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INFLUENCE OF ENTERPRISE RESOURCE PLANNING SYSTEMS ON THE ORGANIZATIONAL PERFORMANCE OF COMMERCIAL STATE CORPORATIONS IN KENYA

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Abstract

Commercial State Corporations are under pressures from all corners, from reduced government funding to expectations by stakeholders and general public to deliver ever-higher quality services for lower costs. Not to mention to market and competitor rivalry and constant pressure on businesses, giving rise to a necessity to implement innovative tools and techniques, to reduce waste and concentrate on value adding activities.

Enterprise Resource Planning systems are one of the tools that can augment organization performance by aligning their business processes and changing the way organizations carry about processes such as providing Information systems and essential information to enabling apt and better informed decision-making.

The purpose of this study was to examine the influence of Enterprise resource planning systems on organization performance of commercial State Corporations in Kenya which comprised of a literature review to understand the area at hand followed by the use of a descriptive research design where a census of all the 34 commercial state corporations.
The data collected was by use of questionnaires as research instruments and Descriptive and inferential analyses were used to analyze the primary data

The study established that Enterprise resource planning system implementation has a positive influence on organizational performance and recommends that recommends that State corporations and organizations at large should be on the forefront in implementing and embracing technological advancements such as Enterprise resource planning system implementation as the technological advancements are essential to supporting organizational efficiency.

Keywords: Enterprise Resource Planning, Implementation, Performance, State Corporations

1. Introduction:

1.1 Background of the study:

Constant improvement of organizational performance is one of the key pillars in any institution because only through improvement and monitoring of organizational performance will they develop and advance.

On the basis of the current economic crunches there is a vital need to have the information not only about enablers of improved organizational performance but how they improve performance and any identified aspects should be handled with an augmented interest.

One of the enabled is automation and sustaining improved performance through manual systems alone is a tall order.

Given that it offers massive improvements in organizational effectiveness and efficiency Information technology and communication has attested to be a key enabler of organizational performance.

According to Raymond et al. (2005) to deliver better and efficient services to citizens, the government, public administrations and agencies have invested in Enterprise Resource Planning (ERP) systems as the elementary technological infrastructure.

1.2 Statement of the problem:

State Corporation is an entity incorporated under the Companies Act, that is solely or partly owned by the national government for commercial purposes and a subsidiary as a company in which a government owned entity has a controlling interest. (RoK, 2014)

Under ideal situations whilst enabling states achieve the above goals, state corporations plays a major role in enabling social and economic transformation of the economies in which they operate, improve public service delivery and they have been variously applied to the creation of good and widespread employment opportunities in various jurisdictions and are useful for targeted and judicious building of international partnerships. (RoK 2013)

Sessional Paper No.4 (GoK, 1991) on development and employment in Kenya decried the continued deterioration of the performance of State corporations. The dismal performance could be largely attributed to lack of discipline in expenditure pattern, mismanagement, wastage, poor governance and lack of adequate supervision both by management and regulatory bodies. In fact the public investment committee reports of out of 130 reports examined by the Auditor General, only 23 Corporations managed a clean bill of health (GoK, 2002).

Consequently, the state corporations become a liability to national government instead of being a profit-driven investment vehicle. Billions of shillings constantly flow out of central government accounts to sustain them. By 1991, about 1 percent of GDP flowed out of central government account as subsidies to the corporations because of dismal performance in the previous year. Between 1990 and 1992, the GoK had transferred about Ksh 7.2 billion as direct subsidies and Ksh. 14.2 billion as indirect subsidies to State Corporations in Kenya. 5.5 percent of the country GDP was paid as subsidies to State Corporations by 1994 (Miringu, 2009). This situation seemingly reflected on the general performance of state in Kenya and should nothing be done, billions of shillings of tax payer's money will continue to flow out of central government accounts to sustain the state corporations

Against this background State Corporations were not the initial target of many ERP vendors as they developed products suitable for manufacturing companies. Nevertheless,

ERP systems are increasingly being implemented in the public sector (Thomas et al., 2004). Lured by guarantees of improved business productivity, streamlined business operations, and increased cost savings (Tilley *et al.*, 2007), organizations have launched initiatives to integrate ERP systems into their existing business environments. ERP systems look at a much broader integration of information or data management functions within organisations. An ERP system is an attempt to create an integrated tool that manages different functions within an organisation. A comprehensive definition adopted was that ERP system is a commercial and configurable software package that manages and integrates all the information flowing through the functional areas in the organization (Chen 2011). They link different areas of an organisation, such as manufacturing, order management, financial systems, human resources, suppliers and customers, into a tightly integrated system with shared data and visibility (Chen, 2001). The reliance and dependence on ERP systems have grown substantially since the early 1990s, and the purchase and implementation of ERP systems continues to be one of the fastest growing segments of the information technology (IT) sector (Lou and Strong, 2004).

The empirical studies that forge these propositions using an integrated approach in an African setting, and specifically in Kenya, are scanty and it is against this background that this study seeks to provide valuable insights on the effects of implementation of ERP systems implementation on the performance of state corporations in Kenya.

1.3 Objectives of the study:

The study examined the influence of Enterprise resource planning systems on organization performance of Commercial State Corporations in Kenya

1.4 Hypotheses:

H_0: Implementation of Enterprise Resource Planning Systems is not significantly related to Organization performance

2. Literature Review:

2.1 The independent Variable: Enterprise Resource Planning:

Numerous descriptions for the enterprise resource planning systems have been advanced by scholars. The term Enterprise Resource Planning term was coined when software developers were seeking a term that would suitably define these broader systems (Wylie, 1990).

According to Loundon (2009), Enterprise resource planning systems is a bundle of business software system allowing organizations to computerize and integrate the mainstream corporate procedures and practices across organizational departments. They, produce, coordinate access, and share collective data and information in a real time environment

Generally functions and activities that are supported by or depend on Enterprise Resource Planning systems will include but not limited to production, manufacturing, sales, inventory, marketing shipping, logistics, billing, distribution, invoicing, and accounting, customer relationship management, inventory management, quality control and human resources functionality not to mention assisting in management of links to external stakeholders as well as augmenting performance management.

Chen 2011) Defines Enterprise Resources Planning system as a commercial and configurable software platform that manages,

assimilates and coordinates information flow through the functional parts of an organization such as financial, accounting, supply chain and customer information, sales and distribution, production planning, materials management and human resources management.

According to Wallace et al, (2001) enterprise resource systems synchronizes clients, service providers and contractors into a computer supply chain, employ demonstrated accomplishment for decision making, harmonize sales, marketing, operations, logistics, purchasing, finance, product development, and human resources.

Davenport (2000) declared that you can view the holistic view of business from single information and IT architecture. It manages all the enterprise processes in a coordinated method, and provides timely and reliable information in order to make right decisions (Mabert et al, 2001). Bradford (2008) pointed some advantages of using ERP like limited interfaces with single application architecture, lower costs if integrated successfully, access of information across a mix of applications, sole system to support organizational procedures and tasks, removal of small and unnecessary systems, automation of tasks with high impact and allow access to real time data support of multiple currencies and languages for multinational, support for wide range of industries oil and gas, health care, chemicals, banking and power industries and so on.

According to a study done by Michael Burns (2009), Enterprise Resource planning systems facilitates businesses to unsettle out-of-date organization's silos, substituting them with closely cohesive horizontal structure thereby carefully aligning organizational strategy, structure, process and technology.

Consequently there exists a direct correlation between the implementation of Enterprise Resource Planning Systems and organizational performance this is because Enterprise Resource Planning systems have the potential of improving business processes and decreasing costs (Ahmad 2009; Beheshti,2006), as these systems facilitate communication and coordination, centralize administrative activities, improve ability to deploy new information system functionality, and reduce information system maintenance costs (Siau, 2004). A successfully implemented ERP system can be the backbone of business intelligence for an organisation, by giving managers an integrated view of the business processes (Parr and Shanks, 2000; Nash 2000). ERP systems provide seamless integration of processes across functional areas with improved workflow, standardisation of various business practices and access to real-time up-to-date data (Chen, 2011; Ehie and Madsen, 2005

2.2 The independent Variable: Organizational Performance

Arguably one of the most significant variables in the management research is organizational performance. Whilst organizational performance is common in scholarly writings, there isn't a unanimously accepted definition and is challenging due to its numerous meanings.

During the 1950s organizational performance was thought of as the degree to which organizations, regarded as a social system achieved their goals and purpose (Georgopoulos & Tannenbaum, 1957: p. 535)

and organizational performance was based on work, persons as well as organizational structure.

The following decade i.e. 1960 to 1970 saw a shift and organization performance was defined as an organization's ability to exploit its environment for accessing and using the limited resources (Yuchtman & Seashore, 1967: p. 379) as organizations begun to look for innovative techniques to assess performance

Between the year 1980 and 1990 managers realized that to identify organizational objectives was more difficult than initially anticipated and for institutions to be successful it must accomplish objectives effectively and efficiently using the least of resources at hand.

Organizational theories that followed reinforced the notion that organizations that realize their performance objectives grounded on the restrictions enforced by the inadequate resources (Lusthaus & Adrien, 1998 after Campbell, 1970). This gave rise to profits as one of the key pointers of performance.

According to authors Lebans & Euske (2006: p. 71) organizational performance is a set of financial and nonfinancial pointers offering information on the level of attainment of objectives and results

(Lebans & Euske 2006 after Kaplan & Norton, 1992) further goes on to state that organization Performance is dynamic, needs decision making and interpretation and could be exemplified through implementation of a causal model that explains how present-day activities might influence imminent outcomes.

Subject to the individual assessing an organizational performance, it can be understood differently for example an individual inside the organization will understand it differently from an outsider, therefore to explain performance is essential to link its essentials characteristic to respective areas of responsibility then quantify the results.

3. Research Methodology:

3.1 Research Design:

This research employed the use of descriptive research design describing data and features of the phenomenon being studied. According to Kothari (2003) a descriptive research design describes the state of affairs as it exists in the present.

This was appropriate as the research was based on fact finding to describe the influence of implementing enterprise resource planning systems and detailing the findings.

A descriptive research design is also appropriate as it is structured and is free from bias and represents data as it is (Kothari 2003).

3.2 Target population

Cooper and Schindler (2003), defines the target population as the overall collection of elements we desire to make some inferences whereas Gall et al, (1983) describes it as the members of a real or hypothetical set of people, events or objects to which the researcher wishes to generalize the results of the research.

This research targeted commercial state corporations, the population comprised of the entire commercial state corporation. According to the Report of The Presidential Taskforce on Parastatal Reforms (2013) there are 34 commercial state corporations in Kenya.

3.3 Sampling And Sampling Procedure:

According to Kothari (1990) sampling is a process by which a relatively small number of individuals, objects or events is selected in order to find out something about the entire population from which it was selected. Kothari (2003) further states that an optimum sample is the one that fulfills the requirements of efficiency, representativeness, reliability and flexibility.
By virtue of the target population not being very huge, a census was used with the study concentrating on the entire population to ensure that all elements of the population were targeted and interviewed, making it an accurate representation of the commercial state corporation. Each State corporation produced one respondent bringing the total to 34.

3.4 Research Instruments, Data collection And Analysis:

This research employed the use of questionnaires to collect the primary data. Mugenda and Mugenda, (2003) highlights that questionnaires are carefully designed instruments which are good for data collection directly from respondents.

The questionnaire used was semi-structured; comprising of closed-ended questions providing a list of answers from which respondents were to select an appropriate option and open-ended questions allowing the researcher to capture more detailed information in relation to the variables.

Secondary data was compiled by referring to current materials such as journals, past studies in the area, financial reports and all other relevant documents about enterprise resource planning systems and organizational performance. To ensure reliability and validity of the questionnaires Pilot testing was carried out.

The data collected from the structured questions in the questionnaire was coded, classified under different variables and entered into Statistical Package for Social Science (SPSS version 17) whereas, responses from the open-ended questions on respondents opinion on enterprise resource planning as well as organization performance were recorded in a separate sheet and organized in themes and thematic content analysis used to answer research questions.

Descriptive and inferential analyses were used to analyze the primary data of quantitative nature (structured questions). Descriptive statistics such as frequencies and percentages and augmented with measures of central tendency (means) and dispersion (standard deviation) were considered.

Additionally, to determine the degree of relationships between the independent variable and the dependent variable correlation analysis was employed. Regression analysis was employed to determine the relationships between variables. The Regression Model was given by the following function

Regression Model $\mathbf{Y=\beta 0+\beta 1X1 + \varepsilon}$
Where Y is the dependent variable (improved organization performance) and X1, is the independent variable (enterprise resource planning), β0 and β1 are Coefficients and ε is the error term of the model

4. Results And Discussion:

This study was designed to establish the influence of Enterprise Resource Planning Systems on Organization performance of Commercial State Corporations in Kenya.

The analysis was grounded on all the 34 questionnaires issued to the respondents to fill. As a result, the findings were generated from 30 questionnaires out of 34. This accounted for 88% response rate based on the sample size.
The high response rate can be ascribed to the data collection technique used, whereby questionnaires were administered individually by the researcher, with follow-ups to respondents and picking the filled questionnaires.

The 12% questionnaires not returned were due to the unavailability of respondents to fill the questionnaires citing tight work schedules and with numerous follow-ups there were no positive feedback.

4.1 Enterprise Resource Planning and Organizational Performance

Given that the research sort to identify the relationship between Enterprise Resource Planning and Organizational Performance if any.

Table 1: Enterprise Resource Planning and Organizational Performance

	N	Min	Max	Mean	Standard Deviation
Enhancing Customer service	30	4	5	4.72	0.49
Better communication and information flow	30	4	5	4.72	0.49
Integrating organization functions	30	4	5	4.78	0.47
Increased inventory accuracy and turnover	30	4	5	4.59	0.49

The general findings as illustrated in above reveal that respondents largely feel that Enterprise Resource Planning systems support enhancement of customer service, better communication and information flow, integrating organizational functions and increased inventory and turn over by a mean of 4.72 , 4.72, 4,78 and 4.59 respectively

4.2 Correlation Between Enterprise Resource Planning Systems And Organization performance:

Table 2: Correlation Enterprise Resource Planning and Organizational Performance

		Enterprise Resource Planning	Organizational Performance
Enterprise Resource Planning	Pearson	1	
	Sig. (2-tailed)		.045**
	N	30	30
Organizational Performance	Pearson	.141	1
	Sig. (2-tailed)	.045**	
	N	30	30

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

While analyzing the degree of relationship between Enterprise Resource Planning and Organizational Performance if any, correlation was used and Enterprise Resource Planning had an r-value of .141 pointing to a weak positive relationship between the two variables.

Given that the p value .045 was lower than .05, the Null hypothesis was rejected at 5 % significance level ascertaining that there indeed is significance between the implementation of Enterprise Resource Planning and Organizational Performance

4.3 Regression analysis Between Enterprise Resource Planning Systems And Organization performance

Table 3: Regression Enterprise Resource Planning and Organizational Performance

Model	Unstandardized Coefficients		Standardized Coefficients	Sig.
	B	Std. error	Beta	
(Constant)	7.167	2.265		.015
Enterprise Resource Planning	.061	.148	.087	.717

The following regression equation was used base on the regression model above
Y=7.167+0.061X

Based on the regression model generated the beta values illustrating the regression equation whilst the standardized beta coefficients provided a measure of the influence of each variable to the model.

The Enterprise resource planning system variable coefficient is 0.061 inferring that Enterprise resource planning system implementation has a positive influence on organizational performance

5. Conclusions And Recommendation:

5.1 Conclusion:

The basis of the research was to determine the influence of Enterprise resource planning system implementation on organizational performance in commercial state corporations in Kenya. From the findings we can conclude that Enterprise resource planning system implementation has a positive influence on organizational performance

5.2 Recommendation:

The study recommends that State corporations and organizations at large should be on the forefront in implementing and embracing technological advancements such as Enterprise resource planning system implementation as the technological advancements are key to supporting organizational efficiency and effectiveness customer service, service delivery, information flow, communication, increased integration of organizational functions which in turn boosts organization performance

5.3 Suggestions For Further Research:

Given that the study was based on the influence of Enterprise resource planning systems on organization performance of only Commercial State Corporations in Kenya the researcher suggests a further area of research on the influence of Enterprise resource planning systems on organization performance of not only the 34 commercial state corporations but the entire 187 state corporation in Kenya

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