PROJECT MANAGEMENT DRIVERS AND THE PERFORMANCE OF PRIMARY SCHOOLS ELECTRIFICATION PROJECT IN KENYA

Mitheu, M. M., & Ngugi, P. K.

The Strategic JOURNAL of Business & Change MANAGEMENT
ISSN: 2312-9492 www.strategicjournals.com

Vol. 7, Iss. 3, pp 833 – 846. August 24, 2020. www.strategicjournals.com, ©Strategic Journals

PROJECT MANAGEMENT DRIVERS AND THE PERFORMANCE OF PRIMARY SCHOOLS ELECTRIFICATION PROJECT IN KENYA

Mitheu, M. M., [1*] & Ngugi, P. K. [2]

[1*] Msc. Candidate, Jomo Kenyatta University of Agriculture & Technology [JKUAT], Kenya
[2] Ph.D, Lecturer, Jomo Kenyatta University of Agriculture & Technology [JKUAT], Kenya

Accepted: August 19, 2020

ABSTRACT

It should be noted that delivering project outputs within the set time and cost is a major concern in the electrification sector. The Government of Kenya in the period 2013/14 - 2015/16 mainly focused on electrifying primary schools with an aim to support the Government digital learning programme. However, the implementation of electrification of public primary schools electricity projects was not fully met. This study sought to examine the relationship between project management drivers and the performance of electrification projects in Kenya. This was supported by specific objectives which were; to establish how project leadership affects the performance of primary school electrification projects and to evaluate the role of project monitoring and evaluation on performance of primary school electrification projects in Kenya. This study adopted a descriptive design in conjunction with the explanatory research design. The target population for the study was 23,401 primary school electrification projects. The study administered 384 Semi-structured questionnaires to facilitate the collection of data. Both descriptive and inferential statistics were used in data analysis. The regression outcomes revealed the relationship between project leadership management and the performance of primary school electrification which was found to be positive. Monitoring and evaluation was found to affect the performance of primary school electrification positively and significantly. The style used in leadership should be considered by all leadership and this study recommended democratic style of leadership and as well as transformational-leadership. This would in turn lead to better relationships among stakeholders, employees and all the parties involved for the completion of any project. This study recommended that proper monitoring and evaluation should be set in place to enhance the remaining projects of primary school electrification and for future use in other electrification projects.

Key words; *Project Leadership, Project Monitoring and Evaluation, Performance*

CITATION: Mitheu, M. M., & Ngugi, P. K. (2020). Project management drivers and the performance of primary schools electrification project in Kenya. *The Strategic Journal of Business & Change Management*, 7(3), 833 – 846.

INTRODUCTION

The delivery of project outputs within the set time and cost is a major concern in the electrification sector (Badewi, 2016). Therefore, it is expected that when good project management drivers are put in place then the set time and cost factors will be achieved, which means that the performance of the electrification projects will be enhanced. The application of project management drivers has proved to be effective and flexible in attaining project goals in many industries. Due to the nature of high risk and high expenditure, electrification projects require better utilization and application of effective project management drivers (Haron, Devi, Hassim, Alias, Tahir, & Harun, 2017).

According to Koskela and Howell (2002), the application of PM drivers is supported by the underlying theory of project. This theory has a principle that entails a transformation process where the general task/project is divided into smaller tasks and as a result the time and cost for each task is minimized independently. A focus on the project management methods, procedures, tools and techniques that are widely used in the electrification industry will be of help to the contractors of electrification projects and will serve to better plan their efforts to succeed in their projects (Haron *et al*., 2017).

The execution of successful electrification projects can generate positive effects on companies such as the Rural Electrification Authority (REA) organization (Beleiu, Crisan, & Nistor, 2015). This calls for proper alignment of their projects with strategic objectives. For this to be achieved various drivers of project management need to be set in place.

Electrification projects are almost synonymous with economic growth as one cannot talk about the economic growth of a country without mentioning electric power supply. The global outlook of electric power is characterized by growing demand. This is evidenced by the ever increasing rate of urbanization, rapid population growth and expansion in global economy, yet the increased demand has not been met (IRENA, 2017). Practical Action (2017) notes that, approximately 300 million pupils worldwide go to schools with no electricity supply. This is clear evidence that the sector in the global scenario is marred with a number of challenges hence making it difficult to meet the demand for electric power.

For instance, the township Electrification Project launched in China in 2001 to distribute renewable electricity to one thousand towns was faced by ownership and tariff structures problems putting the sustainability of the project at risk (Zhaohong, & Yanling, 2015). However, now, 100 % of China's population has access to power, from previously 50% in the year 1976 and 90% in the year 1990 through the same project (Komiyama et al., 2012). Township Electrification Project was launched in China in 2001 to distribute renewable electricity to one thousand towns. China Village Electrification Project gram was also launched and it aimed at the electrification of more than 3.5 million households in 10,000 rural areas by the end of 2010 (Komiyama *et al*., 2012).

An electrification project in Vietnam has led to an increase of electricity access for about 97.7% households were connected to grid electricity as in 2014 (Ha-Duong & Nguyen, 2016). The government in this country has been committed to this project through its comprehensive initiatives to support the project. Policies, targets and laws have been set in place to propel the electrification project. One of the laws that were passed by the National assembly of Vietnam is the Electricity law in 2004. The Electrification Project has actively been integrated with broader development agendas in the country (Ha-Duong & Nguyen, 2016)

With an aim to increase electricity in Sub-Saharan Africa low-access countries have been receiving about 3.6 billion USD annually from the west countries (IEG, 2015). The bulk of these funds have been placed to the extension of traditional electricity grid projects. For instance, in Rwanda, The basic solar systems projects have been set in place as a basic necessity for the less privileged

The Strategic Journal of Business & Change Management. **ISSN** 2312-9492 (Online) 2414-8970 (Print). www.strategicjournals.com

population and also the Electricity Access Rollout Program (EARP) has been in play in this country, which is the backbone of the Rwandese government to combat the low rates of electrification (Lenz, Munyehirwe, Peters, & Sievert 2017). Uganda is also one of the beneficiaries of funds from the Chinese government to boost the rural electrification project in the country, which is to increase the electricity access rate to 51% by 2030 (Mwangi, 2018).

Electrification Performance is the extent to which results in electric project have been achieved at a point in time, or over a fixed timeframe (Krzysztof, Potkański, & Stanisław, 2011). In the USA, the Green Power project, has supplied electric power that reduce environmental impacts and has contributed to the buildup of American green power industry. The customers of GPP represent 3% of the electricity use in the US, as per 2016. GPP has realized growth in the number of partners that use the green power which account to more than 11,000. As per 2018, the green power supplied 45 billion kWh to 1700 partner organizations per annum.

Kenya has the highest electricity access rate in East Africa according to the most recent World Bank report which tracks sustainable energy achievements globally (World Bank, 2017). The World Bank released the Energy Progress Report covering the period up to 2016 where access to electricity in Kenya was 56 percent compared to 32.8 percent in Tanzania, 29.37 percent in Rwanda, 26.7 percent in Uganda, and 7.5 percent in Burundi(World Bank, 2017). In 2018, electricity access in Kenya stood at 73.42 percent thanks to several national electrification projects that are being carried out by Kenya Power like the last Mile Connectivity Project and GPOBA that singles out urban informal settlements and low-income households in rural areas. Kenya's national electricity access rate has grown significantly from 32 percent in 2013 driven by increased investment in the distribution network and investment in the production of renewable energy (World Bank, 2017). The World Bank report also says the rural population's access rate surged 7.17 percent in 2010 to 48.39 percent in the review period while the urban population's access rate increased 58.2 percent to 77.6 percent.

Statement of the Problem

The Government of Kenya in the period 2013/14 - 2015/16 mainly focused on electrifying primary schools with an aim to support the Government digital learning programme (REA, 2017). However, the implementation of electrification of public primary schools electricity projects was not fully met. For instance, according to the set strategic plan 2013/14 - 2015/16 of REA, the electrification target was 23,401 primary schools within the three years. But by the end of 2016, 615 schools had not been connected to electricity (REA, 2017). This means that Government digital learning programme would not function in the 615 schools as per the expectation of the government thus causing delays in the programme.

Schools that have not received electricity supply lag behind in terms of effectiveness in their programs which need electricity. For example, Banju, (2014) acknowledges that schools without electrical power cannot support computer lessons which is a key curriculum program in the education sector in line with Kenya's vision 2030. The lack of electricity has also increased the expenditure for the schools management as they try to source other means of power that are costly to facilitate education. Further, lack of power affects the pupils in their studies. In that, studying becomes a challenge without quality light, especially for students who want to come every early in their classes in the morning and stay in class late in the night (Maithani and Gupta, 2015). In one way or another performance of the schools is affected.

There are various local studies done on project management and electrification projects in Kenya. Mwihaki (2015) focused on accessibility to rural electrification in Naivasha, however Mwihaki failed to address project management drivers that influence performance of primary school

The Strategic Journal of Business & Change Management. ISSN 2312-9492 (Online) 2414-8970 (Print). www.strategicjournals.com

electrification projects; whereas Ocharo (2018) focused on project management practices and implementation of power projects in Kenya but he failed to focus on risk management as a driver which also influence the performance of primary school electrification projects; further, Mutwiri (2017) conducted a study on supply chain management practices and operational performance of rural electrification authority, however Mutwiri (2017) failed to concentrate on the role of project management drivers on the performance of primary school electrification projects in Kenya.

Study Objectives

The general objective of the study was to examine the relationship between project management drivers and the performance of primary school electrification projects in Kenya. The study was guided by the following specific objectives;

- To examine role of project leadership on the performance of primary school electrification projects in Kenya.
- To evaluate the role of project monitoring and evaluation on the performance of primary school electrification projects in Kenya.

LITERATURE REVIEW

Trait Theory of Leadership

The traits theory is the oldest leadership theory that states that leaders are born and not made as instigated by Thomas Caryle in the early 1900s (i.e., that leadership is largely innate, rather than being developed through learning). Early research (Mann, 1959; Stogdill, 1948) focused on the relationship between personality and leadership but reported little evidence. Bateman and Zeithanal (1993) emphasized that the trait approach assumes the existence of leadership personality and that leaders are born and not made. Davies (1990) also agrees that the trait approach stresses on the personality of the leader above all factors. According to 17 Bateman and Zeithanal, leadership traits could be isolated and that people with such traits could then be recruited, selected, and installed into leadership positions. DSouza (1989) identified the clusters of traits as character, technical and professional expertise, problem solving and analytical ability, innovation, self-development, focus on results, setting goals, taking personal responsibility for outcomes, effective communication, inspiring and motivating others, trust and interpersonal effectiveness, concern for others, development, ability to champion change and ability to relate well to outside stakeholders. John Gardner (1989) came to the conclusion that there were some qualities or attributes leaders possessed. These are: physical vitality and stamina; intelligence and action-oriented; judgment; eagerness to accept responsibility; task competence; understanding of followers and their needs; skill in dealing with people; need for achievement; capacity to motivate people; courage and resolution; trustworthiness; decisiveness; self-confidence; assertiveness and adaptability/flexibility. Past studies using this theory have shown some little consistency in the results of the various trait studies, but some traits did appear more frequently than others, including: technical and professional skill, problem solving skills, communication and interpersonal skills. The trait theory however has some limitations (Saddler, 1997). Traits associated with leadership in one situation do not predict leadership in another Gordon (1987). Gordon says that there is also no consensus as to what exhibit the behavior of the leader. This has ignored the role of 18 subordinates and its effects on leadership. Leadership is a dynamic process varying from situation to situation with changes in leaders, followers and situations as emphasized by Hersey and Blanchard (1988). Stogdill (1974) concluded that a person does not become a leader by virtue of possession of some combination of traits but situational variables obviously influence the leader's behavior patterns. He pointed out that different types of group of activities require different types of leaders. This theory informed this study by bringing out a good understanding of what leadership entails and how it can be used to enhance performance in

The Strategic Journal of Business & Change Management. ISSN 2312-9492 (Online) 2414-8970 (Print). www.strategicjournals.com

electrification performance in Kenya. It informed the variable project leadership.

The Realistic Evaluation Theory

This hypothesis of realistic evaluation was first initialized by Pawson in 1997. It is a theory that tries to explain 'what works for whom in what conditions and in what regards, and how?' (Pawson & Tilley, 2004). The realistic evaluation theory is a model that concentrates on finding out the outcomes that are produced from project interventions, how they are produced, and what is significant about the varying conditions in which the interventions take place (Pawson & Tilley, 2004). The model allows the surveyor to understand what aspects of an intervention make it effective or ineffective and what contextual factors are needed to replicate the intervention in other areas (Cohen, Manion, & Morison, 2008). The evaluation looked into in this theory is the contextual stipulations that make projects effective therefore developing lessons about how they produce outcomes (Fukuda-Parr, Lopes, & Malik, 2002). This theory aids in understanding how projects expectations are delivered, therefore it helped in explaining the monitoring and evaluation variable which was a key determinant of electrical performance in this study.

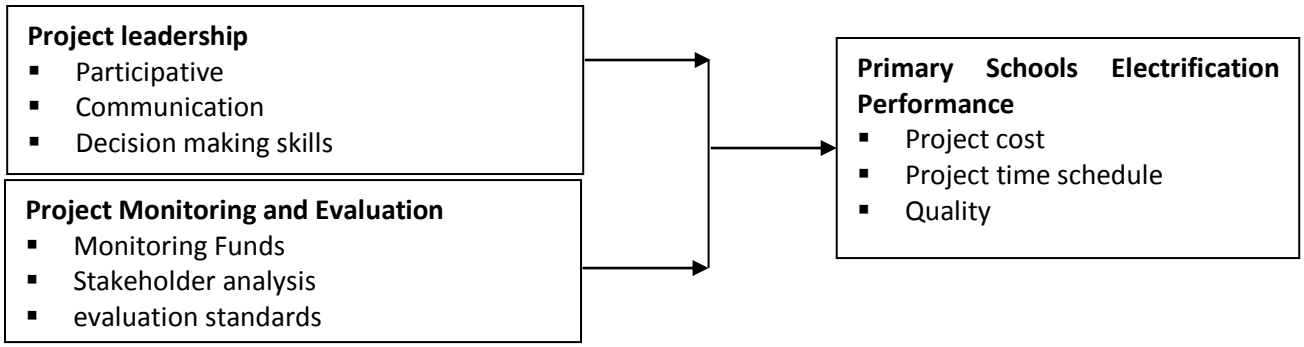

Figure 1: Conceptual Framework

Empirical Review

Kiioh (2015) examined the influence of leadership on performance of Information Technology projects at Fintech Kenya. The study employed a descriptive survey design and adopted a combination of both quantitative and qualitative methods. The study found that there was a significant relationship between project management leadership aspects and performance of IT projects; project management leadership style had the greatest influence on performance of IT projects.

Ford (2014) conducted a study on the relationship between management control system usage and project success. Using data obtained from managers in 22 organizations, he explored the extent to which managers believed their management control systems were employed when implementing projects. Relationships between commonly employed management controls and implementation success were also estimated. Results indicated that managers used management control systems less extensively than other elements of leadership. A strong relationship was found between the use of control systems and project success.

Thwala (2012) conducted a study on the relationship between leadership styles and project success in the South Africa construction industry. Data was collected through a structured 34 questionnaire aimed at 150 project and construction managers in the South African construction industry. Data from the questionnaire were analyzed using SPSS software. Correlation analysis was used to determine the relationship between leadership styles and project success. Likewise, the relationship between the different leadership styles and project successes in the South African construction industry was investigated using

Pearson Product moment Correlation Coefficient. Findings from the study revealed that there is a positive relationship between transactional leadership and project success. The results further revealed that there is no relationship between Laissez faire leadership style and construction project success.

Zvoushe and Gideon (2013) did a study on the utilization of Monitoring and Evaluation Systems by Development Agencies, the Case of the UNDP in Zimbabwe. They used desk and field research. The study also applied purposive sampling to choose specialists in the agencies. The study noted that the UNDP in Zimbabwe is yet to install a comprehensive M&E system. The study also realized that, there was low note systematic use of evaluation findings from previous projects while its evaluation approaches have a disturbing skew towards the quantitative. A conclusion was made that such excessively quantitative approaches were entangled with the risk of diminishing the impact of related factors in development projects. As a result it was suggested that a specialist unit for monitoring and evaluation should be established to cater for technical challenges in the designing and implementation of M&E systems.

Mackay (2011) in his study investigated the monitoring and evaluation systems of Australia in various public sectors. This study found out that two main departments; the Australian National Audit Office and department of Finance steered the evaluations system for Australia. It was also found that the cabinet members and key ministers strongly supported the use of evaluation findings to help in decision making. As a result overall success was attained in the various public sectors in Australia. However, the evaluation system was also realized to have some shortcomings; there was uneven quality of evaluations which was attributed to lack of evaluation training. Further, it was established that the civil servants in this particular public sectors had natural inclination of avoiding evaluations. A conclusion was made that a combination of factors strong political will, resource availability, organizational capacity, structural solidity and strong Monitoring and Evaluation Systems design led to overall development in the public sectors.

A study by Phiri (2015) focused on how M&E plans influenced project performance. A mix of ex-post facto research technique and survey was employed in this study. The investigation established that monitoring and evaluation has a directly proportional influence on project performance and that an M&E plan should be in place if a positive influence of M&E has to be seen. Further, M&E needs to be implemented in full and systematically in order to influence project performance. The result established in Phiri's research proved that both M&E planning and M&E training were essential for good project performance. The findings revealed that training in M&E was essential to eliminating serious compromises that may result from incompetence. Therefore, a suggestion was made that M&E training was a must for successful project performance. Generally, everybody involved in project implementation is also involved in the implementation of M&E, including partners, and should receive training (Acharya et al, 2016).

METHODOLOGY

This study adopted a descriptive design in conjunction with the explanatory research design. The design examines data collected from participants at one point in time to make inferences about a population of interest (Hyland *et. al*., 2016). The target population for the study were 23,401 primary school electrification projects, whereby 22,786 were the completed projects and 615 were the incomplete projects as of 2016. The projects were chosen because they were the scheduled projects for REA between 2013/14 - 2015/16 (REA, 2017). From the target population a sample was obtained by the use of simple random sampling technique. In simple random sampling all the respondents have equal chances of being selected. The advantage of this method is that it gives a sample size that is representative of the whole population.

The Strategic Journal of Business & Change Management. **ISSN** 2312-9492 (Online) 2414-8970 (Print). www.strategicjournals.com

The sample was drawn from the target population of 23,401 projects and the sample size of 384 was determined according to the Fischer's formula, (Fowler, 2013).

$$n = \frac{Z^2pq}{d^2}$$

This study used primary data where 384 Semi-structured questionnaires were used in this study in the collection of data. The quantitative information in this examination was dissected by expressive insights and inferential measurements utilizing Statistical Package for Social Sciences (SPSS). Descriptive statistics included measures of central tendencies (mean), measures of dispersion (standard deviation), frequencies and percentages. Thematic analysis was used in processing qualitative data and results were presented in prose form. The study used multivariate regression analysis to establish the relationship between the dependent variable and independent variables.

FINDINGS

Project Leadership

Project leadership in this study was measured through different statements. Table 1 showed that majority 70.7 % (35.7%+35%) agreed with the statement that the top leaders engage all stakeholders in decision making while 32% of the respondents were neutral. On the statement that there is a good relationship between leaders in our organization and outside stakeholders, majority of the respondents, 67% (30%+37%) agreed with the statement. Further, majority of the respondents 69.3% (33.3%+36%) agreed that the senior leadership frequently motivates other junior staffs and employees, still on project leadership, 69.3% (33.3%+36%) of the respondents agreed that leaders have ensured there is effective communication and timely feedback. Further, 63.7% (33%+30) agreed with the statement that leaders provide guidance without pressurizing the workers, while 68.4% (32.7%+35.7%) agreed that the leadership of this organization rewards and also punishes employees. Further, majority of the respondents, 71.3 % (35%+36.3%) agreed on the statement that Leaders provide guidance without pressurizing the workers, while 69.3% (35.3%+34%) agreed that the leadership of this organization rewards and also punishes employees, while 71.6% (36.3%+35.3%) agreed that orders were given and clarified by our leaders 27% of the respondents were neutral.

The Likert scale used to measure project leadership as an independent variable showed that the average mean was 4.01. This implied that the respondents agreed with most of the statements measuring project leadership. However, the responses varied as shown by the standard deviation of 0.87. These results were in agreement with Kiioh (2015) who found that there was a significant relationship between project management leadership aspects and performance of IT projects; project management leadership style had the greatest influence on performance of IT projects. The findings also were consistent with Abdullah (2015) who revealed that democratic leadership style emerged as the most significant influence on organizational performance.

Table 1: Project Leadership

Statement	1	2	3	4	5	Mean	Std. Dev
The top leaders engage all stakeholders in decision making	0.30%	3.00%	26.00%	35.70%	35.00%	4.02	0.87
There is a good relationship between leaders in our organization and outside stakeholders	0.30%	2.30%	30.30%	30.00%	37.00%	4.01	0.89
The senior leadership frequently motivates other junior staffs and employees	1.30%	0.30%	29.00%	33.30%	36.00%	4.02	0.89
Our organization top management have shown commitment in the	1.30%	0.30%	34.70%	33.00%	30.70%	3.91	0.88

The Strategic Journal of Business & Change Management. ISSN 2312-9492 (Online) 2414-8970 (Print). www.strategicjournals.com

projects we have had							
Leaders have ensured there is effective communication and timely feedback	0.00%	2.00%	29.70%	32.70%	35.70%	4.02	0.86
Leaders provide guidance without pressurizing the workers	0.30%	1.30%	27.00%	35.00%	36.30%	4.06	0.85
The leadership of this organization rewards and also punishes employees	0.70%	1.30%	28.70%	35.30%	34.00%	4.01	0.86
Orders are given and clarified by our leaders	0.00%	1.30%	27.00%	36.30%	35.30%	4.06	0.82
Average						**4.01**	**0.87**

Monitoring and Evaluation

The researcher also sought to find out the use of monitoring and execution in the project management of primary electrification. On the statement, we have comprehensive monitoring & evaluation system, 59.3% of the respondents agreed with it, while 38.7% were neutral on it. The statement that our company do evaluation of findings from previous projects had majority of the respondents, 64% (34%+30%), agreeing with it, and 69.7% of the respondents also agreed that there is specialist unit that monitors and assess the progress of projects while 28.7% were neutral on the same statement. Majority of the respondents, 70.3% (35%+35.3%) also agreed with the statement that Project stakeholders analyzes and discusses information on the proceedings of the project, while 31.3% of the respondents were neutral on this statement, 62.7% (28+34.7%) of the respondents also agreed that there are periodical meetings held by project Stakeholders. Further, most of the respondents, 67.3% agreed that project stakeholders analyzes and discusses information on the proceedings of the project. Still on monitoring and evaluation, majority, 66.3% (35.3%+31%) of the respondents agreed that the resolutions agreed upon by stakeholders in their discussion are passed on to relevant personnel for implementation while 32.7% of the respondents were neutral. The next statement measuring monitoring and evaluation was our evaluation standards are uniform for all the projects, 66.3% of the respondents agreed with the statement while 33.7% were neutral. Similarly, on the statement, monitoring and evaluation is done systematically in our company, 68.7% agreed with statement. While else on the statement that we always complete the projects of assessment for every project, 67.7% agreed with the statement, and 30.7% were neutral on the same statement. On the statement that our assessment systems contributes to learning and reflection of projects, 65.6% respondents agreed, and 33.3% of the respondents were neutral on the statement.

As per the Likert scale used, majority of the respondents agreed with the statements on monitoring and evaluation, this was proved by the average mean which was 3.97. However, the responses varied as shown by the standard deviation of 0.85. These findings were consistent with Zvoushe and Gideon (2013) who agreed that excessively quantitative approaches to monitoring and evaluation were entangled with the risk of diminishing the impact of related factors in development projects. As a result it was suggested that a specialist unit for monitoring and evaluation should be established to cater for technical challenges in the designing and implementation of M&E systems. In addition, these findings corroborated the results of Phiri (2015) who acknowledged that monitoring and evaluation has a directly proportional influence on project performance and that an M&E plan should be in place if a positive influence of M&E has to be seen and thus, M&E needs to be implemented in full and systematically in order to influence project performance (Acharya *et al.,* 2016).

Table 2: Monitoring and Evaluation

Statement	1	2	3	4	5	Mean	Std. Dev
We have comprehensive Monitoring & Evaluation system	0.7%	1.3%	38.7%	33.3%	26.0%	3.8	0.9
Our company do evaluation of findings from previous projects	0.7%	1.0%	34.3%	34.0%	30.0%	3.9	0.9
There is specialist unit that monitors and assess the progress of projects	0.3%	1.3%	28.7%	39.0%	30.7%	4.0	0.8
Our staff are trained on evaluation program	1.0%	1.7%	30.7%	33.3%	33.3%	4.0	0.9
This organization has set aside some resources and money to aid monitory services	0.3%	0.7%	28.7%	35.0%	35.3%	4.0	0.8
There are periodical meetings held by project Stakeholders	0.7%	1.0%	35.7%	28.0%	34.7%	4.0	0.9
Project stakeholders analyzes and discusses information on the proceedings of the project	0.7%	0.7%	31.3%	37.3%	30.0%	4.0	0.8
The resolutions agreed upon by stakeholders in their discussion are passed on to relevant personnel for implementation	0.3%	0.7%	32.7%	35.3%	31.0%	4.0	0.8
Our evaluation standards are uniform for all the projects	0.0%	0.0%	33.7%	32.3%	34.0%	4.0	0.8
Monitoring and evaluation is done systematically in our company	0.3%	0.7%	30.3%	34.0%	34.7%	4.0	0.8
We always complete the projects of assessment for every project	1.0%	0.7%	30.7%	32.7%	35.0%	4.0	0.9
Our assessment systems contributes to learning and reflection of projects	0.3%	0.7%	33.3%	30.3%	35.3%	4.0	0.9
Average						**4.0**	**0.9**

Performance of Primary School Electrification

Performance of primary school electrification was measured through different responses regarding the same. The results in Table 3, majority of the respondents, 63.6% agreed that our projects have been completed within the set time frame, while 65.7% also agreed that our projects have been completed within the planned scope. Further, majority of the respondents, 67.7%, also agreed that our projects have been completed within the set budget while 31% were neutral with the same statement. Similarly, most of the respondents, 67.7%, agreed that the electrification projects have satisfactorily contributed to completion of other projects in the schools while 31% were neutral on that statement. Still on the performance of primary school electrification, majority of the respondents, 65% agreed that our projects have achieved sustainability and no longer requires funding from the government. Further, 66.4% of the respondents agreed that our projects have achieved sustainability and no longer requires funding from the government. Most of the respondents, 67.4% also agreed that the electrification projects have supported the laptop projects in schools, 69.7% of the respondents also agreed that our electrification projects have boosted the performance of schools while on the same 31.7% were neutral. Majority of the respondents, 64.3% also agreed the electrification projects have enhanced security in the school. Finally, 65.7% of the respondents also agreed our projects have contributed to the overall

The Strategic Journal of Business & Change Management. ISSN 2312-9492 (Online) 2414-8970 (Print). www.strategicjournals.com

development of schools while 32.3% were neutral on this statement.

As per the Likert scale used, the mean average mean for the statements on performance of primary school electrification was 3.98. This implied that the selected project managers agreed with the statements on the performance as far as primary electrification is concerned. However, the responses varied as by the standard deviation which was 0.86. These findings were in agreement with Muller and Turner (2017) who stated that project performance can be measured in terms of completing the electrification project within time, outlay, and according to requirements. Furthermore the findings are in agreement with Kwofie, Botchway and Amos-Abanyie (2018) who also agrees that time, cost, and quality are the main dimensions of evaluating performance. Time is the schedule or duration taken by the project team to carry out all the tasks, while cost entails the budget plan of the electrification project (Muller, 2017). In addition, Kerzner (2017) notes that quality is key to the performance of a project and that if an electrification project is completed within the set timeframe and budget plan, and meets the excellence which it was intended to attain, then that project is deemed to have a successful performance.

Table 3: Performance of Primary School Electrification

Statement	1	2	3	4	5	Mean	Std. Dev
Our projects have been completed within the set time frame	0.30%	1.00%	35.00%	29.30%	34.30%	3.96	0.87
Our projects have been completed within the planned scope	0.30%	0.70%	33.30%	28.70%	37.00%	4.01	0.87
Our projects have been completed within the set budget	0.70%	0.70%	31.00%	34.70%	33.00%	3.99	0.85
The electrification projects have satisfactorily contributed to completion of other projects in the schools	0.70%	1.00%	33.30%	32.30%	32.70%	3.95	0.87
Our projects have achieved sustainability and no longer requires funding from the government	0.30%	0.70%	32.70%	31.70%	34.70%	4.00	0.86
The electrification projects have supported the laptop projects in schools	1.00%	0.00%	31.70%	30.70%	36.70%	4.02	0.88
Our electrification projects have boosted the performance of schools	0.70%	0.30%	29.30%	37.70%	32.00%	4.00	0.83
The electrification projects have enhanced security in the school	0.30%	0.70%	34.70%	34.00%	30.30%	3.93	0.84
Our projects have contributed to the overall development of schools	0.70%	1.30%	32.30%	36.70%	29.00%	3.92	0.85
Average						**3.98**	**0.86**

Inferential Statistics

Correlational Analysis

This study used Pearson correlation to determine whether there was a relationship between performance of primary school electrification and each independent variables. The Pearson correlation usually determines the strength (denoted as r) of the linear association if it exists. The (r) is measured through a threshold of -1 to 1. When r is between -1 and 0 then there exist a relationship but a negative one, and when r is between 0 and 1, then there exist a relationship but a positive one.

The results in the Table 4 conveyed that project leadership and the performance of primary school electrification are positively and significantly linked (r= 0.400, p=0.000). This implied that the project leadership led to increased performance in the primary school electrification.

Further, it was established that there was a positive and significant relationship between monitoring and evaluation and the performance of primary school electrification. This was showed by (r= 0.521, p= 0.000).

These results implied that project leadership and monitoring and evaluation significantly influence the performance of primary school electrification. This means that a unit change in any of the variables causes a positive variation on the performance of primary school electrification.

Table 4: Correlational Analysis

		Electrification Performance	Project Leadership	Monitoring & Evaluation
Electrification Performance	Pearson Correlation	1		
Project Leadership	Pearson Correlation	.400**	1	
	Sig. (2-tailed)	0		
Monitoring & Evaluation	Pearson Correlation	.521**	.161**	1
	Sig. (2-tailed)	0	0	

Regression Analysis

This analysis captured the fitness of the regression model in explaining the study phenomenon. The study established that the explanatory variables of the study, that is, was established that the selected variables, that is, project leadership and monitoring and evaluation were satisfactory factors in explaining the performance of primary school electrification. This was supported by the value of R squared (48.9%) also known as the coefficient of determination. This meant that project leadership, and monitoring and evaluation explain 58.5% of the deviations in the performance of primary school electrification as the dependent variable.

In the field of statistics significance or the strength of a relationship of the predictor variable to the outcome variable is tested using the p-value. If the p-value is less than the accepted standard critical value (0.05) then the model is deemed fit in explaining the relationship; otherwise the model is taken to be insignificant for a study.

The Table likewise revealed the outcome of the analysis of variance. The outcome demonstrated that the general model was measurably significant. Further, the outcomes from the investigation showed that uncovered that project leadership, and monitoring and evaluation are great indicators of performance of primary school electrification. This is supported was supported by both the F statistic which is 70.475 and the p-value (0.000) < (0.05), accepted standard value of significance.

The outcomes from the regression indicated a significant and positive effect between project leadership and the performance of primary school electrification (β= 0.248, p=0.029). This indicated that a unit increase in project leadership led to 24.8% increase in the performance of primary school electrification.

Finally, the results proved the existence of a positive and significant linkage between monitoring and evaluation and the performance of primary school electrification. (β= 0.383, p=0.017). This meant that a unit increase in monitoring and evaluation was accountable for 38.3% increase in the performance of primary school electrification.

Table 5: Model results from the Regression Analysis

Model Fitness				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error Estimate**
1	.699a	0.489	0.482	0.1817
ANOVA				
Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
4.654	2	2.327	70.475	**.000b**
98.01	297	0.33		
102.664	299			
Regression of coefficients				
Statement	**β**	**Std. Error**	**t**	**Sig.**
(Constant)	-0.262	0.255	1.028	**0.305**
Project Leadership	0.248	0.040	6.2000	**0.029**
Monitoring and Evaluation	0.383	0.048	7.9792	**0.017**

The model of this investigation was therefore presented as follows;

Y= -0.262 **+**0.248$\mathbf{X_1}$**+** 0.383$\mathbf{X_2}$

CONCLUSIONS AND RECOMMENDATIONS

According to the correlation outcomes, the relationship between project leadership management and the performance of primary school electrification was found to be positive. This implied that project leadership affected the performance in electrification project in a positive way. Regression outcomes also revealed that the association between project leadership and the performance of primary school electrification to be positive and significant. This implied that one unit increase of project leadership leads to increase in the performance of primary school electrification. Project leadership in terms of the mode and forms of leading used in the company responsible for electrification.

From the correlation outcomes, monitoring and evaluation was found to affect the performance of primary school electrification positively and significantly. This implied that the results of primary school electrification varied to some degree due to the monitoring and evaluation. Regression outcomes also revealed that the association between monitoring and evaluation and the performance of primary school electrification to be positive and significant. This implied that effective practice of monitoring and evaluation caused a positive change in the performance of electrification.

This study suggested that the election of leaders heading electrification projects was a vital issue, in that, leaders who are competent and outgoing should be considered for such positions. The style used in leadership should also be considered by all leadership and this study recommended democratic style of leadership and as well as transformational-leadership. This would in turn lead to better relationships among stakeholders, employees and all the parties involved for the completion of any project.

This study recommends that proper monitoring and evaluation should be set in place to enhance the remaining projects of primary school electrification and for future use in other electrification projects. A budget should also be set in place to support M&E. This study suggest to REA, KPLC and other electrification companies to heavily invest in the sector of M&E for cost-effective and timely completion of projects in future. Independent bodies should be considered in leading the task of monitoring and evaluation rather than using internal stakeholders.

Areas of Further Research

This study suggested a study to be conducted that strictly focuses on the use and effect of monitoring

The Strategic Journal of Business & Change Management. **ISSN** 2312-9492 (Online) 2414-8970 (Print). www.strategicjournals.com

and evaluation on the performance of electrification projects, a case of KPLC or Engen. This will help in revealing loopholes that exist in the whole process of project execution which this study have not done. Another study should also be done on other variables that affect the primary school electrification projects because the variables used in this study were only accountable for about half the performance.

REFERENCES

Acharya, B. Y., Kumar, V., Satyamurti, R., & Tandon. (2016). *Reflections on Participatory Evaluation - the Private Voluntary Organizationfor Health-II (PVOH) Experience. Paper presented for the International Conference on Participatory Monitoring and Evaluation: Experience and Lessons*. Cavite,

Badewi, A. (2016). The impact of project management (PM) and benefits management (BM) practices on project success: Towards developing a project benefits governance framework. *International Journal of Project Management*, *34*(4), 761-778.

Banju, M. K. (2014). Factors influencing implementation of the laptop project in public primary schools in Kenya: A Case of Nairobi County. *Unpublished Thesis Report), University of Nairobi, Nairobi*.

Beleiu, I., Crisan, E., & Nistor, R. (2015). Main factors influencing project success. *Interdisciplinary Management Research*, *11*, 59-72.

Carbone, T. A., & Tippet, D. D. (2004). Project Risk Management Using the Project Risk FMEA. *Engineering Management Journal*, 16(4), 28-35. Retrieved from http://www.fmeainfocentre.com.

Cicmil, S., Williams, T., Thomas, J., & Hodgson, D. (2013). Rethinking project management: researching the actuality of projects. *International journal of project management*, *24*(8), 675-686.

Fowler, F. J. (2013). *Survey research methods*. Sage publications.

Ha-Duong, M., & Nguyen, H. S. (2016, October). Affordable and reliable power for all in Vietnam progress report. In *CleanED and IES scientific seminar-winter 2016 session*.

Haron, N. A., Devi, P., Hassim, S., Alias, A. H., Tahir, M. M., & Harun, A. N. (2017, December). Project management practice and its effects on project success in Malaysian construction industry. In *IOP Conference Series: Materials Science and Engineering* (Vol. 291, No. 1, p. 012008). IOP Publishing.

Hyland, A., Ambrose, B. K., Conway, K. P., Borek, N., Lambert, E., Carusi, C. ... & Abrams, D. (2016). Design and methods of the Population Assessment of Tobacco and Health (PATH) Study. *Tobacco control*, tobaccocontrol-2016.

Irena. (2017). *Rethinking Energy 2017: Accelerating the global energy transformation*. Abu Dhabi: International Renewable Energy Agency.

Kerzner, H. (2017). *Project management metrics, KPIs, and dashboards: a guide to measuring and monitoring project performance*. John Wiley & Sons.

Koskela, L., & Howell, G. (2002, August). The theory of project management: Explanation to novel methods. In *Proceedings IGLC* (Vol. 10, No. 1, pp. 1-11).

Kwofie, T. E., Botchway, E. A., & Amos-Abanyie, S. (2018). Examining the Performance Level of Project Management Competencies of Architects in Ghana Using Gap Analysis Approach.

Lenz, L., Munyehirwe, A., Peters, J., & Sievert, M. (2017). Does large-scale infrastructure investment alleviate poverty? Impacts of Rwanda's electricity access roll-out program. *World Development*, *89*, 88-110.

Lopes, A. L. A. (2018). Customer Relationship Management Strategy: the factors towards a success implementation.

Mackay, K. (2011). The performance framework of the Australian government, 1987 to 2011. *OECD Journal on Budgeting*, *11*(3), 1-48.

Maithani, P and Gupta, D (2015). 'Achieving Universal Energy Access in India: Challengesand the Way Forward' *SAGE Publications India*

Muller, R. (2017). *Project governance*. Routledge.

Mwangi, J. (2018, October 23). Uganda receives US $212m for rural electrification programme. *Construction Review Online*. Retrieved from: http// constructionreviewonline.com.

Mwihaki, E. D. (2015). Factors Influencing Accessibility of Rural Electrification in Kenya: A Case of Naivasha Constituency. *Master of Arts in Project Planning and Management. University of Nairobi.*

Ocharo, R. N., & Kimutai, G. (2018). Project management practices and implementation of power projects in Kenya. *International Academic Journal of Information Sciences and Project Management*, *3*(1), 28-46.

Phiri, Bernard (2015). Influence of monitoring and evaluation on project performance: A Case of African Virtual University, Kenya. *University of Nairobi*.

REA (2017). *Rural Electrification Authority Strategic Plan* 2016/2017 – 2020/2021.

Williams, T., & Samset, K. (2015). Issues in front-end decision making on projects. *Project Management Journal*, *41*(2), 38-49.

Winter, M., Smith, C., Morris, P., & Cicmil, S. (2012). Directions for future research in project management: The main findings of a UK government-funded research network. *International journal of project management*, *24*(8), 638-649.

Zhaohong, B., & Yanling, L. (2015). An Overview of Rural Electrification in China: History, technology, and emerging trends. *IEEE Electrification Magazine*, *3*(1), 36-47.

Zvoushe, H. & Gideon, Z. (2013). Utilisation of Monitoring and Evaluation Systems by Development Agencies: The Case of the UNDP in Zimbabwe. *American International Journal of Contemporary Research*, Vo.3 (3), PP.70 – 83.