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The Strategic JOURNAL of Business & Change MANAGEMENT
ISSN: 2312-9492 www.strategicjournals.com
Vol. 6, Iss. 3, pp 486- 502, August 17, 2019. www.strategicjournals.com, ©Strategic Journals

FACTORS INFLUENCING PROJECT IMPLEMENTATION IN KENYA PIPELINE COMPANY LIMITED, KENYA

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Accepted: August 15, 2019

ABSTRACT

The purpose of this study was to establish the factors influencing project implementation in Kenya Pipeline Company Limited in Kenya. Descriptive research design was employed in this study. Stratified random sampling was adopted to come up with the sample size since the population in different departments at KPC was considered heterogeneous. The primary data for the study was collected using the questionnaires. A total of 81 respondents were targeted by the study out of which a total of 66 responded giving a response rate of 82.5%. Quantitative data was analyzed using descriptive and inferential statistics with the aid of Statistical Package for Social Sciences version 23. A multiple linear regression model was used to test the relationship of the combined variables. From the findings of the study, it was concluded that project planning to a large extend influences the implementation of projects in KPC with the greater impact area being accurate estimation of project costs and time. In addition, the study concluded that stakeholders' participation influences the implementation of project implementation. The study further concluded that top management support influences project implementation. It was finally concluded that organization culture influences the implementation of project implementation. The study recommended that project planning should be improved to achieve positive impact in the implementation of projects where project planners are advised to pay a close attention to accurate estimation of costs and time in project implementation. The study also recommended that stakeholder's participation to be improved in project implementation. This would promote the implementation of project management since there would be little resistance from stakeholders and support user acceptance. The study further recommended that the top management support should help project implementation by providing the necessary facilitation of allocation of duties, offering direction and motivation to the project teams. Finally, the study also recommended that the organization culture should be used to boost project implementation. This can be achieved by embracing corporate ethics including culture of honesty, project team level of integrity, project team culture of hard work, project team level of accountability and company procedures, which have a considerable positive impact on the projects implementation.

Key Words: *Project Planning, Stakeholders Involvement, Top Management Support, Organizational Culture*

CITATION: Sambu, C., Ogolla, P., & Kitheka, S. (2019). Factors influencing project implementation in Kenya Pipeline Company Limited, Kenya. *The Strategic Journal of Business & Change Management,* 6 (3), 486 – 502.

INTRODUCTION

A project can be defined as a set of a large number of activities or jobs that are performed in a certain sequence determined logically or technologically and it has to be completed within a specified time and cost whilst meeting the performance standards (Agyei, 2015). The end is reached when the project's objectives have been achieved or when the project is terminated because its objectives will not or cannot be met or when the need for the project no longer exists. According to Kernzer (2017), a project is generally considered to be successfully implemented if the project objectives are achieved within time, within cost, with minimum or mutually agreed upon scope changes, at the desired performance or specification level, while utilizing the assigned resources effectively and efficiently and with acceptance by the customer/user. Mahianjo & Njeru, (2016) describes project implementation also referred as project execution, as a phase in which the project vision and all the plans of the project become a reality and financial resources of the project are allocated. Many projects fail during implementation and often lack to meet the local people's needs or the beneficiaries need.

A state corporation is a government business enterprise where the state has significant control through full, majority, or significant minority ownership (Sturesson, McIntyre, & Jones, 2015). Public Organization is the part of the economy concerned with providing basic government services. The public sector projects seek to provide services which benefit all of society rather than just an individual. As a result, state corporations in Kenya continue to initiate various projects towards achieving this goal (Ochola, 2016).

In Kenya, a number of attempts have been made to develop policies on infrastructure development and governance. For instance, the Sessional Paper No. 10 of 1965, which focused on application of African socialism and its application to planning in Kenya, laid a foundation for government strategic objectives for national development. The paper recognized that developing power, transport, market facilities and other infrastructure would not only turn Kenya into a market economy but also will fuel rapid industrialization. On infrastructure governance, the Sessional Paper No. 12 of 1967 outlined that some functions such as water distributions and road passenger transport could not be effectively handled by local governments due to capacity and resources constraints. As such the paper noted that such functions could only be pegged on a local governments' ability to generate sufficient revenues. Despite the efforts made by various policy initiatives to develop proper infrastructure, economic growth remained low sluggish during the 1990s and early 2000s when compared from 2003 onwards. For instance, for over a decade the average per capita growth in GDP was negative as compared to the period starting from 2003 to-date (Ochola, 2016).

Kenya Pipeline Company (KPC) Limited was incorporated on 6th September 1973 under the Companies Act (CAP 486) and started commercial operations in 1978. The Company is 100 percent owned by the Government and complies with the provisions of the State Corporations Act (Cap 446) of 1986. The main objective of setting up the Company was to provide efficient, reliable, safe and cost effective means of transporting petroleum products from Mombasa to the hinterland. KPC transports automotive gas oil (diesel), motor spirit premium (super) and dual purpose kerosene used as jet fuel and for farm use. KPC operates a pipeline system which currently consists of 450 kilometers (km) of Line-1 running from the port of Mombasa to Nairobi, 325 km of Line-2 from Nairobi to Eldoret, 121 km of Line-3 from Sinendet to Kisumu, and 324 km of Line-4 from Nairobi to Eldoret. The installed maximum flow rate for Line-1 is 880 cubic meters per hour while Line-2 and 3 have a combined flow rate of 220 cubic meters per hour, Line-4 on the other hand has an installed flow rate of 378 cubic meters per hour (KPC Annual Report, 2017).

In the recent past, KPC embarked on major expansion projects in order to meet the energy

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

needs of its clients. However, there are challenges existing in project implementation for many of the completed projects.

Statement of the problem

The low performance levels in projects had been a source of concern to project owners. This is because many financiers were unwilling to fund the projects and those willing had placed stringent measures to accessing their funds. The result of this was low economic development. Many projects fail during implementation and often lack to meet the local people's needs or the beneficiaries need (Kerzner, 2017).

Gole & Shinsky (2014) describe several examples of failures of e-government projects in the public sector. One such details the Fire Control project in the United Kingdom in 2010 that is used to handle emergency calls from the public, in addition to managing accidents. It was designed to enhance inter-organizational collaboration by providing a secure network between local government departments and the fire services. Despite the project costing £245 million, the government decided to cancel it for several reasons. One of these reasons was that it could not be delivered within the agreed time-frame. There were also financial constrains as the approved budget was insufficient to continue developing the system.

According to the World Bank Report, (2017) public capital spending levels are too low to address the region's infrastructure needs. When analysing public spending in infrastructure, the report found that countries spend significantly less money than they actually allocate to projects. This reduces the execution of projects earmarked for investment each year, a clear sign of the inefficiencies pervasive in the sector.

Locally, most projects face problems of completion through unmet client satisfaction requirements, cost escalations beyond the budgetary limits and late delivery times. Kenya has invested heavily in infrastructural projects aimed at making Kenya industrialized by 2030. However, these projects face problems of delays, cost over-runs and failure to achieve the intended quality requirements as found by Ondari & Gekara, (2014) for road projects, Kamotho, (2014) for housing projects, Ndungu, (2014) for water projects and Kamau & Muturi, (2015) for Constituency Development Fund projects. The failure to complete projects leads to various problems such as disputes and litigations (Ndungu, 2014).

In KPC, major projects being implemented focused on capacity enhancement of oil pipeline networks and related facilities, the major project being Mombasa-Nairobi multi product oil petroleum pipeline. This project commenced on July 2014 with a contract period of 18 months and original cost of KES 48 billion. However, the project was 100% complete after 41 months showing 226% time had lapsed. The project costs escalated by KES17 billion and only a payment of KES 50 billion had been made (Standard Newspaper, 2018).

All previous research studies in Kenya focused on the factors affecting project implementation in NGO funded and county government projects but insignificant research has been conducted in public sector particularly state corporations in Kenya. Moreover, the study findings had been generalized hence the need for further research focussing on factors influencing project implementation in other subsectors in Kenya. Therefore, this study sought to bridge the research gap by studying project implementation in in the energy sector with a case study of Kenya Pipeline Limited in Kenya to validate the study findings.

The general objective of this study was to establish the factors influencing project implementation in Kenya Pipeline Company Limited in Kenya. The specific objectives were:-

- To determine the influence of project planning on projects implementation in Kenya Pipeline Company Limited in Kenya.
- To determine the influence of project stakeholders involvement on projects implementation in Kenya Pipeline Company Limited in Kenya.

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- To investigate the influence of top management support on projects implementation in Kenya Pipeline Company Limited in Kenya.
- To examine the influence of organizational culture on projects implementation in Kenya Pipeline Company Limited in Kenya.

The study sought to test the following hypotheses:

- **Ho_1:** Project planning does not significantly influence project implementation in Kenya Pipeline Company Limited in Kenya.
- **Ho_2:** Project stakeholders' involvement does not significantly influence implementation in Kenya Pipeline Company Limited in Kenya.
- **Ho_3**: The top management support does not significantly influence project implementation in Kenya Pipeline Company Limited in Kenya.
- Ho_4: Project organizational culture does not significantly influence project implementation in Kenya Pipeline Company Limited in Kenya.

LITERATURE REVIEW

Contingency Theory: Contingency theory described by William Richard Scott in 1981 as "the best way to organize depends on the nature of the environment to which the organization must relate". Contingency is an alternative plan that will be used if a possible foreseen risk event becomes a reality. It represents actions that will reduce or mitigate the negative impact of the risk event. This is in reference to the nature of construction projects and the concept of risk. Each project is unique and with its own complexities therefore should be managed according to its specific characteristics and environment in the particular period. Contingency thinking recognizes the uniqueness and complexities of projects and attempts to identify practices that best fit with the unique demands of different situations. This therefore highlights the complexity involved on managing of risks in projects (Ghahramanzadeh, 2014).

Stakeholders Theory: Stakeholders theory was originally detailed by R. Edward Freeman in the book Strategic Management (Freeman R. E., 1984). This theory states that managers should make decisions that take account of the interest of all the stakeholders in the Firm. Stakeholder concept suggests that the purpose of a business is to create as much value as possible for stakeholders. In order to succeed and be sustainable over time, executives must keep the interests of customers, suppliers, employees, communities and shareholders aligned and going in the same direction. In the traditional view of the firm, the shareholder view, the shareholders or stockholders are the owners of the company, and the firm has a binding fiduciary duty to put their needs first, to increase value for them. However, stakeholder theory argues that there are other parties involved, including governmental bodies, political groups, trade associations, trade unions, communities, financiers, suppliers, employees, and customers. Sometimes even competitors are counted as stakeholders - their status being derived from their capacity to affect the firm and its other morally legitimate stakeholders (Baumfield , 2016).

Max Weber's Bureaucracy Theory of Management: Bureaucracy is coming from two words; "bureau" and "Kratos." While the word "bureau" refers to the office "kratos" refers to power or rule. "Bureaucracy" therefore refers to the power of the office. According to Weber bureaucracy would mean the concentration of the material means of management in the hands of the master. Weber says that bureaucracy is that rule which is conducted from a desk. According to Weber (1946) bureaucracy is efficient because of its consistent, availability of records, continuity, and possibility of secrecy, unity, rigorous coordination and minimization of conflicts amongst the workers in an organization. Weber noted the following principles in the bureaucratic theory of management in organizations. A formal hierarchical structure Weber noted that in organizations there are formal structures that show flow of authority and each of these levels controls the level below it and the chain continues to flow to the last level. Organizational controlling rules which allows the

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decision to be made by certain levels in an organization and to be effected by all other levels (Mahianjo & Njeru, 2016).

The Structural-Functional Theory: The proponent of this theory Radcliff-Brown is considered the father of modern anthropology. This theory postulates that behavior is shaped by the values held in a given organization or community. This implies that an organization cannot have a culture that is fundamentally different from the society in which it operates in. According to Radcliffe-Brown (1881-1955), who is one of the foremost proponents of this theory, the values of the society in which a particular organization functions, deeply permeate it and ultimately influence its goals and activities. The emergence of this different value systems is caused by factors like the history of the organization and its past leadership as well as the general value system stipulated in the organizational procedures and policies (Kibet, 2018).

Theory of Constraints: The theory of constraints is an overall management philosophy introduced by Eliyahu M. Goldratt in his 1984 geared to help organizations continually achieve their goal. Needs and constraints in a multi-party working situations which are required in construction projects bring complications in project management and therefore, for effective project management, constraints have to be managed. Projects contain an element of uncertainty as to the actual date of completion, actual costs, and scope limitations (Kanda & Edwin, 2016).

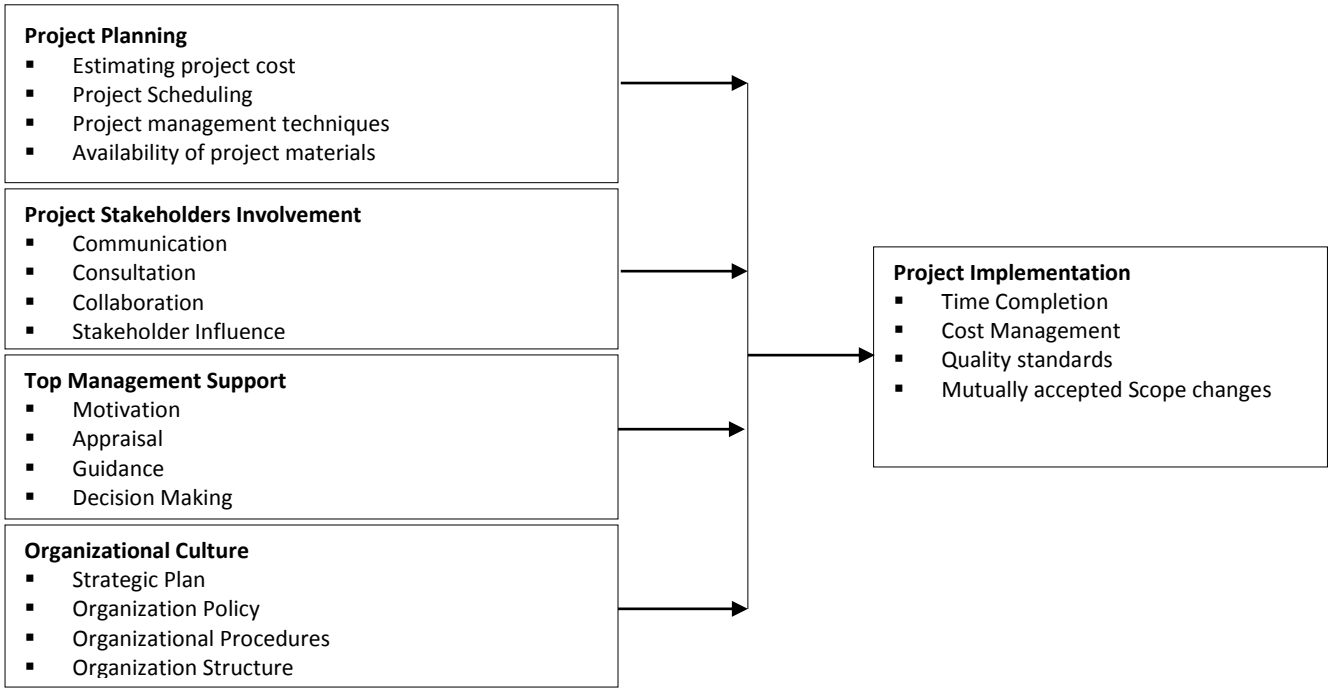

Figure 1: Conceptual Framework

Several studies have been conducted internationally concerning factors influencing project implementation. Omondi (2014) conducted study on factors influencing project implementation in Non-Governmental Organizations, a case in World Scout Bureau, Africa Regional Office (ARO) Nairobi, Kenya. A descriptive research design was adopted. Complete sampling was used in this study where the total population took part in the study. Omondi (2014) study findings observed that though qualified Information Communication Technology (ICT) personnel were in place, it was concluded that they were not directly involved in project management since gaps like lack of data

management systems to support project implementation were witnessed.

The study further found out that ARO largely adapted a functional organizational structure, which was not effectively responding to the project management needs and standards for better performance. Whereas existence of policies and programmes that would support project implementation coupled with wide awareness of the same among the ARO staff was acknowledged, the study found out that there were gaps in the implementation of such policies to enhance project performance. The study therefore concluded that NGOs need to invest in technical, managerial, organization structures and issues related to donor policies and practices which continue to affect better project performance.

Nyanje & Wanyoike (2016) conducted a study that analyzed the factors affecting the Implementation of NGO Projects in Nakuru County, Kenya. Descriptive survey design was employed. The study findings establish that the exchange of information among stakeholders influenced effective implementation of NGO projects. That communication within and across project teams should focus on sharing adequate and clear information. The study findings suggest that NGOs should address project scope, communication planning, budgeting and project scheduling to reduce delays in project implementation. The study concluded that NGOs operating in Nakuru experienced difficulty in completing projects in specified time using the set resources basing on project delays including and not limited to change of project scope, poor budgeting and or underestimation of the overall project costs.

Kalolaa & Kavale, (2017) in their study sought to determine factors affecting successful implementation of government funded projects in technical institutions in Garissa County. The study adopted a descriptive survey design. Regression analysis was conducted between project implementation variables considered in this study; government funding, security, monitoring and evaluation and finally stakeholders' participation in project implementation. The study observed that there is a strong overall relationship between the four independent variables namely; government funding, security, monitoring and evaluation and stakeholders with project implementation. The study concluded that the delay in the release of funds and the provision of inadequate funds were major factors that negatively affect project implementation, while insecurity led to major price variations as project teams used substantial amounts of money on security. Insecurity also scared away more qualified contractors from other parts of Kenya from bidding for tenders (Kalolaa & Kavaleb, 2017).

Mahianjo & Njeru, (2016) conducted study to establish factors influencing project implementation in the department of public health in Kiambu County. The study applied descriptive study design. According to the study findings, majority of the respondents believed that factors related to top management influenced project implementation to a large extent. Communication was identified as the critical role played by the top management during project implementation. Other roles played by top management included motivation, allocation of duties and offering directions to the project team.

Kanda & Edwin (2016), study was to investigate factors that influence completion of water projects in Kenya using Kakamega County as a case study. The data was analyzed using descriptive statistics and correlation. The study findings established that there was a positive relationship between the main factors that were associated with client included financial capacity, owner interference, the imposition of contract duration, decision-making ability, and change in project scope with project completion. Further, that there is also a positive relationship between contractor-related factors studied namely; financial capacity, equipment availability and quality, skilled workforce, site supervision ability, material availability, and control over sub-contractors with project completion.

Therefore, the study concluded that both client-related and contractor-related factors had a significant relationship with project completion.

METHODOLOGY

Descriptive and correlation research methods were used in this study. A descriptive research design was used in order to get an in-depth understanding of the relationships on the factors influencing project implementation. This study targeted population comprised of 396 different employees of the Kenya Pipeline Company from department of finance, strategy, operations, maintenance, projects and procurement departments. A stratified sampling method was used. The study collected primary data; different methods for the collection of primary data as surveys, experiments or observations were available for research. Questionnaires were used to collect data from the employees Kenya Pipeline Company. The researcher administered one set of questionnaire to each stratum. This study adopted qualitative and quantitative analysis. The data was collected, analyzed, edited and sorted for completeness which the researcher confirmed that all the questions had been answered. The researcher used SPSS 23 to analyze quantitative data that generated both descriptive statistics such as percentages, mean, mode and inferential statistics such as linear regression and correlation. Linear regression model was employed to draw inferences on data collected test hypotheses.

FINDINGS

Analysis delved into showing the relationship between the various independent variables of organizational factors and the dependent variable which is the implementation of projects in Kenya using the findings from KPC which is a state corporation. The findings were based on a 5 point linkert scale of 1-5, with "1" being very low extent and "5" very greater extent. The respondents were expected to rate the extent to which they perceived the various aspects of various research study independent variables to have influenced the implementation of projects at KPC.

Influence of planning on project implementation

The respondents were to indicate to what extent planning influence organizations project implementation in KPC. Descriptive measures on the components of the project planning were obtained. The results given were presented in Table 1 shown below.

Table 1: Descriptive Statistics of project planning

Indicators of Project Planning	Mean	Std. Deviation
Accurate estimation of costs and time	4.09	.903
Accurate project schedule	3.98	.969
Scheduling tools	3.83	.815
Use of appropriate project management techniques	3.79	.851
Availability of project materials	3.94	.959
Overall Mean	**3.93**	**0.899**

Table 1 showed that on average respondents agree that planning influences organization project implementation to a great extent with an overall mean of 3.93. These findings were interpreted to imply that aspects of project planning to a greater extend influence the implementation of projects in KPC.

The study findings agreeable on the assertion by Agyei (2015) that proper planning and scheduling of project is important to overcoming problems by most projects that face cost and time over-runs which increases with the increase in complexity of the project involved.

Influence of Project Stakeholders Involvement in project implementation

Stakeholder involvement is critical to the success of every project in every organization. To create a sense of ownership, stakeholders should be involved fully in the project meant to solve their needs. Stakeholders have power to influence the

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project outcome either positively or negatively (Kobusingye, Kyalo, & Mulyungi, 2017).

Descriptive measures on the components of the project stakeholders involvement were obtained. The results were given in the Table 2 below.

Table 2: Descriptive Statistics on effect of Project Stakeholders involvement on project implementation

Measurement Aspects	Mean	Std. Deviation
To what extent does communication amongst project stakeholders affects project implementation processes?	4.44	.682
To what extent does consultations being carried out amongst project stakeholders involvement affects project implementation processes?	4.38	.651
To what extent does collaborations being carried out amongst project stakeholders affects project implementation processes?	4.35	.690
To what extent does key project stakeholders involvement influence project implementation processes?	4.45	.612
Overall Mean	**4.41**	**0.659**

Table 2 showed that on average respondents agreed that various components of project stakeholders involvement influence organization project implementation to a great extent with an overall mean of 4.41.

From the findings, the overall influence of key stakeholders involvement on project implementation was to a greater extent with overall mean score of 4.41. The research findings concurred that with Ioana, Emil and Razvan (2016) who asserted that the factors with highest impact on projects' implementation success are among others competent project team members, communication and consultation with stakeholders. While Roberts (2017) observed that collaboration is something that is less actively managed as a matter of routine but is an area that is of critical importance to the kinds of projects we undertake in the sector.

Influence of Top Management Support on project implementation

Descriptive measures on the critical role play by top management during project implementation at KPC were obtained. The results were provided in the Table 3 shown below.

Table 3: Descriptive Statistics of Top Management Support

Measurement Aspects	Mean	Std. Deviation
Motivation	3.57	1.030
Offering direction	3.69	.883
Resource allocation	4.20	.833
Allocation of duties	3.80	.775
Staff appraisal	3.08	1.020
Overall Mean	**3.67**	**0.908**

Table 3 showed that on average most of the respondents believed that motivation, offering direction, resource allocation and allocation of duties to great extent influence project implementation with overall mean 3.67.

The study results concurred with Mahianjo & Njeru, (2016) research findings that factors related to top management influenced project implementation to a large extent. They further affirmed that other roles played by top management included motivation, allocation of duties and offering directions to the project team.

Influence of organization culture on project implementation

To understand how the various aspects of organizational culture were perceived to influence project implementation at KPC, a descriptive analysis of means scores and standard deviations was carried out. Table 4 showed the descriptive results of the project organization culture on their impact on project implementation at KPC.

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Table 4: Descriptive Statistics on Influence of Project Organization Culture on project implementation

Measurement Aspects	Mean	Std. Deviation
Project team culture of honesty	3.64	.922
Project team level of integrity	3.71	.924
Project team culture of hard work	3.89	.844
Project team level of accountability	3.61	.975
Company organizational structure	3.32	1.055
Company procedures	3.70	.859
Adherence to the company strategic plan	3.55	.980
Following defined work processes and procedures	3.76	.912
Designing effective organization structures	3.35	.984
Organizational culture	3.47	.863
Overall Mean	**3.60**	**0.932**

The mean scores on a 5-point scale indicated overall mean of 3.60, and standard deviations 0.932 which showed consistency among respondents. Results showed that all the aspects were perceived to influence project implementation moderately large extent. Most of the respondents agreed to large extent that project culture of honesty, project team level of integrity, project team culture of hard work, project team level of accountability and company procedures have impact on the projects implementation at KPC.

The research findings concurred that with Omondi (2014) who found out that a functional organizational structure was not effectively responding to the project management needs and standards for better performance.

Project Implementation at Kenya Pipeline Company Limited

Table 5 shown below presented the descriptive results of the project implementation.

Table 5: Descriptive Statistics on project Implementation

Project Implementation	Mean	Std. Deviation
Projects being completed within time	3.58	0.962
Projects being completed within budget	3.43	0.951
The controlling cost overruns	3.69	1.089
Adhering to quality standards	3.42	0.946
Adherence to project scope	3.33	0.950
Overall Mean	**3.490**	**0.980**

It was seen that there is to large extent influence of the constructs on project implementation with close mean score range between 3.33 and 3.69 with an overall mean of 3.49.

The above study findings concurred with Kerzner (2017), that a project is generally considered to be successfully implemented if the project objectives are achieved within time, within cost, with minimum or mutually agreed upon scope changes, at the desired performance or specification level, while utilizing the assigned resources effectively and efficiently and with acceptance by the customer/user.

Inferential Statistics

Factor Analysis Results for Project Planning

Measures of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity were used to check on the validity of the data. Table 6 shown below presented the KMO and Bartlett's test for project planning.

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Table 6: KMO and Bartlett's Test for Project Planning

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.809
Bartlett's Test of Sphericity	Approx. Chi-Square	209.556
	Df	10
	Sig.	.000

Table 6 showed that the data was ideal for factor analysis since the KMO was more than 0.5 and Bartlett's test had a p value of less than 0.05.

Table 7: Total Variance Explained for Project Planning

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.599	71.989	71.989	3.599	71.989	71.989
2	.601	12.017	84.005			
3	.375	7.490	91.496			
4	.257	5.149	96.645			
5	.168	3.355	100.000			

Extraction Method: Principal Component Analysis.

Table 7 showed that there was only one factor that needed to be retained since it accounted for most (71.989%) of all the variations. Only significant constructs were retained for further analysis.

Table 8: KMO and Bartlett's Test for Project Stakeholders involvement

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.704
Bartlett's Test of Sphericity	Approx. Chi-Square	77.843
	Df	6
	Sig.	.000

Table 8 above showed that the data was ideal for factor analysis since the KMO is more than 0.5 and Bartlett's test has a p value of less than 0.05.

Table 9: Total Variance Explained for Project Stakeholders involvement

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.392	59.806	59.806	2.392	59.806	59.806
2	.799	19.972	79.779			
3	.514	12.846	92.625			
4	.295	7.375	100.000			

Extraction Method: Principal Component Analysis.

Table 9 showed that there was only one factor that needed to be retained since it accounted for most (59.806%) of all the variations. Only significant constructs were retained for further analysis.

Table 10: KMO and Bartlett's Test for Top Management Support

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.810
Bartlett's Test of Sphericity	Approx. Chi-Square	140.200
	Df	10
	Sig.	.000

Table 10 showed that the data was ideal for factor analysis since the KMO was more than 0.5 and Bartlett's test had a p value of less than 0.05.

Table 11: Total Variance Explained for Top Management Support

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.144	62.881	62.881	3.144	62.881	62.881

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2	.761	15.227	78.108
3	.508	10.151	88.258
4	.338	6.753	95.012
5	.249	4.988	100.000

Extraction Method: Principal Component Analysis.

Table 11 showed that there was only one factor that needed to be retained since it accounted for most (62.881%) of all the variations. Only significant constructs were retained for further analysis.

Table 12: KMO and Bartlett's Test for Project Organization Culture

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.738
Bartlett's Test of Sphericity	Approx. Chi-Square	223.338
	Df	15
	Sig.	.000

Table 12 above showed that the data was ideal for factor analysis since the KMO was more than 0.5 and Bartlett's test had a p value of less than 0.05.

Table 13: Total Variance Explained for Project Organization Culture

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.717	61.952	61.952	3.717	61.952	61.952
2	.847	14.119	76.071			
3	.668	11.128	87.199			
4	.387	6.448	93.647			
5	.240	4.006	97.654			
6	.141	2.346	100.000			

Extraction Method: Principal Component Analysis.

Table 13 showed that there was only one factor that needed to be retained since it accounted for most (61.952%) of all the variations. Only significant constructs were retained for further analysis.

Table 14: KMO and Bartlett's Test for Project Implementation

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.777
Bartlett's Test of Sphericity	Approx. Chi-Square	175.717
	Df	10
	Sig.	.000

Table 14 showed that the data was ideal for factor analysis since the KMO was more than 0.5 and Bartlett's test had a p value of less than 0.05

Table 15: Total Variance Explained for Project Implementation

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.348	66.950	66.950	3.348	66.950	66.950
2	.767	15.338	82.289			
3	.448	8.952	91.240			
4	.236	4.717	95.957			
5	.202	4.043	100.000			

Extraction Method: Principal Component Analysis.

Table 15 showed that there was only one factor that needed to be retained since it accounted for most (66.95%) of all the variations. Only significant constructs were retained for further analysis.

Normality

Table 16: One-Sample Kolmogorov-Smirnov Test

		Project planning	Project Stakeholder involvement	Top Management Support	Project Organization culture	Project Implementation
N		66	66	66	66	66
Normal Parameters[a,b]	Mean	3.9273	4.4053	3.6677	3.6439	2.8924
	Std. Deviation	.77867	.50719	.71788	.73023	.78374
Most Extreme Differences	Absolute	.174	.136	.112	.142	.100
	Positive	.090	.120	.062	.070	.077
	Negative	-.174	-.136	-.112	-.142	-.100
Kolmogorov-Smirnov Z		.929	1.108	.900	1.151	.813
Asymp. Sig. (2-tailed)		.354	.172	.393	.142	.524

a. Test distribution is Normal.

b. Calculated from data.

Results show that all the independent variables were normally distributed hence ideal for linear regression modelling.

Correlation analysis

Table 17: Correlations

Independent Variables		PP	PSI	TMS	POC	PI
Project planning	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	66				
Project stakeholder involvement	Pearson Correlation	.580**	1			
	Sig. (2-tailed)	.000				
	N	66	66			
Top management support	Pearson Correlation	.376**	.367**	1		
	Sig. (2-tailed)	.002	.003			
	N	66	66	66		
Project organization culture	Pearson Correlation	.522**	.271*	.685**	1	
	Sig. (2-tailed)	.000	.028	.000		
	N	66	66	66	66	
Project Implementation	Pearson Correlation	.608**	.543**	.808**	.761**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	66	66	66	66	66

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

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

Table 18: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.903[a]	.816	.804	.22081

a. Predictors: (Constant), Project organization culture, Project stakeholder involvement, Top management support, Project planning

Table 19: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.979	4	3.245	66.550	.000[b]
	Residual	2.925	61	.049		
	Total	15.904	65			

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a. Dependent Variable: implementation
b. Predictors: (Constant), Project organization culture, Project stakeholder involvement, Top management support, Project planning

Table 20: Regression Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.727	.256		2.843	.006
	Project planning	.123	.052	.191	2.388	.020
	Project stakeholder involvement	.170	.071	.173	2.378	.021
	Top management support	.331	.055	.476	5.971	.000
	Project organization culture	.194	.058	.286	3.327	.002

a. Dependent Variable: implementation

Table 20 showed that all the independent variables had significant influence on the implementation of projects at KPC (since the p values of their test statistics is less than the specified level of significance, 0.05).

According to the analysis, the equation ($\hat{Y} = b_0 + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_4 x_4$), the resultant regression model is given by equation 4.1 as;

$Y_i = 0.727 + 0.123x_1 + 0.17x_2 + 0.331x_3 + 0.194x_4$..... (4.1)

Where x_1, x_2, x_3 *and* x_4 are project planning, project stakeholders' involvement, top management support and project organization culture respectively.

The model showed that keeping other factors constant, for every one unit change in project planning, project implementation increases by 12.3%; for every one unit change in project stakeholder involvement, project implementation increases by 17%; for every one unit change in top management support, project implementation increases by 33.1% and for every one unit change in project organization culture, project implementation increases by 19.4%.

Hypothesis Testing Results

Ho_1: Project planning does not significantly influence project implementation in Kenya Pipeline Company Limited in Kenya. The criteria for rejecting the null the hypothesis is based on the p value of the test statistics. If the p value is less than the specified level of significance (usually 0.05) then the null hypothesis is rejected. From results, the calculated p-value was equal 0.02, which was less than the level of significance 0.05 hence the null hypothesis was rejected. It can be concluded that project planning has significant influence on project implementation in Kenya Pipeline Company.

Ho_2: Project stakeholders Involvement do not significantly influence implementation in Kenya Pipeline Company Limited in Kenya.

The criteria for rejecting the null the hypothesis was based on the p value of the test statistics. If the p value is less than the specified level of significance (usually 0.05) then the null hypothesis is rejected.

From the result the calculated p-value was equal 0.021, which was less than the level of significance 0.05 hence the null hypothesis is rejected. It can be concluded that project stakeholders involvement have significant influence on project implementation in Kenya Pipeline Company.

Ho_3: The top management support does not significantly influence project implementation in Kenya Pipeline Company Limited in Kenya.

The criteria for rejecting the null the hypothesis was based on the p value of the test statistics. If the p value was less than the specified level of significance (usually 0.05) then the null hypothesis was rejected. From the result the calculated p-value is equal 0.00, which was less than the level of significance 0.05 hence the null hypothesis was rejected. It can be concluded that top management

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support has significant influence on project implementation in Kenya Pipeline Company.

Ho_4: Project organizational culture does not significantly influence project implementation in Kenya Pipeline Company Limited in Kenya. The criteria for rejecting the null the hypothesis is based on the p value of the test statistics. If the p value is less than the specified level of significance (usually 0.05) then the null hypothesis is rejected. From the result the calculated p-value was equal 0.002, which was less than the level of significance 0.05 hence the null hypothesis is rejected. It can be concluded that Project organizational culture has significant influence on project implementation in Kenya Pipeline Company.

Table 21: Summary of Research Hypotheses

Null Hypothesis	Comments
Project planning does not significantly influence project implementation in Kenya Pipeline Company Limited in Kenya	Rejected
Project stakeholder's involvements do not significantly influence implementation in Kenya Pipeline Company Limited in Kenya.	Rejected
The top management support does not significantly influence project implementation in Kenya Pipeline Company Limited in Kenya.	Rejected
Project organizational culture does not significantly influence project implementation in Kenya Pipeline Company Limited in Kenya	Rejected

CONCLUSION

Based on objective one which sought to determine the influence of project planning on the implementation of project management the study found that on average respondents agreed that planning influences organization project implementation to a great extent with an overall mean range of 3.93. These findings were interpreted to imply that aspects of project planning to a greater extend influence the implementation of projects in KPC. The greatest aspect of project planning being accurate estimation of costs and time with mean score of 4.09, followed by accurate project schedule (mean score 3.98). Majority of respondents further alluded that availability of projects materials, using scheduling tools and the use of appropriate management technique to greater extent (i.e. mean score >3.79) influences project implementation.

Regarding objective two on the influence of project stakeholders involvement on the project implementation, the study findings established that the influence of key stakeholders participation on project implementation was to a greater extent with respondents indicating overall mean score of 4.41. On the various aspects of project stakeholders, the greatest influence is attributable to communication with a mean score of 4.44 while consultations and collaborations with mean scores of 4.38 and 4.35 respectively.

In reference to objective three, which sought to investigate the influence of top management support on projects implementation in KPC with an overall mean of 3.67, showed that on average most of the respondents believed that resource allocation to greater extend influence project implementation with mean of 4.2. Also majority of respondents showed that allocation of duties (mean 3.80), offering direction (mean 3.69), and staff motivation (3.57) which was to greater extend influence project implementation. They however, agreed that staff appraisal had moderate influence project implementation with a mean of 3.08.

In reference to objective four, which sought to determine the influence of organizational culture on projects implementation indicating an overall mean score of 3.60 on a 5-point scale ranging between 3.32 and 3.89, and standard deviations ranging between 0.844 and 1.055 that showed consistency among respondents? Most of the respondents agreed to large extent that project culture of honesty, project team level of integrity, project team culture of hard work, project team

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

level of accountability and company procedures have impact on the projects implementation at KPC.

The dependent variable of this study sought to gauge the project implementation which was measured using projects in controlling cost overruns, projects completed within time, projects completed within budget, adherence to applicable quality standards and scope as well as project objectives being met. Towards this end, the study found out that in the period under review which was a span of 5 years, the aspects on project implementation to large extent influence of the constructs on project implementation indicated by the overall mean score of 3.49 with a close mean score range between 3.33 and 3.69. On an average on most of these metrics with controlling cost overruns (3.69), projects completed within time (3.58), projects completed within budget (3.43), adherence to applicable quality standards (3.43) and scope (3.33) being the highest project implementation measure achieved with an above average rating. This in essence means projects at KPC run above budget and are completed mostly beyond the scheduled time frame.

The regression analysis results showed that there is a strong relationship between the independent and dependant variables.

The regression analysis result showed that the independent variables namely; project planning, project organization culture, project stakeholder, and top management support accounted for 81.6% of all the variations in project implementation in KPC. On further examinations the regression results revealed that for every one unit change in project planning, project implementation increases by 12.3%; for every one unit change in project stakeholder, project implementation increases by 17%; for every one unit change in top management, project implementation increases by 33.1% and for every one unit change in project organization culture, project implementation increases by 19.4%.

From hypothesis testing results, the calculated p-value were found to be less than the specified level of significance of 0.05 or greater than 95% level of confidence hence the null hypothesis was rejected. It can therefore be concluded that all the independent variables have significant influence on project implementation in Kenya Pipeline Company.

From the findings of the study, it was concluded that there is a strong relationship between the study independent and dependant variables. It can be concluded that project planning to a large extend influences the implementation of projects in KPC with the greater impact area being accurate estimation of costs and time in project implementation. Also the study concluded that stakeholders' participation influences the implementation of project implementation. The study further concluded that top management support influences project implementation. It was finally concluded that organization culture influences the implementation of project implementation.

The following were the recommendations of the study:

- Project planning should be improved to achieve positive impact in the implementation of projects where project planners are advised to pay a close attention to accurate estimation of costs and time in project implementation.
- Stakeholder's participation should be improved in project implementation. This will promote the implementation of project management since there will be little resistance from stakeholders and promote user acceptance.
- Top management support should facilitate project implementation. Top management support should provide the necessary facilitation of allocation of duties, offering direction and motivation to the project teams.
- Organization culture should be used to boost project implementation. This can be achieved by embracing corporate ethics including culture of honesty, project team level of integrity, project team culture of hard work, project team level of accountability and company procedures

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

which have impact positively on the projects implementation.

The current study investigated the influence of organizational factors on project implementation using KPC which is a state corporation. Future researchers should conduct a similar study using private organizations, which was not a concern in this study. In addition, the researchers can repeat the same study but incorporate more variables and use factual data to ascertain whether organizational factors can be ruled out as playing critical role in project implementation. An investigation can be widened into other sectors as a comparative study to shed more light into the factors that can be used to explain implementation of projects. Future research can combine organizational factors with external factors for purposes of comparison.

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