
Dr. Ngahu Solomon Thuo

Abstract—Stakeholders constitute an important part of mega projects. Such include the government, financing institutions as well as the beneficiaries of the projects. Given that these projects are capital investments which require huge sums of money to finance, many are the times when the mobilized funds fall short of the targeted amount. The objective of this article was to assess the influence of stakeholder analysis on finance mobilization for mega projects in energy sector’s parastatals in Kenya. The stakeholder theory guided the study. The study variables were stakeholder analysis and finance mobilization. A descriptive research design was adopted. The population of the study encompassed project managers in charge of 32 selected mega projects in the energy sector as at 2020. Census design was employed which means all the aforesaid managers were involved in the study. A structured questionnaire as well as a collection sheet were used to collect primary and secondary data respectively. The collected data were analyzed with the aid of the Statistical Package for Social Sciences. Analysis involved both descriptive statistics, correlation and simple linear regression analyses. The findings indicated that there were diverse stakeholders who were involved in implementation of the aforementioned mega projects, and that the influence of these stakeholders on finance mobilization varied. While primary data analysis revealed a crucial role of stakeholder analysis in mobilization of finances, secondary data analysis underplayed the aforesaid role. The article recommended that parastatals should actively engage all pertinent stakeholders in the mobilization of funds to finance mega projects in the energy sector.

Index Terms—Energy sector, mega projects, finance mobilization, parastatals, stakeholder analysis.

I. INTRODUCTION

According to Tyson (2018), although private investment in infrastructure in developing countries has grown significantly over the past 10 years, major challenges remain. The first is that private investment has been concentrated in commercially attractive sectors and countries, so has not always matched development needs. Low-income countries (LICs), for example, which have the greatest need of infrastructure development, have received less than 2% of total private investment financing in the last decade. While on a par with relative gross domestic product (GDP), this is low. In addition, sectors vital to development, such as urban infrastructure, have seen insufficient funding. Furthermore, global private-finance flows to developing countries have declined since the ‘taper tantrums’ of 2014 and because of regulatory changes under Basel III and Solvency II. Secondly, private finance has not been galvanised on anything like the scale needed, despite there being a large pool of potential investors eager to put money into the sector. There is reasonable consensus on the main barriers to investment including a lack of bankable projects, difficulty in managing political and macroeconomic risks and a mismatch between the instruments being offered and the needs of institutional investors.

There has been increasing need for investment in infrastructure globally. Although the private sector has played a critical role in addressing this issue, the public sector through government-funded projects has been on the forefront mainly due to the massive funds that are at its disposal and the natural requirement to solve challenges facing the citizenry. The government has embarked on infrastructural projects across various sectors. Due to increase in population, the need for energy has tremendously risen. In tandem, the governments have been obliged to come up with the projects to bridge the gap between supply and demand for the said energy (International Monetary Fund, 2014).

According to Maurer (2017), China has emerged as the largest single funder of infrastructure investments in Africa. The average annual flow between 2007 through 2012 is estimated at about infrastructure $5 billion, well beyond any other single bilateral or multilateral source. Most of Chinese financing is provided through China EXIM Bank. In recent years, Ghana and Ethiopia have been the largest recipients of Chinese infrastructure financing while other notable recipients are Cameroon, Zambia, and Nigeria. China is especially targeting the transport sector, particularly railways and roads. These are sub-sectors in which Chinese firms have particular experience and successfully compete for contracts under multilateral financing. They are also sub-sectors that have received less interest from private investment in sub-Saharan Africa. More recently, Chinese financing has increasingly targeted the energy sector and hydropower in particular (Gutman, Amadou, & Chattopadhyay, 2015). In Ethiopia, China has been the main financier of the energy sector, committing $2.2 billion between 2007 and 2013, and the railway sector, where the China Exim Bank pledged loans totalling $4.1 billion over the same time period. China has been major financier in the road sector; its engagement is largely quasi-commercial, based on loans from the China Exim Bank.

In Mozambique, an IMF report focused on the role of mega

Not all the managers can be involved in decision making hence managers have to select stakeholders with regard to projects in the creation of jobs and economic growth considering the high that government investments in mega projects such as Cahora Bassa (Xiong, 2014). It reported that the projects did not provide significant benefits to the local Mozambicans as they employed a few people as they were capital intensive. Furthermore, most of the electricity produced at Cahora Bassa was exported to South Africa or used by the Mozal factory, which is mainly owned by foreigners and extracts products that also exported. It was further observed that any economic benefits accrued from the project were realised at the national level in the form of economic growth, but not at the local level.

Based on World Bank’s (2018) report, the Government of Kenya has successfully separated policy and regulatory functions from commercial activities, unbundled generation from transmission and distribution activities, introduced cost-reflective tariffs, and attracted private capital through the liberalization of generation activities while retaining majority ownership of the largest power utilities in the country, the Kenya Power (KP) and Kenya Energy Generating Company (KenGen). The sector is regulated by a single sector regulator, the Energy Regulatory Commission (ERC), with a mandate for technical and economic regulation of petroleum, electricity, and renewable energy, and an Energy Tribunal is in charge of solving sector disputes.

In Kenya, the Kenya National Commission on Human Rights (KNCHR) engaged stakeholders in a consultative meeting to identify the stakeholders’ concerns with the oil exploration and drilling exercise in Turkana County (KNCHR, 2017). The report claimed that there was an inadequate engagement of the stakeholders, especially the local communities. It was alleged that the project was characterised by inadequate compensation with the public concerned that the liaison officers did not relay their actual concerns. The eviction from the land required for exploration was purported to be arbitrarily conducted by the county government. It further reported that the locals were not involved in the land committee. Apparently, it was presumed that stakeholder analysis was crucial relative to mobilization of finances in the energy sector and, particularly, with regard to mega projects. It is on this basis that this study was conducted.

II. STATEMENT OF THE PROBLEM

Mega projects require huge sums of money to finance. Sources indicate that such projects are financed with upward of Ksh 1 billion (Ngahu, 2021). Many are the times when the mobilized funds fall short of the targeted amount. This results in delayed project completion hence denying the public the anticipated benefits. For this challenge to be overcome, the required funds are supposed to be mobilized in time and in sufficient amounts. This brings into the picture the role of stakeholders in funds mobilization. This is in tandem with the assertion that mega projects involve multiple public and private stakeholders (Flyvbjerg, 2014). It is on this basis, that this article sought to examine the role of stakeholder analysis on finance mobilization in parastatals in Kenya’s energy sector.

i. Objective of the Study

The objective was to assess the role of stakeholder analysis on finance mobilization for mega projects in energy sector’s parastatals in Kenya

Research Hypothesis

H0: Stakeholder analysis does not play a significant role in finance mobilization for mega projects in energy sector’s parastatals in Kenya.

H1: Stakeholder analysis plays a significant role in finance mobilization for mega projects in energy sector’s parastatals in Kenya.

Stakeholder Theory

The stakeholder theory was developed by Freeman (1984). The theory states that an organization is comprised of a group of stakeholders and the organization is mandated to manage their interests, needs and viewpoints. The theory also describes the corporation as a constellation of cooperative and competitive interests possessing intrinsic value.

According to this theory the stakeholder’s management is done by the manager who ensures that the firm benefits its stakeholders by ensuring their rights and their participation in decision making. The managers on the other hand ensure that they act as the agent of stockholders by ensuring firm survival and also safeguarding the long term stakes of each stakeholder. Stakeholder theory involves a general idea of how the organization should be and how it should be conceptualized (Friedman & Miles, 2006).

Stakeholders in respect of the theory refers to a group or an individual who is affected by the achievement of the organization’s objectives. The theory opines that all persons or groups with legitimate interest participating in an enterprise do so to obtain benefits with no set priorities of one set of interests and benefits overriding the other (Freeman, 1984). The theory further suggests that other entities which may have a stake in an organization include; employees, customers and the surrounding community. The theory promotes practical, efficient, effective and ethical way to manage organizations with unstable stakeholder’s relationships (Freeman, 1999).

The theory offers the managers a way to deal with the unprecedented levels of environmental turbulence so as to ensure the prosperity of the organization and its survival. The theory also provides a framework by which managers can be able to manage the varied interests and relationships of all its stakeholders in a strategic manner in order to avoid conflicts. The theory further emphasizes on the community involvement and its benefits from the firm. Moreover, the theory lays an emphasis on the need for a sound organizational structure which plays a key role in the overall organizational success and survival (Fontaine, Haarman, & Schmid, 2006).

The theory does not offer one definite definition of who is a stakeholder. The term stakeholder in the theory is defined broadly to include individuals or groups outside the firm who may consider themselves as stakeholders without the firm considering them to be. The definition also encompasses very many groups making its implementation impossible due to the availability of limited resources and time that managers have at their disposal (Donaldson & Preston, 1995).

Not all the managers can be involved in decision making hence managers have to select stakeholders with regard to...
power held and their legitimacy. The foundations of the theory on the other hand are ambiguous and represents an organization based on complete contracts. The theory also assumes that the conflicts of interests between managers and stakeholders can be solved by ensuring that all the shareholders’ interests are maximized (Friedman & Miles, 2006).

When implementing mega government projects all the stakeholders should be involved in decision making as well as in project planning in order to ensure that there are no conflicts of interests between the project shareholders and the stakeholders. In the energy sector, the main stakeholders are the citizens of a country who should be consulted in order to ensure that the projects launched by the government are beneficial to them in terms of employment and other social services.

**Conceptual Framework**

The conceptual framework illustrated below (Figure 1) guided the study. It shows the independent variable (financial goal orientation, and the dependent variable (financial mobilization). According to the illustrated framework, there exists a relationship between financial goal orientation and finance mobilization. This hypothesis was duly tested in this article.

![Conceptual Framework](image)

**Figure 1: Conceptual Framework**

**ii. Literature Review**

This article has reviewed literature with regard to both stakeholder analysis and finance mobilization.

**iii. Stakeholder analysis**

Stakeholder analysis is a process of systematically gathering and analyzing qualitative information to determine whose interest should be taken into account when developing or implementing a policy, project or a program. Stakeholder analysis is a key part of stakeholder management (Coble, Coussens, & Quinn, 2009). Stakeholders are the persons or organizations who have registered their interest with the policy or program being implemented. These stakeholders can be grouped into different categories which include; international/donors, national stakeholders, non-profit organizations, commercial organizations, civil society, as well as users/consumers (Ketema, Chisholm, & Enright, 2017).

Mega projects are large-scale projects which cost at least 1 billion USD or more. They are implemented internationally, impact millions of people and take years to be completed. Basically; they are infrastructural and hence contribute to the country’s development, enhance growth of different sectors, connect different regions and create opportunities for new business (Jussupbekova & Pak, 2017). In such projects, stakeholder analysis should be carried out in order to identify stakeholders and their interests, analyzing their relationships and assessing their influences. Stakeholder engagement on the other hand, entails collaboration and developing relationships with stakeholders which is crucial in decision making (Erkul, Yitmen, & Celik, 2016).

A study conducted by Irimia-Diezquez, Gonzalez-Villegas and Oliver-Alfonso (2014) assessed the financial performance of innovative megaproject in Spain. The objective of the study was to establish whether mega projects meet their objectives in terms of returns to shareholders. A case study approach was used. The study analyzed the first metro line in Seville. The study noted that in spite of the cost overruns in the construction stage the high leverage nature of the project generated greater returns for shareholders and was successful from both the social and financial profitability point of view. The study also noted that debt used was low cost due to public sector participation as a shareholder of the concessionaire.

A study was conducted in South Africa by Maddaloni (2015) with the aim of identifying the role of community stakeholders in mega projects. The study posited that the impact of mega projects on people and location at the community level was under-researched. The research methodology included investigations of journal publications and materials from the academic community. Research questionnaires were devised to help understand which stakeholders had the most influence and impact on the project. The Relative Importance Index (RII) system was used to rank the respondent’s views. The output analysis was presented in graphs, charts and tables. The findings confirmed that the stakeholders ranked the most influential in the project were the community (RII = 0.796), the project manager (RII = 0.778), the structural engineer (RII = 0.741) and the hawker committee (RII = 0.704). Findings on the other objective which was to establish nature of stakeholders’ influence verified that the local community and local committees had a negative influence on the project. It was recommended that understanding and exploring the influence of community engagement on mega projects would enhance time improvement and minimize costs during construction.

Another study investigating the effect of stakeholder analysis on the performance of road construction project in Elgeyo Marakwet County was conducted by Mungata and Muchelule (2018). The objective of the study was to determine the effect of stakeholders analysis on the performance of road construction in the County. The study sample comprised of 19338 respondents. The study gathered data using semi-structured questionnaires. Simple random and stratified random sampling techniques were adopted. The study found out that stakeholder analysis had a significant effect on performance of road construction projects. The study recommended that the County Government of Elgeyo Marakwet should develop blueprints to guide road construction projects activities hence establish a conducive environment for road projects.
Finance mobilization

Conducting a financial mobilizations strategy includes the following steps; identifying the potential sources of funds, actively soliciting pledges, following up on pledges to obtain funds, depositing the funds received and recording the transactions and any restrictions on their use. The process of financial mobilization is generally governed by legal agreements at various levels. The strategies and processes used may be constrained by the rules established by the funding party at the inception of the project or programme. For the successful mobilization of local financial resources to be achieved, it is necessary to actively involve all the stakeholders in decision making (Cherogony, 2013).

An empirical analysis conducted by Adama (2018) investigated the financing of mega infrastructure in Nigeria. The study examined the challenges facing the funding of infrastructure and how capital for mega projects is mobilized in Lagos State. The Lagos Megacity Project was used for the study. The study findings established that capital was largely mobilized from the private sector. The study, further, noted that public funds were used in the initial stage to facilitate the implementation of the project.

In Ghana, a study on innovative financing of infrastructure projects was conducted by Badu, Manu, Edwards and Holt (2011). The study assessed the application of Innovative financing in infrastructure projects in Ghana. The study draws its data from literature and published data from Ghanaian ministries, departments, and agencies who procure infrastructure projects. The study revealed that the central government in the country urged the local authorities not to rely on the district assemblies’ common fund but deploy innovative funds mobilization strategies. The study also indicated that innovative financing was employed in the country during the implementation of large and complex infrastructure projects. In addition, the study established that innovative financing ensures the utilization of private and public funds in a manner that financial mechanisms are bundled to deliver projects more efficiently, within the scheduled time and on a value for money basis.

In Kenya, an empirical study conducted by Ngahu, Muturi, Nguni and Kwasira (2020) centred on how project costs influence mobilization of finance for mega projects undertaken by parastatals in the energy sector in Kenya. In tandem, the objective was to evaluate the effect of project costs on finance mobilization for the aforementioned mega projects. The study adopted a census design and collected data using a set of structured questionnaires as well as a secondary data collection sheet to collect data from project managers and published financial reports respectively. The study results indicated that, in respect of primary data, the effect of project costs on finance mobilization was statistically significant at p-value = 0.05, whereas secondary data analysis returned contrary results. It was inferred that initial mega project costs were very high. It was recommended that the initial costs in respect of mega projects should be reasonable in order to attract investors who can contribute toward finance mobilization.

iv. Methodology

The step-by-step procedure involved in conducting the study is illustrated by the methodology. Specifically, the areas covered under methodology include research design, population, census design, data collection instrument, data collection procedures, as well as methods of data analysis and results presentation.

Research design,

A research design is described as a blueprint of conducting a study. A descriptive research design was adopted. This choice was informed by the fact that, similar to this study, descriptive studies make no attempt of changing the phenomena being examined. They attempt to answer ‘what’ type of questions (Philips & Pugh, 2005). For instance, what is the role of stakeholder analysis in finance mobilization? The aforesaid question is the one that was addressed by this study.

Population of the study

The study targeted all project managers working with mega projects in Kenya’s public sector. This is in line with the definition of target population, which is, the section of the general population constituting a group of persons, entities or objectives sharing particular attributes relative to a given phenomenon (Bartlett, Kotlrlik, & Higgins, 2001). The findings of a study are generalized to this population. Therefore, it is the largest population to which a study findings apply. However, it narrowed down to an accessible population that comprised the aforementioned managers in charge of mega projects under the energy sector in Kenya. This population is defined as the final group of participants from which data is collected by surveying either a sample of or all its members (Bartlett, et al., 2001). The accessible population was made up of 32 project managers.

Census design

Due to the small size of the accessible population (32), a census design was adopted. A census is defined as a survey or count of all the elements that constitute a population with the objective of measuring one or more characteristics of the aforesaid elements (Lavrakas, 2011).

Data collection instruments

A structured questionnaire was used to collect data from the 32 project managers. Additionally, a data collection sheet was employed to collect secondary (panel) data from the published financial reports of the parastatals that oversaw the projects under study. The instruments ensured collection of data pertinent to study variables (stakeholder analysis and finance mobilization).

Data collection procedure

Prior to collecting data, the researcher obtained a research permit from the National Commission of Science, Technology and Innovation (NACOSTI) as well as the written consent of the top management of the selected parastatals under the energy sector. The pertinent data were collected personally by the researcher.

Data analysis and results presentation

The collected data were screened in order to ensure completeness and appropriateness thus minimizing the number of outliers. Data analysis was facilitated by the Statistical Package for Social Sciences (SPSS). It involved descriptive statistics, that is, frequencies and percentages. Inferential statistics were also part of the analysis and
encompassed correlation and linear regression analysis. Below is an illustration of the model that guided the aforementioned regression analysis.

\[ Y = \beta_0 + \beta_1 X_1 + \epsilon \]

Where \( Y \) = Finance mobilization
\( X_1 \) = Stakeholder analysis
\( \beta_0 \) = Constant
\( \beta_1 \) = Regression coefficient for stakeholder analysis
\( \epsilon \) = Margin of error

The results of the analyses were presented in tabular form and were accompanied by relevant interpretations and discussions.

III. RESULTS AND DISCUSSIONS

The descriptive and inferential statistical results are illustrated in tandem with the study objectives and/or variables. The results are interpreted and discussed accordingly. It is important to note that, the collected primary data were on a Likert scale where: SD (1) = Strongly Disagree, D (1) = Disagree, NAND (3) = Neither Agree nor Disagree, A (4) = Agree, and SA (5) = Strongly Agree. The secondary data were panel data spanning 7 financial years.

Descriptive statistical results, interpretation and discussion

The results of descriptive analysis with regard to stakeholder analysis and finance mobilization are presented in Tables 1, 2, and 3. Whereas, the first two Tables show the descriptive results of primary data analysis in respect of stakeholder analysis and finance mobilization respectively, Table 3 illustrates the descriptive results for the two study constructs combined.

<table>
<thead>
<tr>
<th>Table 1: Descriptive statistics for stakeholder analysis (primary data)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project implementations by parastatals</strong></td>
</tr>
<tr>
<td>Projects being implemented by our parastatals have many and diverse stakeholders.</td>
</tr>
<tr>
<td>To a large extent, the government agencies are the major stakeholders in our parastatals projects.</td>
</tr>
<tr>
<td>The government plays a leading role in mobilizing funds from local and foreign sources.</td>
</tr>
<tr>
<td>The interests of stakeholders play a critical role in financial mobilization.</td>
</tr>
<tr>
<td>Stakeholders have greatly varying influence over mobilization of project finances.</td>
</tr>
</tbody>
</table>

The analyses of the respondents’ opinions in relation to stakeholder analysis are shown in Table 1. Apparently, all (100%) the respondents agreed to the view that projects being implemented by their parastatals had many and diverse stakeholders. A total of 96.9% of the sampled project managers concurred that, to a large extent, the government agencies were the major stakeholders in the projects under the purview of their parastatals. Only 3.1% of the respondents disputed the assertion. It was, however, revealed that most of the sampled project managers registered their agreement with the proposition that the government played a leading role in mobilizing funds from local and foreign sources. A significant number (90.6%) of the respondents admitted that the interests of stakeholders played a critical role in finance mobilization. While majority (84.4%) of the respondents agreed that stakeholders have greatly varying influence over mobilization of project finances, about 9.4% of the respondents disputed this proposition.

<table>
<thead>
<tr>
<th>Table 2: Descriptive statistics for finance mobilization (primary data)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Finance mobilization</strong></td>
</tr>
<tr>
<td>Conditional grants constitute a significant part of our mega project financing.</td>
</tr>
<tr>
<td>Our parastatal employs concession loans, facilitated by the national government, to fund its mega projects.</td>
</tr>
<tr>
<td>Part of our mega project funds are sourced from the proceeds of bonds issue</td>
</tr>
<tr>
<td>A considerable amount of financing its obtained from World Bank’s and IMF’s loans</td>
</tr>
<tr>
<td>Foreign direct investments (FDIs) have been used by our parastatal to fund its mega projects.</td>
</tr>
</tbody>
</table>

It is evident from the views of the majority of the project managers as shown in Table 2 that, conditional grants constituted a significant part of the parastatals’ mega projects (100% agreement), the parastatals employed concessional loans facilitated by the national government to fund their mega projects (87.5% agreed), and that part of the State agencies’ mega project funds were sources from the proceeds of bonds issue (78.1% agreed). Albeit the fact that most of project managers (62.5%) concurred that a considerable amount of financing was obtained from the loans given by the

World Bank and the International Monetary Fund (IMF), a sizeable number of the managers (37.5%) disputed the assertion. Similarly, only about a third of the managers (34.4%) were in agreement that FDIs were used by the aforesaid parastatals to fund their mega project since majority of them (59.4%) dismissed this claim.

Table 3: Descriptive statistics for stakeholder analysis and finance mobilization (secondary data)

<table>
<thead>
<tr>
<th>Statistic</th>
<th>n</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Dev</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>Std. Error</th>
<th>Statistic</th>
<th>Error</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxation for the year</td>
<td>7</td>
<td>0.47</td>
<td>3.53</td>
<td>1.94</td>
<td>1.05</td>
<td>0.13</td>
<td>0.79</td>
<td>-0.78</td>
<td>1.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profits generated Annually</td>
<td>7</td>
<td>2.48</td>
<td>4.94</td>
<td>3.49</td>
<td>0.84</td>
<td>0.85</td>
<td>0.79</td>
<td>0.14</td>
<td>1.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debt/Equity Ratio</td>
<td>7</td>
<td>0.16</td>
<td>7.73</td>
<td>2.09</td>
<td>2.55</td>
<td>2.38</td>
<td>0.79</td>
<td>6.01</td>
<td>1.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Earnings Per Share</td>
<td>7</td>
<td>0.29</td>
<td>5.42</td>
<td>2.75</td>
<td>1.67</td>
<td>0.41</td>
<td>0.79</td>
<td>0.25</td>
<td>1.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dividend Per Share</td>
<td>7</td>
<td>0.17</td>
<td>1.00</td>
<td>0.39</td>
<td>0.28</td>
<td>2.12</td>
<td>0.79</td>
<td>4.87</td>
<td>1.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Z-Score Coefficient</td>
<td>7</td>
<td>0.56</td>
<td>5.33</td>
<td>2.39</td>
<td>1.91</td>
<td>0.724</td>
<td>0.79</td>
<td>-1.35</td>
<td>1.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial Loans</td>
<td>7</td>
<td>1.35</td>
<td>13.20</td>
<td>8.08</td>
<td>4.30</td>
<td>-0.24</td>
<td>0.79</td>
<td>-0.78</td>
<td>1.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concessional loans</td>
<td>7</td>
<td>0.00</td>
<td>5.26</td>
<td>2.95</td>
<td>2.01</td>
<td>-0.31</td>
<td>0.79</td>
<td>-1.52</td>
<td>1.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank Overdrafts</td>
<td>7</td>
<td>2.15</td>
<td>46.82</td>
<td>9.79</td>
<td>16.36</td>
<td>2.63</td>
<td>0.79</td>
<td>6.91</td>
<td>1.59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Stakeholder analysis as shown in Table 3 was operationalized by taxation for the year, profits generated annually, debt-to-equity ratio, earnings per share and dividend per share. The figures shown in billions of Kenya shilling. The Altman Z-score was employed as an aggregate of the aforesaid indicators of stakeholder analysis. On stakeholder analysis, dividend per share had the least values of range (0.83), mean (0.39) and standard deviation (0.28). The Altman Z score theory was employed to assess the aggregate financial health of the parastatals with the view of determining whether or not there were organizations which were facing financial distress. The average Z-score for the six entities over the 7 years’ survey period was 2.39. This meant that the parastatals were generally in the ‘grey zone’ and had a moderate probability of filing for bankruptcy. As illustrated by the standard deviation for the Z-score (std dev. = 1.91), while some of the surveyed parastatals were in the ‘safe zone’, that is, Z values greater than 2.99 (maximum = 5.33) others were in the ‘distress zone’, that is, Z values below 1.81 (minimum = 0.56). Interpretatively, albeit the fact that there were some parastatals which had negligible probability of filing for bankruptcy, there were others in the energy sector that had a very high chance of reaching the stage of bankruptcy. The major source of financing for parastatals in the energy sector in Kenya included commercial loans, concessional loans as well as bank overdrafts. Over the seven-year period, the parastatals borrowed an average of Ksh 8.08 billion per year from commercial banks. Over the same period, an average of Ksh 2.95 billion and Ksh 9.79 billion concessional loans and bank overdrafts respectively were obtained by these organizations each year. Conspicuously, is the large sums of bank overdrafts that the parastatals obtained. Due to their short-term nature, the bank overdrafts were, expectedly, not directed to or reserved for mega projects. Chances were only the commercial loans and concessional loans, albeit evidently lower than bank overdrafts, were mobilized to finance mega projects.

Correlation results, interpretation and discussion

The Spearman’ correlation and Pearson’s correlation were used to conduct correlation analysis in respect of primary and secondary data respectively. The results to this effect are presented in Table 4 and Table 5 in that order.

Table 4: Spearman’s correlation analysis

<table>
<thead>
<tr>
<th>Stakeholder analysis</th>
<th>Correlation Coefficient</th>
<th>Sig. (2-tailed)</th>
<th>n</th>
<th>Finance mobilization</th>
<th>Correlation Coefficient</th>
<th>Sig. (2-tailed)</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.00</td>
<td>.</td>
<td>32</td>
<td></td>
<td>.</td>
<td>.</td>
<td>32</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
The results presented in Table 4 depicted that according to the sampled project managers, at \( p = 0.05 \), there existed a positive, strong and statistically significant relationship between stakeholder analysis and finance mobilization (\( r = 0.968; \ p = 0.000 \)). Interpretable, enhancing stakeholder analysis amongst parastatals in the energy sector was bound to considerably improve mobilization of finances required to implement mega projects under the aforesaid parastatals.

Therefore, it was imperative to ensure that there was adequate involvement of all key partners and/or stakeholders of these mega projects in efforts to mobilize as much finance as possible. However, the results of Pearson’s correlation analysis, that was delimited to secondary data, and which are shown in Table 5 illustrated a different picture altogether.

<table>
<thead>
<tr>
<th>Table 5: Pearson’s correlation analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profits Generated (Stakeholder Analysis)</td>
</tr>
<tr>
<td>Profits Generated (Stakeholder Analysis)</td>
</tr>
<tr>
<td>Total Loans (Financial Mobilization)</td>
</tr>
<tr>
<td>n</td>
</tr>
</tbody>
</table>

Stakeholder analysis was represented by profits generated annually while financial mobilization was represented by total loans, that is, the sum of commercial and concessional loans. According to the results shown in Table 5, it is apparent that, there existed a negative, moderately strong and statistically not significant relationship between profits generated annually and total loans at 0.05 level of significance (\( r = -0.374; \ p = 0.408 \)). Interpretively, increase in profits generated annually by the parastatals in the energy sector was likely to moderately reduce the total loans borrowed. However, the implications of the aforesaid profit generation were not likely to result in increased borrowings in form of both commercial and concessional loans. Therefore, a greater emphasis to the (short-term) interests of stakeholders was not likely to curtail the amount of finances mobilized, particularly through commercial and concessional loans by the aforementioned parastatals. Advisably, these stakeholders of the parastatals should direct more of their resource mobilization energies to other mega project characteristics as opposed to annual profits generated by the parastatals.

Linear regression results, interpretation and discussion

The effect of the stakeholder analysis on finance mobilization for mega projects in Kenya’s energy sector was analyzed. This was realized through simple linear regression analysis of both primary and secondary data. The results to this effect are illustrated in Tables 6 to 110.

<table>
<thead>
<tr>
<th>Table 6: Model summary for primary data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

- **a. Predictors:** (Constant), Stakeholder analysis
  - The results of coefficient of determination \( (r^2 = 0.880) \) shown in Table 6 indicated that 88.0% of variability on finance mobilization could be explained by stakeholder analysis. Therefore, from the viewpoint of project managers, it was apparent that stakeholder analysis played a crucial role at influencing mobilization of funds requisite to finance mega projects in Kenya’s energy sector.

<table>
<thead>
<tr>
<th>Table 7: ANOVA for primary data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>1 Regression</td>
</tr>
<tr>
<td>Residual</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

- **a. Predictors:** (Constant), Stakeholder analysis

- **b. Dependent Variable:** Finance mobilization
  - The results of F-statistic illustrated in Table 7 \( (F_{1,31} = 219.054; \ p = 0.000) \) were statistically significant at \( p = 0.05 \) which was an indication that there existed a linear relationship between stakeholder analysis and finance mobilization. Therefore, sample data fitted the simple linear regression model \( (Y = \beta_0 + \beta_1X_1 + \epsilon) \) which was adopted in this analysis. The foregoing justified further analysis whose results are as shown in Table 8.
According to the results shown in Table 8 (Finance mobilization = -2.345 + 1.387 Stakeholder analysis), it is apparent that for every unit change in finance mobilization, it was a requirement to effect a change of 1.387 unit in stakeholder analysis while other factors were held constant. The results further indicated that the effect of stakeholder analysis on finance mobilization was statistically significant (t = 14.800; p = 0.000) at p-value = 0.05. These results underlined the importance of stakeholder analysis in mobilizing finances for mega projects being undertaken by parastatals in the energy sector in Kenya.

### Table 9: Model summary of secondary data

<table>
<thead>
<tr>
<th>Model</th>
<th>r</th>
<th>r Square</th>
<th>Adjusted r Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Predictors: (Constant), profits generated annually</td>
<td>1</td>
<td>.374*</td>
<td>-.032</td>
<td>14.26653</td>
</tr>
</tbody>
</table>

#### 1.387 Stakeholder analysis

The results shown in Table 9 (r² = 0.140) illustrated that only 14.0% of variance in finance mobilization (total loans) could be accredited to profits generated annually (stakeholder analysis). A large variation in finance mobilization was as a result of other factors besides the aforementioned profits. The negative value of adjusted r square (-0.032) was interpreted to mean that the simple linear regression model did not fit the collected sample data. The aforesaid is supported by the results and interpretation of F-statistics as shown in Table 10. Therefore, stakeholder analysis was established to be minimally important in mobilizing finances for mega projects being undertaken by parastatals in Kenya’s energy sector.

### Table 10: Simple Regression Analysis of Profits Generated Annually on Total Loans

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>165.758</td>
<td>1</td>
<td>165.758</td>
<td>.814</td>
<td>.408*</td>
</tr>
<tr>
<td>Residual</td>
<td>1017.669</td>
<td>5</td>
<td>203.534</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1183.427</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### a. Predictors: (Constant), profits generated annually

The results shown in Table 10 (F₁, s = 0.814; p = 0.408) indicated that the value of F-statistic was not statistically significant at p-value = 0.05. This was interpreted to mean that the sample data used in the survey did not fit the simple linear regression model (Y = β₀ + β₁X₁ + ε) adopted with regard to the fourth specific objective. The results further meant that the null hypothesis which stated that: There is no significant effect of stakeholder analysis on financial mobilization in parastatals in Kenya’s energy sector was not rejected.

#### b. Dependent variable: Total loans

Both locally and internationally. Apparently, the various stakeholders have different stake hence the variance in their influence over mobilization of funds for the mega projects. Although, project managers opined that stakeholder analysis played a crucial role in finance mobilization, the hitherto statistics as captured in published financial reports indicated that the aforementioned analysis was largely inconsequential with regard to mobilization of funds required to finance mega projects in the energy sector in Kenya.

It is recommended that the parastatals should actively engage all pertinent stakeholders in the mobilization of funds to finance mega projects in the energy sector. The foregoing is bound to fast-track the finance mobilization process hence impacting positively on the implementation of the mega projects. The government should continue leading the mobilization of the requisite funds given that the mega projects in this context are under its purview.

### IV. CONCLUSIONS AND RECOMMENDATIONS

The article concludes that there are many stakeholders that have an interest in mega projects under the Kenya’s energy sector. These stakeholders include the financiers of the project, say, the national government, international financial institutions such as the World Bank and the IMF, local financial institutions like commercial banks, staff entrusted to implement and oversee the projects, as well as the members of the public who are the intended beneficiaries of the aforesaid projects. Given that parastatals are State agencies, the national government leads the efforts to mobilize funds

### REFERENCES


