

**ASSESSMENT OF PERFORMANCE MEASUREMENT SYSTEMS IN  
OPERATIONAL IMPROVEMENT IN PUBLIC SECTOR: A CASE OF STATE  
CORPORATIONS IN KENYA**

**BY**

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## **DEDICATION**

Special dedication of this work goes to my loving wife, Elizabeth for the guidance, support and continuous encouragement she has given me through out the course period. I also do recognize my wonderful children - Fredrick Kimeu, Naomi Muluki, Yvonne Meli and Derick Kioko for their understanding and inspiration for my endeavor to achievement.

## ABSTRACT

The study was set to establish the challenges facing implementation of Performance Measurement System in public utilities, especially the state corporations and to assess the effectiveness of Performance Measurement System in achieving operational improvement in state corporations. The study adopted descriptive research design which allowed for analysis of opinion of respondents in providing insight into the impact of the role of Performance Measurement Systems in improving operational effectiveness in state corporations. The data was analyzed using descriptive measures such as frequency, percentages, mean and standard deviation.

The study found that all the state corporations use Customer based information system, Performance contracting, Quarterly management reports, Annual management reports and corporate governance as performance measurements methods.

The key business processes used by state corporations to a large extent (low mean values) are Customer satisfaction surveys are conducted, Wall boxes for customers complaints and comments, The measures capture all key business process, Staff development , Use of modern performance measurement system and External stakeholders are involved in formulating performance measures and targets. While the key Challenges faced in implementation and maintaining of performance measurement systems were; unrealistic measures, high cost of system implementation and management and Poor methods of communication.

## Table of Contents

DECLARATION.....	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT.....	iv
ABSTRACT.....	v
List of Tables.....	x
List of figures .....	xi
Appendices .....	xii
CHAPTER ONE: INTRODUCTION .....	1
1.1 General Background .....	1
1.1.1 The Concept of Performance Measurement.....	2
1.1.2 Performance Measurement Systems.....	3
1.1.3 Operational Improvement.....	5
1.1.4 Performance Measurement Systems and Operational Improvement.....	6
1.1.5 Operational Effectiveness .....	7
1.1.6 Impact of Performance Measurement Systems on Operational Effectiveness.....	8
1.1.7 State Corporations in Kenya .....	10
1.2 Statement of the Research Problem.....	12
1.3 Objectives of Study .....	15
1.3.2 Specific objectives.....	15
1.4 Significance of the Study.....	15
CHAPTER TWO: LITERATURE REVIEW .....	16
2.1 Performance Measurement Overview .....	16
2.2 Performance Measurement Systems .....	17
2.2.1 Classification of Performance Measurement Systems. ....	18
2.3 Operations Effectiveness.....	21
2.3.1 Stages of Operational Effectiveness.....	23
2.4 Performance Measurement Systems and Operational Effectiveness .....	24
2.5 Importance of State Corporations.....	25
2.6 Challenges of Implementing Performance Measurement Systems.....	27

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS .....	46
5.1 Introduction .....	46
5.2 Summary of Findings .....	46
5.3 Conclusion.....	47
5.4 Recommendations.....	49
5.4.1 Recommendation with policy implications. ....	49
5.4.2: Recommendation for Further Research .....	50
5.5.Limitations of the study .....	50
REFERENCES .....	51
Appendices .....	59

## List of figures

Figure 4.1: Performance evaluation results for state corporations .....	39
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## **CHAPTER ONE: INTRODUCTION**

### **1.1 General Background**

Nowadays business growth is due to operations management function, which is the design, application and improvement of the production system that manufactures/produces and delivers the firm's products and services (Lowson, 2002). To ensure continual business growth, Performance Measurement tools, are necessary (referred to as Performance Measurement Systems) to improve operations and facilitate performance evaluation and monitoring of the organizations against their expectations.

Environmental dynamic change is putting the organizations in difficult situation. Thus need to align day-to-day operations with corporate objectives by incorporating the performance management and measurement techniques that set best-in-class performers at world class level (Hayes and Wheelwright, 1984).

Public and private entities therefore need to continuously improve effectiveness of their processes, to be able to keep up with the changing environment to satisfy customer tastes and preferences. Competitive environments and priorities change over time, and effective enterprises management always depend on effective performance and results. The first condition to achieve enterprise excellence is a sound system for performance measurement which should be linked to the enterprise's operations strategy and objectives for achieving goals (Lynch and Cross, 1991).

Performance Measurement System also should consider other stakeholders besides the investors, such as employees, customers and suppliers (Neely et al., 2002).

A performance measure is composed of a number and a unit of measure. The number gives us a magnitude (how much) and the unit gives the number a meaning (what). Performance measures are always tied to a goal or an objective (the target) and can be represented by single-dimensional units like hours, meters, number of errors, and length of time to design new products. A dimensional unit of measure usually represents very basic and fundamental measure of some process or product.

Performance measures quantitatively spell out the quality of products, services, and the processes that produce them. They are tools to help us understand, manage, and improve what our organizations do (Tapinos, Dyson and Meadows, 2005).

### **1.1.2 Performance Measurement Systems**

Tangen (2004) defined *Performance Measurement System* as a set of performance measures (i.e a metric used to quantify the efficiency and effectiveness of action) that provide a company with useful information that helps to manage, control, plan and perform the activities undertaken in the company. His studies were based on outcomes of previous findings that metrics are quantitative key performance indicators, which are essential to measuring operational effectiveness (Keegan et al., 1989) and that metrics are built by performance measures as basic variables. Performance Measurement System takes into account different values or outputs from other transactional systems that exist within an organization and adapts dynamically to changes in the competitive environment.



### **1.1.3 Operational Improvement**

Ngure (2001) outlined that operational improvement is effected by reworking into ways of applying given tools and techniques from the ground of implicit objective behind Kaizen philosophy. Kaizen is a system that focuses on small but continuous gains from existing business processes through simplification, combination or elimination of non-value adding activities. Operational improvement is brought about by effective implementation of quality initiatives such as Total Quality Management (TQM), Continuous Improvement (CI), Process Re-Engineering (PR), Just in Time (JIT), Organizational Restructuring (OR), Job Re-Engineering (JR), and Benchmarking (BM) in different service operational settings is investigated (Yasin and Alavi, 2007).

Regulatory and competitive changes have fundamentally changed the operating environment. State Corporations are under increasing pressure from the government through regulatory agencies, boards of directors and senior management to deliver services to public efficiently and effectively.

Operational improvement of services in public sector is improving performance by reviewing the efficiency and effectiveness of business processes in alignment of people/organization and technology. Operational improvement of services focuses on finance function improvement, business process reengineering (BPR), sourcing and procurement of resources and is essentially an outcome of operational effectiveness as optimized end point (Rogers, 2003).

### **1.1.5 Operational Effectiveness**

Porter (1996) defined operational effectiveness as any number of practices that allow an organisation to better utilize its inputs by, for example, reducing defects in products or developing better products faster. For state corporations to have continual improvement in their operations and delivery, reviewing of performance measurements in order to align them to Operations Strategy which drives operational effectiveness is necessary.

Lowson (2002) observed that operations management and strategy disciplines concentrated on processes and contents, but the development and application of Performance Measurement System is still lagging behind from both empirical and a theoretical standpoint. This could be due to unskilled executives and being unaware of such performance measurement tools for examining the composition of an effective operations strategy by identifying certain generic building blocks that form the core of any strategy (Crotty, 1997 quoted by Njuguna, 2007).

Njuguna (2007) emphasized that corporate executive development is paramount to gain adequate skills on competitive advantage as strategic implementation is one of the hardest tasks for top managers to do. About 10 % of the companies worldwide are presumed to be successful in the field of strategic implementation which predicts operational effectiveness that brings competitive strategy in organizational set up.

Operational effectiveness is consolidated, maintained, and improved through constant learning and innovation. However, it is not enough just to develop employee effectiveness, and improve processes. Operational effectiveness also demands that the organisation

and tools that a company uses to develop its strategy, translate it into operational actions, and monitor to improve the effectiveness of both." These measures give top managers a fast but comprehensive view of the organization's performance and include both processes and results measures.

Kaplan and Norton (1996) related the balanced scorecard with the dials and indicators in an airplane cockpit. For the complex task of flying an airplane, pilots need detailed information about fuel, air speed, altitude, bearing, and other indicators that summarize the current and predicted environment. Reliance on one instrument can be fatal. Similarly, the complexity of managing an organization requires that managers be able to view performance in several areas simultaneously. Based on this idea, a simplified balanced set of measures named, dashboard was conceptualized that provides valuable information to executives. Other experts use slightly different definitions, but all seem to agree that performance management links daily operations to broader corporate goals and strategies.

However, traditional performance measures, based on cost accounting information, provide little to support organisations on their operational effectiveness and effort, because they do not directly map process performance and continual improvements as per the customer perspective as well as by the results delivered to other stakeholders, such as the shareholders. Measuring performance is crucial for evaluating operational effectiveness which in return improves cost of quality; reduce time wasted and material wasted including detecting effects of quality problems in an organization (Ong'alo, 2008).

for Kenya citizens. Introduction of performance contracting in 2004 uplifted good leadership and improved performance of the corporations, which is the proof of application of performance measurement tools in government sector, is as important as in private companies (Sheikh, 2008).

Re-engineering process has taken place in state corporations to align performance with operational activities to provide more effective organizational structure in terms of corporate performance monitoring and evaluation through Civil Service Reform Programme (CSRP) from 1993 and subsequent introduction of performance measurement tools (Nyamache, 2003).

In 2004, performance contracting was also introduced in public utilities, targeting the staff in State Corporations to be used for individual and organizational performance contracting and evaluation from the board level to all other management cadres (Othieno, 2006). The tool induced performance incentive reward and penalties system based on objective assessment of comparative impact of the civil servants and corporate staff performance on actual company performance which imparted impact on operational effectiveness in public sector.

The government of Kenya has undertaken issues of operations strategy and management seriously with aim of strengthening the state corporations to provide better services to citizens, especially the sectors of energy, education, health and conducive environment by ensuring good political will as a drive for exploitation of opportunities brought about by economical, social and technological evolution (Mulinge, 2007).

Therefore, it is important to evaluate the existing Performance Measurement System linked into the corporate operations strategy, to facilitate the company on achieving the expected

Rwoti (2005) focused on the use of Performance Measurement Systems in procurement procedures/activities especially in large manufacturing firms, linked to procurement activities and found that performance measurement in procurement are largely cost based despite the fact that performance measures are required to correspond to environmental requirement, enterprise needs and strategies to meet those needs. That there is no well structured procurement system to enable measurements to be done effectively.

Masaba (2005) conducted survey of performance measurement used in commercial banks operating in Kenya with objective of examining whether the performance measurement is being applied within an operations strategy context and found that banks are using traditional approach and that they should go for modern performance measurement systems.

Mwangi (2006) evaluated performance measurement at the University of Nairobi and concluded there were emerging issues on use of Performance Measurement System and that similar study should be conducted to determine the relationship between performance measurement and other organizational aspects like management structure, culture and organizational performance.

Gwako (2008) surveyed on supply chain performance measurement in the aviation industry to determine matrices and corresponding indicators the Kenya Airways applied in Performance Measurement System and the benefit from the indicator metrics including challenges encountered when undertaking supply chain performance measurement.

According to Tangen (2004) modern systems are classified into three classes; namely, Third, Second and First. The system classes systematically deal with the requirements when

### **1.3 Objectives of Study**

The main objective of the study was to evaluate impact of the role of Performance Measurement Systems in improving operational effectiveness in state corporations

#### **1.3.2 Specific objectives**

- i. To establish the challenges facing implementation of Performance Measurement System in public utilities, especially the state corporations.
- ii. To assess the effectiveness of Performance Measurement System in achieving operational improvement in state corporations.

### **1.4 Significance of the Study**

- (i) The study should be of interest to the academia and practioners in the field of application of Performance Measurement System in achieving operational effectiveness in public sector.
- (ii) The study would assist the corporate executives focus on developing a high performance culture towards performance measurement improvement of their state corporations to have impact on operational effectiveness.
- (iii) The study would also provide a point of reference in establishing and reviewing nature of change management processes applied in public sector in general, through application of Performance Measurement System.

## 2.2 Performance Measurement Systems

In recent times, organizations have adopted management by act rather than management by opinion due to world competitive advantages affecting the world. In other words companies are moving away from soft science approach to performance measurement (Harbour, 1997). This type of transition has forced state corporations adopt acquisition and application of Performance Measurement Systems to be effective in their endeavors. Performance Measurement System generates Key Performance Indicators (KPIs) to build the culture of understanding that each individual's performance has to do with the improvement of key performance indicators.

Bob Kaplan and David Norton (1996) developed the tremendously popular "Balanced Scorecard" performance-management system and defined the concept as the "integrated set of processes and tools that a company uses to develop its strategy, translate it into operational actions, and monitor and improve the effectiveness of both." These measures would give top executives a fast but comprehensive view of the organization's performance and include both process and results measures.

Kaplan and Norton compare the balanced scorecard to the dials and indicators in an airplane cockpit which provide pilots with detailed information about fuel, air speed, altitude, bearing, and other indicators that summarize the current and predicted environment. This can also be borrowed from modern cars with similar gauges as also balanced scorecard or a balanced set of measures provides that valuable information.

Other experts use slightly different definitions, but all seem to agree that performance management links daily operations to broader corporate goals and strategies, providing significant benefits. In a 2008 Business Week Research Services survey, a full two-thirds of

level before advancing to the first class which is the most advanced. In his conclusion, he said that, the concept of system classes give companies chance of identifying weaknesses in their existing Performance Measurement System which may be interested to eliminate weaknesses in.

The performance measurement literature established concept of use of performance measurement systems in alignment with strategic priorities (Cross and Lynch, 1991; Dixon et al., 1990; Kaplan and Norton, 1996; Neely et al., 1995). Public utilities are well informed of issues emerging from external and internal environment of an organizational dynamism, thus requiring sophisticated Performance Measurement System for enabling such incoming sensitive and threatening changes by having inbuilt monitoring capabilities that raise warning to action signals whenever performance limits and thresholds are reached.

The measurement perspectives of a company, is conceptualized as a system with inputs, processes, outputs and outcomes which are parts of ideal measurement system. Wisner and Fawcett (1991) provide two reasons for a Performance Measurement System: to compare one's own competitive position with that of the competitors and to check on the accomplishment of one's own objectives. Neely (1998) underlines three different roles for a Performance Measurement System: to comply, to check, and to challenge the situational analysis of the organization concerning internal and external environment.

There are several types of *Performance Measuring Systems* used like **The Balance Scorecard** by Robert Kaplan and David Norton (1992) defined as methodology or the processes that contribute to desired results are viewed cross-functional majoring on four



Engineering Industries (TBL), and 56 participating enterprises in 1992. TOPP determines how an enterprise is performing in all the areas of manufacturing. It is similar to PMQ but divided into three parts.

### **2.3 Operations Effectiveness**

The Operations Management process is conceived by operational and competitive environments with objective of effective implementation of quality improvement initiatives (Yasin and Alavi, 2007). Competitive environment brings about operations strategy that boosts operational effectiveness (Lowson, 2002) which is the domain of operations strategy realized after re-engineering process for effective supply value chain (Porter, 1996). Simply, operational effectiveness is doing the same things as the competitors but in a better way.

After early 1970's, volatility and instability of the business-operating environment was put into jeopardy by the held definitions of strategy. Pearce and Robinson (2003) realized that the earlier definitions had taken static view of strategy, and as such strategy was seen as no longer applicable to the future, but heavily dependent on both remote and competitive environment, and the internal capability of the firm.

Emerging of more enlightened society, increased sophistication of markets and sustainable environment including regulatory/protocol issues are contributing factors towards operations strategy formulation and development of performance measurement systems (Kaplan and Norton, 1996) to boost operational effectiveness. Better trained employees gain intrinsic motivation when provided with right tools to perform duties, which leads to the dynamism in a firm to play strategic positioning to do things differently from the competitors.

Business operations strategy is a rolling model of an organization and provides a road map of how to achieve the corporate mission. To achieve the desired results measured by

### 2.3.1 Stages of Operational Effectiveness

Organisations undergo four stages in operational transformation of activities to improve effectiveness in operations to support and achieve the overall strategic objectives of a business (Meredith and Shafer, 2003). Operational Effectiveness is diagnosed through a framework to determine the extent to which the organization is utilizing its operations to support and possibly attain a sustainable competitive advantage:

**Internally Neutral** – At this first stage the organization doesn't seem to recognize essence of performance measurement tools aligned operations strategy and operations have little impact on the organization competitive success. There are many problems arising from ignorance of the management like poor quality products and / or services, waste of time, too much capital tied up in inventory and lack of focus due to operations with little importance of minimizing the negative impact of operations.

**Externally Neutral** – The organization tend to view operations with little strategic importance but recognizes and adhere to standards industry practices, being more reactive than proactive in operations strategy primarily to improve operations in reducing investment costs.

**Internally Supportive** – This is recognized and practiced by proactive organizations at their development stage expecting their operations to support their overall business strategies and competitive positions. Performance measurement tools may play pivotal role in operational decisions which are evaluated on their consistency with the extent to which they support organization mission. Such organizations are proactive and on timely identification of opportunities to support their overall business strategy other than formulating it.

**Externally Supportive** – The organizations in this category are on move to face global competitiveness to achieve competitive advantage by imparting operational effectiveness by

As a result the logic of “trade-off” (eg. the increase in the product quality together with the lowering of the production costs and the lead times) between performances has been more or less abandoned (Filipini, R. Forza, C. and Vinelli, A., 1995). Operational effectiveness has been measured by use of supported, verified and applied performance improvement programmes such as Just-in-Time, Total Quality Management, Concurrent Engineering, etc. (Ghalayini and Noble, 1996) by developing a more sophisticated performance measurement system, directly linked to operational processes and indicators. Thus evolution of the Performance Measurement Systems is still being realized due to fast advancement of technology which is accelerating the speed of world business competitions towards achieving operational effectiveness.

Operational effectiveness cannot be realized without using performance measurement tools to check if the operational advantage is sustained in pursuit of best practices (Lowson, 2002). Further literature review by some scholars has conceded use of performance tools; benchmarking (Magutu, 2006), performance contracting (Sheikh, 2008) and development of corporate executives (Njuguna, 2007) as paramount towards continuous improvement for positive impact of operational effectiveness in state corporations.

## **2.5 Importance of State Corporations**

The establishment and existence of State Corporations in Kenya have been there since the colonial times (Bitonye, 1981) to carry out specified governmental functions in the national interest, those functions confined to a comparatively restricted field and subjected to some

Lawson (2006) emphasized that corporate governance brings about best practices in public utilities, being a process of decision making and by which decisions are implemented. Corporate governance is system applied at corporate level as part of strategic control in broader perspective to determine the direction and performance of the corporations/parastatals. A well managed corporate governance system induces operational effectiveness as improvement of corporate performance under influence of factors like directors and their performance evaluation, shareholders and frequent board meetings.

This research would also demonstrate that the traditional performance Measurement processes can lead to negative outcomes for the organization such as inaccuracy of information.

The major emerging issue on systems evaluation would be to acquire the best tools for use on carrying out the function of monitoring and evaluating the operations outputs with view of correcting the situation to measure performance in four recommended areas aligned to world class organizations: Financial, Customer, Internal business processes including organizational learning and growth.

## **2.6 Challenges of Implementing Performance Measurement Systems**

Major issues related to this field concern what to measure and how to measure it (Neely, 1998) in a practically feasible and cost-effective way. Improper implementation and management of measurement system development aiming to use new measures to reflect new priorities often lead to ineffective results. This is due to the failure of the organization to discard measures reflecting old priorities, uncorrelated and inconsistent indicators and

Misunderstanding due to conflict of interest among staff may delay implementation of the performance measurement system in public sector. Sobotka and Platts (2010) reviewed managers should first understand more clearly the need for individual and organization performance measurement in order the anticipated performance measurement system would not substitute or replace some of the mechanisms/activities performed by individual employees.

## **2.7 Knowledge Gap**

Some literature review has revealed that implementation of performance measurement systems in State corporations has been a policy by the government after the public sector reforms in 2003. Njuguna (2007) argued that strategic implementation which is a back born of operational improvement, is a difficult task in practice due to encountered problems like unfeasibility of the strategy, weak management, lack of communication and commitment to strategies, unaligned organizational systems and resources including unexpected obstacles.

Performance measurement systems mainly used in public sector are Benchmarking (Magutu, 2006), Performance Contracting (Sheikh, 2008), Total Quality Management (Ong'alo, 2008), Corporate Governance (Lawson, 2006) and corporate executive development (Njuguna, 2007).

These performance systems are in use but there is no research done to indicate the level of impact of performance and operational improvement in state corporations with remarkable unprecedented improvement of performance in service delivery. It is theoretically being realized out of public views that operational effectiveness is achieved.

## CHAPTER THREE: RESEARCH METHODOLOGY

### 3.1 Introduction

This chapter covered the design of the study, the target population and sample of study, data collection method, data analysis, validity and reliability of data and the software used in analysis.

### 3.2 Research Design

The descriptive research design of cross-sectional type was adopted. The descriptive research is a prominent data collection methodology in both quantitative and qualitative research (Bryman and Bell, 2007). This approach allowed for analysis of opinion of respondents in providing insight into the impact of the role of Performance Measurement Systems in improving operational effectiveness in state corporations.

### 3.3 Population

The target population consisted of all state corporations (Appendix I). The respondents were drawn from Performance Evaluation and Monitoring Unit in the Information Technology department. According to Mulinge (2007) there are about 200 state corporations in Kenya controlled by their mother ministries.

### 3.4 Sample Design

The study used purposive sampling to come up with 20 State Corporations. This allowed the researcher to use cases that the required information with respect to the objectives of the study (Mugenda and Mugenda, 1999). From each state corporation identified, at least three interviewees were consulted giving a total of 60 respondents which is greater than 30, a

### **3.6 Validity and Reliability of Data**

The questionnaire validity was tested through a pilot survey. Three questionnaires was administered and the findings analyzed before the rest of the respondents are involved in the study. The outcome of the pilot test will be used to redesign the questionnaire where necessary.

**Table 4.2: Age**

	Frequency	Percent	Cumulative Percent
Under 29 years	4	8.5	8.5
30-39 years	17	36.2	44.7
40-49 years	22	46.8	91.5
50-55 years	4	8.5	100.0
Total	47	100.0	

*Source: Primary Data*

The result in table 4.2 shows that majority of the respondents were of age bracket 40-49 years (46.8%), 36.2% were of age 30 to 39 years, while 8.5% were both under the age of 29 years and 50 to 55 years of age. In general majority of the respondents were above the age of 30 years.

#### **4.2.4: Distribution of respondents by education.**

The respondents were asked to state their highest level of education. The findings are given in table 4.3 below.

**Table 4.3: Education**

	Frequency	Percent	Cumulative Percent
O level	1	2.1	2.1
Diploma level	2	4.3	6.4
Graduate	19	40.4	46.8
Post graduate	25	53.2	100.0
Total	47	100.0	

*Source: Primary Data*

As shown in table 4.3, most of the respondents (53.2%) had post graduate level of education, 40.4% were graduates, 4.3% had diploma level certificate and 2.1% had O level certificates. It is evident that most of the respondents had above average level of education to comprehend and answer the questionnaire hence the information given can be relied on.



organizations optimize use of Customer based information system, Performance contracting, Quarterly management reports, Annual management reports and corporate governance as the major performance measurements methods to measure operational improvement. On the other hand the least used performance measurements methods are Library information system, Engineering information system and integrated logistics/ supply chain system.

**Table 4.5: Performance measurement methodology used by organizations**

	Yes	No
ISO certified for organization for Quality management system	85%	15%
Customer based information system	100%	
Performance contracting	100%	
Library information system	35%	65%
Engineering information system	20%	80%
Integrated finance system	50%	50%
Integrated logistics/ supply chain system	20%	80%
Executive information system	40%	60%
Daily management reports	60%	40%
Benchmarking	95%	15%
Monthly management reports	80%	20%
Quarterly management reports	100%	
Annual management reports	100%	
Corporate governance	100%	

Source: Primary Data

#### 4.3.2: Importance of Key Business Processes used

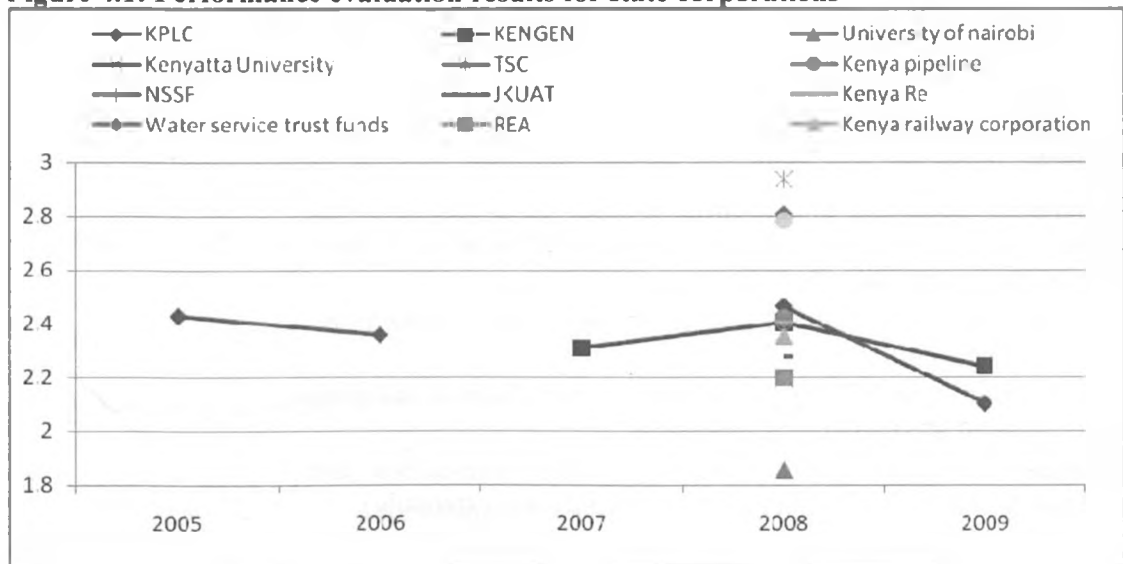
The respondents were asked to rate key business processes used in regards to development of performance measures in a Likert scale of 1 to 5. The range was 'very great extent (1)' to 'not at all' (5). The scores of very important and important have been taken to present a variable which had an impact to a large extent (L.E) (equivalent to mean score of 0 to 2.4 on the continuous Likert scale ;(  $0 \leq L.E < 2.4$ ). The scores of 'neither important' have been

complexity in work processes when responding to dynamic environment in align their corporate operational strategies for competitive gain (Barney, 1991)

**4.3.3: Historical performance evaluation of the organizations**

Performance evaluation for state corporation are based on the index of 1 to 1.49 as excellent, 1.5 to 2.49 as very good, 2.5 to 3.49 as good, 3.5 to 3.59 as fair and 3.60 to 5 as poor. Based on the evaluation of KPLC and Kengen for the period 2005 through 2009, it shows that the two corporations were rated as very good (other state corporation composite scores were not readily available except for the year 2008). However in 2007, state corporations were not rated due to leakage of the results by the press hence the breakage link in the trend line. However, according to respondents the annual performance evaluation of the state corporations by the government is very competitive based on set parameters and some unrealistic measures.

**Figure 4.1: Performance evaluation results for state corporations**



Source: *psrpc.go.ke* (Secondary Data)

The respondents rated all the organization culture change and staff attitudes to a moderate impacts; All staff members clearly understand the organization's mission and key objectives (mean of 2.6596), All staff are also committed to providing the highest quality service to customers (mean of 2.3617), Discourteous behaviour to customers, if observed is viewed by the vast majority of the employees in the organisation as a situation requiring their immediate attention (mean of 2.5745), ICT advantage is fully utilized to support employees serving front-line role with the customer (mean of 2.2979), Front line employees take a prominent and active role in determining how to improve services to their customers (mean of 2.7872) and Information technology is widely used for innovations and products/services delivery to customers, that is, internally and externally (mean of 2.7447).

#### **4.5: Performance monitoring and evaluation methodology**

This section covers the questions posed to the respondents on Performance monitoring and evaluation methodology. Specifically it focused on information used as input for decision making and the periods of review, challenges faced in implementing and maintaining performance measurement systems, best performance indicators and the extent to which tasks are aligned to the key business processes.

##### **4.5.1: Information used as input for decision making and the periods of review**

Table 4.8 show all the predetermined information are used as input/reports for decision making. Review periods vary from one information input to another. More specific,

On the other hand Lack of employee support (mean of 2.4681), Automation of processes and procedures (mean of 2.8510) and Delivery of reports (mean of 3.0426) were rated as moderate challenges while the performance measurement is time consuming (mean of 2.3404) and Lack of senior management support (mean of 2.2553) were rated as of least challenges faced in implementing and maintaining performance measurement systems.

**Table 4.9: Challenges faced in Implementing and Maintaining Performance Measurement Systems**

	Mean	Std. Dev
High cost of system implementation and management	3.7426	1.45897
The performance measurement is time consuming	2.3404	1.14733
Lack of senior management support	2.2553	.98837
Lack of employee support	2.4681	1.13924
Poor methods of communication	3.8456	1.14127
Unrealistic measures	3.9064	1.22002
Automation of processes and procedures	2.851	1.3828
Delivery of reports	3.0426	1.16016

*Source: Primary Data*

#### **4.5.2: Best performance indicator.**

The findings in table 4.10 shows that majority of the state corporations identified satisfied customers (mean of 3.3191), Quality of service (mean of 3.2979), Relevance (mean of 3.2128), Timeliness (mean of 3.1915) and Cost efficiency/effective (mean of 3.1489) as their best performance indicators which differentiate them from other organizations, especially private firms where state corporations benchmark for competitive advantage gain.

**Table 4.11: The Extent to which Tasks are aligned to the Processes**

	Mean	Std. Dev
Control of measures is achieved by statistically studying the variations to understand causes of poor performance	3.0426	1.35064
Process stability and capability are emphasized in assuring quality of work	2.8511	1.25072
Transaction/operations systems are valued more than performance measurement systems	3.3617	1.07188
Complexity in work process is handled by through automation and computerization	3.2553	1.15096
Improvement is achieved by setting performance targets	3.4043	1.05624
Staff members are motivated by being provided with challenging work as incentives	3.3191	1.08561

*Source: Primary Data*

In relation to the positive aspects of performance measurement evaluation, the respondents proved that all the predetermined information was used as input/reports for decision making. While review of the same varied, that is, Feedback from customers (internal /external), Quality system audit reports and Macro -economical/environmental changes were mostly reviewed on quarterly basis, Performance information records was reviewed on daily basis by majority of the state corporations and as a result of changes in any process was reviewed annually.

Macro-economical and environmental changes are more frequently assessed on annual and quarterly basis to obtain sustainable competitive advantages by implementing competitive strategies that would exploit opportunities to neutralize their external threats and avoid internal weaknesses (Barney, 1991)

In relation to the key Challenges experienced in implementation and maintaining of performance measurement systems, the respondents pointed out unrealistic measures, high cost of system implementation and management and Poor methods of communication.

The respondents unanimously agreed that their state corporations use satisfied customers, Quality of service, Relevance, Timeliness and Cost efficiency/effective as best performance indicators to differentiate themselves from other organizations.

### **5.3 Conclusion**

The results of this survey support the notion that state corporations have adopted performance measurements systems and moved away from the tradition methods of

However, the extent of effectiveness tends to vary in relation to both the corporate and the type of operational activities and objectives done. There is willingness by the state corporations to adapt a customer-oriented strategy aimed at improving service quality toward competitiveness in an increasingly competitive service operational environment.

#### **5.4 Recommendations**

Performance measurement systems as key elements for improving government performance and accountability through state corporations, there is wide acknowledgment about the effectiveness of performance measurement systems in public sector although they have not yet thought of integrated performance measurement systems. Hence there is need to consider the more sophisticated performance measurement systems that upload data and information from transaction systems and transform the processed and stored information into performance measurement metrics.

Mwakale (2005), recommended use of On Line Analytical Processing (OLAP) software that enables analysts, managers and executives to gain insight into data through fast, consistent, interactive access to a wide variety of possible views of information already transformed from raw data in multi dimensional views understood by the user.

##### **5.4.1 Recommendation with policy implications**

Based on the study findings, it is recommended that the evaluation body update its data files so that other studies touching on the performance of state corporations can be carried out.

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## **Appendices**

### **Appendix I: List of State Corporations in Kenya**

1. Kenya Institute of Administration
2. Insurance Regulatory Authority
3. Kenya Revenue Authority
4. Retirement Benefits Authority
5. Capital Markets Authority
6. Privatization Commission
7. Kenya Accountants Secretaries National Examination Board
8. Kenya Investment Authority
9. Public Procurement Oversight Advisory Board
10. Kenya National Bureau of Statistics
11. Kenya Institute of Public Policy Research and Analysis
12. National Coordination Agency for population and Development
13. National Environment Management Authority
14. National Irrigation Board
15. Water Resources Management Authority
16. Tana Water Services Board
17. Kenya Water Institute
18. Athi Water Services Board
19. Rift Valley Water Services Board
20. Lake Victoria North Water Services Board
21. National Water Conservation and Pipeline Corporation
22. Tanathi Water Services Board

46. Masinde Muliro University of Science and Technology
47. Moi University
48. Kabianga University College
49. Maseno University
50. Narok University College
51. South Eastern University College
52. Kisii University College
53. Kimathi University College of Science & Technology
54. Chuka University College
55. Pwani University college
56. Kenya polytechnic University College
57. Mombasa polytechnic University College
58. Kenya Broadcasting Corporation
59. Kenya Film commission
60. Brand Kenya Board
61. Communications Commission of Kenya
62. Postal Corporation of Kenya
63. Kenya ICT Board
64. Commission for higher Education
65. Higher Education Loans Board
66. University of Nairobi Enterprises & services
67. Rural Electrification Authority
68. National Oil Corporation of Kenya
69. Kenya Power and Lighting Company Ltd.

93. National Social Security Fund
94. Kenya Medical Research Institute
95. Kenya Medical Training College
96. National Hospital Insurance Funds
97. Kenya Medical Supplies Agency
98. Kenya National Hospital
99. Moi Teaching & Referral Hospital
100. Kenya National Examination Council
101. Catering and Tourism Development Levy Trustee
102. Kenya Utalii College
103. Bomas of Kenya
104. Kenya Safari Lodges & Hotels
105. Kenya Tourist Development Corporation
106. Kenya International Conference Centre
107. Kenya Tourism Board
108. Kenya National Trading Corporation
109. Industrial & Commercial Development Corporation
110. Export Processing Zones Authority
111. Kenya Wine Agency Limited
112. Export Promotion Council
113. Kenya Bureau of Standards
114. Kenya Industrial Estates
115. East African Portland Cement
116. Kenya Industrial Property Institute

141. Pyrethrum Board of Kenya
142. South Nyanza Sugar Company
143. Tea Board of Kenya
144. Tea Research Foundation of Kenya
145. Pest Control Products Board
146. Bukura Agricultural College
147. Kenya Seed Company
148. Kenya Coconut Development Authority
149. Kenya Meat Commission
150. Kenya Dairy Board
151. Kenya Marine & Fisheries Research Institute
152. Cooperative College of Kenya
153. New Kenya Co-op. Creameries
154. Kenya Ordinance Factories Corporation

Q 5. Your Educational Background

'O' level  "A" level  Diploma Level   
 Graduate  Post-Graduate

Q 6. Your period of working in your organization:

Less than 5 yrs  6 – 10 yrs  11 – 15 yrs  16 – 20 yrs   
 21 – 25 yrs  26 - 30 yrs  Over 30 yrs

**SECTION B – PERFORMANCE MEASUREMENT METHODOLOGY**

Q 7. (a) Please indicate performance Measurement methodology used in your organization:

<i>Type of System</i>	Yes	No	N/A
ISO Certified for Organization for Quality Management System			
Customer based Information System			
Performance Contracting			
Library Information System			
Engineering Information System			
Integrated Finance System			
Integrated Logistics/Supply Chain System			
Executive Information System			
Daily Management Reports			
Benchmarking			
Monthly Management Reports			
Quarterly Management Reports			
Annual Management Reports			
Corporate Governance			



**SECTION C – ORGANIZATIONAL CULTURE CHANGE AND STAFF ATTITUDE**

Q 8. (a) Indicate the nature of culture and staff attitude towards performance measurement of the organisation on a scale of 1 to 5, where 5 is ‘Very Great Impact’ and 1 ‘No Impact at all’

	1	2	3	4	5
All staff members clearly understand the organization's mission and key objectives.					
All staff are committed to providing the highest quality service to customers.					
Discourteous behavior to <i>customers</i> , if observed, is viewed by the vast majority of employees in the organization as a situation requiring their immediate attention.					
ICT advantage is fully utilized to support employees serving front-line role with the customer.					
Front-line employees take a prominent and active role in determining how to improve services to their customers.					
Information Technology is widely used for innovations and products/services delivery to customers (internally and externally).					

**SECTION D: PERFORMANCE MONITORING AND EVALUATION METHODOLOGY**

Q 9. (a) Which of the following information are used as input/reports for decision making in management review?

	Annually	Quarterly	Monthly	Weekly	Daily
Feedback from Customers (internal/External)					
Quality System Audit Reports					
Performance Information Records					
As a result of Changes in any Process					
Macro-economical/environmental Changes					

(d) Please gauge your organization to extent of its tasks being based on the process approach, that is are the tasks aligned to the processes and procedures of the organization, where 5 indicates 'Strongly Agree' and 1 'Strongly Disagree'.

	1	2	3	4	5
Control of measures is achieved by statistically studying the variations to understand causes of poor performance.					
Process stability and capability are emphasized in assuring quality of work					
Transaction/Operations systems are valued more than performance measurement systems					
Complexity in work process is handled by through automation and computerization					
Improvement is achieved by setting performance targets					
Staff members are motivated by being provided with challenging work as incentives					

### Appreciation

The researcher wishes to express his sincere gratitude to you for taking your time to fill the questionnaire.

Thank you very much.