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INFLUENCE OF STAKEHOLDERS PARTICIPATION ON COMPLETION OF FIBER OPTIC PROJECTS IN KENYA

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Abstract

Statistics have shown that fiber optic penetration in Kenya has lees compared to other countries which implies that fiber optic in Kenya is being underutilized. The fiber optic project has a huge potential of transforming the life of Kenya through creation of jobs opportunities if the projects are allowed to reach their potential. This study sought to establish how stakeholders participation influenced fiber projects completion in Kenya. The study analysed stakeholder participation during project identification, planning, supplier selection, financing, and influence on completion of fiber projects in Kenya. Because of the nature of the study, descriptive design was appropriate and the population included 465 projects managers working at the seven firms that provide fiber optic in the country chosen for this study due to their strategic positioning in the companies. Since the study population was small, the study opted for census of the entire population as the study sample.

The study used quantitative data collected using a questionnaire captured through a 5-point Likert scale type. The results of this study indicated that stakeholder participation in project identification, planning, supplier selection and financing had a positive and significant influence on completion fiber projects in Kenya. The study concluded that fiber optics providers in Kenya that carried out stakeholders' participation during fiber projects identification, planning, supplier selection and financing reduced cost and time overruns and generally reduce the time of completion of their projects. The study recommends that fiber optics provider in Kenya should ensure that all the project managers are enlightened on the benefits of stakeholder participation during project identification, planning, supplier selection and financing

Keywords: *Stakeholders, Project Identification, Planning, Financing, Fiber Projects*

INTRODUCTION

Background Information

The areas that are presented in this chapter include a brief discussion on the background on stakeholder participation and its link to project implementation, a detailed discussion of the study problem. The chapter further presented the objectives that guided the study that includes both the general objective and specific objectives. This chapter also presents the rationale for conducting the study, study limitations and finally scope of the study. Stakeholder participation is the act of involving all the stakeholders in every activity regarding the project (Schwalbe, 2015). Development experience over the last few decades and the increased concern of international funding agencies and nonprofit organizations in social sector have made stakeholder involvement an inevitable part of the development process (World Bank, 2011). The participation of the stakeholder in project implementation is motivated by the need to make the project demand driven where beneficiary of the project are allowed to participate in the process of project implementation from the start until the end (Schwalbe, 2015).

Stakeholder participation is increasing becoming an integral part of project implementation practice and in aiding in achieving excellent results (Bal, Bryde, Fearon and Ochieng, 2013). Stakeholder participation if when managed delivers many positive deliverables where it increase the ability of the stakeholder to work together in comfort to enhance the performance and sustainability. Stakeholder participation further reduces the negative energy that surrounds project implementation therefore; it has been recognized as one of the best practices in project implementation (Schwalbe, 2015). Report by UNDP (2016) highlighted that community projects should be proceeded by inclusive stakeholder participation where women also should be included throughout the project life cycle. The report further provided that stakeholder participation is an avenue where the vision and prioritize of the projects are discussed to ensure the project results remain sustainable in the long term. Stakeholders should be given an opportunity to gather all the relevant information that is needed for project implementation. According to Bal et al., (2013) lack of stakeholder participation hinters of rather weakens the capacity of the beneficiaries to contribute to the overall outcome of the projects which may reduce the overall performance of the projects. According to Pandi-Perumal, Akhter, Zizi, Jean-Louis, Ramasubramanian, Edward Freeman and Narasimhan, (2015), stakeholder participation in project implementation improves the chance of project completion or rather project performance.

Pandi-Perumal *et al*., (2015) suggested that stakeholder participation would lead to empowerment through capacity building, skills, and training. According to Pandi-Perumal et al., (2015) stakeholders' participation takes many various forms, which may include contribution of required resources, decision making and sharing of information among the stakeholders. By increasing the ability of people, projects, and/or communities to be self-reliant, they are then be able to contribute towards the sustainability of development projects which in turn could contribute to the broader notion of sustainable national development. Participation is a multidimensional and complex concept (Pandi-Perumal et al., 2015). Not only would involvement approaches promotes project sustainability but would make projects more efficient and effective (Green & Haines, 2015). Stakeholder participation is an antidote to the failure of development assistance with the World Bank placing greater emphasis on stakeholder participation as a way to ensure development sustainability (Bennett & Dearden, 2014). It is now regarded as a critical component, which could promote the chances of development initiatives being sustainable through community capacity building and empowerment (Green & Haines, 2015). Nangoli, et. al. (2016) points to seven (7) levels of stakeholder participation, which ranges from passive collaboration to active role participation by the beneficiaries or the community members. For purposes of this study, the researcher will for focus on stakeholders participation at various stage of project implementation which include project identification, planning, supplier selection and financing in implementation of fiber projects in Kenya.

Kenya is among countries in the world that have fast growing internet market and continues to aspire to be a leading ICT hub in the region. Acceleration of ICT infrastructure was identified as among the ways that can be adopted to reduce poverty and spur economic development. Because of this reason, government has invested in ICT project, which include government implemented national optic fiber backbone infrastructure (MoICT, 2013). Through this project that span 4300 km from the coast of Mombasa through major highways, Kenya have been able to access high speed internet which has played significant role in providing ICT solutions in major locations. It is approximately that the ICT sector now contributes to about 12.1% of the gross domestic product (Sly, 2014). The statistics quoted by Moenga (2016) indicates that fiber optic projects take longer than expected to be completed hence slowing economic growth. This time overruns and cost overruns remain burden to the project implementers reducing economic benefits of the projects. In Kenya fiber optic penetration is less than 1% after 9 years of national fiber optic backbone implementation while on average penetration from developed countries stands at 6.6% per annum. This implies that the broadband infrastructure is under-utilized in this country (Ncube & Leyeka 2017). Fiber optic projects have the potential that the broadband infrastructure has to transform livelihoods as an enabler for economic and social growth.

Ncube and Leyeka (2017) showed that fiber optics fosters GDP growth, enables creation of jobs and stimulates innovation, while also enabling improvements in education, health care and other social services. Majority of the low and middle-income countries broadband penetration has a potential of yielding additional growth in GDP, which is approximately to be about 1.38%. Despite contribution to GDP, broadband penetration also accelerates productivity by a factor approximately to about 0.13%. Vision 2030 further aspires for a country firmly interconnected through a network of roads, railways, ports, airports, and waterways, and telecommunications. Further increasing internet connectivity is among the enablers of big 4 agenda for Government of Kenya.

The existing literature on implementation of fiber optic projects has primarily focused on various aspects of project implementation but has failed to recognize the integral role played by stakeholders at various level of project implementation on completion of the fiber optic projects. Moenga (2016) carried out a study on the determinants of effective utilization of broadband infrastructure projects in Kenya. The study however, did not focus on the role of key stakeholder participation. Another study by Ondego and Moturi (2016) focused on how fiber optic technology has become deeply involved in the conception and practice of socioeconomic development of developing countries. Ondego and Moturi (2016) recommended that viable models be developed and tested thereby to ensure fiber projects are sustainable in the end. Finally, Lemlem, (2017) studied how liquid telecom optimizes on the implementation of their fiber projects in Kenya. The study also did not focus on the role of stakeholder participation on completion on fiber optics projects.

The review of the past studies presented both conceptual and contextual research gaps that the current study will aim to address. For instance, the studies by Moenga (2016) examined the determinants of effective utilization of broadband infrastructure projects in Kenya by focusing on the National optic fiber backbone infrastructure project and Lemlem, (2017) on the determinants of optimal implementation of Fiber optic projects in Kenya by taking the case of liquid telecom Kenya presented a conceptual research gap. On the other hand, the studies by Kugonza and Mukobi (2016) on public participation in services delivery projects in Uganda, Quagraine (2014) on the impact of employee involvement as a management tool in decision-making and its implementation in organizations, Rodrigo (2016) on the impact of employee involvement and participation on organization performance in Spanish companies, Lopes et al., (2015) and Hibbard et al., (2014) on the importance on NGOs' part in sustainable community development were conducted in different settings with different economic as well as social settings in Kenya. Research on stakeholders participation has mainly focused on government sponsored projects hence neglecting private funded projects such as fiber projects. They were also focused outside the current scope (fiber optic projects) and therefore presented a contextual research gap.

LITERATURE REVIEW

Theoretical Review

Stakeholders are groups and individuals who benefit from or are harmed by, and whose rights are violated or respected by corporate actions. They include shareholders, creditors, employees, customers, suppliers, and the community at large. The proponents of stakeholder approach argue that this approach is the best way of organisation understanding the environment in which they operate (Oakley, 2011). The stakeholder approach broadens the firms' vision beyond profit maximization and includes stakeholders in productivity and further interest of non-stockholding groups in the environment they operate.

According to Patton (2008) who advocate for this approach, stakeholders participation include app persons and firms do so to benefit and that there is no pre-set priority of one set of interests and benefits over another. Associated corporations, prospective employees, prospective customers, and the public at large, needs to be taken into consideration. Stakeholder approach is founded on the boosting the working relationship between firm top management and stakeholders. project managers can be enlightened that stakeholder participation if included in

project management increase the chances of success and the contribution of the stakeholder rely heavily on the relationship they have with the firm. The theory is therefore relevant to the study as it explains the need to involve all the stakeholders in the project identification of fiber optic projects.

Empirical Review

A study conducted by Ruwa (2016) focused on the influence of stakeholder participation on the performance of donor funded projects using a case of Kinango integrated food security and livelihood project in Kwale County, Kenya. The study results showed that there was a significant and positive association between stakeholders' participation in project initiation and project performance.

A study conducted in Mathira East Constituency by Wamugu and Ogollah (2017) focused on finding the role of stakeholder participation on the development project undertaken by the constituency. The study finding demonstrated that stakeholder participation was very critical during project identification and screening. The study further found evidence that showed that stakeholder participation greatly influenced the project performance and overall completion. A study conducted by Nyabera, (2014) focused on the influence of stakeholder participation on implementation of projects in Kenya using a case of Compassion International assisted projects in Mwingi Sub-County. The study finding showed that stakeholder involved in project planning reduced the challenges that projects experienced which hindered their timely delivery. The study revealed that stakeholder participation positively affects the general performance of projects

Njogu (2016) also studied stakeholders' involvement in Nema Automobile Emmission in Nairobi County. The results show stakeholder Involvement in project planning had a positive and significance influence in Automobile Emission control project Performance. Lopes, Neto and Senzi Zancul (2015) observed that the organizational culture and strategy followed by the company directly influence the development of new products and, consequently, suppliers' participation, involving the Purchasing area

In a study conducted in Vietnam, Hibbard and Tang (2004) highlighted the importance on NGOs' part in sustainable community development. One observation was that NGOs give a balance to economic, social and environmental factors in promoting sustainable community development. In his work, Baccaro (2001) describes how NGOs promote empowerment and organization of the poor and marginalized through community development projects. In a general perspective, the major aim of NGOs it to support sustainable development in the community through activities that engage the community in their own. Pheng and Chuan (2006) pointed out that time, cost and quality are the most significant measures of the project completion and performance. The author further suggested that evaluating owners, user and stakeholder viewpoint can be used to measure the performance of projects. The other impetus that can be used to assess the performance of the projects in assessment from the contractors and developers that focuses on the project from a micro viewpoint (Pheng & Chuan 2016). Jennex and Amoroso, (2015) justifies this position using various case studies drawn from businesses in various developed countries while (Warf, 2014) observes that evaluation is subjective and can depend on circumstances including time. Evaluation leads to the determination of success or failure of a project.

RESEARCH METHODOLOGY

This study used a descriptive research design. This study design was appropriate to meet the purposes and objectives of the study. It suits the study as it presents the situation as it is and the researcher has no control over the variables. The target population of this study included seven (7) telecommunication firms in Kenya that provider fiber optics services. This was the unit of analysis. The unit of observation on the other hand included 465 project managers working in project implementation departments of fiber optic providers in the country (Safaricom, Kenya Data Network (KDN), Jamii Telecoms (JTL), Wananchi Group Kenya, MTN, Telkom Kenya and Access Kenya). The study targeted projects managers working at fiber optic providers. Project managers were suitable due to their strategic positioning in spearheading project implementation in their respective companies. According to Krejcie and Morgan (1970) (appendix III) a sample of 214 is desirable for a population of 465 elements. The sampling frame of the study was a list of 465 project managers working at project implementation departments in fiber optic providers in the country.

The study adopted census survey concerning unit of analysis while stratified random sampling adopted to select the respondents. The study used quantitative data collected by use of structured questionnaire captured through a 5-point Likert scale type. Descriptive statistics including the mean and standard deviation used to capture the characteristics of the variables under study. To achieve the objectives the study adopted descriptive analysis and inferential analysis, which included both correlation analysis and regression analysis. The multivariate model was as follows:

$$\mathbf{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e}$$

Where;

Y = Completion of fiber optic projects

X_1 = Project Identification

X_2= Project Planning

X_3= Supplier Selection

X_4 = Project Financing

e = Error term

β_0 is the regression constant or intercept,

β_1, β_2, β_3 and β_4 are the unknown parameters (regression coefficients) to be determined

RESULTS AND DISCUSSIONS

The study administered 214 questionnaires to the carefully selected sample. The results showed 188 questionnaires were dully filled and returned that represented a response rate of 88%. The questionnaires that were not completed were 12%. Compared to threshold of 50% of response rate suggested by Mugenda and Mugenda (2003) and Babbie (2004), a response rate of 88% was considered very adequate for a descriptive study.

Demographic Characteristics

This section presents the demographic characteristics on the respondents. The results indicate 57.4% and 31.4% had graduate degrees and diploma respectively. Those with postgraduate level of education were the least at 4.3%. These finding concurs with those of Kotur and Anbazhagan (2014) that established that education and work-experience-influence on the performance of employees.

Similarly, fiber projects implementation is very technical and requires individual with such technical abilities to execute. The findings further showed that 62.2% of the respondents had completed between 16 and 20 projects, 27.7% had completed over 20 projects. The results showed that very few respondents had completed less than 15 projects. These findings implied that majority of the sampled respondents had a lot of experience in fiber projects and could understand the role stakeholder participation in completion of fiber projects.

Table 1: Demographic Characteristics of the Respondents

Characteristics	Category	Frequency	Percent
Highest Level of Education	Post Graduate	8	4.3
	Graduate	108	57.4
	Diploma	59	31.4
	Certificate	13	6.9
	Total	**188**	**100**
Number of Projects	Less than 5	3	1.6
	6 -10 projects	6	3.2
	11-15 projects	10	5.3
	16-20 projects	117	62.2
	Over 20 projects	52	27.7
	Total	**188**	**100**

Descriptive Results on Project Identification

The study sought to find out whether stakeholders participation was carried out during feasibility survey of fiber projects in Kenya. The findings further showed that not all the firms conducted stakeholders' participation during project identification. Generally, these findings implied that for fiber projects in Kenya conducted stakeholder participation during project identification. Stakeholder participation in project identification influences the performance of the projects since majority of the stakeholders would be in support of the projects even before it begins. These finding are in support of the findings by Ruwa (2016) and Wamugu and Ogollah (2017) who found evidence to support that stakeholders' participation positively influenced performance and competition of project.

Table 2: Descriptive Results on Project Identification

Indicators	SD	D	N	A	SA	Mean	Std Dev
Stakeholders participation is carried out during feasibility survey of fiber projects in Kenya	3.2%	3.7%	5.9%	43.1%	44.1%	4.21	0.95
Stakeholders Participate in approval Process of fiber projects in Kenya	3.2%	1.1%	11.2%	44.7%	39.9%	4.17	0.90
Stakeholders Participate in Initiation of fiber projects in Kenya	2.7%	2.7%	6.4%	47.3%	41.0%	4.21	0.88
Stakeholders are involved in all decisions regarding project actors and implementers	2.1%	4.8%	3.2%	42.6%	47.3%	4.28	0.90
Stakeholders usually conduct a needs analysis by identifying the needs and helping in prioritizing	2.1%	4.8%	6.4%	44.7%	42.0%	4.20	0.91
All stakeholder discuss fiber projects at length and reach a consensus	1.6%	3.7%	5.9%	43.6%	45.2%	4.27	0.86
Stakeholders are able to share the vision and commit to seeing it become a reality	3.7%	1.1%	6.9%	52.7%	35.6%	4.15	0.89
Stakeholders can serve as a guide to ensure that the project design is in line with the needs and capabilities of the said community	5.3%	2.7%	5.3%	39.4%	47.3%	4.21	1.04
All stakeholders sufficiently support at project identification stage	3.2%	4.3%	7.4%	35.1%	50.0%	4.24	0.99
Our company has a guiding principle in deciding stakeholder participation is possible and practical during project identification	2.1%	2.7%	4.3%	44.1%	46.8%	4.31	0.85

Descriptive Results on Project Planning

The study second objective was to determine the effect of stakeholder participation in project planning on completion of fiber projects in Kenya. This section presents the descriptive analysis to show how the respondents responded to the statement in the questionnaires. In general, the study findings in this section implied that provider of fiber optics ensures that all the stakeholders participated during the project planning to enhance performance and completion of the fiber projects in Kenya. This study finding agreed with Nyabera, (2014) who also established that stakeholder involved in project planning reduced the challenges that projects experienced which hindered their timely delivery. The study revealed that stakeholder participation positively affects the general performance of projects.

Table 3: Descriptive Results on Project Planning

Indicators	SD	D	N	A	SA	Mean	Std Dev
Stakeholder usually participate at fiber project scheduling	2.7%	5.3%	4.8%	44.1%	43.1%	4.20	0.95
All stakeholder are involved in fiber project cost analysis	1.6%	4.8%	5.9%	46.8%	41.0%	4.21	0.87
Project scope determination involves all the stakeholder	4.3%	3.2%	4.3%	50.5%	37.8%	4.14	0.96
Stakeholders share their thoughts regarding a desired situation during planning process	2.7%	3.2%	8.5%	38.8%	46.8%	4.24	0.93
Stakeholders are involved effectively during planning	1.6%	5.3%	5.9%	44.7%	42.6%	4.21	0.89
Stakeholder participation reduces the challenges projects experienced	4.3%	1.6%	7.4%	44.7%	42.0%	4.19	0.95
Stakeholder participation influences performance of projects	2.7%	5.3%	4.8%	51.6%	35.6%	4.12	0.92
The company has a stakeholders' participation framework in project planning	3.7%	2.7%	5.9%	47.3%	40.4%	4.18	0.94
Stakeholder participation in planning ensures the success of fiber projects	0.0%	4.3%	5.3%	51.1%	39.4%	4.26	0.74
Stakeholder participation reduces time overruns	5.9%	1.1%	8.5%	42.0%	42.6%	4.14	1.03

Descriptive Results on Project Supplier Selection

The third objective of the study was to determine the effect of stakeholders' participation in project suppliers' selection on completion of fiber optic projects in Kenya. The findings in this section indicated that majority of the respondent agreed and strongly agreed that engagement of stakeholders in supplier selection lead to effective project implementation and that their company had a stakeholder participation framework in supplier selection respectively. These study findings also implied that there was stakeholder participation during selection of suppliers in implementation of fiber projects. Stakeholders' views were considered in selection of suppliers with remarkable tract record to ensure the completion of the fiber projects was achieved. These study findings were in agreement with those of Lopes, Neto and Senzi Zancul (2015) and Sun, Yau, Suen and Kwok (2010) who also found that stakeholder participation in supplier selection is significant elements to enhance the completion of the fiber projects.

Table 4: Descriptive Results on Project Supplier Selection

Indicators	SD	D	N	A	SA	Mean	Std Dev
Stakeholder participate in project supplier evaluation	4.3%	2.7%	5.9%	39.9%	47.3%	4.23	0.99
Stakeholder participate in project supplier identification	3.2%	2.1%	6.9%	39.4%	48.4%	4.28	0.92
Stakeholder participate in project supplier relationship management	4.3%	2.1%	5.3%	43.6%	44.7%	4.22	0.96
Stakeholder participate in project supplier bidding process	3.7%	4.3%	7.4%	44.1%	40.4%	4.13	0.99
Stakeholder participate in preparation of terms of references for all suppliers	3.2%	2.7%	9.6%	40.4%	44.1%	4.20	0.95
Stakeholder participation in project supplier evaluation reduces projects risks	1.6%	5.9%	4.8%	43.6%	44.1%	4.23	0.91
Stakeholder participate in project supplier identification increase the success of fiber projects in Kenya	2.7%	2.1%	5.3%	48.9%	41.0%	4.23	0.86
Stakeholders participation ensures that suppliers selected have the capacity to meet the demand of the projects	3.7%	3.2%	6.9%	43.6%	42.6%	4.18	0.96
Engagement of stakeholders in supplier selection lead to effective project implementation	2.1%	1.6%	9.0%	47.9%	39.4%	4.21	0.84
Our company has a stakeholder participation framework in supplier selection	2.1%	1.6%	9.0%	47.9%	39.4%	4.21	0.84

Descriptive Results on Project Financing

The fourth objective of the study was to establish the effect of stakeholders' participation in project financing on completion of fiber optic projects in Kenya. The study analysed whether stakeholders are involved in sourcing of funds for fiber project. According to the findings respondent agreed and strongly agreed respectively. The statements had a mean score of above 4 which further confirmed that majority of the respondent agreed. The finding implied that stakeholder in fiber projects played a critical role in sourcing of the funds since these projects are usually capital intensive. The general findings in this section implied that fiber projects providers conducted stakeholders' participation in project financing during the implementation of the fiber projects. Fiber projects implementation require consistent financing and some requires heavy financing to complete. According to Gardner and Wright (2012) a well-structured project provides a number of compelling reasons for stakeholders to undertake project financing as a method of infrastructure investment. Muniu (2017) also revealed that community participation in resource mobilization is closely linked to the question of project ownership and sustainability. The author further asserted that depending on individual circumstances; resource mobilization need not always be financial in nature, but could either be in-kind, labour and local materials.

Table 5: Descriptive Results on Project Financing

Indicators	SD	D	N	A	SA	Mean	Std Dev
Stakeholders are involved in Sourcing of Funds for fiber project	1.6%	2.7%	6.4%	44.7%	44.7%	4.28	0.83
Stakeholders participate in Relationship Management With Financiers for fiber project	2.1%	1.6%	5.9%	46.8%	43.6%	4.28	0.82
Stakeholders participation in fiber Project Budgeting process	2.7%	4.3%	6.4%	48.4%	38.3%	4.15	0.91
Stakeholder participation in Project financing helps to coordinate people and other resources to carry out the plan	2.7%	3.2%	5.9%	39.9%	48.4%	4.28	0.91
Stakeholder participation ensures efficient utilization of available resources	1.6%	4.3%	4.8%	41.5%	47.9%	4.30	0.87
Stakeholders participation in resource mobilization ensures project ownership and sustainability	2.1%	4.8%	6.9%	45.2%	41.0%	4.18	0.91
Stakeholder participation in project financing ensures effective coordination of people and the resources to achieve the project goals	2.7%	2.7%	8.0%	44.1%	42.6%	4.21	0.90

Stakeholder participation in project financing enhances accountability process	4.8%	2.1%	6.9%	41.5%	44.7%	4.19	1.00
Stakeholder participation in project financing reduces project costs overrun	4.8%	3.2%	8.0%	45.7%	38.3%	4.10	1.01
Stakeholder participation in project financing guaranteed the overall completion of fiber projects	2.1%	3.7%	8.5%	37.8%	47.9%	4.26	0.92

Descriptive Analysis of the Completion of Fiber Optic Projects

This section presents descriptive statistics of the indicators used to measure the dependent variable. These include percentage (%) of projects with costs overrun, percentage (%) of projects with time overrun, percentage (%) of projects you managed that failed to meet their functionality purposes, number of project completed and number of project not completed. The findings showed that some of the fiber providers had 99% of their projects with cost overrun while others had only 11% of the projects. Similarly, according to the findings some firms had 100% time overruns of their projects while others. On the percentages of projects managed by the respondents that failed to meet functionality purposes, average was 44% while maximum was 99%and 10% minimum. The study further sought to find out the number of projects completed by the respondents. The results showed that majority of the respondents had completed 6 project as indicated by the mean.

Table 6: Descriptive Analysis of the Completion of Fiber Optic Projects

Descriptive Statistics	Min	Max	Mean	Std. Dev
Percentage (%) of projects with costs overrun	11	99	44.94	23.96
Percentage (%) of projects with time overrun	10	100	45.15	23.60
Percentage (%) of projects you managed that failed to meet their functionality purposes	10	99	44.53	23.71
Number of project completed	10	20	6.86	4.40
Valid N (listwise)				

Inferential Statistics

The study employed inferential statistics to test the effect of independent variables on dependent variable. To achieve the objectives the study adopted descriptive analysis and inferential analysis, which included both correlation analysis and regression analysis.

Correlation Analysis

This section contains results of correlation tests conducted to test the association between independent and dependent variables. According to Kothari (2014) the importance of correlation is to determine the extent to which changes in the value of an attribute is associated with changes in another attribute. This study used correlation to test the association between the independent variables and the dependent variable.

Table 7: Correlation Matrix

		Project Identification	Project Planning	Project Supplier Selection	Project Financing
Project Identification	Pearson Correlation	1			
Project Planning	Pearson Correlation	.164*	1		
Project Supplier Selection	Pearson Correlation	0.034	.227**	1	
Project Financing	Pearson Correlation	.335**	.176*	.255**	1
Fiber Projects Completion	Pearson Correlation	.531**	.309**	.461**	.491**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000
	N	188	188	188	188
* Correlation is significant at the 0.05 level (2-tailed).					

The results showed that there was a strong, positive and significant association between stakeholder participation in project identification, project planning, supplier selection, project financing and Fiber Projects Completion. The study findings implied that increase in stakeholder participation in projects identification, project planning, supplier selection and project financing would have a positive effect on completion of fiber projects in Kenya. The study finding agreed with those of Wamugu and Ogollah (2017) who concluded that most notably participation in project initiation activities such as identification screening and selection is the most critical as it is at this stage were stakeholder can have the highest influence on performance of CDF projects. The findings also concurs with those of Njogu (2016) whose results also showed stakeholder Involvement in project planning had a positive and significance influence in Automobile Emission control project Performance. This finding concurs with those of who established that Kerzner and Kerzner (2017) engagement of stakeholders in all stages of the project lifecycle as much as possible can lead to effective project implementation. They believe that stakeholder participation throughout a project can lead to tangible benefits to stakeholders' wellbeing and enhances their project ownership.

Regression Analysis Results

A multivariate linear regression model was conducted to test the joint relationship of all the independent variables and the dependent variable. The study employed regression analysis since it is the simple model to establish the magnitude, direction and significance of the relationship between the study variables. The findings of regression analysis are presented in Table 8 to 9.

Table 8: Model Summary

Model	R	R-Square	Adjusted R-Square	Std. Error of the Estimate
1	0.736[a]	0.541	0.531	0.94423
a. Predictors: (Constant), Project Financing, Project Planning, Project Supplier Selection, Project Identification				

The results indicate that R = 0.736 and R-square = 0.541. R-value points that there is a strong association between stakeholder participation in project identification, project planning, project supplier selection, project financing and fiber projects completion in Kenya. R-square indicates that explanatory power of the independent variables is 0.541. These finding implied that other factors held constant, stakeholder participation in project identification, project planning, project supplier selection and project financing accounted for 54.1% of the fiber projects completion. The study implied that stakeholder participation was very significant in determining the completion of fiber projects in Kenya. The findings agree with a study by Bal, Bryde, Fearon and Ochieng (2013) that suggested that stakeholders participation is increasingly becoming a part of project practice to deliver excellent project outcomes. A well-managed stakeholder engagement process helps the project stakeholder to work together to increase comfort and quality of life, while decreasing negative environmental impacts and increasing the economic sustainability of the project.

Table 9: Analysis of Variance

Model		Sum of Squares	df	Mean Square	f	Sig.
1	Regression	54834.04	4	13708.51	53.924	.000b
	Residual	46521.97	183	254.218		
	Total	101356	187			
a Dependent Variable: Fiber Projects Completion						
b Predictors: (Constant), Project Financing, Project Planning, Project Supplier Selection, Project Identification						

The findings of ANOVA revealed F-statistics of 53.924 with a p-value of 0.000 that was less than significance level of 0.05. The study hence concluded that the model used to link the independent variables to dependent variable had a good fitness. This finding also confirmed that stakeholder's participation in project identification, planning, supplier selection and financing significantly influenced the fiber project completion.

Table 10: Regression Coefficients

	β	Std. Error	Beta	t	Sig.
(Constant)	36.563	6.048		6.045	0.000
Project Identification	7.894	1.01	0.42	7.82	0.000
Project Planning	0.709	0.319	0.116	2.225	0.027
Project Supplier Selection	7.352	1.083	0.36	6.791	0.000
Project Financing	5.898	1.367	0.238	4.314	0.000
a Dependent Variable: Fiber Projects Completion					

The results of regression coefficient revealed that stakeholder participation in project identification, project planning, project supplier selection and project financing had a significant positive relationship with fiber projects completion in Kenya. The study finding implied that increasing stakeholder participation in project identification, project planning, project supplier selection and project financing would result to increase in rate of completion in fiber projects in Kenya. The study finding agreed with those of Wamugu and Ogollah (2017) who concluded that most notably participation in project initiation activities such as identification screening and selection is the most critical as it is at this stage were stakeholder can have the highest influence on performance of CDF projects.

This study finding agreed with Nyabera, (2014) who also established that stakeholder involved in project planning reduced the challenges that projects experienced which hindered their timely delivery. The findings also concurs with those of Njogu (2016) whose results also showed stakeholder Involvement in project planning had a positive and significance influence in project Performance. These study findings were in agreement with those of Lopes, Neto and Senzi Zancul (2015) and Sun, Yau, Suen and Kwok (2010) who also found that stakeholder participation in supplier selection is significant elements to enhance the completion of the fiber projects. The finding are in agreement with study by Wamugu and Ogollah (2017) that established a positive relationship between stakeholder participation in project identification and selection, participation in project planning, participation in project implementation and participation in project monitoring and evaluation and success of projects.

CONCLUSION

Based on the findings, the study concluded that fiber optics providers in Kenya carried out stakeholders' participation during fiber projects identification. The areas the study identified that stakeholders participation occurred was during feasibility survey, approval Process, project initiation and in all decision making during project identification. The study further concluded that stakeholder participation was a key element in fiber projects planning. Project managers of fiber projects that involved all stakeholders in various functions of project planning such as project scheduling, project cost analysis and project scope determination complete their project on time and within the cost estimates. The study findings showed that stakeholder participation in supplier selection significantly influence on the fiber project rate of completion. Based on these findings, the study concluded that suppliers are key stakeholders in project implementations. The study finally concluded that fiber projects are very costly ventures and requires stakeholder participation to pull together all the financial and human resources required to complete the fiber projects. The study therefore concluded that fiber projects in Kenya that have poorly implemented or have long time overruns failed to give stakeholder participation the attention it requires.

RECOMMENDATIONS

The study recommends that fiber optics provider in Kenya should ensure that all the project managers are enlightened on the benefits of stakeholder participation during project identification. The managers should come up with a list of all the stakeholders starting from local government and national government representative within the project locality to private institution such as NGOs, churches and citizen to ensure they are all in support of the project location and suitability

The study also recommends that implementer of fiber projects should have policies that ensure that there is stakeholder participation during project planning. The study also recommends that project managers should take into consideration all the views of stakeholders during project planning stage and analyse them to enhance the rate of completion of fiber project in Kenya. The study recommends that projects managers and management of providers of fiber projects should open bidding where interest stakeholders are given opportunity to assess the suppliers shortlisted and provided platforms to air their views.

The study finally recommends that management of the firms that venture into fiber projects must ensure that stakeholders' participation precedes deliberations on project financing. Projects such as fibers projects that are capital and labour intensive require careful and precise assessment in terms of budgeting and entire financing process hence stakeholders' participation is very necessary.

CONFLICT OF INTEREST

No potential conflict of interest was recorded

REFERENCES

Adejimi, A., Oyediran, O. S., & Ogunsanmi, E. B. (2010). Employing qualitatively enriched semi structured questionnaire in evaluating ICT impact on Nigerian 'construction chain integration'. The Built & Human Environment Review, 3(1), 49-62.

Ahmed, A., & Gasparatos, A. (2016). Rapid Sustainability Appraisal of Collapsed Jatropha Projects in Ghana Using Local Community Perceptions: Methodological Implications for Sustainability Science. In Sustainability Science: Field Methods and Exercises (pp. 199-227). Springer, Cham.

Arnstein, S. R. (1969). A ladder of citizen participation. Journal of the American Institute of planners, 35(4), 216-224.

Bennett, N. J., & Dearden, P. (2014). From measuring outcomes to providing inputs: Governance, management, and local development for more effective marine protected areas. Marine Policy, 50, 96-110.

Burnett, D. R. (2018). OSPAR and Coastal State Encroachment on High Seas Submarine Cable Freedoms. Sustainable Ocean Resource Governance: Deep Sea Mining, Marine Energy and Submarine Cables, 234.

Carr, N. R., & Capey, J. G. (1982). People and Work Organizations.

Charles, M., & Moturi, C. (2014). Ict Infrastructure Sharing Framework For Mobile Operators In Kenya.

Chebii, L. D. (2016). Determinants of Successful Implementation of E-Procurement in Public Institutions in Kenya. International Journal of Economics, Commerce and Management, 4(4), 1125-1136.

Chirenje, L. I., Giliba, R. A., & Musamba, E. B. (2013). Local communities' participation in decision-making processes through planning and budgeting in African countries. Chinese Journal of Population Resources and Environment, 11(1), 10-16.

Dastyar, B., Esfahani, A. F., Askarifard, M., & Abbasi, A. M. (2018). Identification, Prioritization and Management of Construction Project Claims. Journal of Engineering, Project & Production Management, 8(2) 23-50

Gardner, D., & Wright, J. (2012). Project finance. Encyclopedia of debt finance.

Green, G. P., & Haines, A. (2015). Asset building & community development. Sage publications.

Hibbard, J. H., & Gilburt, H. (2014). Supporting people to manage their project: an introduction to project

management. Strategic Journal of Business & Change Management, 4(4).

Hibbard, M., & Chun Tang, C. (2004). Sustainable community development: a social approach from Vietnam. Community Development, 35(2), 87-104.

Ibrahim, F. (2011). Factors influencing the implementation of sustainable community based project in Kenya a case of Raya water project in Garissa County. Unpublished MA Thesis UoN.

Jennex, M. E., & Amoroso, D. L. (2015). e-Business and Technology Issues for Developing Economies: A Ukraine Case Study. The Electronic Journal of Information Systems in Developing Countries, 10(1), 1-14.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of financial economics, 3(4), 305-360.

Kerzner, H., & Kerzner, H. R. (2017). Project management: a systems approach to planning, scheduling, and controlling. John Wiley & Sons.

Kobusingye, B. (2017). Influence Of Stakeholders Involvement On Project Outcomes. A Case Of Water, Sanitation, And Hygiene (Wash) Project In Rwanda. European Journal of Business and Social Sciences, 6(06), 195-206.

Kombo, D. K., & Tromp, D. L. (2009). Introduction to proposal writting. Nairobi: Pauline publications.

Kothari, C. R. (2004). Research methodology: Methods and techniques. New Age International.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. Educational and psychological measurement, 30(3), 607-610.

Kugonza, S., & Mukobi, R. (2016). Public participation in services delivery projects in Buikwe District Local Government Uganda. Commonwealth Journal of Local Governance, 6(18), 127-146.

Labi, S. (2014). Introduction to Civil Engineering Systems: A Systems Perspective to the Development of Civil Engineering Facilities. John Wiley & Sons.

Larson, E. W., & Gray, C. F. (2015). A Guide to the Project Management Body of Knowledge: PMBOK (®) Guide. Project Management Institute.

Lemlem, N. (2017). Determinants Of Optimal Implementation Of Fibre Optic Projects In Kenya: A Case Of Liquid Telecom Kenya. Strategic Journal of Business & Change Management, 4(4).

Luyet, V., Schlaepfer, R., Parlange, M. B., & Buttler, A. (2012). A framework to implement stakeholder participation in environmental projects. Journal of environmental management, 111, 213-219.