of road projects in the PPPs model form in terms of completion of specified tasks was above 40%. This implied that performance of the road projects in Kenya was better in the PPPs model form in terms of scope, cost and time. The study findings were in agreement with the findings by Marenjak et al.,(2008) stated that PPP model form had led to new practice in defining output specification for facilities that were focused on user requirements and enabled great flexibility for all

participants involved, but also enabled clients to penalize under-performance of the contractors. One of the most critical parts of PPP Contracts were technical specifications of road requirements known as the Output specification requirements which presents client needs. Output specification was the contractor satisfies roads specific requirements defined by the client during operational period of constructed road. Output specifications define what have to be achieved, not how it has to be achieved. Output Specifications were not being too ambitious but take proper account of what the clients are prepared. The World Bank (2014) developed a five level platform on PPP projects performance namely; advocacy, capacity building, sector fundamentals, enabling

environment and project development finance. Studies undertaken in 45 countries revealed that critical factors constraining growth as well as helping build a robust PPP environment were governance and regulatory failure, inadequate sector structures, long term finance and corruption. According to World Bank (2013), on average 45%, of PPP Projects achieve their objectives. The OECD (2010) developed PPP Governance principles (best practices) that comprised of political leadership, regulatory frameworks, institutional capacities, project management (including finance, affordability and risk) and stakeholder involvement to enhanced performance of PPPs in terms of reduction of cost overruns, completion of project within scope and time.

**Table 6: Performance Road Projects (PPPs Model Form)**

	<1%	1%- 10%	11%- 30%	31%- 40%	Above 40%	Modal Class
Reduction of cost overruns	5%	5%	10%	35%	45%	5
Percentage of tasks completed	5%	5%	20%	20%	50%	5
Reduction of time overruns	1%	2%	15%	27%	55%	5

**Regression Analysis**

The study carried out a regression analysis between capital markets framework and performance of public private partnerships in road projects in Kenya. The findings were presented in Table 7. This Model Summary Table presents an R<sup>2</sup> result of .193 or 19.30%, meaning that the independent variable, capital markets framework alone could explain up to 19.30% of the total variability in the dependent variable, performance of public private partnerships in road projects in Kenya. The remaining 80.70% of the variation in the dependent variable was unexplained by this one predictor model but by other factors not included in the model. The study findings showed that capital markets framework

was an important factor to boost performance of the PPPs projects in the country. The study findings were in agreement with findings by WorldBank (2012) which indicated that capital markets frameworks encouraged the development of innovative financing instruments include mezzanine financing, extension of fiscal concessions and rationalization of stamp duties within the infrastructure project financing of the PPPs projects. In order to attract public participation in the market, the capital market frameworks needed to have adequate corporate credit information, sufficient, timely and reliable information in the (bond) long term market (World Bank, 2006).

**Table 7: Model Summary of Capital Markets Framework and Performance**

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate
-------	---	----------------	-------------------------	----------------------------

1 .440<sup>a</sup> .193 .172 .2190

*a. Predictors: (Constant), Capital Markets Framework*

**ANOVA for Capital Markets Framework and Performance**

An ANOVA test was performed on the variable, capital markets framework and the results obtained were presented in Table 8. From the ANOVA Table, the model was statistically significant as the p-value was less than .05. The values of  $F(1, 213) = 61.132$ ,  $P < 0.05$ , showed that capital markets framework statistically and significant predicted the

performance of public private partnerships in road projects (i.e., the regression model was a good fit of the data) and that capital markets framework significantly influenced the performance of public private partnerships in road projects in Kenya. This meant that alternative hypothesis that capital markets framework had a statistically significant influence on performance of public private partnerships in road projects was accepted.

**Table 8: ANOVA for Capital Markets Framework and Performance**

Model		Sum of Squares	d.f	Mean Square	F	Sig.
1	Regression	229.890	1	229.890	61.132	.000
	Residual	800.980	213	3.7605		
	Total	1030.870	214			

To compliment the ANOVA findings on capital markets framework and performance of public private partnerships in road projects in Kenya presented in Table 9, Person's correlation coefficients were also generated. The results of the person's correlation were presented in Table 9. These results showed that capital markets framework contributed a statistically significant value (p-value = .000) of .389 to the regression model. The value of capital markets framework was statistically significant ( $t=6.824$ ,  $p < .05$ ). From the coefficient Table 9, capital markets framework and performance of public private partnerships in road projects in Kenya contributed a statistically

significant value (p-value = .000) of .389. Using the summary presented in Table 9, a linear regression model of the form,

$$Y = \beta_0 + \beta X_1 + \varepsilon_i \text{ can be fitted as follows:}$$

$$Y = 1.905 + 0.389 + 0.200 \dots \dots \dots \text{Equation 3}$$

The model showed that capital markets framework positively affected the performance of public private partnerships in road projects. That was an increase in mean index of capital markets framework increases the performance of public private partnerships in road projects in Kenya by a positive unit mean index value of 0.389.

**Table 9: Coefficients of Capital Markets Framework and Performance**

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	1.905	.200		9.525	.000

Capital Markets Framework and Performance	.389	.057	.187	6.824	.000
---	------	------	------	-------	------

*a. Dependent Variable: performance of public private partnerships in road projects*

The study findings implied that there was a significant correlation between capital markets framework and performance of PPPs projects. According to the World Bank (2012) report indicated that lack of capital markets framework led to inadequate advertise structure disabled financial productivity and avoided showcase passage by private players in the development of the PPPs projects in the developing countries. Accesses to Long-Term Finance PPPs required adequate capital markets frameworks for the long haul back, however household financing was frequently compelled. For instance, Africa's framework needs were proportional to add up to government incomes. Access to nearby capital markets could help moderate the remote trade dangers for PPP, contingent upon trade streams designated out neighborhood monetary standards, for instance, water or power utilities. Further, Central Bank of Kenya(2011) indicated that lack of capital market frameworks affected performance of PPPs projects since the high and volatile inflation rates limited the tenors that could be provided on fixed rate shilling loans at reasonable interest rates, given that at maturity the value of these loans was likely to have significantly decreased in real terms. As a result of these high borrowing costs and the relatively shallow financial market in Kenya, nearly all infrastructure projects had been financed by international currencies such as the US dollar (with some projects also being financed in euros). International currency financing was particularly attractive to infrastructure projects at present due to the currently low interest rates and the quantitative easing programmes that were encouraging lending in these markets (Central Bank of Kenya, 2014). According to DFID (2015), local national banks in Kenya currently had limited access

to international currency financing at rates and tenors that allowed them participate in project infrastructure deals due to capital markets frameworks. Innovative financing instruments included mezzanine financing, extension of fiscal concessions and rationalization of stamp duties within the infrastructure project financing. Evacuating loan fee tops on bonds could urge remote financial specialists to utilize instruments like mezzanine and take out back for foundation speculation (World Bank, 2006). With a specific end goal to draw openly investment in the market, the capital market need satisfactory corporate credit data, adequate, opportune and dependable data in the (security) long haul showcase (World Bank, 2006). Information on security issues, measure, coupon, most recent FICO score, fundamental corporate execution, data on optional exchanging (especially pre-exchange data identified with financial specialists approaching best statements).

The study carried out a regression analysis between stakeholder management framework and performance of public private partnerships in road projects in Kenya. The findings were presented in Table 10. This Model Summary Table presents an R<sup>2</sup> result of .665 or 44.20%, meaning that the independent variable, stakeholder management framework alone could explain up to 44.20% of the total variability in the dependent variable, performance of public private partnerships in road projects in Kenya. The remaining 55.80% of the variation in the dependent variable is unexplained by this one predictor model but by other factors not included in the model. The study findings implied that project stakeholder framework was an important factor on the performance of the PPPs in the road projects in Kenya. The capacity to



comprehend and deal with the parts and necessities of different partners was a basic undertaking for venture chiefs Bourne, and Walker (2011) on the grounds that their essential part was that of facilitator among different bodies electorate, and additionally gatherer and packer of task prerequisites to guarantee agreeable conditions for all gatherings (Boehm and Ross, 2012). Every Project would have partners who were affected or can affect the task in a positive or negative way. While some undertaking partners may be able to impact the venture, others may have noteworthy effect on the task and its normal outcome. The PPP Act (2013) provides clear guidelines on the stages which PPPs should follow from identification through to procurement of sponsors for newly developed

projects, some stakeholders suggested that the Act's guidance was less clear for projects that were already in development prior to the Act being enforced. This had resulted in the ownership of projects being disputed, and in turn had stalled projects from reaching the stage whereby procurement and attracting financing can begin. While the Act stated that contracting authorities that is public sector bodies involved in the sector where the PPP was operating were responsible for the tendering of projects, developers who had invested significant time and money into these transactions were also likely to want some influence over the PPP project implementation process (DFID, 2015).

**Table 10: Model Summary of Stakeholder Management Framework and Performance**

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate
1	.665 <sup>a</sup>	.442	.419	.1390

a. Predictors: (Constant), Stakeholder Management Framework

**ANOVA for Stakeholder Management Framework and Performance**

The model was statistically significant as the p-value was less than .05. The values of F (1, 213) = 122.034, P < 0.05, shows that stakeholder management framework statistically and significant predicts the performance of public private partnerships in road projects (i.e., the regression model is a good fit of

the data) and that stakeholder management framework significantly influenced the performance of public private partnerships in road projects in Kenya. This meant that alternative hypothesis that stakeholder management framework had a statistically significant influence on performance of public private partnerships in road projects was accepted.

**Table 11: ANOVA for Stakeholder Management Framework and Performance**

Model		Sum of Squares	d.f	Mean Square	F	Sig.
1	Regression	458.908	1	458.908	122.034	.000
	Residual	1390.009	213	3.7605		
	Total	1848.917	214			

The results of the person's correlation are presented in Table 12. These results showed that stakeholder management framework contributed a

statistically significant value (p-value = .000) of .445 to the regression model. The value of stakeholder management framework was statistically significant

( $t=5.825$ ,  $p < .05$ ). From the coefficient Table 12 stakeholder management framework and performance of public private partnerships in road projects in Kenya contributed a statistically significant value ( $p$ -value = .000) of .445. Using the summary presented in Table 12, a linear regression model of the form,

$$Y = \beta_0 + \beta X_1 + \varepsilon_i$$

can be fitted as follows:

$$Y = 0.820 + 0.445 + 0.379 \dots \dots \dots \text{Equation 4}$$

The model showed that stakeholder management framework positively affected the performance of public private partnerships in road projects. That was an increase in mean index of stakeholder management framework increases the performance of public private partnerships in road projects in Kenya by a positive unit mean index value of 0.445.

**Table 12: Coefficients of Stakeholder Management Framework and Performance**

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	820	.379		2.164	.000
	Stakeholder Management Framework and Performance	.445	.764	.187	5.825	.000

*a. Dependent Variable: performance of public private partnerships in road projects*

The study findings were in agreement with the literature review by Bourne and Walker (2011) established that every Project should have partners who were affected or could affect the task in a positive or negative way. Stakeholder engagement, being a procedure of conveying and working with partners to address their issues/desires, address issues as they happen, and encourage suitable partner engagement in venture exercises all through the task life cycle (PMI, 2013). The PPP Act (2013) project stakeholder management frameworks encouraged the ownership of projects. The Act stated that contracting authorities that was public sector bodies involved in the sector where the PPP was operating were responsible for the tendering of projects, developers who had invested significant time and money into these transactions were also likely to want some influence over the PPP project implementation process (DFID, 2015). According to (Richter, 2012), on the PPPs in

developing countries showed that the actual involvement of stakeholder was low in terms of participation and any actual influence on the performance of the the PPPs projects is minimal (Hoering, 2013).

**Moderation Effect Test**

The effect of a moderating variable is characterized statistically as an interaction that affects the direction and/or strength of the relationship between dependent and independent variables (Fakhrul & Selvamalar, 2014). The interaction variables were generated as intersections between the independent variables and government policy. The interaction variables were then used in the hierarchical moderated multiple regressions. Table 4.42 presents the analysis of moderating effect from the moderated multiple regression analysis of PPPs framework and performance of public private partnerships in road projects in Kenya. Hierarchical

regression was used as a stepwise regression analysis that produced and tested three models. Model one only constituted of the PPPs framework without considering the moderating variable. Model two was fitted including the moderating variable (government policy) and model 3 included the interaction variables between the PPPs framework and the moderator government policy. The fitness of all the three models were tested using, R<sup>2</sup> and ANOVA (F) and the coefficients of the models tested using T statistics. Model 1 results produced an R-square of 0.563 implying that the variation in the independent variable in the model explains 56.3% of the variation in performance of public private partnerships in road projects in Kenya.

The second model was found to have an R-square of 0.565. This showed that the variance of performance explained in the 2nd model was 56.5%, with an R-square change of 0.002. The R-square change in the second step was however insignificant as shown by the change in F that had a p-value of 0.298 which was greater than 0.05. the P-value of the change in F being greater than 0.05

implied that the direct inclusion of the moderating variable government policy has no significant change in the R-square and no significant improvement on the model from model one to model 2. The third model was fitted adding the interaction variables of the moderator and other independent variables. The third step of the MMR modelling had an R-square of 0.588 implying that the variation in performance explained in the 3rd model was 58.8%. Model three was an improvement of the first two models with a significant positive change in the R-square. The change in R-square for model three was 0.023, which was significant as shown by the P-value of the F-change, which was found to be less than 0.05. The p-value of the F-change was 0.001. This implied that inclusion of the interaction variables significantly improved the model. This further implied that the moderating variable government policy had a moderating influence on the relationship between PPPs framework and performance of public private partnerships in road projects in Kenya.

**Table 13: Moderating Effect Model Estimation**

	Model 1			Model 2			Model 3		
	Beta	t	P-value	Beta	t	P-value	Beta	t	P-value
<b>Independent variable</b>									
(Constant)	.202	4.348	.012	.236	2.309	.063	.034	1.426	.160
Capital Markets	.235	4.890	.000	.229	6.515	.000	.317	6.640	.000
Stakeholder management	.289	6.542	.000	.388	7.050	.000	.565	11.231	.000
Government policy				.023	1.043	0.348	.046	1.108	.022
<b>Interaction Effect</b>									
Capital Markets intersection Government policy							.284	3.707	.030
Stakeholder Management intersection Government policy							.458	6.056	.009

Model fitness						
R	0.750		0.752		0.767	
R Square	0.563		0.565		0.588	
Adjusted R Square	0.554		0.555		0.576	
ANOVA F	67.242	0.000	54.03	0.000	49.26	0.000
			3		1	
R Square Change	0.563		0.002		0.023	
Change in F	67.242	0.000	1.087	0.298	11.61	0.001
					3	

### Hypotheses Testing

*H<sub>a1</sub>: There is significant relationship between capital markets framework and performance of public private partnerships in road projects in Kenya.*

Since the P-value was 0.000, which was less than 0.05, the hypothesis was accepted and it was concluded that there was a significant correlation between capital markets framework and performance of public private partnerships in road projects in Kenya.

*H<sub>a2</sub>: There is significant relationship between stakeholder management framework and performance of public private partnerships in road projects in Kenya*

Since the P-value was 0.000, which was less than 0.05, the hypothesis was accepted and it was concluded that there was a significant correlation between stakeholder management framework and performance of public private partnerships in road projects in Kenya.

*H<sub>a3</sub>: Government policy moderates the relationship between public private partnership framework and performance of public private partnerships in road projects in Kenya*

Since the P-value was 0.000, which was less than 0.05, the hypothesis was accepted and it was concluded that government policy moderated the relationship between public private partnership

framework and performance of public private partnerships in road projects in Kenya.

### CONCLUSIONS

The study concluded that the strength of the capital market had an impact on availability of sources of financing state and local government infrastructural projects and developmental strides with less pressures and lean resources. The Government bond market was relatively developed and the volume remained low. Considerable work was required within the capital market was to build benchmark bond programs, strengthen associated liability management processes and develop a secondary market in order to establish more credible yield curve that could be used as a pricing reference for non-state actors. The secondary bond market liquidity need to be developed with improved market structures, infrastructure and proper fragmentation in the primary market. The study concluded that when capital market witness relative stability, the economy would witness good level of GDP growth

### RECOMMENDATIONS

The study recommended that it was important to ensure that the secondary market was well developed and functioning efficiently to ease rising of funds for implementing PPP projects. This meant several reforms had to be undertaken including a properly function OTC market to allow securities lending and borrowing, separation of the retail and wholesale market segments, implement legal

framework to allow an active horizontal repo market. On the primary market side, the study recommends introduction of benchmark securities to help improve the yield curve and introduction of electronic trading platform.

The study recommended that impact of reforms on PPP program to improve liquidity and deepening of the capital markets which would be an enabler in the PPP rollout program. PPP companies would easily tap in to the capital markets both for debt and equity. The citizens would have the possibility of owning some of the projects through shareholding in the projects especially when equity was raised either through private or public placement in the capital markets. Developed capital markets would help lower cost of funding and hence the required return on capital by PPP financiers which facilitates bankability of a project. With a deeper market a variety of financing options would be available to the PPP companies through a sense a vibrant, deep and liquid capital markets is a catalyst in ensuring success in the PPP program rollout for all the relevant parties.

It is important that the Government formulates a proper procedure of investor selection and market sounding which is transparent, fair and competitive. This would enable the Government being able to choose the right partner as well as create investor certainty and confidence. This would also help sort out the problem of internal wrangles and vested interests. The Government should further review the risk allocation aspect in respect of change in law of force majeure, termination procedures as well as compensation where necessary. This will increase the private sector confidence in the process.

The government should consider capacity building the public and private partnership unit (PPPU) to enable it become an excellent service delivery unit. This would enable the government develop excellent and more robust policies that meet the necessities of PPP projects. Capacity building could be achieved by liaising with institutions that would aid it build capacity to handle public private partnership responsibilities, assess costs of projects, monitor and enforce PPPs contracts.

## REFERENCES

Aaltonen, K. (2010). Stakeholder Management in International Projects, Ph.D. Thesis, Aalto University, Espoo.

Africa Transport Policy Program, SSATP (2014). Private Sector Involvement in Road Financing. Working Paper No.102

Agrawal, R. (2010). Successful delivery of Public –Private Partnerships for Infrastructure Development, PhD Thesis, Jaypee Institute of Information Technology, Noida, India

Ahlemann, F., El Arbi, F., Kaiser, M. G., & Heck, A. (2012). A process framework for theoretically grounded prescriptive research in the project management field. *International Journal of Project Management*, 3(1), 4-56

Ailemen I. O (2013). Challenges of Public-Private Partnership in Infrastructural Financing in Nigeria. Department of Banking & Finance. Covenant University, Ota, Ogun State.

Akinpelu (2017). PPP Manual for Nigeria, ICRC with Support of Ukaid, through the Nigeria Infrastructure Advisory Facility (NIAF) Programme. [www.Niqs.Org.Ng](http://www.Niqs.Org.Ng). Accessed July, 2017.

- Aitken, C.(2012). Critical Chain Project Management: An Overview. Doctoral dissertation. Jaypee Institute of Information Technology, Noida , India
- Ali, A. (2010). Investigating Project Management Practices in Public Sector Organizations in a Less Developed County, PhD Thesis, RMIT University
- APM (2006).Project Management Body of Knowledge, (5thEdition), APM, UK
- Aral, S., & Weill, P. (2007). IT Assets, Organizational Capabilities, and Firm Performance: How Resource Allocations and Organizational Differences Explain Performance Variation, *Organization Science*, 18(5), 763–780.
- Bhaskaran, K.,&Pinedo, M. Dispatching. In: Handbook of Industrial Engineering. G. Salvendy (ed.), Handbook of industrial engineering. Wiley, pp
- Bhushan, R. S.,&Raghavan, V. S. (2013). A Relative Study on CCPM And LOB Scheduling Technique. *Indian Journal of Applied Research*, 3(5).242-245.
- Blanchard, B. S., Fabrycky, W. J., & Fabrycky, W. J. (1990). *Systems engineering and analysis (Vol. 4)*. Englewood Cliffs, NJ: Prentice Hall.
- Blaikie, N. (2010). *Designing Social Research(2nd Ed.)*. Polity
- Betts, S. C. (2003). Contingency theory: Science or technology. *Journal of Business & Economics Research*, 1(8), 123-130.
- Boehm B., & Ross, R. (2012) "Theory-W Software Project Management: Principles and Examples," *IEEE Transactions on Software Engineering*, 15(7), 902-916.
- Bourne, L., & Walker, D. H. T. (2011). Visualizing Stakeholder Influence—Two Australian Examples. *Project Management Journal*, (37(1), 5-21.
- Bovaird, T. (2014). Public-private partnerships: From contested concepts to prevalent practice. *International Review of Administrative Sciences*, 70(2), 199-216.
- Brady, T., Davies A., & Gann, D. M. (2013).Creating Value by Delivering Integrated Solutions. *International Journal of Project Management*, 23(5) 360-365.
- Brans, B.J. (2011).Analyzing PPPs as a policy for Universal Secondary Education in Uganda.A Master Thesis, Universiteit van Amsterdam.
- Budd, C. S.,& Cooper, M. J. (2005).Improving on-time service delivery- The case of project as product. *Human Systems Management*.24 (1).67-81.
- Cabano, S. (2006). Attracting and retaining project resources. *AACE International Transactions*, PM21

Cambridge Economic Policy Associates Ltd (2015). Mobilising Finance for Infrastructure. Kenya Country Case Study.

Central Bank of Kenya (2014). Monthly Economic Review, November 2014.

Central Bank of Kenya, (2012). Bank Supervision Annual Report, Nairobi, Kenya

Corning, P. A. (2002). The re-emergence of emergence: A venerable concept in search of a theory, Complexity 7(6), 18–30. Country Reports

Cyplik, P., & Domański, R. (2009). Implementation of the theory of constraints in the area of stock management within the supply chain-a case study. LogForum, 5(3), 1-12.

Dettmer, H. W. (2011). Strategic navigation. In The Constraint Management Model Proceedings of the APICS International Conference Las Vegas, Nevada (USA) October (pp. 6–9).

DFID(2015). Cambridge Economic Policy Associates Ltd(2015). Mobilising Finance for Infrastructure. Kenya Country Case Study.

Delmon, Jeffrey (2015). Creating a Framework for Public-Private Partnership Programs: A Practical Guide for Decision-makers. World Bank, Washington, DC.

Dietrich, P., Eskerod, P., Dalcher, D., & Sandhawalia, B. (2010). The Dynamics of Collaboration in Multipartner Projects. Project Management Journal, 41(4) 59-78.

EIU (Economist Intelligence Unit), the Economist Group (2010). Evaluating the Environment for Public-Private Partnerships in Latin America and the Caribbean: The 2010 Infrascope. A Guide to the Index and Methodology, London: Economist Intelligence Unit Limited.

Emsley M.W, et al (2015) .Current Status and Future Potential of the Research on Critical Chain Project Management. University of Manchester, UK

English, L. M. (2007). Performance audit of Australian public private partnerships: legitimising government policies or providing independent oversight?. Financial Accountability & Management, 23(3), 313-336.

Estache, Antonio; Juan, Ellis; Trujillo, Lourdes(2007). Public-Private Partnerships in Transport. Policy Research Working Paper; No. 4436. World Bank, Washington, DC.

Ezeani, E. O. (2006). Fundamentals of public administration. Enugu: Snaap Press Ltd.

European Commission.(2003). Guidelines for successful public-private partnerships. Brussels: Directorate-General Regional Policy.

Goldratt, E. M. (1990). What is this thing called theory of constraints and how should it be implemented?. North river press.

Government of Kenya (2011), Policy Statement on Public Private Partnerships.

Government of Kenya(2015). National Treasury – Kenya <http://krb.go.ke/wdownloads/APRP-2014%20-%202015-FY.pdf> , accessed on 21st March, 2016.

Government of Kenya(2016). Government Financial Regulations and Procedures. Government Printer. Nairobi.

Government of Kenya(2016). National Transport and Safety Authority Act,2012. Government Printer. Nairobi.

Government of Kenya(2016). National Transport and Safety Authority (Operations of Tourist Vehicles ) Regulations ,2014. Government Printer. Nairobi.

Government of Kenya(2016). National Transport and Safety Authority Regulations ,2012. Government Printer. Nairobi.

Government of Kenya(2016). National Treasury – Kenya <http://www.ppp.gov.za>.(Accessed on 18th April, 2015)

Government of Kenya(2016).Kenya Vision 2030, Ministry of Planning and National Development, Kenya

Govt of India (2010).PPP Toolkit, Department of Economic Affairs, Ministry of Finance. Available at [www.pppinindia.com](http://www.pppinindia.com) (Accessed on 18th April, 2015)

Grimsey, D., & Lewis, M. K. (2004). Public Private Partnerships: the worldwide revolution in infrastructure provision and project finance. Cheltenham: Edward Elgar.

Grimsey, D., & Lewis, M. K. (2014). Public Private Partnerships: the worldwide revolution in infrastructure provision and project finance. Cheltenham: Edward Elgar

Hall, R. (2008). Applied Social Research: Planning, designing and conducting real-world research. Malaysia: Palgrave Macmillan.

Halvorson, H. (2012). What Scientific Theories Could Not Be. Philosophy of Science (The University of Chicago Press) 79 (2): 183–206. doi:10.1086/664745

Hans Wilhelm Alfen, Satyanarayana N. Kalidindi, Stephen Ogunlana, ShouQing Wang, Martinus P. Abednego, Andrea Frank-Jungbecker, Yu-Chien Amber Jan, YongjianKe, YuWen Liu, L. Boeing Singh, GuoFu Zhao ( 2009). Public-Private Partnership in Infrastructure Development.Case Studies from Asia and Europe.Magdeburg GmbH

Haque, S.M. (2014). Governance based on partnership with NGOs: Implications for development and empowerment in rural Bangladesh. International Review of Administrative Sciences, 70(2), 271-290.

Harris, S. (2014). Public Private Partnerships: Delivering Better Infrastructure Services. Working Paper, Inter-American Development Bank, Working Paper(Journal Article).

Hodge, G. & Greve, C. (2011).Theorizing Public-Private Partnership Success: A Market-Based Alternative to Government? Paper presented at the Public Management Research Conference at Syracuse University 2-4 June 2011, Syracuse, NY, USA



Hodge, G. A., & Greve, C. (2007). Public-private partnerships: an international performance review. *Public administration review*, 67(3), 545-558.

Hyvari, I. (2006). Success of projects in different organisational conditions. *Project Management Journal*, 37(4), 31-41

IEG (Independent Evaluation Group). 2014. *Lessons from Experience in Client Countries, FY02-12*. Washington, DC: World Bank.

Information Engineering and Applications: International Conference on Information Engineering and Applications (IEA 2011). New York: Springer-Verlag London. 49-56. 5th ed. Indiana: Wiley Publishing.

Infrastructure Consortium for Africa (2012). *Annual Report, Vol.1*, p.30

JungWookSeo (2011). *Resource Dependence Patterns and Organizational Performance in Nonprofit Organizations. A Dissertation Presented in Partial Fulfillment of the Requirement for the Degree Doctor of Philosophy. Arizona State University.*

Katsamunskaja, P. (2012). Classical and modern approaches to public administration. *Economic Alternatives*, 1, 74-81.

Klein, Michael (2012). *The Asian Crisis and Structural Change in Energy Markets. Energy and Development Report 2012*. Washington, DC: World Bank

Kort, M. & Klijn (2011). *Public-Private Partnerships in Urban Regeneration Projects: Organizational Form or Managerial Capacity? Public Administration Review*.

Koskela, L., Stratton, R. and Koskenvesa, A. (2010). Last Planner and Critical Chain in Construction Management- Comparative Study. in: 18th Annual Conference of the International Group for Lean Construction, 14-16 July 2010, Haifa, Israel.

Kothari C. (2012). *Research Methodology*, New Age International Publishers, Nairobi

Kothari C.R (2004). *Research methods and techniques*

Kothari C.R (2014). *Research methods and techniques*

Lamidi, K. O. (2015). Theories of Public Administration: An Anthology of Essays. *International Journal of Politics & Good Governance*, 6(6.3), 1-35.

Lechler, T. G., Ronen, B., & Stohr, E. A. (2005). Critical chain: A new project management paradigm or old wine in new bottles?. *Engineering Management Journal*, 17(4), 45-58.

Lucas, T. (2009). Quantifying complexity. Website. [www.calresco.org/lucas/quantify.htm](http://www.calresco.org/lucas/quantify.htm). March 2015.

Meidute, I., & Paliulis, N. K. (2011). Feasibility study of public-private partnership. *International Journal of Strategic Property Management*, 16(5), 257-274.

Millhiser, W. P., & Szmerekovsky, J. G. (2012). Teaching Critical Chain Project Management: The Academic Debate and Illustrative Examples.

Millhiser, W. P., & Szmerekovsky, J. G. (2012). Teaching critical chain project management: the academic debate and illustrative examples. *Informations Transactions on Education*, 12(2), 67-77.

Ministry of Foreign Affairs of the Netherlands (2013). "Public-Private Partnerships in Developing Countries—A Systematic Literature Review." The Hague: Ministry of Foreign Affairs. National Treasury, Treasury Circular No.4/2016, Nairobi

Minnie, J.A. (2011). Critical success factors for Public-Private Partnerships in South Africa, PhD Thesis, Stellenbosch University, South Africa.

Molwus, J. J. (2014). Stakeholder management in construction projects: a life cycle based framework (Doctoral dissertation, Heriot-Watt University).

Mugenda, O., & Mugenda, A. (2003). Research methods: qualitative and quantitative approaches. Nairobi: ACTS Press.

Ndandiko, C. (2014). Public Private Partnerships as modes of procuring public infrastructure and service delivery in developing countries: lessons from Uganda. International public procurement conference proceedings 21-23 September 2006.

Noordhoek, P., & Saner, R. (2005). Beyond new public management. Answering the claims of both politics and society. *Public Organization Review*, 5(1), 35-53.

OECD (2009). Public Governance and Territorial Development Public Management Committee. From Lessons to Principles for the use of Public-Private Partnerships.

OECD (2010). Public Governance and Territorial Development Public Management Committee. From Lessons to Principles for the use of Public-Private Partnerships. A working paper presented at 32nd Annual Meeting of Working Party of Senior Budget Officials 6-7 June, Luxembourg

OECD (2014), African Economic Outlook 20012-20013

OECD, (2010). Dedicated Public Private Partnerships: A survey of institutional and governance Structures

OECD, 2012. Public Governance and Public Private Partnerships

Official Development Assistance (2011). Policy Challenges for Infrastructure Development in Africa. World Bank. Washington DC.

Okeyo, J.O. (2013). The Public Service Delivery Challenge: A Public –Private Sector Partnership In Water Service Provision in the Lake Victoria Basin, Kenya, PhD Thesis, University of Nairobi

Okumagbe, Albert. E (2008): "Public/Private Infrastructure Advisory Facility (PPIAF) Experience" 2nd Annual Banking and Finance Conference of the Chartered Institute of Bankers of Nigeria (CIBN) 28th – 30th October, Abuja.

Olander, S. (2013). "Stakeholder Impact Analysis in Construction Project Management," Construction Management and Economics, Vol. 25, No. 3, 2007, pp. 277-287. Oxford English Dictionary. Oxford University Press.

Pollock, A.M., Price, D & Player, S (2007). An Examination of the UK Treasury's Evidence Base for Costs and Time Overrun Data in the UK Value-For-Money Policy and Appraisal. Public Money & Management

Petersen, O.H. (2011). Public-Private Partnerships: Policy and Regulations, Copenhagen Business School, a PhD thesis.

PPIAF (2010). Attracting Investors to African Public-Private Partnerships. A Project Preparation Guide. World Bank, Washington DC

PPIAF (2012). Public Private Partnerships .Reference Guide. World Bank, Washington DC

Priemus H& Bert Van Wee(2013). International Handbook on Mega Projects.Public –Private Partnerships Governing Mega Projects.

.Project Management Institute (2013). A Guide to the Project Management Body of Knowledge. Fifth Edition

Project Management Institute (2004). A Guide to the Project Management Body of Knowledge. Third Edition

Project Management Institute (2000). A Guide to the Project Management Body of Knowledge. Second Edition

Public Private Partnership Unit. PPPU., (2015). A review of studies on public–private partnership projects in the construction industry. International Journal of Project Management, 28(7), 683-694.

Public Private Partnerships Unit (2011). Nairobi , Kenya

Public Private Partnerships Unit (2013). Nairobi , Kenya

Public Private Partnerships Unit (2015). Nairobi , Kenya

Public Private Partnerships Unit (2016). Nairobi , Kenya

Qizilbash.A (2011).Public-Private Partnerships and the Value of the Process: The Case of Sub-Saharan Africa.

Rahman, M. (2008). Public Private Partnership (PPP) for Social Development: A South Asian Perspective. International Journal of Applied Public-Private Partnerships, 1 (2)

Rand G, K( 2000). Critical Chain: the theory of constraints applied in project management. International Journal on Project Management 18(2000) 173-177.

- Regan, M., Smith, J., & Love, P. E. (2010). Impact of the capital market collapse on public-private partnership infrastructure projects. *Journal of construction engineering and management*, 137(1), 6-16.
- Regan, M., Smith, J., & Love, P. E. (2010). Impact of the capital market collapse on public-private partnership infrastructure projects. *Journal of construction engineering and management*, 137(1), 6-16.
- Reid, R. A. (2007). Applying the TOC five-step focusing process in the service sector: A banking subsystem. *Managing Service Quality: An International Journal*, 17(2), 209-234.
- Realization Technologies, Inc. (2010). *Getting Durable Results with Critical Chain*. New York: McGraw-Hill.
- Repp, L., & Wright, S. (2012, June). Factors that influence critical chain project management implementation success. In *Project Management Institute, PMI College of Scheduling Conference PMICOS*, June (pp. 19-22).
- Republic of Kenya, (2007). *Kenya Vision 2030*, Ministry of Planning and National Development, Kenya
- Republic of Kenya (2011). Office of The Deputy Prime Minister and Ministry of Finance
- Policy Statement On Public Private Partnerships, The Ministry of Finance. Nairobi.
- Republic of Kenya,(2012). *The PPP Policy*, Government Printer, Nairobi, Kenya
- Republic of Kenya,(2013). *The Public Private Partnership Act*, Government Printers, Nairobi, Kenya.
- Republic of Kenya,(2014). *The National Treasury Strategic Plan 2013-2017*, Government Printer, Nairobi, Kenya
- Republic of Kenya,(2014). *The PPP Regulations*, Government Printer, Nairobi, Kenya
- Robinson, H. S., & Scott, J. (2009). Service delivery and performance monitoring in PFI/PPP projects. *Construction Management and Economics*,27(2), 181-197.
- Rugenyi, F (2016). Effects of Triple Constraints On the Management of Projects in Nairobi: The Project Managers' Perspective. Student, Jomo Kenyatta University of Agriculture & Technology (JKUAT), Kenya. *The strategic Journal of Business & change management* .Vol. 3, Iss. 2 (16), pp 344-367, May 5, 2016, [www.strategicjournals.com](http://www.strategicjournals.com), ©strategic Journals.
- Saunders A. (2007). *Financial Markets and Institutions*, Tata McGraw-Hill Publishing Company Limited, New Delhi.
- Scriber M. (2011). *The Limitations of Public-Private Partnerships, Recent Lessons from Surface Transportation and Real Estate Sector, 2011*. Competitive Enterprise Institute. Washington DC.
- Smith (2014). *Lessons Learned from Failed PPP Projects: Case Studies from Different Countries Presented by: Art Smith Chairman*, [www.unece.org](http://www.unece.org), accessed on January, 2017.

Sharma, M. & Bindal, A. (2014). Public-Private Partnership. *International Journal of Research (IJR)*, 1 (7), 1270-1274

Sherman, H.J. & Ralph, S. (1998). *Open Boundaries: Creating Business Innovation Through Complexity*. Reading, MA: Perseus Books

Sidra Irfan (2015). *Understanding inter-organisational relationships in public-private partnerships. A study of educational PPPs in Pakistan*. PhD Thesis. The University of Edinburgh, Business School

Steyn, H. (2002). Project management applications of the theory of constraints beyond critical chain scheduling. *International Journal of Project Management*, 20(1), 75-80.

Steyn, H. (2001). An investigation into the fundamentals of critical chain project scheduling. *International journal of project management*, 19(6), 363-369.

The Canadian Council for Public-Private Partnerships.

The International Public Sector Accounting Standards Board (2016). *International Public Sector Accounting Standards*.

Thomas, G. (2007). *Education and theory: Strangers in paradigms*. McGraw-Hill Education (UK).

Thompson K.N (2010), *Servant –Leadership: An effective Model for Project Management*, A Ph.D Thesis, Capella University.

Thompson K.N (2010). *Servant-Leadership: An effective Model for Project Management*. PhD dissertation, Capella University.

Thornhill, C., & Van Dijk, G. (2010). Public administration theory: Justification for conceptualisation. *Journal of Public administration*, 45(Special issue 1), 95-110

Tian, W. and Demeulemeester, E. (2014). Railway scheduling reduces the expected project makespan over roadrunner scheduling in a multi-mode project scheduling environment. *Annals of Operations research*. 213 (1). 271-291.

UK Department for International Development (2015). *Mobilising Finance For Infrastructure A Study For The UK Department For International Development (DFID)*

United Nations Development Programme (2011). *Programme Human Development Report*.

Wideman, R. M. (2002). *Comparing PRINCE2 with PMBOK*. Available at <http://pmforum.org/library/papers/2002/Prince2vsGuide3.pdf>

World Bank (2006). *Building Capacities for Public Private Partnerships*. Available at <http://www.un.org/esa/coordination/Alliance/Ex-PPP%20in%20India.pdf>. Accessed on 22nd April, 2015

World Bank (2006). *Financing Infrastructure, addressing Constraints and Challenges*, publication no. 36876

- World Bank (2006). India Building Capacities for Public Private Partnerships, Publication no. 36875
- World Bank (2012). Public –Private Partnerships Reference Guide, Version 1.0, PPIAF
- World Bank Institute (2012). Public -Private Partnerships Reference Guide, Version 1.0. Washington, DC: World Bank Institute and Public Private Infrastructure Advisory Facility.
- World Bank Institute (2014). Public Private Partnerships. Public Private Infrastructure Advisory Facility. Washington, DC.
- World Bank (2017). Report No: PAD2210. Infrastructure Finance and Public Private Partnerships Project. Finance and Markets.
- The World Bank Group, Kenya Economic Update: Beyond Resilience – Increasing Productivity of Public Investments 2016, Edition No. 14 .
- The World Bank Country Partnership Strategy 2014-18 ((Report No. 87024-KE)
- The World Bank Group, Kenya Economic Update: Beyond Resilience – Increasing Productivity of Public Investments 2016, Edition No. 14
- [www.bloomberg.com](http://www.bloomberg.com), accessed 13th June, 2017
- Yang, Y. (2011). Research of Audit Project Schedule Management Based on Critical Chain In:
- Yang, Y. (2011). Research of Audit Project Schedule Management Based on Critical Chain In: Information Engineering and Applications: International Conference on Information Engineering and Applications (IEA 2011). New York: Springer-Verlag London. 49-56. 5th ed. Indiana: Wiley Publishing.
- Zima, P. V. (2007). What is theory?: cultural theory as discourse and dialogue.