# INFLUENCE OF EFFECTIVE STRATEGIC PLANNING ON PERFORMANCE OF FIRMS IN THE ENERGY SECTOR IN KENYA

#### Kiiru Winfred Waithiki

College of Human Resource Development, Jomo Kenyatta University of Agriculture and Technology P. O. Box 62000, 00200 Nairobi, Kenya Corresponding Author email: <u>winfredkiiru@yahoo.com</u>

#### Dr. Allan Kihara

College of Human Resource Development, Jomo Kenyatta University of Agriculture and Technology P. O. Box 62000, 00200 Nairobi, Kenya

**CITATION:** Waithiki, K., W. & Kihara, A. (2017). Influence Of Effective Strategic Planning On Performance Of Firms In The Energy Sector In Kenya. *International Journal of Strategic Management*. Vol. 6 (9) pp 32 - 51

#### ABSTRACT

This study examined the influence of effective strategic planning on performance of firms in the energy sector in Kenya. The specific objectives were to establish how participative decision-making, communication on planning, organizational culture and innovation influence performance. The theories that guided this study were decision participation theory, organizational information theory, Schein theory of organizational culture, and the diffusion theory of innovation. This study used descriptive design with questionnaire as the instrument for data collection. The target population was 197 firms in the energy sector from three subsectors namely renewable energy, electricity and petroleum. The unit of observation was one operations manager from each energy firm. The study conducted a census on all the firms. Data collected was analyzed using SPSS version 21. to produce frequencies, descriptive and inferential statistics were used to derive conclusions. The study conducted a multiple regression analysis to determine the relationship between effective strategic planning and performance. The study findings revealed that all the four factors that is organizational culture, communication of planning, participative decision making and innovation had a positive significant influence on performance of firms in the energy sector. Based on the study findings, the study recommends that managers in the energy firms should focus on improving the four practices so as to record an improvement in their performance since strategic planning account for 63.4% of the variation in performance of energy firms.

Keywords: Participative Decision-Making, Communication, Organizational, Culture, Innovation, Performance

## Introduction

Strategic planning is a tool used in management of businesses (Cole, 2011). It is a deliberate process in which top management formulate the organization's strategy and communicate them for implementation. According to Kenny (2013), strategic plans refer to the alternative actions that can be implemented in an organization to achieve the organization vision. Strategic planning process begins with the development of a vision that guides the formulation of organizational strategies (Haden, 2010). Effective strategic planning provides a framework for decision making on resource allocation, addressing organizational problems and achieving competitiveness by taking advantage of opportunities. According to Kenny (2013), strategic planning focuses on defining the organizational direction, setting priorities, identifying the obstacles to organizational success and opportunities that can increase organizational competitiveness and performance.

According to Ahoy (2016), strategic planning requires commitment by the leaders through change management. Credibility of plans is maintained through representative participation, clear documentation and adhering to the standard process. Ahoy (2016) states that strategic planning is a participatory process and everyone should have input and have a sense of ownership in the final plan. Managers in organizations react to challenges in organizations as they occur. Strategic planning ensures organizations are prepared for challenges and have a clear guideline on how to solve them. According to Kenny (2013), sustaining an organizations competitive edge requires commitment to strategic planning in order to identify the internal and external factors that influence strategy. Organizations are committed to planning in order to manage resources effectively and efficiently for growth.

The energy sector in Kenya contributes largely to the economy of the country. The energy sector comprises three subsectors: the electricity subsector (generation, transmission and supply of electricity), the petroleum subsector and the renewable energy subsector. Kenya generates about 1.762MW of electricity that is distributed throughout the country. Kenya Power is a limited liability company responsible for the transmission, distribution, and retailing of electricity throughout Kenya. Kenya Power owns and operates the national transmission and distribution grid, and retails to more than 850,000 customers throughout Kenya (Kenya Power; Project Mwangaza Bulletin). KenGen is the leading electric power generation company in Kenya producing about 75% of electricity capacity installed in the country. Firms in the petroleum sub-sector are engaged in marketing and sale of petroleum products. Renewable energy subsector includes solar, geothermal, wind power and biomass.

## **Statement of the Problem**

The energy sector is a key enabler in the development of the society (ERC, 2015). Firms in the energy sector in Kenya are however experiencing unsteady trends in performance recording drops in profits due to increased operational costs and network constraints (ERC, 2016). This has contributed to demand of power not fully met by supply in the economy. According to Nyman (2014), 90% of energy firms failed to increase profits due to increased fuel costs in 2014 resulting to 13% increase in expenditure. Energy firms listed at Nairobi stock market reported a drop in total profits from 3 billion in 2013 to 2 billion in 2014, resulting to drop in equity turnover (KNBS, 2015). McKinsey and Company (2013) report on corporate performance that included large companies in the energy sector showed that only 20% yielded 90% of their total economic profit from implemented strategies. Jansen (2016)

study on strategy execution and performance of energy firms showed that only 2% of firms achieved 80-100% of their strategies' objectives. According to Raps (2014) study on performance of the energy sector in Kenya, only 10% of firms were able to increase profits from implemented strategies.

Studies conducted on performance of listed energy and petroleum firms (Badu & Vitor, 2012; Amin & Krishman, 2016) found that capital structure and governance have significant influence on financial performance. Empirical studies conducted on firm performance and strategic planning in energy firms (Okumus, 2013; Thorpe & Morgan, 2009) concluded that firms failed to achieve growth due to formulation of strategies that are not fit for the organization's capabilities and resources.

Previous studies on performance of the energy sector found that constraints in strategic planning influenced effective implementation of strategies hence performance. This study sought to bridge this gap by establishing whether participative decision-making, communication on planning, organizational culture, and innovation influence performance of firms in the energy sector in Kenya.

## **Research Objectives**

- i. To establish the influence of participative decision making on performance of firms in the energy sector in Kenya
- ii. To find out the extent to which communication on planning influence performance of firms in the energy sector in Kenya
- iii. To examine the influence of organizational culture on performance of firms in the energy sector in Kenya
- iv. To determine the influence of innovation on performance of firms in the energy sector in Kenya

#### LITERATURE REVIEW

#### **Decision Participation theory**

Vroom and Jago (1988) developed the decision participation theory. According to this theory, the effectiveness of a decision procedure depends on the number of aspects to the situation. These aspects include the importance of decision quality and acceptance, the amount of relevant information possessed by the leader and subordinates, the likelihood that subordinates will accept an autocratic decision or cooperate in making a good decision if allowed to participate (Vroom & Jago, 1988). According to Morphy (2015), employees and management are important stakeholders in an organization. Vroom and Jago (1988) addresses the question of how much subordinates should be allowed to participate in decision-making.

#### **Organizational information theory**

The organizational Information theory of Weick (1995) focuses on how organization adopts the information that is critical for their sustainability. It states that for an organization to

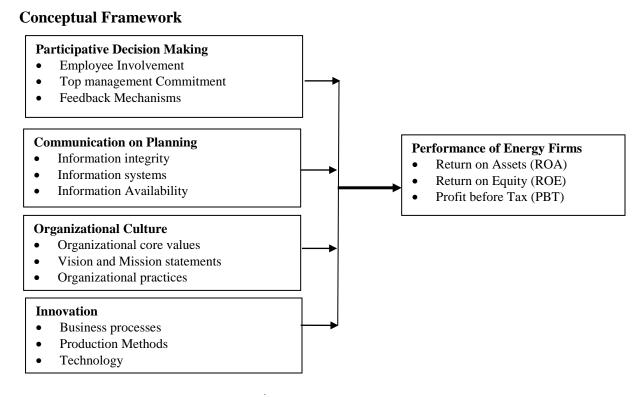
sustain it must have the information needed to achieve its goals. According to organizational Information theory, communication within the organization regulates the environment which influences the behavior of people within it and hence productivity. Weick (1995) suggests that organizational communication must aim at the people's understanding of the objectives more clearly to achieve goals. The concepts in this theory include Information concept which state that the organization is sustained using the information they accept and by the people's interpretation. The planning process in organizations enhances sustainability through competitive strategies and requires utilization of information within the organization and externally (Kenny, 2013).

## Schein's Theory of Organizational Culture

Schein (1988) argues that there are three major levels to consider when analyzing culture: Artifacts, espoused beliefs and values and basic underlying assumptions. According to him, the relationship between these three levels is that, artifacts are the surface level of an organizational culture, tangible, easily seen and felt manifestations such as products, physical environment, language, technology, clothing, myths and stories, published values, rituals and ceremonies, etc (Schein, 1992). Espoused beliefs and values are the next level of organizational culture, including strategies, goals, shared perceptions, shared assumptions, norms, beliefs and values instilled by founders and leaders (Schein, 1995). Basic underlying assumptions are the base level of organizational culture, and are the deeply-embedded, unconscious, taken for granted assumptions that are shared with others. Any challenge of these assumptions will result in anxiety and defensiveness.

## **Diffusion of Innovation Theory**

Rogers (1962) developed the diffusion of innovation theory to explain how, why, and at what rate new ideas and technology spread. According to Rogers (2003), diffusion is the process by which an innovation is communicated over time among the participants in a social system. He proposes four main elements influence the spread of a new idea: the innovation, communication channels, time and a social system. The innovation must be widely adopted in order to self-sustain. Rogers (2003) lists the categories of adopters as innovators, early adopters, early majority, late majority and laggards. Adoption of a new idea does not happen simultaneously rather it is a process whereby some people are more apt to adopt the innovation than others. In this study, the diffusion of innovation theory informs the relationship between innovation, strategic planning effectiveness, and performance. Increased innovation in an organization is expected to enhance the effectiveness of strategic planning which translate to increase in revenue, reduced costs and improvement in service delivery.



#### **Independent Variables**

**Dependent Variable** 

#### **Figure 1: Conceptual Framework**

## **Participative Decision Making**

Participative decision-making is the process in which the organization involves the people who may be affected by organizational plans or decisions and influence their implementation (Husted & Allen, 2010). These people make up the organizational stakeholders. According to Kenny (2015), stakeholders are people with an interest in the decisions, operations, and plans of a company and can support or oppose the decisions made from the planning process. Effective strategic planning results to plans that are acceptable to the key stakeholders; these plans can be implemented with minimal resistance from the employees (Kenny, 2013). According to Morphy (2015), employees in the organization are an important stakeholder since they are responsible for the implementation of strategies. Involvement of stakeholders seeks to gather feedback from the customers on their preferences and level of satisfaction with the organization's services and products (Morphy, 2015).

## **Communication on Planning**

Communication in organization involves sharing of information among people within it (Richards, 2016). Different methods can be used to disseminate information, which could affect the effectiveness of communication and the operations of the organization. According to Johnson (2016), effective communication is important in planning and implementing strategies. Constant and effective communication has to be maintained in order to have effective planning within the organization. Communication in the organization occurs

between management and employees, among employees and between the organization and its various stakeholders (Husted & Allen, 2010). Communication is aimed at acquiring information needed for planning process, which is accurate and relevant to the intended planning process. According to Newmann et al (2014), communication involves the use of information technology to collect, record, process, and store and disseminate the information to the relevant parties within the organization for planning. The communication media could influence the integrity of information and the effectiveness of plans made based on the information provided.

## **Organizational Culture**

Organizational Culture is a system of shared assumptions, values, and beliefs, which governs how people behave in organizations (Lund, 2013). These shared values have a strong influence on the people in the organization and dictate how they dress, act, and perform their jobs. Every organization develops and maintains a unique culture, which provides guidelines and boundaries for the behavior of the members of the organization. The researches on the subject of organizational culture and its effect on other organizational variables became widespread during 1980s (Lund, 2013). Lund (2013) alludes to the fact that "the 1980s witnessed a surge in popularity to examine the concept of organizational culture as managers became increasingly aware of the ways that an organizational culture can affect employees and organizations". Organizational culture is defined as "beliefs, assumptions, and values that members of a group share about rules of conduct, leadership styles, administrative procedures, ritual, and customs" (Mehta & Krishnan, 2010).

## Innovation

Innovation is one of the most difficult and elusive processes to manage today, judging by the failure rate of innovations (between 60% and 90% depending on the market context and product types). Although the failure rate is substantive, the pursuit of innovation is still considered as a holy grail in organizations (Damanpour, 2011). According to Damanpour (2011), organizations continue to invest in innovations with the intention to enhance their efficiency and/or effectiveness. Therefore, innovation is an inherent effect of an organization's desire to transform (change from one activity to another), to improve (change a single activity by making it better) or to simply put itself in a "league of its own" (change several activities at the same time), which can have uncertainty and risk as a side effect. Bronowski (1958) states that innovations can start from inventions or discoveries but must go further. It is possible then that an innovation begins with a new idea or a recombination of existing ones which leads subsequently to formulate that innovations can either be created from "scratch" in a focal organization or could be "acquired" from the environment.

# **RESEARCH METHODOLOGY**

The study adopted a descriptive survey design. The target population was the firms in the energy sector. According to the Energy Regulatory Commission Annual Report (2016), there were 197 firms in the energy sector from three subsectors namely renewable energy, electricity and petroleum. The study adopted a census approach. The instrument for data collection was questionnaires. The use of questionnaires made it easier to approach the respondents since they did not have any distribution bias as they didn't show any particular preference or dislike for a certain individual (Flick, 2011). Quantitative data was analyzed

using descriptive statistics that include means, frequencies, percentages and standard deviation. Inferential statistics was used which included regression and correlation analysis. A multiple regression analysis was used to determine the relationship between performance and the variables of the study. It took the following form :

The regression model was:

# $\mathbf{Y} = \mathbf{\beta}_0 + \mathbf{\beta}_1 \mathbf{X}_1 + \mathbf{\beta}_2 \mathbf{X}_2 + \mathbf{\beta}_3 \mathbf{X}_3 + \mathbf{\beta}_4 \mathbf{X}_4 + \varepsilon$

Where  $\mathbf{Y}$  = Performance of firms in the Energy Sector,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$  = Coefficients of determination,  $\beta_0$  = Constant,  $\mathbf{X}_1$  = Participative Decision Making,  $\mathbf{X}_2$  = Communication on Planning,  $\mathbf{X}_3$  = Organizational Culture,  $\mathbf{X}_4$  = Innovation and  $\varepsilon$  = Error term

## RESULTS

## **Respondent's Background Information**

This section describes characteristics of the study population based on the data collected and analyzed. Every target population usually has its own characteristics. The respondents who participated in the study were asked to indicate their experience in the organization, level of education and position.

Category	Response	Results
Experience	Less Than 2 Years	14.3%
	2-5 Years	34.3%
	6-10 Years	34.3%
	Above 10 Years	17.1%
Level Of Education	Bachelor's Degree	41.4%
	Diploma	7.1%
	Master's Level	45.0%
	PHD	6.4%

#### **Table 1: Respondent's Background Information**

## **Participative Decision Making**

The respondents were asked to rate the extent of agreement with statements on participative decision making. The findings indicated that 43.5% of the respondents agreed to a great extent that involvement of subordinates in decision making process increases firms performance after implementation, 45% agreed to a great extent that employee involvement in strategic planning process is important for formulation of effective plans, 53.6% agreed to a great extent that management commitment to strategic planning improves organizational performance while half the number of respondents agreed that senior managers involve lower level managers in strategic planning for effective execution.

The results also revealed that 53.6% agreed to a great extent that the use of customer feedback in strategic planning improves service delivery, 41.5% agreed to a great extent that feedback from stakeholders influence stakeholder satisfaction, 45.7% agreed to a great extent that feedback contributes to strategic direction of the organization, 50.7% agreed to a great

extent that management use employee input in strategic planning while those who agreed to a great extent that senior executives are committed to managing change for strategy implementation were 35% of the total number of respondents. The findings are consistent with Bower and Gilbert (2013) who studied how manager's everyday decisions create or destroy a company's strategy among multinational companies with a focus on general motors and concluded that organizational structure, how knowledge and power is dispersed has vital consequences of how strategy gets made.

Statement	1	2	3	4	5	Mean	Std Dev
Involvement of subordinates in decision making process increases firms performance after implementation	16.4%	21.4%	18.6%	21.4%	22.1%	3.11	1.40
Employee involvement in strategic planning process is important for formulation of effective plans	21.4%	12.1%	21.4%	21.4%	23.6%	3.14	1.46
Management commitment to strategic planning improves organizational performance	17.9%	17.1%	11.4%	20.0%	33.6%	3.34	1.53
Senior managers involve lower level managers in strategic planning for effective execution	18.6%	13.6%	17.9%	20.0%	30.0%	3.29	1.49
Use of customer feedback in strategic planning improves service delivery	10.0%	13.6%	22.9%	30.0%	23.6%	3.44	1.26
Feedback from stakeholders influence stakeholder satisfaction	12.9%	15.7%	30.0%	8.6%	32.9%	3.33	1.41
Feedback contributes to strategic direction of the organization	12.9%	22.1%	19.3%	20.7%	25.0%	3.23	1.38
Management use employee input in strategic planning	17.1%	15.0%	17.1%	21.4%	29.3%	3.31	1.46
Senior executives are committed to managing change for strategy implementation	12.9%	18.6%	33.6%	14.3%	20.7%	3.11	1.29
Aggregate						3.26	1.41

#### Table 2: Descriptive Analysis of Participative Decision Making

### **Communication on Planning**

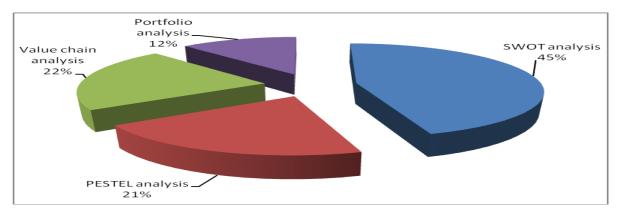
The respondents were asked to rate the extent of agreement with statements on communication on planning. The results reveal that 58.6% of the respondents agreed to a great extent that information on organization plans is readily available in the organization,

57.9% agreed to a great extent that the amount of available information limits the quality of decisions made, 65.7% agreed to a great extent that information used in planning is always accurate while 50% agreed to a great extent that information used in planning is always accurate. The findings further reveals that 52.1% of the respondents indicated that information accuracy affects setting of objectives in strategic planning while 50.7% agreed to a great extent that accurate information on planning is communicated to employees on time. These findings are consistent with Peng and Litteljohn (2011) who studied organizational communication barriers that are reported more frequently than any other type of barriers, such as organizational structure barriers, learning barriers, personnel management barriers, or cultural barriers.

Statement	1	2	3	4	5	Mean	Std Dev
Information on organization plans is readily available in the organization	8.6%	17.1%	15.7%	30.7%	27.9%	3.52	1.29
The amount of available information limits the quality of decisions made	10.0%	14.3%	17.9%	31.4%	26.4%	3.50	1.29
Information used in planning is always accurate	13.6%	4.3%	16.4%	32.1%	33.6%	3.68	1.34
Information accuracy affects setting of objectives in strategic planning	13.6%	18.6%	17.9%	22.1%	27.9%	3.32	1.41
Accurate information on planning is communicated to employees on time	14.3%	10.0%	23.6%	30.7%	21.4%	3.35	1.31
Information systems in the organization are used in decision making	10.0%	10.0%	29.3%	27.1%	23.6%	3.44	1.24
Aggregate						3.47	1.31

## Table 3: Descriptive Analysis of Communication on Planning

The respondents were also asked to indicate the tools that are commonly used in acquiring information for planning. From a range of value chain analysis, PESTEL analysis, SWOT analysis and portfolio analysis, the results showed that the most commonly used tool was SWOT analysis (45%), value chain analysis (22%), PESTEL analysis (21%) and portfolio analysis (12%).



## Figure 2: Respondent's Position in the Organization

The results also showed that the most commonly used information communication technology systems were website, budgeting Systems, management reporting systems, group decision support Systems and email.

## **Organizational Culture**

The respondents were asked to rate the extent of agreement with statements on organizational culture.

Statement	1	2	3	4	5	Mean	Std Dev
The organizational core values are incorporated in strategic plans	20.7%	9.3%	14.3%	15.7%	40.0%	3.45	1.58
Organization's practices influence the productivity of firms	14.3%	14.3%	15.7%	37.1%	18.6%	3.31	1.32
The organization vision and mission statements guide the performance of employees	24.3%	10.7%	10.0%	31.4%	23.6%	3.19	1.52
Organizational vision and mission statements influences the strategic plans formulated	18.6%	7.9%	14.3%	32.9%	26.4%	3.41	1.43
Organization culture influence the performance of the firm	10.0%	20.7%	15.7%	20.0%	33.6%	3.46	1.40
The organizational core values are incorporated in strategic plans	19.3%	12.9%	17.9%	22.9%	27.1%	3.26	1.47
Organization's practices influence the productivity of firms	13.6%	10.7%	18.6%	30.0%	27.1%	3.46	1.35
Aggregate						3.36	1.35

#### Table 4: Descriptive analysis of Organizational Culture

The results revealed that those respondents who agreed to a great extent that the organizational core values are incorporated in strategic plans were 55.7%, 55.7% of the

respondents also agreed to a great extent that organization's practices influence the productivity of firms, 55% of the respondents agreed to a great extent that the organization vision and mission statements guide the performance of employees, 59.3% of the respondents agreed to a great extent that organizational vision and mission statements influences the strategic plans formulated while 53.6% of the respondents agreed to a great extent that organization culture influence the performance of the firm. The results also show that 50% of the respondents agreed to a great extent that organization culture influence the performance of the firm. The results also show that 50% of the respondents agreed to a great extent that organization culture influence the performance of the firm. The results also show that 50% of the respondents agreed to a great extent that organization's practices influence the productivity of firms. These results are consistent with Goldman and Casey (2010) who conducted a study on building a culture that encourages strategic thinking and revealed that leaders as culture constructors and transformers can act to maximize the relationship between organizational culture and the process of learning to think strategically. The study also recommended that formal training, development activities and self-directed learning initiatives provide leaders with the skills to enhance the strategic thinking of those they lead.

#### Innovation

The respondents were asked to rate the extent of agreement with statements on innovation. The results revealed that 56.4% of the respondents agreed to a great extent that the organization has adopted technology in its planning processes, 56.4% agreed to a great extent that the organization has adopted technology in its production processes, 55.7% on the other hand agreed to a great extent that strategic planning is influenced by the company's business processes while those who agreed to a great extent that the organization has invested many resources in innovation were 56.4%.

The findings also revealed that 63.6% of the respondents agreed to a great extent that the organization employs high-tech equipment in its planning processes, while 45% agreed to a great extent that the use of technology in planning influences productivity. Those respondents who indicated that the use of innovation enhances formulation of strategic plans and performance 47.9% and those who agreed to a great extent that innovation influences performance of the firm were 52.2%. These findings are consistent with Nzyoki (2010) whose study investigated the factors influencing implementation of strategic plans and concluded that when alignment of resources is done properly to utilize the skills acquired and make use of the human and physical capital available, it leads to an improvement in performance.

Statement	1	2	3	4	5	Mean	Std Dev
The organization has adopted technology in its planning processes	16.4%	12.1%	15.0%	30.7%	25.7%	3.37	1.41
The organization has adopted technology in its production processes	20.0%	10.0%	13.6%	25.7%	30.7%	3.37	1.50
Strategic planning is influenced by the company's	12.1%	17.1%	15.0%	25.0%	30.7%	3.45	1.40

#### **Table 5: Descriptive analysis of Innovation**

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							Std
Statement	1	2	3	4	5	Mean	Dev
business processes							
The organization has invested many resources in innovation.	15.7%	14.3%	13.6%	20.7%	35.7%	3.46	1.49
The organization employs high-tech equipment in its planning processes.	16.4%	4.3%	15.7%	35.7%	27.9%	3.54	1.37
The use of technology in planning influences productivity	18.6%	8.6%	27.9%	22.9%	22.1%	3.21	1.38
The use of innovation enhances formulation of strategic plans and							
performance	15.0%	6.4%	30.7%	28.6%	19.3%	3.31	1.28
Innovation influences performance of the firm	15.7%	6.4%	25.7%	23.6%	28.6%	3.43	1.38
Aggregate						3.39	1.40

## Performance of firms in the Energy sector

The study established the percentage changes in company's return on assets for a period of five years from the year 2012 to the year 2016. The findings in Figure 4.6 reveal unsteady trends in the percentage changes in ROA from the year 2012 to the year 2016. The year 2012 indicated a high percentage decrease in ROA in the energy sector. In the year 2012 and 2013, there was a slight percentage increase in ROA before a decrease was recorded in between 2013 and 2014. However, between the year 2015 and 2016, there was a slow improvement in the returns on assets in the energy sector. This low performance especially in the year 2012 can be attributed to an increase in operational costs which were triggered by an increase in fuel costs then.

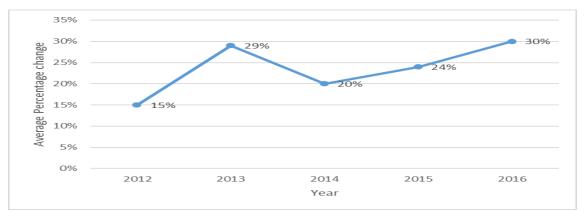
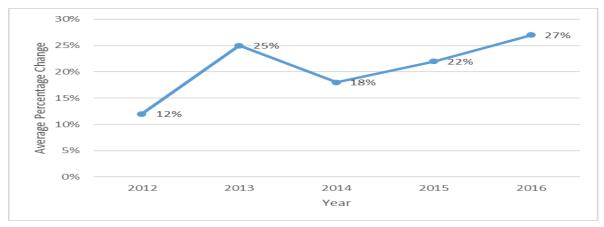


Figure 3 Trend analysis of Percentage Change in ROA

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The study also established the percentage changes in the organization's ROE for a period of five years from the year 2012 to the year 2016. The findings in Figure 4.7 reveal that the average percentage change in ROE for all the firms also had a high decrease on average in the year 2012 which was an indication of poor performance. It however improved steadily in the year 2013 before decreasing in the year 2014. This reveals a reduction in the equity invested at that time. It also shows that on average, a loss was made in the energy sector due to the high costs of fuel. Furthermore, between the year 2015 and 2016, there was a slow improvement in the returns on equity across the sector as indicated by a slight percentage increase in the returns on equity.



#### Figure 4 Trend analysis of Percentage Change in ROE

Similar unsteady trends were also indicated in the percentage change in profits before tax in the energy sector in Kenya between 2012 and 2016. On average, the energy sector had a cumulative low percentage change in profits before tax in the year 2012. This was followed by a slight improvement as shown by an improved mean percentage change between 2013 and 2014. The year 2015 indicated an increase in profits before tax of the sector as shown by an average increase in percentage change. These unsteady trends reveal poor strategic planning among the firms in the energy sector since a price increase in the year 2014 greatly destabilized the whole sector, an indication that the scenario had not been factored.

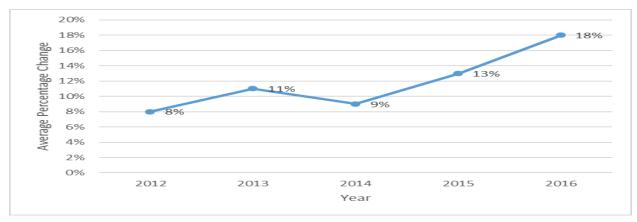


Figure 5 Trend analysis of Percentage Change in PBT

#### **Correlation Analysis**

The results of the correlation showed that participative decision making had a positive and significant influence on performance of firms in the energy sector in Kenya (Pearson Moment Correlation = 0.582, Significance = 0.000 < 0.05). These findings imply that an increase in participative decision making practices for instance employee involvement, top management Commitment and improvement in feedback mechanisms will lead to a significant improvement in performance of firms in the energy sector. These findings are consistent with Kibachia et al (2014) who examined the risk factors in the strategic planning process of parastatals in Kenya and concluded that the commitment of leaders in deploying practices to resolve people, processes, and technology issues in planning has a significant influence on performance of an organization.

The results of the correlation showed that communication on planning had a positive and significant influence on performance of firms in the energy sector in Kenya (Pearson Moment Correlation = 0.515, Significance = 0.000 < 0.05). The findings reveal that an improvement in communication on planning practices that involves information integrity, information systems and information availability leads to a significant improvement in performance of firms in the energy sector. The findings of the study are consistent with the findings of a study by Akintaro and Shonubi (2016) who studied the impact of effective communication on organizational performance. And concluded that managers with good communication skills can convey their ideas clearly, so that subordinates understand what is required from them and can positively contribute to the organizational performance. The study also revealed that a lack of communication can lead to employee frustration, lower productivity, absenteeism and increased employee turnover rate.

Further findings revealed that organizational culture had a positive and significant influence on performance of firms in the energy sector in Kenya (Pearson Moment Correlation = 0.441, Significance = 0.000 < 0.05). These results shows that an improvement in organizational culture with regard to organizational core values, vision and mission statements and organizational practices leads to a significant improvement in performance of firms in the energy sector. The findings of the study are consistent with the findings of a study by Ahmadi et al (2012) who studied the relationship between organizational culture and strategy implementation and concluded that when managers consider all dimensions of their organization's culture, they successfully implement strategies which leads to an improvement in performance.

The results also indicated that innovation was found to positively and significantly influence performance of firms in the energy sector in Kenya (Pearson Moment Correlation = 0.568, Significance = 0.000 < 0.05). The results imply that an increase in innovation practices such as business processes, production methods and investment in technology leads to a significant improvement in performance of firms in the energy sector in Kenya. These results are consistent with Koluobandi, Mehrmanesh and Norouzi (2016) who studied the effect of strategic planning and innovation on organizational performance and concluded that innovation had a positive impact on strategic planning and performance.

		Participative	Communication	Organizationa	Innovat	Perform
		Decision Making	on Planning	1 Culture	ion	ance
Participative	Pearson					
Decision Making	Correlation	1				
	Sig. (2-tailed	)				
	Ν	140	140			
Communication on	Pearson					
Planning	Correlation	.515**	1			
	Sig. (2-					
	tailed)	0				
	Ν	140	140	140		
Organizational	Pearson					
Culture	Correlation	.335**	0.075	1		
	Sig. (2-					
	tailed)	0	0.375			
	Ν	140	140	140		
	Pearson					
Innovation	Correlation	0.158	.222**	.281**	1	
	Sig. (2-					
	tailed)	0.063	0.008	0.001		
	Ν	140	140	140	140	
	Pearson					
Performance	Correlation	.582**	.515**	.441**	.568**	1
	Sig. (2-					
	tailed)	0.000	0.000	0.000	0.000	
	Ν	140	140	140	140	140

#### Table 8: Correlation Analysis

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

# Multivariate Regression Analysis

The multiple linear regression analysis was carried out to determine the combined effect of effective strategic planning on performance of firms in the energy sector in Kenya. The findings in Table 9 showed that strategic planning which comprises of participative decision making, communication on planning, organizational culture and innovation has a high positive correlation with performance of the firms in the energy sector as shown by a joint Pearson Correlation value of 0.796. On the other hand, the results showed that strategic planning which comprises of participative decision making, communication on planning, organizational culture and innovation has a has a coefficient of determination value of 0.634. This shows that participative decision making, communication on planning, organizational culture and innovation for up to 63.4% of the variations in performance of firms in the energy sector in Kenya. The implication is that there are other factors that also account for the performance of firms in the energy sector in Kenya in the tune of 36.6% which are captured by the regression model as the error term. These other factors can be established through other future studies.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.796	0.634	0.623	0.486867

#### Table 9 Regression Model Summary

Predictors: (Constant), Innovation, Participative decision making, Communication on planning, Organizational culture

The regression model also indicated the model analysis of variance which showed the deviation of the predicted model from the actual model. This indicates the model significance. This part sought to establish whether the model linking strategic planning to performance of firms in the energy sector in Kenya was significant. The results showed that the F calculated value of 58.354 was significant at 5% level of significance as shown by a significance level of 0.000.

This shows that participative decision making, communication on planning, organizational culture and innovation can jointly be used to predict performance of firms in the energy sector. Furthermore, a comparison of the F calculated value was compared with F critical value of 2.439 established from the F distribution table using a numerator degrees of freedom of 4 and denominator degrees of freedom of 135. The statistical interpretation is that if the F calculated value is greater than the F critical value, then the overall model was significant. This confirmed the above findings that the model was significant.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	55.329	4	13.832	58.354	.000
	Residual	32	135	0.237		
	Total	87.329	139			

### Table 10 Analysis of Variance (Model Significance)

Dependent Variable: Performance

The results for the coefficients of the model are presented in Table 11. The findings showed a constant value of 0.022. This shows that without considering strategic planning, the performance of firms in the energy sector which is accounted for by other factors is positive.

The results showed that participative decision making has a positive and significant influence on performance of firms in the energy sector in Kenya (Beta = 0.295, Significance = 0.000). This shows that an increase in participative decision making practices for instance employee involvement, top management commitment and improvement in feedback mechanisms will lead to a significant improvement in performance of firms in the energy sector. The findings of the study are consistent with the findings of a study by Kaval and Voyten (2010) who studied effective processes for making and implementing decisions and concluded that being more proactive in the decision-making process would help managers reach appropriate conclusions and prevent them from being caught in last minute decision-making, the nature of their culture and decision-making style, determine which decision-making process is most effective.

Communication on planning had a positive and significant influence on performance of firms in the energy sector in Kenya (Beta = 0.303, Significance = 0.000). This shows that an

improvement in communication on planning practices that involves information integrity, information systems and information availability leads to a significant improvement in performance of firms in the energy sector. These results agree with Forman and Argenti (2015) who studied the influence of corporate communication on strategy implementation among firms and concluded that corporate communication contributes to a company's ability to create and disseminate its strategy thus affecting the performance positively.

With regard to organizational culture, the findings also revealed that it positively and significantly influence performance of firms in the energy sector in Kenya (Beta = 0.156, Significance = 0.001). Findings shows that an improvement in organizational culture with regard to organizational core values, vision and mission statements and organizational practices leads to a significant improvement in performance of firms in the energy sector. The findings of this study are consistent with the findings of a study by Muriithi (2015) who examined the effects of strategic management on the financial performance of state corporations in Kenya and established that that planning through defining of vision, mission, and values contributed to better performance.

The findings lastly revealed that innovation has a positive and significant influence on performance of firms in the energy sector in Kenya (Beta = 0.476, Significance = 0.000). The results imply that an increase in innovation practices such as business processes, production methods and investment in technology leads to a significant improvement in performance of firms in the energy sector in Kenya. The findings are consistent with Bellamy (2015) who studied the influence of new technology planning and implementation on the perceptions of new technology effectiveness and concluded that implementation of new technology also influenced organizational strategy, structure, and processes.

Predictor Variables	В	Std. Error	t	Sig.
(Constant)	0.022	0.294	0.074	0.942
Participative decision making	0.295	0.059	5.027	0.000
Communication on Planning	0.303	0.078	3.888	0.000
Organizational Culture	0.156	0.045	3.466	0.001
Innovation	0.476	0.065	7.323	0.000
Dependent Variable: Performance	e			

# **Table 11 Regression Model Coefficients**

## **Optimal Regression Model**

Performance of Energy firms = 0.022 + 0.476 (*Innovation*) + 0.295 (*Participative Decision Making*) + 0.303 (*communication on planning*) + 0.156 (*Organizational Culture*)

## Conclusion

The study concluded that participative decision making has a positive significant influence on performance. This shows that when organizations focus on enhancing participative decision, for instance through, employee involvement, top management commitment and improvement in feedback mechanisms, there will be a significant increase in performance even though the increase is not significant. The study also concluded that communication on planning plays a key role in enhancing performance of organizations significantly. There is a need for organizations to improve communication on planning practices such as information integrity, information systems and information availability since it would lead to a significant improvement in performance. Another conclusion is that; organizational culture has a significant improvement on organizational performance. Various organizational culture practices such as organizational core values, vision and mission statements lead to a significant improvement in the performance of an organization. The study also concluded that an improvement in innovation has the most positive and significant influence on performance of listed energy firms in Kenya. This shows that organizations need to consider innovation practices such as business processes, production methods and investment in technology when making decisions to improve performance.

#### **Recommendations**

The study recommends that management of firms in the energy sector and other firms should consider participative decision making as an important policy when planning to improve the performance. The study also recommends that management of firms in the energy sector as well as other organizations need to have effective mechanisms for communication on planning since this practice plays a significant role in determining the performance of the firm. There is a need to improve communication practices by mainly emphasizing on information integrity and availability and at the same time have effective information systems. In order to have an improvement in performance, there is a need for firms in the energy sector operating in Kenya as well as other organizations creating an effective organizational culture which aims to build on organizational core values, vision and mission statements since that would significantly improve the performance. The organizational culture affects the day to day interaction of the employees and that can shape how they perceive and dedicate to the organization. Since innovation has the most significant influence on performance of firms in the energy sector, the study recommends that the management of these firms in Kenya as well as other organizations need to consider investing more in research and development as well as innovation activities so as to improve their performance. Innovation and new technology greatly cuts costs in the long run.

#### ACKNOWLEDGEMENT

My sincere gratitude goes to my supervisor Dr. Allan Kihara for his guidance and direction. I am also grateful to staff at the energy firms, for their amazing co-operation in providing me with information necessary for my research exercise. I wish to convey sincere gratitude to friends and colleagues of JKUAT who inspired and gave me morale to undertake this study. I equally thank the management and lecturers of Jomo Kenyatta University of Agriculture and Technology (JKUAT) for their support during the study. Finally, I express my deepest love to my parents for their support throughout my study. God bless you.

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