Re-Engineering Process As A Determinant of Employees' Performance in Kenya Forest Service in Uasin Gishu County, Kenya.

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Abstract: Re-engineering process is beginning to be embraced by public sector organizations in many countries to reform the traditional function-based bureaucratic system with result and customer-oriented process based system. The purpose of the study was to investigate the extent to which re-engineering process determined employee's performance in Kenya Forest Service. The study was guided by the following objective; to find out the impact of technological innovation on employee performance at Kenya Forest Service. The study was guided by the Force-Field and Evolutionary Theories of Change. It adopted a descriptive survey research design. It targeted all the employees at Kenya Forest Service in Uasin Gishu County which had 8 forest stations. Census method was used to get a sample size of 115 respondents. Questionnaires were used in collecting data. To test validity of the instruments, the instrument was given to supervisors and research experts. A pilot study was done in Nandi County. Split half method was used to test the reliability of the questionnaires. A cronbach alpha of 0.72 was obtained which confirmed the reliability of the research instrument. Descriptive statistics (percentages, mean and standard deviation) were used to analyze data. The study findings indicated that technological innovations are essential for organizational performance. The study recommended that Kenya Forest Service and other governmental organizations should embrace re-engineering process in their systems of operations to improve operational efficiency, process change initiatives and bring about business efficiency by reducing time and cost.

Keywords: Re-engineering, technological innovation and employee performance

I. Introduction

1.1 Background of the Study
Reengineering process arose in the early 1990s as an approach mainly developed by practitioners. It gained prominence in the work of writers such as Setegn, Ensermu and Moorthy, (2013). The concept is currently very topical and ubiquitous in many organizational, management, motivation and information technology literature. Reengineering Process originated in the 1950s as big organizations began to discover the possible effects of technology on effectiveness and efficiency of the business processes. Many theories, methods, and strategies have since appeared and constitute the foundations of Reengineering Process as it is presently known. Sia and Neo (2008) note six areas which influenced the emergence of Reengineering Process: the total quality approach, industrial engineering, socio-technical and system approaches, the diffusion of inventions, and use of information systems for competitive advantage.

The recent interest in Reengineering Process strictly follows the "productivity paradox" observed by (Burnes, 2004) in regard to information technology. Despite intensified investments in these technologies between the mid 1970s and 1990s, researchers and practitioners had not yet been able to clearly show or prove the major productivity gains that had been made. David &Sinclair, 2005) The concept of Reengineering Process was thus seen as a way to change this situation - Reengineering Process would succeed where other approaches had failed in making IT investments profitable (David &Sinclair, 2005).

A number of advantages or benefits have been attributed to Reengineering Process: Cost reductions; increases in employee productivity; a higher quality of goods and services offered and a simplified organizational structure (Hesson, 2007). However, to gain these advantages, a specific set of conditions must be met: the Reengineering Process project must have the visible commitment and full support of top management; a multidisciplinary and a functional directing board should be created and assigned to the project, an explicit methodology must be rigorously followed and businesses must conform with the basic principles of Reengineering Process if they are to reap its potential benefits (Shin and Jemella, 2002).

According to Al-Mashari, Zahir & Mohamed (2001), reengineering process began as a private sector technique to help organizations fundamentally rethink how they do their work in order to dramatically improve employee performance, cut operational costs, and become world-class competitor. According to Al-Mashari (2001) an increase in consumer requirements for both product and service efficiency and effectiveness has resulted in Reengineering Process. Since the 1990s re-engineering Process; use of modern equipment, employee
incentives and employee training and development has been embraced by organizations as a means to cut non-value-added activities and improve employee performance (Hesson, 2007). A number of studies in the literature present the improvements, radical as well as incremental, resulting from Reengineering Process.

The reengineering of organizational processes is concerned with fundamentally rethinking and redesigning organizations processes to obtain dramatic and sustaining improvements in quality, cost, service, lead-times, outcomes, flexibility and innovation which guarantee the performance of the organization in the world of competition that is why reengineering has become a fairly accepted approach today in the reform efforts of any organizations. Reengineering Process has been implemented in both service and manufacturing firms in different countries around the world (Shin and Jemella, 2002). Successful implementation of Reengineering Process brings many benefits to the organization: increases customer satisfaction, increased productivity, higher flexibility, increased employees coordination and improved competitive advantage (Shin and Jemella, 2002).

Globally, the application of re-engineering process concepts, policies and implementation strategies to organizations have become a subject of fundamental importance and indeed a prerequisite for local and global competitiveness. It has continued to change the way organizations and their corporate relationships are organized worldwide and the variety of innovative devices available to enhance the speed and quality of service delivery (Henderson, 2005). The current business environment is very dynamic and undergoes rapid changes as a result of technological innovation, increased awareness and demands from customers. Organizations, especially the Kenya Forest Service, operate in complex and competitive environment characterized by these changing conditions and highly unpredictable economic climate. Re-engineering process is at the centre of global change curve. Sharma et al (2006) posited that re-engineering process implies transformed processes that together form a component of a larger system aimed at enabling organization to empower themselves with contemporary technologies business solution and innovations.

In Kenya, organizations such as Kenya Forest Service have been reshaped greatly during the past years through the use of re-engineering processes. The globalization of markets, new customer requirements for product and service quality, employee training and development and the rapid development of information technology (IT), require new strategies for successful enterprising, as well as new methodologies and tools for system analysis and design in dynamic environments (Sharma, et al., 2006). Kenya Forest Service therefore has launched large-scale efforts to deliver greater employee performance by ‘redesigning’ their businesses, ‘customizing’ their re engineering processes and using information technology, use of modern equipment and redesigning of organizational process as an enabler for gaining competitive advantage (Munyiri, 2004). Beyond that, all changes have to be implemented in respect to the aspects of Total Quality. In their striving for competitive advantage, reduced costs and increased profitability, more and more companies are embracing this trend. In order to survive and flourish in a global economy, organizations must respond to major trends reshaping markets. Hence, the dynamics of the underlying forces at work require a renewed thrust on re engineering processes to contribute to management and diversification of growth horizons by improving on employee productivity (Munyiri, 2004).

1.1.1 Technological Innovations and Employee Performance

Reengineering Process consists of radically transforming organizational processes through the optimal use of technological innovations to achieve major improvements in quality, performance, and employee productivity (Hesson, 2007). A fairly new organizational approach based on information technologies, Reengineering Process explosive dissemination really began in 1993 with the publication of the book by Graham (2010) entitled Reengineering the Corporation: A Manifesto for Business Revolution. However, empirical research has shown that 88 percent of large firms in North America were already implementing Reengineering Process in 1993, at an average rate of four projects per firm (Sia and Neo (2008). In 1994, the members of the Society for Information Management identified Reengineering Process as a major concern for organizations, on a level with customer orientation, development of organizational culture, and strategic alignment of information technologies (Nyaanga, 2007).

There is a positive impact of technological innovation on employee performance. Magutu et al (2010) examined the relationship between innovation and employee performance. The authors concluded that there is a positive impact of administrative and technological innovation on employee performance. Reengineering Process innovation helps to improve operational efficiency. Process change initiatives bring about business efficiency by reducing time and cost. Novel ideas about doing business may be expensive in the short run, but they have a long-term impact on performance measures (Koehler, 2007). Sarkar& Singh (2006) examined different types of innovation, such as process innovation, product innovation and technology innovation, to reveal their impact on performance. An analysis of small and medium-sized enterprises revealed a positive effect of innovation on employee performance. Luftman and Ben-Zvi (2009) analyzed the impact of product and...
process innovation on employee performance the literature shows a significant impact of business process efficiency on employee performance and proficiency.

Reengineering Process is the reason for the existence of any business; they encompass what it produces and delivers. It is absolutely necessary for every organization to identify key business processes and excel at them to achieve strategic goals and long-term viability (Luftman and Ben-Zvi, 2009). The efficiency of reengineering processes has a significant, positive impact on quality and productivity.

1.2 Statement of the Problem

An organizational reengineering is often associated with business re-model. While the re-engineering may help the organizational move forward and improve business, the process comes with some fallout for both the company and the employees. Anticipating these disadvantages and potential difficulties helps you deal with them to reduce the negative impact. Reengineering often causes employees turn over because employees feel insecure and may start looking for jobs when reengineering issue is introduced in organizations. Martin & Cheung, (2005) states that most employees become more worried if the company is not open and transparent with details about reengineering. An organization might not have the option of sharing all of the details ahead of time, a sense of transparency that allows employees to have some idea of what's happening may put your employees at ease.

Depending on the size and funding of a company, investor reactions are sometimes negative to a reengineering situation. If investors oppose the restructure or fear they will lose money, you now have another issue to handle during the process. Restructuring in companies that are publicly traded might result in them dropping in their stock prices. It is advisable to educate investors on the importance of reengineering to reduce their fears concerning the same. As a company restructures, its public image may begin shifting. Reengineering normally leave customers and the public in general questioning about the future of the company. If a company decreases its staff, it risks public scrutiny, particularly in tough economic times when many people are already unemployed. Hiring a public relations consultant can help keep organizations public image under control when going through a restructre (Bowman 2009). Therefore, the purpose of this study was to determine how technological innovation and use of incentives affects employee performance at Kenya Forest Service.

1.3 Objectives of the Study

The study was guided by the following objective;
To find out the effect of technological innovation on employee performance in Kenya Forest Service in Uasin Gishu County.

1.5 Research Question

The study was guided by the following research question:-
What is the effect of technological innovations on employee performance at Kenya Forest Service in Uasin Gishu County?

II. Methods And Materials

This section presents the methods and materials used in the study

2.1 Research Design

The study employed a descriptive survey design. Descriptive survey attempts to describe characteristics of subjects or phenomena, opinions, attitudes, preferences and perception of persons of interest to the researcher. Moreover a descriptive survey aims at obtaining information from a representative of the population and from that sample; the researcher will be able to present the findings as being representative of the population (Orodho, 2009).

2.2 Area of Study

The study was conducted at Kenya Forest Service-Uasin Gishu County. Kenya Forest Service is a State Corporation established by an Act of parliament February 2007 and operationalized through the Forest Act 2005 and its mandate is to conserve, build up and sustainably supervise forest assets for Kenya's social-economic development. The KFS management framework consist of 10 conservancies that are ecologically demarcated, 76 Zonal Forest Offices, 150 forest Stations, and 250 divisional forest extension offices situated countrywide, and vital in forest management and surveillance. To participate in forest management, forest adjacent communities have formed registered groups and are currently working with KFS to sustainably manage forest resources. In total, there are at least 150 community forest associations. Kenya forest service Uasin Gishu County has 8 forest stations with a population of 115 employees.
2.3 Target Population
This study targeted all the employees at Kenya Forest Service- Uasin Gishu County which currently has 8 forest stations with a total population of 115 employees.

<table>
<thead>
<tr>
<th>Stations</th>
<th>Administrators</th>
<th>Other employees</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kapsaret station</td>
<td>1</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Timboroa station</td>
<td>1</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>Cengalo station</td>
<td>1</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Kipkorere station</td>
<td>1</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>Nabkoi station</td>
<td>1</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>Ecosystem managers' station</td>
<td>2</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>Lorenge station</td>
<td>1</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Head of conservancy station</td>
<td>2</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>105</td>
<td>115</td>
</tr>
</tbody>
</table>

2.4 Sampling Technique and Sample Size
For the purpose of getting a representative sample, the study employed census method owing to the small number of employees in the county. This is the only way to be sure that everyone has been included as otherwise those not responding would not be followed up and individuals could be missed. The fundamental premise of a census is that the population is not known and a new estimate is to be made by the analysis of primary data. Thus the sample of the study was 115 respondents.

2.5 Data Collection Instruments
A questionnaire was used as the main data collection instrument. A questionnaire is a self report data collection instrument that each research participant completes as part of a research study. The content and organization of the questionnaire corresponded to the research objectives. A structured questionnaire was chosen for this study as it ensured a standardized data collection procedure so that the data obtained are internally consistent and can be analyzed in a uniform and coherent manner.

2.6 Data Collection Procedure
The researchers sought an introduction letter from Kisii University and a research permit from the Ministry of Higher Education Science and Technology. Once permission was granted the researcher booked appointments with the manager Kenya Forest Service. The researchers addressed the questionnaire to manager Kenya Forest Service-Uasin Gishu County. In each case, the purpose of the questionnaire and explicitly clear instructions for the completion of the questionnaire was attached to the questionnaire. Respondents completed the questionnaire and latter returned them to the researchers.

2.7 Reliability and Validity of the Research Instruments
Before the research instrument was used in the actual study, it was important that its validity and reliability was ascertained.

2.7.1 Validity of Instruments
In order to maintain consistency and relevance to the problem, questionnaire items were formulated around aspects of the problem being investigated. The instrument content validity was ascertained by giving it to research experts to confirm that the items solicited the required information and basing on their suggestions necessary corrections were effected to improve validity of the instruments. On the basis of the recommendations from research experts, necessary corrections were effected accordingly.

2.7.2 Reliability of Instruments
To determine reliability of research instruments a pilot study was conducted in Nandi County Forest stations. Split half method was carried out to calculate cronbach alpha. A cronbach alpha of 0.72 was obtained which confirmed the reliability of the research instruments. According to Creswell, (2003) a reliability value above 0.6 is considered to be adequate test of reliability of a research instrument.

2.8 Data presentation and Analysis
Descriptive Statistics (percentages, mean and standard deviation) were used to analyze data obtained. Data collected from the field was coded on the computer coding sheets and presented in tables.

2.9 Limitations of the Study
The study findings were limited to Kenya Forest Service-Uasin Gishu County and though its results may be generalized to cover all other conservancies even if the composition of other conservancies’
characteristics may be different. The respondents were not willing to participate in the study in fear of exposing their re-engineering processes where some of them suspected that the researcher has an ill motive to the organization. This was overcome by explaining to them the intention of the study and issuing the introduction letter from the school and any relevant authorities for verification purposes The policies of organizations were also too rigid to the extent that the respondents might fear giving out the information. To overcome this limitation the respondents were assured that the given information would confirm to serve the research purpose.

III. Findings, Conclusions And Recommendations

The objective of this study was to find out the effects of technological innovation on employee performance. To achieve this objective, the participants were asked to respond to items in the questionnaire on a likert scale of 1-5. The results are presented in Table 4.1 below.

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embracing technological innovation radically transforms organizational processes.</td>
<td>3.762</td>
<td>1.453</td>
</tr>
<tr>
<td>Technological innovation has led to improvement in performance.</td>
<td>4.257</td>
<td>1.067</td>
</tr>
<tr>
<td>Technological innovation has led to improvement in employee productivity</td>
<td>3.835</td>
<td>1.288</td>
</tr>
<tr>
<td>Technological innovation has led to improvements in quality</td>
<td>3.9635</td>
<td>1.326</td>
</tr>
<tr>
<td>Technological innovation has led to significant reductions in costs, errors, and times</td>
<td>4.2028</td>
<td>0.803</td>
</tr>
<tr>
<td>Technological innovation has led to increased customer satisfaction, and better overall organizational efficiency and effectiveness</td>
<td>3.734</td>
<td>1.274</td>
</tr>
<tr>
<td>Technological innovation has led to attainment of targets.</td>
<td>4.147</td>
<td>1.121</td>
</tr>
</tbody>
</table>

Source: (Research Data, 2015).

From the table above it was revealed that embracing of technological innovation radically transforms organizational processes. This had a mean of 3.762 and standard deviation of 1.453. The response on the issue that technological innovation leads to improvement in performance was supported by a mean of 4.257 and standard deviation of 1.067. Further, the respondents agreed that technological innovation leads to improvement in employee productivity with a mean of 3.835 and a standard deviation of 1.288. On the issue that that technological innovation has led to improvements in quality, the mean was 3.9635 and standard deviation was 1.326. Respondents also agreed that technological innovation has led to significant reductions in costs, errors, and times this was supported by a mean of 4.2028 and a standard deviation of 0.803, the response that technological innovation leads to increased customer satisfaction, better overall organizational efficiency and effectiveness was supported by a mean of 3.734 and a standard deviation 1.274. Lastly, the respondents agreed that technological innovation has led to attainment of targets. This was supported by a mean of 4.147 and a standard deviation of 1.121.

It can therefore be shown that the effects reengineering process on technological innovation includes: transformation organizational processes, improvement in performance, improvement in employee productivity, improvements in quality, significant reductions in costs, errors, and times, increased customer satisfaction, and better overall organizational efficiency and effectiveness this was supported by an average mean of 3.937. These findings indicate that majority of the respondents had positive perceptions that technological innovation leads to employee performance.

Hesson (2007) supports these results as he states that reengineering process consists of radically transforming organizational processes through the optimal use of technological innovations to achieve major improvements in quality, performance, and employee productivity. Sia and Neo (2008) further states that, the members of the society for Information Management identified Reengineering Process as a major concern for organizations, on a level with customer orientation, development of organizational culture, and strategic alignment of information technologies.

On the basis of the findings, the study concluded that embracing of technological innovation radically transforms organizational processes, technological innovation has led to improvement in performance, it has led to improvement in employee productivity, has led to improvements in quality, technological innovation has led to significant reductions in costs, errors, and times, it has led to increased customer satisfaction, and better overall organizational efficiency and effectiveness and has led to attainment of targets.

From the study finding, it was recommended that Kenya forest service and other governmental organizations should embrace reengineering process in the form of technological innovation to their system of operations. This would help to improve operational efficiency process change initiatives bring about business efficiency by reducing time and cost.
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