INFLUENCE OF STRATEGIC FORECASTING AND PLANNING ON ORGANIZATIONAL CHANGE IN THE PETROLEUM INDUSTRIES IN KENYA

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ABSTRACT

Competitiveness of profit and non-profit making entities is anchored on their ability to embrace change. This can be achieved through strategic forecasting and planning in every organization. Petroleum firms should be prepared to adopt strategic forecasting and planning policies within their firms so to achieve organizational change. The study adopted descriptive research design and issued questionnaires to collect data amongst 228 respondents. Descriptive statistics and inferential statistics analyzed the data. Positive significant influence between strategic forecasting and planning and organization change in petroleum industries in Kenya.

Key words: Strategic forecasting and planning, organization change.

Introduction

Strategic planning refers to process that devises how an organization's mission can be accomplished by setting out strategies that allocates resources optimally (Shuria, Linge & Kiriri, 2016). Strategic Planning is also the process of formulating, implementing and evaluating decisions that enable the organization to achieve its goals (Mbaka & Mugambi, 2014). It is change strategies that are carefully planned and deliberate (Murugan, 2016). According to Draft (2011) it a process that drives performance by establishing agreement between the ambition of the company and long-term targets as defined by the mission and vision of the organization. On the other hand, strategic forecasting entails projection of the organization capability to change to the new conditions. Therefore, forecasting is a clear way of converting available information and proposed strategy with regards to a given environment to produce statement concerning the future expectations (Sull, 2009).

According to Muzainah and Mahamad (2012) confirmed that the importance of strategic planning is to accomplish sufficient process of innovation to support and enhance the planning process. It is a strategic tool used for transforming and revitalizing corporations, government agencies and non-profit organizations (O'Regan & Ghobadian, 2009). Strategic plans continuously realign the firm's objectives and strategies with the changing conditions with a view to realizing organizational transformation and subsequently improve the long-term performance of the organization. In research by Orndoff (2002) argued that leaders should think and value needs of forecasting since uncertainty and stability of environment must catered for when it comes to organization performance. Strategic planning is the process through which an organization defines its strategy, and make decisions on allocating its resources to pursue this strategy (Pearce & Robinson, 2011, Draft, 2011; Holloway, 2012).

Theory and Empirical Literature

The theory of Management By Objectives (MBO) was developed by Peter Drucker1954, in his book "The Practice of Management." in a practical way (Mulder, 2014). Setting challenging but attainable objectives promotes motivation and empowerment of employees. By increasing commitment, managers are given the opportunity to focus on new ideas and innovation that contribute to the development and objectives of organizations. This approach was further developed by many management theoreticians, among them Douglas McGregor, George, Odiorne, and John Humble. Management by objectives (MBO) is a performance management approach in which a balance is sought between the objectives of employees and the objectives of an organization. The essence of Ducker's basic principle management by objectives is to determine joint objectives and to provide feedback on the results. Management by Objectives (MBO) is a personnel management technique where managers and employees work together to set, record and monitor goals for a specific period of time. Organizational goals and planning flow top-down through the organization and are translated into personal goals for organizational members.

Research by Faizah (2012), revealed that the most important tool the manager has in setting and achieving forward-looking goals is people, and to achieve results with this tool the manager must: first, be able to instill in the workers a sense of vital commitment and desire to contribute to organizational goals; second, control and coordinate the efforts of the workers toward goal accomplishment; and, last, help his or her subordinates to grow in ability so that they can make greater contributions. According to Todor, (2011) Management by objective is a management philosophy which. In the last fifty years since the term Management by Objectives (MBO) was introduced, numerous methods, models and theories surfaced. The first segment of the paper addresses issues regarding the organizational objectives, more specifically the importance of the objectives as a basis upon which the organization is established, the possible approaches of leading a tourism organization, and how the organization should be managed by these approaches. The principal characteristic of management is to direct the leading toward achieving the predetermined objectives. The second segment of the paper discusses the MBO process, its advantages and disadvantages. The practical implementation of the MBO is also elaborated. Before the organization is established, the organizational objectives are usually in only one direction, mainly focusing on the profit side of the business.

According to Brim, (2012) MBO principals contained many precursors to the basic building blocks used by current project management tenants. some of the basic principles of Management by objectives includes, establish a set of top level strategic goals, create a cascade of organizational goals that are supported by lower level definitive objectives and action plans, develop an organizational role and mission statement, as well as specific objectives and action plans for each member, often in a manner that involved participative decision making, establish key results and/or performance standards for each objective and periodically assessment of the status or outcome of the goals.

Empirical Literature

For a firm to plan and forecast accordingly, areas core competencies need to be included in the model so as to offer guidance as to what they organization want to achieve in the long run. Clarke (2013) argues that in an environment characterized by frequent organization changes they have adopted a proper focus of the future which can be achieved by being sensitive of the core competencies areas. Thus, according to Torkkeli and Tuominen (2002) core competencies are the collective learning in a firm that relate to how production skills and integrated multiple streams of technologies are coordinated in their diversity. Uysal (2005) adds that core competencies are those firm-specific signatures that would help firm to stand out even in tribulations. Core competencies can also be viewed as a unique knowledge for problem definition and problem solving that lays down the basis of firm's competitive advantage which can be leveraged in a wide variety of markets for future products (Srivastava, 2005)

There are bundle of capital ranging from the human, intellectual, social and financial capital that Sharen (2015) suggest if pooled together they can form core competencies. If an organization is able to differentiate its core competencies by making them rare, valuable and hard to imitate then the organization enjoys the competitive advantages. However, it should be noted that when the sectors, industry or environment changes, the core competencies should also follow suit. Therefore, a strategic leader should be concerned about the core competencies that would be essential in the attainment of the organization purpose so as to develop, maintain and exploit them (Sharen, 2015) into the future.

Research by Shuria *et al* (2016) reveals that an organization with a strategic leader is guided by clear visions and plans that further help forecast the externalities that would have impact on the performance of the firm. These visions help to inspire the organization members thus creating a sense of mission (Mufudza, Jengeta & Hove, 2013). Having clear picture of where one wants to get is described by Choularton (2007) as the right perspective for the companies facing rapid changes as well any disorderly environment. This can be argued as the reason why strategic leaders would prefer to 'prepare for the unexpected' instead of preparing only for the known changes or variables. Strategic leaders would differ with organization leaders who are more focused on the internal processes hence leaving firm vulnerable to changes that may destabilize it in adversative environment (Draft, 2011).

Research Methodology

Research Design

Research design refers to logical framework on how research will be executed (Saunders, Lewis & Thornhill, 2014). In addition, Sekaran and Bougie (2013) perceived it as step by step guidelines on how research objectives can be achieved with minimal distraction. In this study descriptive research design will be adopted. According to Saunders et al., (2014) whenever the researcher seeks to describe when, what, how and why the situation as per the problem under exploration, then the biased research design is descriptive.

Target Population and Sample Size

Target population or universe refers to the complete listing of all the items or individuals with at least one common thing in any field of study (Kothari, 2011). The target population constituted 424 directors and 106 chief executive officers of oil companies in Kenya. Simple random sampling will be used to select respondents. Yamane (1967) sample size calculation formula will be used to calculate the sample.

$$\mathbf{n = \frac{N}{(1+N^{*}\ d^{2})}}$$

Where:
n = sample size, N= entire Population, d= Expected Error,

As such the sample for this study can be derived as follows:

$$n = \frac{(530)}{(1+530 * 0.05^{2})} = 228$$

Data Presentation and Analysis

Data collected using questionnaires were counter checked for completeness, coded and entered into Microsoft Access. It was cleaned and then exported to SPSS version 23. Quantitative data was analyzed using descriptive statistics and inferential statistics. Descriptive statistics comprised of mean, standard deviation, frequency and percentages. Simple regression analysis examined the influence of strategic forecasting and planning on organization change in oil industry in Kenya. The model was of the form:

$Y = \alpha + \beta X + \mu$

When Y = Organization change

X = Strategic forecasting and Planning, μ= error term.

Findings and Discussions

The study sought to find out the influence of strategic forecasting and planning on organization change in the petroleum industries in Kenya. The respondents were requested to rate their responses of a five-point Likert scale and data was analyzed using mean, standard deviation, frequency and percentage. Majority 49.1% reported that in their organization vision influence to a large extent the development or organization strategic planning process. Secondly, majority 60% reported a very large extent of strategic planning influence on organization change. Thirdly, majority 52.7% to a very large extent their strategic plan elaborates their plan and alternative strategies of organization change. Indeed, majority mean =4.2 reported that to a large extent their leader's choices a given strategy as a basis for their action.

Moreover, majority 50.9% reported that to a very large extent the strategies chosen in a given organization yields the desired results though in a large extent they may lead to unintended results (mean = 3.9, standard deviation = 1.3). In the petroleum industries majority 47.3% reported that to a very large extent their uses forecast as inputs for organization change. Further, majority 54.5% reported that to a very large extent the planning provides strategies based on forecast. In fact, majority 55.9% reported that to a very large extent forecasting techniques can be helpful to organization planning for the future. Although, there are different planning approaches majority mean = 4.2, reported that they adopt scenario planning process to generate various imagined outcomes, based on different sets of starting conditions.

Further, majority 56.4% reported that to a very large extent they have confidence with their planning process. To a very large extent majority 46.4% of the respondents reported that in their organization leaders develop specific action plans for organization which are based on well established procedures or they identify gaps based on challenges facing a given organization. Finally, majority 48.2% argued that to a very large extent their organizations are capable of anticipating future organization changes. On overall strategic planning and forecasting has large extent on organization change (mean = 4.3, standard deviation = 0.8).

The findings mirrored Sharen (2015) who argued that whenever an organization is able to hold it activities in well outlined plans then they can be achieved either in the short or long run. These plans help to form the core competencies that enable the firm to gain competitive advantages. As recommended by Cheoularton (2007) strategic plan and forecast gives perspectives of the company which enables the company to stand its ground in an environment characterized by rapid and disorderly changes.

The findings of this study also confirm the statement by Mufudza *et a*l, (2013) that it is better to be 'prepared for the unexpected' rather than only preparing for the known changes. This inspires the organization stakeholders to have a sense of mission after putting into consideration set of imagined scenario and outcomes. Through these scenarios, procedures on how to achieve a desired change(s) is arrived at after ensuring that all the necessary gaps are addressed to outdo any challenges that may befall such plans or forecasts.

To a very large extent the study has established that leaders in many organizations are now able to expected potential future changes in the organization. This in itself help the organization to realize overall goal of the company be it in the long or short run since they are able to select one strategy as basis for action in times of changes (Draft, 2011). As Shuria's (2015) study point's strategic leaders should be able to generate plans that help forecast externalities that would have impact on companies. For a close it can be said that indeed forecast and better plans are shapers of the available choices and decisions in environment featured with changes.

Table 1: Descriptive Analysis of variable Strategic Forecasting

n=220

	Not at all	Small extent	Moderate extent	Large extent	Very large extent	Mean	Std. Deviation
The vision of the organization directly influences the development organization strategic planning process	0.9	3.6	5.5	49.1	40.9	4.3	0.8
My organization has strategic plan that guides the organization operation	0	3.6	2.7	33.6	60	4.5	0.7
The plans in my organization describe objectives and alternative strategies	0	2.7	6.4	38.2	52.7	4.4	0.7
Leaders in my organization select one strategy as basis for action	0.9	2.7	17.3	29.5	49.5	4.2	0.9
The action chosen may lead to results that are intended	1.8	6.4	6.4	34.5	50.9	4.3	1
The action chosen in my organization may lead to results that are unintended	9.1	9.1	11.8	26.4	43.6	3.9	1.3
My organization uses forecasts as inputs to the planning process	0.9	3.6	11.8	36.4	47.3	4.3	0.9
Does the planning provide the strategies based on forecasts?	0	2.7	6.4	36.4	54.5	4.4	0.7
Forecasting techniques can be helpful to organizations planning for their future	0.9	4.5	6.4	32.3	55.9	4.4	0.9
My organization use scenario planning to generate various imagined outcomes, based on different sets of starting conditions	1.8	3.6	5.5	49.1	40	4.2	0.8
My organization has confidence in forecast	0	3.6	7.3	32.7	56.4	4.4	0.8
Leaders in my organization develop specific action plan for organization change that is guided by well established procedures	0	2.7	4.5	46.4	46.4	4.4	0.7
Leaders in my organization identify gaps based on the challenges facing organization change	1.8	1.8	3.6	46.4	46.4	4.3	0.8
Leaders in my organization are capable of anticipating potential future organization changes	0.9	2.7	3.6	44.5	48.2	4.4	0.8
Overall average						**4.3**	**0.8**

Factor Analysis on Strategic Forecasting

As shown in Table 2, all the attributes of strategic forecasting were retained for subsequent analysis since all of them had factor loading greater than 0.5. The modal factor loadings were excellent with least reported load being good and it showed that actions taken in a petroleum organization have chances of yielding desired results. Amongst those that had excellent loadings were ability of organization vision to have direct influence on development of organization strategic plan, organization selection of a single strategy as basis for their actions, and actions chosen givens desired results, forecasting techniques should be adopted in an organization to yield desired results.

The highest reported factor loading was 0.8, which indicate leadership capability to identify gaps based on the challenges facing organization change.

Table 2: Strategic Forecasting Component Matrix

Item	Factor Loading
The vision of the organization directly influences the development organization strategic planning process	0.8
My organization has strategic plan that guides the organization operation	0.7
The plans in my organization describe objectives and alternative strategies	0.7
Leaders in my organization select one strategy as basis for action	0.8
The action chosen may lead to results that are intended	0.8
The action chosen in my organization may lead to results that are unintended	0.7
My organization uses forecasts as inputs to the planning process	0.7
Does the planning provide the strategies based on forecasts?	0.7
Forecasting techniques can be helpful to organizations planning for their future	0.8
My organization use scenario planning to generate various imagined outcomes, based on different sets of starting conditions	0.7
My organization has confidence in forecast	0.7
Leaders in my organization develop specific action plan for organization change that is guided by well established procedures	0.7
Leaders in my organization identify gaps based on the challenges facing organization change	0.8
Leaders in my organization are capable of anticipating potential future organization changes	0.7

Strategic forecasting and planning has significant influence on organizational change in the petroleum industries in Kenya.

Results in Table 3, shows that 73% of the variations in organization change in petroleum industries can be explained by strategic forecasting while the remaining percentage can be accounted for by other factors which are excluded in the model.

Table 3 Model Summary on the Influence of Strategic Forecasting on Organizational Change

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.853a	0.73	0.728	0.52	1.55

a. Predictors: (Constant), Strategic Forecasting
b. Dependent Variable: Organization Change

As shown in Table 4, strategic forecasting has significant influence on organization change (F = 548.418, p value <0.05). This implies that there is a linear relationship between strategic forecasting and organizational change within petroleum industries in Kenya.

Table 4 Analysis of Variance on the Influence of Strategic Forecasting on Organizational Change

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	159.502	1	159.502	584.418	.000a
	Residual	59.498	218	0.273		
	Total	**219**	**219**			

a. Predictors: (Constant), Strategic Forecasting
b. Dependent Variable: Organization Change

Results in 5 shows that strategic forecasting has significant influence on organization change (β = 0.853, p value <0.05). In line with the second specific objectives, the study sought to determine the influence that strategic forecasting and planning has on organizational change in the petroleum industries in Kenya. Analysis of the intensity and nature of relationship between the two variables shows that there exists a strong positive connection. This is backed by the regression analysis. In fact, more than two-third variation in organization change is explained by strategic planning and forecasting alone. Also, in record is that many organizations are guided by strategic plan in all their operations. These plans are seen to be recipe for the strategic changes to be made at any given time. Findings of this study agrees with Sull (2009) who posits that forecasting which shows strategic planning and forecasting has a significant and positive influence on organization give a clear way where the readily available information into strategies that can be used to make changes in the organization thus helping to foretell future environment with probable changes that ought to be done. Plans on the core competencies of the company need to be incorporated in forecasting so as to offer guidance on what should be achieved in the long run. A company that stand on ground with frequent calls for organization changes need to be sensitive and have proper focus on the future (Clarke, 2013).

Table 5 Regression Coefficients on the Influence of Strategic Forecasting on Organizational Change

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-3.49E-17	0.035		0.00	1
	Strategic Forecasting	0.853	0.035	0.853	24.18	0.00

a. Dependent Variable: Organization Change

Conclusion and Recommendations

Policy analysts and makers should ensure that the organizational plans are geared towards attainment of visions and goals. There is need for organizational plans and forecast be based on specific objectives and implementation matrix should itemize alternative approaches which will ensure organizational change can be fully met. Although, the primary goal of any organization is to attain its goals, there is need to carry out sensitivity analysis upon considering various decision alternative. In those circumstances when the results are negative corrective actions which ought to be taken must be clearly stipulated to ensure organizational change goal is not jeopardized by erratic changes by the market force of demand and supply.

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