EFFECTS OF STRATEGIC MANAGEMENT PRACTICES ON OPERATIONAL ENVIRONMENT: A CASE STUDY OF KENYA MARINE AND FISHERIES RESEARCH INSTITUTE

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ABSTRACT

The rapid and discontinuous change taking place in the operational environment has a direct impact in the manner in which state corporations and organizations operate. The teams responsible for management are finding that old techniques for adoption to changes in the operational environment are no longer effective. These changes both in the operational environment as well as within the organization have an impact on the performance of these corporations hence management of these corporations need to be aware of these changes in order to adapt to them. The general objective of this study was to investigate the effects of strategic management practices on operational environment at KMFRI. The objectives of the study was to determine the strategic information technology Systems adaptation on corporation's changes in operational environment, to establish the strategic human resource management practices adaptation on the corporation's adaptation to the changes in operational environment and to establish the governing policies effect on the adaptation to the corporation's adaption to the changes in operational environment. This study adopted a descriptive research design. The population of this study was composed of all the employees working at Kenya Marine and Fisheries Research Institute. The research used stratified random sampling where the population was divided into three strata which comprised of top management, middle level management and other staff members. The study used questionnaire in order to collect data. The data was then be analyzed using SPSS. The findings of the study were presented using frequency distribution tables, percentages, pie-charts and discussions.

Key Words: *strategic management practices, operational environment, Kenya Marine and Fisheries Research Institute*

INTRODUCTION

For any organization to be effective and successful, it is important for it to respond appropriately, to changes that are occurring within the environment in which it operates (Hofer and Schendler, 1998). This calls for the need of an organization to reconfigure its strategic response to adapt to the prevailing or emerging environmental changes. Greenstein (2001) notes that firms responds differently to the same environmental changes, whereby they tend to use different strategies in reaction to these situations. A wide held believe is that if organizations do not respond to a changing environment then their performance will suffer. The basic idea is that without change the organization's design will become increasingly aligned with the environment.

According to Bartol and Martin (2003), firms often respond to environmental changes through strategic responses and operational responses. The difference in these two responses is the period of implementation and the level of resources to be employed by the firm. The focus of operational responses are short term and concerned with efficiency of operations, on the other

hand, strategic responses are long-term in nature and concerned with entire organization. Strategic responses involve large amounts of resources and decisions relating to them are usually made at corporate and business levels (Byars, 2001).

According to Thompson and Strickland (2003), it is necessary for any organization to utilize environmental scanning techniques in order to predict such changes. The scanning process involves studying and interpreting economic, political, technological, and socio-cultural events with an aim of establishing trends which can affect the industry. To scholars and strategy experts, environmental scanning is perceived to play a vital role in the strategic management process in the sense that it enables the management to become aware of environmental dynamics that pose new opportunities and threats to the organization. Through SWOT analysis and industry analysis, organizations are able to carry out the process of environmental analysis. By analyzing their external environments, organizations are able to forecast changes that are likely to have far reaching consequences to their overall performances.

Kenya Marine and Fisheries Research Institute (KMFRI)

Kenya Marine and Fisheries Research Institute (KMFRI) is a State Corporation in the Ministry of Livestock and Fisheries Development of the Government of Kenya. The Institute was established by an Act of Parliament (Science and Technology Act, Cap 250 of the Laws of Kenya) in 1979 and run by a Board of Management. It is mandated to conduct aquatic research covering all the Kenyan waters and the corresponding riparian areas including the Kenyan's EEZ in the Indian Ocean waters. The research mandate of KMFRI is defined by article No. 4 of the Science and Technology Act of 1979, Cap 250. The Institute is empowered to carry out research in Marine and Freshwater fisheries, Aquatic biology, Aquaculture, Environmental Chemistry, Ecological, Geological and Hydrological studies, as well as Chemical and Physical Oceanography.

The vision of KMFRI is to be a Centre of excellence in aquatic research and promotion of sustainable utilization of marine and freshwater resources while its mission is to contribute to the management and sustainable exploitation of aquatic resources and thus alleviate poverty while enhancing employment creation and food security through multidisciplinary and collaborative research in both marine and fresh-water aquatic systems.

STATEMENT OF PROBLEM

With the increasing changes in the operational environment of the business, many institutions are striving to adapt to these changes. These changes include societal changes such as demographic, institutional and environmental changes. The rapid growth in technology has led to great changes in the operational environment of organizations. As a result, many organizations are being driven to make strategic reforms in terms of organizational structure in order to adapt to these changes.

Ansoff and McDonell (1990) pointed out that the success of an organization or firm is attributable to how its strategic aggressiveness and the components of capability will match the levels of environmental turbulence.

From a number of empirical studies that have been carried out so far to determine how organizations respond to environmental changes in Kenya. Wairegi (2004) undertook a study on strategic responses to environmental change where the focus was on the insurance companies and established that these firms respond to environmental dynamics by introducing new products, new distribution channels, and through reorganization of their organizations structures. Wanjugua (2008) in a study of organizational responses to changing external environment by Kenya Pipeline Company established that the firms respond through use of information technology development, growth strategy perceived to increase efficiency in product distribution and resulting into operating cost reductions. However, no much study has been undertaken to investigate the organizational adaptations of state corporations to changes in operational environment. This study therefore sought to address this gap by investigating the adaptations of state corporations to changes in operational environment.

GENERAL OBJECTIVE

The general objective of this study was to investigate the effects of strategic management practices on operational environment at KMFRI.

SPECIFIC OBJECTIVES

1. To establish the extent to which adoption of strategic information technology systems have led to adaptation to changes in operational environment at KMFRI.
2. To establish the extent to which strategic human resource practices have impacted on the adaptation to changes in the operational environment of KMFRI.
3. To establish the extent to which strategic governing policies have affected the adaptation to changes in the operational environment at KMFRI.

LITERATURE REVIEW

Theoretical review

Though organizational adaptation and organizational adaptability are critical for an organization's success and survival, under either title it is not possible to recognize any "broader" theory. Instead, scientific knowledge related to organizational adaptation and adaptability is fragmented to several fields and works. This study is anchored by three main theories include Open system theory, Resource Based View Theory and Organizational Development Theory. Open System Theory (OST) maintains that people and their organizations must have an open and actively adaptive relationship with the contextual environment over time to ensure viability (Aughton and Neville, 1999).

The resource-based view (RBV) emphasizes the firm's resources as the fundamental determinants of competitive advantage and performance. Theoretically, the central premise of RBV addresses the fundamental question of why firms are different and how firms achieve and sustain competitive advantage by deploying their resources. It is an efficiency-based explanation of performance differences (Peteraf and Barney, 2003). It adopts two assumptions in analyzing sources of competitive advantage. First, this model assumes that firms within an industry may be heterogeneous with respect to the bundle of resources that they control.

The Organizational Development Theory holds that organizational development is critical to the performance of any organization because it brings key skills and perspectives that effectively facilitate changes in culture and shifts in strategy to address the complex challenges facing organizations. In view of this, organization development theory is used to inform better organizational development practice aimed at performance improvement (Lynham, 2002).Without integrating OD theory and interventions with specific impact on performance improvement and increased production and financial performance, the field of OD will likely become less relevant to organizations seeking performance improvement through deliberate and planned change interventions (Beer et al., 1990). Also noted is the importance for scholars and practitioners alike to appreciate the business, intervention, and change process perspectives in their inquiry and practice of OD (Garud & Van de Ven, 2000).

CONCEPTUAL FRAMEWORK

Strategic Information Technology Systems

According to Cash et al. (1992) Information Technology (IT) infrastructure in an organization can facilitate the process of adaptation to the changes in the organizational environment. Strategic information management is a salient feature in the world of information technology (IT). In a nutshell, strategic information management helps businesses and organizations categorize, store, process and transfer the information they create and receive. It also offers tools for helping companies apply metrics and analytical tools to their information repositories, allowing them to recognize opportunities for growth and pinpoint ways to improve operational efficiency. They further observe that the use of strategic IT improves operational efficacy, reduces operating costs and provides great opportunities for doing better. NewKirk (2007) observes that in today's turbulent and competitive business environment, only firms with strategic information system for their business, are innovative and can create strategies that are able to deliver growth by developing new ways to create value to the customer and improve the firms' service delivery. The introduction of strategic information technology has revolutionized service delivery systems.

The rapid advancement of information systems has had a profound impact on the organization operation in the recent past and has now become a tool that facilitates firms' performance,

efficiency and business strategies among other related functions (OECD, 2008). Use of strategic information system has enabled firms achieve operational effectiveness through process automation and business process re-engineering (Ziaee, Fathian & Sadjadi, 2006). Strategic information systems usage has enhanced long term and sustainable operational effectiveness through indirect cost savings such as labor costs, increased productivity, and direct cost reduction of firm's input such as information costs (Alchian & Demsetz, 2002).

Strategic Human Resource Practices

Strategic Human Resource Management (SHRM) refers to the policies, practices, and systems that influence employees' behavior, attitudes, and performance which enables firms to bring their overall objectives into better alignment with the actions of their employees with the view to foster a collaborative working environment that drives the organization towards performance excellence. SHRM involves various practices including HR Planning: analyzing and designing work, determining human resource needs, recruitment and selection: attracting and choosing potential employees, training and development: teaching employees how to perform their jobs and preparing them for the future, compensation: rewarding employees, performance management: evaluating their performance and employee relations: creating a positive work environment (Noe, Hollenbeck, Gerhart & Wright, 2008).

Strategic Governing policies

A policy is a statement of intent to achieve certain goals by a local, regional or national entity in a country. A policy could be documented in legislation in the government or other recognized official documents in an institution. Strategic governing policies ensures that an entity takes measures "aimed at improving the competitiveness and capabilities whilst promoting structural transformation. Institutional setup to achieve the goals of a policy is implementation/enforcement of a policy. Governing regulations and agencies at all levels of government have had a major impact on how state corporations operate (Boone and Kurtz 2002). In order to manage activities in a complex, ever-changing society, governments at all levels have created numerous regulatory agencies through the legislative process. Although the duties and functions of agencies vary, all influence day-to-day operations of the corporation. Frequently regulated activities include competitive practices, general issues of concern, and monetary regulations. As observed by Kotler and Armstrong (2001), government has been influencing operations of firms in through taxation and spending and directives and legislation.

RESEARCH METHODOLOGY

This study adopted a descriptive research design. The population of this study composed of all the employees working at Kenya Marine and Fisheries Research Institute. The target population comprised of 150 employees. The sample comprised of 50 employees of whom 10 were from top

management, 15 from middle level management and 25 composed of other staff members. The study used questionnaire in order to collect data. Qualitative data was collected from open ended items while quantitative data was collected from closed ended items in the questionnaire. A pilot survey was conducted before the actual data collection in order to establish the validity of the research instrument. The data collected was edited and checked for completeness and comprehensibility. The data was then analyzed using SPSS. The findings of the study were presented using frequency distribution tables, percentages, pie-charts and discussions.

RESEARCH RESULTS AND FINDINGS

On the IT System Effect on the Adaption to Changes in the Operational Environment, 95.3% of the respondents indicated that Information Technology system at KMFRI (IT) affected the adaption to changes in the operational environment while 4.7% indicated that Information Technology system at KMFRI (IT) did not affect the adaption to changes in the operational environment. On whether the Information Technology systems at KMFRI (IT) were up to date, 81.4% of the respondents indicated that the Information Technology systems at KMFRI (IT) were not up to date while 18.6% of the respondents were not up-to-date. This implies that the Technology systems at KMFRI (IT) were not up-to-date as indicated by majority of the respondents. On whether the information communication systems in KMFRI were properly and correctly used, 62.8% of the respondents indicated that the information communication systems in KMFRI were properly and correctly used while 37.2% of the respondents indicated that the information communication systems in KMFRI were not properly and correctly used. On the extent to which the respondents agreed or disagreed with the following statements related to effects of information technology Systems on corporation's adaption to the changes in operational environment at organizations. On the respondents indicated that IT systems had increased innovation, IT systems had provided great opportunities for adapting to changes in the operational environment, IT systems had improved operational efficacy and that IT systems had reduced operating costs to very great extent bas shown by means of 4.33, 4.31, 4.21 and 4.13 respectively. Finally, on the extent to which Information Technology (IT) infrastructure in KMFRI facilitated the process of adaptation to the changes in the organizational environment, 41.9% of the respondents indicated that Information Technology (IT) infrastructure in KMFRI facilitated the process of adaptation to the changes in the organizational environment to a great extent, 30.2% to a very great extent, 23.3% to a moderate extent while 4.7% indicated little extent.

Human Resource Practices

On the effect of Human Resource practices by KMFRI on adaptation to changes in the operational environment, 86.0% of the respondent indicated that Human Resource practices by KMFRI affected adaptation to changes in the operational environment while 14.0% of the respondents indicated that Human Resource practices by KMFRI did not affect adaptation to

changes in the operational environment. On the extent to which the following human resource related practices affected the process of adaptation to the operating environment, the respondents indicated that Employees Training and Development, HR Planning and Analyzing and Designing work affected the process of adaptation to the operating environment to very great extent as shown by means of 4.22, 4.06 and 4.02 respectively. Performance Management and Evaluation, Employee Relations and Recruitment and Selection affected the process of adaptation to the operating environment to great extent as shown by means of 3.86, 3.72 and 3.67 respectively. Rewarding Employees affected the process of adaptation to the operating environment to a moderate extent as shown by mean of 3.42. On the extent to which human resource training practices contributed to the organization's efficiency and the efforts made by the organizations to cope with the pressures of a changing environment, 51.2% of the respondents indicated that human resource training practices contributed to the organization's efficiency and the efforts made by the organizations to cope with the pressures of a changing environment to a great extent, 27.9% to a moderate extent, 18.6% to a very great extent while 2.3% indicated to a very great extent.

Government Policies

On whether the existing government policy influenced the efforts by KMFRI to adapt to changes in the operational environment, 95.3%) of the respondents indicated that the existing government policy influenced the efforts by KMFRI to adapt to changes in the operational environment while 4.7% indicated that the existing government policy did not influence the efforts by KMFRI to adapt to changes in the operational environment. On the extent to which government policies affected the efforts by KMFRI to adapt to changes in the operational environment, 39.5% of the respondents indicated that government policies affected the efforts by KMFRI to adapt to changes in the operational environment to a very great extent, 30.2% indicated to a great extent, 20.9% indicated to a moderate extent while 9.3% indicated to a very little extent. On the extent to which the respondents agreed or disagreed with the following statements related to effects of government policies on corporation's adaption to the changes in operational environment at your organization. On the respondents agreed to a very great extent that Governments at all levels had created numerous regulatory agencies through the legislative process, Government had been influencing operations of firms in through taxation and spending and directives and legislation and that Self-regulatory organizations could act with greater flexibility than government regulators as shown by means of 4.31, 4.23 and 4.05 respectively. the respondents agreed to a great extent that the greater the involvement of a firm in setting the rules might appear reasonable to individual firms, Self-regulation might generate a higher level of compliance than governmental regulators and that Self-regulation might also generate rules that solve regulatory problems as shown by means of 3.86, 3.78 and 3.64 respectively.

REGRESSION ANALYSIS

Table 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	. 872[a]	.761	.654	.321

a. Predictors: (Constant), Information Technology Systems, Human resource practices, Governing policies.
b. Dependent Variable: strategic management practices

The three independent variables that were studied, explain 76.1% of variance in the effects of strategic management policies as represented by the R2. This therefore means that other factors not studied in this research contribute 23.9% of variance in the dependent variable. Therefore, further research should be conducted to assess the effects of strategic management practices on operational environment at KMFRI.

Table 2: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.625	0.339	10.703	.000	
Information technology systems	0.450	0.121	0.379	3.732	.000
Human resources practices	0.046	0.129	0.044	0.361	.002
Governing policies	0.244	0.134	0.207	1.827	.003

$$Y = 3.625 + 0.244X_1 + 0.046X_2 + 0.450X_3$$

Where Y is the dependent variable (Strategic Management Practices), X1 is Information technology systems, X2 is Human resources Practices and X3 is Governing Policies.

According to the equation, taking all factors (Information Technology Systems, Human resource practices, and governing policies) constant at zero, effects of strategic management practices will be 3.625. The data findings also show that a unit increase in Information technology systems will lead to a 0.244 increase in the effects of strategic management changes; a unit increase in human resources practices will lead to a 0.046 increase in the effects of strategic management changes; a unit increase in Governing policies will lead to a 0.450 increase in the effects of strategic management practices. At 5% level of significance and 95% level of confidence, information technology systems had a 0.000 level of significance; Human resource Practices had a 0.002, and governing policies had a 0.003 level of significance.

CONCLUSIONS

The study concludes that adoption of information technology Systems have an impact on the adaptation to changes in the operational environment and that the extent of the effect is great. Information Technology systems at KMFRI (IT) are not up to date but are properly and correctly used. In addition, the study notes that IT systems increases innovation provides great opportunities for adapting to changes in the operational environment, improves operational efficacy and that IT systems reduces operating costs to very great extent

The study concludes that to a very great extent, human resource practices have impacted on the adaptation to changes in the operational environment of KMFRI. The study also concludes that performance Management and Evaluation, Employee Relations and Recruitment and Selection affect the process of adaptation to the operating environment to great extent.

The study concludes that have influence on the adaptation to changes in the operational environment at KMFRI and that the policies affects the efforts by KMFRI to adapt to changes in the operational environment to a very great extent. In addition, the study concludes that to a great extent, the involvement of a firm in setting the rules might appear reasonable to individual firms, Self-regulation might generate a higher level of compliance than governmental regulators and that Self-regulation might also generate rules that solve regulatory problems.

RECOMMENDATIONS

The study established that, government policies influence the adaptation to changes in the operational environment by an organization. This study therefore recommends that government should put in place policies that facilitate the organizational adaptations to changes in the operating environment. Policy makers should revise the existing policies so as to ensure that they support the adaptation process.

The study findings established that the IT systems at KMFRI are not up to date. In order to improve efficiency and effectiveness in operations, the study recommends that the government facilitate the acquisition of up to date IT systems technology. Acquisition of up to date IT systems technology will improve the adaptation process.

The study established that the human resource management practices affect the organizational adaptation to changes in the operational environment. This study therefore recommends that there organization should scrutinize its human resource management practices so as to ensure that they facilitate the adaptation to the changes in the organizational environment.

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