

Effect of Office Automation on Organizational Effectiveness of Public Universities in Kenya

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Abstract

The paper sought to establish effect of office automation on organizational effectiveness of public Universities in Kenya. The study employed a descriptive study. The study targeted 78 senior staff members in University of Eldoret involved in decision-making, mostly the top of management staff in the institution. These include Council members, Management Board Members, Senate Members and all Heads of Departments. Data for the study were collected through the use of questionnaires. Both open-ended and closed questionnaires were administered to the target staff. Quantitative data was analyzed through coding in SPSS version data editor where inferences were drawn and descriptive statistics; mean and frequencies of responses were used to give the results of the analysis. Regression analysis was used to establish the effect of office automation on organizational effectiveness. The study established that there was significant relationship between office automation and organizational effectiveness of the University of Eldoret. Showing that Office automation positively influences organizational effectiveness. Based on the findings the study recommended that there is need for the university to automate all the university activities as automation influences positively organizational effectiveness.

Key Words: Office automation, Organizational, Effectiveness, Public Universities

1.0 Introduction

According to Hiatt and Creasey (2003), change management is about managing people in a changing environment so that business changes are successful and the desired business results are realized. Change management involves the process, tools and techniques for proactively managing the people side of change in order to achieve the desired business results. It involves constantly examining organizational performance, strategy, processes and systems to understand what changes need to be made, and at the same time, understanding the implications of a new business change on its employees given their culture, values history and capacity for change.

Change management initiatives enable organizations to become efficient, effective and to compete favourably in the face of competition from other organizations in the same business (Burnes, 2004). Therefore, for organizations to remain truly competitive over time as the environment changes, they have to learn to adapt and reorient themselves to the changing environment. For this reason, there has to be a deliberate and coordinated leaning to a gradual systematic realignment between the environment and the organization's strategic orientation that results in improvement in performance, efficiency and effectiveness.

Factors common to successful change management (in both the private and public sector) involve: Planning-developing and documenting the objectives to be achieved by the change and the means to achieve it, defined governance by establishing appropriate organizational structures, roles, and responsibilities for the change that engage stakeholders and support the change effort, committed leadership- this is the ongoing commitment at the top and across the organization to guide organizational behaviour, and lead by example, informed stakeholders- this is encouraging stakeholder participation and commitment to the change, by employing open and consultative communication approaches to creating awareness and understanding of the change throughout the organization and aligned workforce- involves identifying the human impacts of the change, and developing plans to align the workforce to support the changing organization.

According to Abbah, (2014) an organization is effective to the degree to which it achieves or accomplishes its mission and goals. An effective organization ensures that there is a spirit of cooperation and sense of commitment and satisfaction within the sphere of its influence". In order to make employees satisfied and committed to their jobs, there is need for strong and effective motivation at various levels in an organization. An effective organization is one where there is a good strategic alignment between the mission, the structures and the subsequent human resource management policies and procedures which support people in achieving the goals of the organization. An organization is considered efficient and operationally effective if it is characterized by coordination between objectives and strategies. Therefore, there has to be an integration of the parts into a complete structure, that is, operates as a system.

The government of Kenya since 2007 embarked on expansion of university education with projects in place to have a University each of the forty seven counties. The universities Act, 2012 came into force in 2013, which establishes the Commission for University Education (CUE) and the Kenya Universities and Colleges Central Placement Services (KUCCPS). Universities in Kenya are managed by University Council and Management Board chaired by Vice Chancellors. The biggest alarming challenge of this rapid growth is accreditation and control by the CUE in terms of the new universities meeting the minimum standards and quality once they are awarded charter to a full-fledged university status.

The University of Eldoret is one of the 23 public universities in Kenya, it is situated in Uasin Gishu County. It was founded in 1946 by the white settlers as a Large Scale Farmers Training Centre. In 1984, it was converted to a teachers' training college and renamed Moi Teachers' Training College to offer Diploma Science Teachers Training. Due to the double intake crisis, the College was taken over by Moi University as a Campus in 1990, renaming it Chepkoilel Campus. From 1990, the University made it a campus of natural, basic and applied science programmes.

In August 2010, the President, through Legal Notice No. 125 of 13 August 2010 upgraded the campus into a University College with the name Chepkoilel University College, a Constituent College of Moi University. Upon the award of Charter by the President on March 2013, the University College was renamed University of Eldoret.

1.2 Statement of the Problem

In Kenya, universities have experienced various changes in their external environment, prompting responses from players in the higher education sub-sector with the objective of mitigating risks and taking advantage of opportunities. This has triggered research in the area of strategic management through application of clear and sustainable response strategies. Past research has been carried out on problems facing the public universities, especially focusing on funding, resources (human and physical), staff remuneration, political interference and research in view of changing environments and government policies.

In the past, studies on strategic response to environmental changes/challenges have been conducted mainly in for-profit organizations. Ofori and Atiogbe (2012) looked at the challenges facing strategic planning in universities in Ghana while Mutula (2002) and, Ndirangu and Odoto (2011) investigated the problems facing university education and the challenges in teaching and learning in Kenya's public universities, respectively. Ekundayo and Ajayi (2009) also looked at the challenges facing university management in Nigeria. Mukhoko (2010) investigated the influence of strategic planning at the University of Nairobi. While these studies compare well with the current study, majority of them focused on general problems without addressing the response strategies put in place to counter the challenges.

1.3 Research Hypothesis

Ho: There is no significant relationship between office automation and organizational effectiveness of University of Eldoret.

2.0 Literature Review

2.1 Automation and organizational effectiveness

Office automation is the use of electronic device in office activities in order to increase efficiency. This increased efficiency is resulted by completion of information exchange inside office and between offices and their environment and finally could help to manager by provide better information. Today automation and apply new technologies is not only considered as a need but as a critical necessity (Javadi & Safari 2013). Yadolah *et al.*, (2014) say that office automation has effects on effectiveness of human resources and his research findings indicates office automation has direct and positive effects on effectiveness of human resources

Nahid *et al.*, (2015) recommended that managers and employees of universities, prior to taking any actions in line with the implementation of office automation in universities, should come to the conclusion that the continuation of the status quo is no longer possible and a firm determination should be felt in them respecting the implementation of office automation.

According to Goodman and Ping (2007), organizational effectiveness is affected by four kinds of major variables that rarely are under the control of manager. One of them is organizational

feature such as structure and technology. So using tools of automation services or computerize technology such as computer, copy machine, fax, printer and scanner, causes in increasing the organizational effectiveness. This research should help provide more precise and adequate recommendations for the design of automated office systems so that these systems can be implemented successfully and contribute to improvements in organizational effectiveness.

3.0 Methodology

3.1 Research Design

The study employed a descriptive study. Descriptive survey design enables the researcher to describe the state of affairs as they are and report the findings (Kombo & Tromp, 2009). According to Kothari (2008), such design is efficient method of collecting descriptive data regarding the characteristics of populations to justify current conditions and practices.

3.2 Target Population

The target population for the study was all staff that were involved in organizational change both directly and indirectly impacted upon by the new administrative systems. The total population of staff at the University of Eldoret is 1100. The study targeted 78 senior staff members involved in decision-making, mostly the top of management staff in the institution. These include Council members, Management Board Members, Senate Members and all Heads of Departments.

3.4 Sample Size

The sample size formula for this study was Krejcie and Morgan (1970) as quoted by Kasomo (2001). The formula is given as:

$$n = \frac{X^2 * N * P(1 - P)}{(ME^2 * (N - 1)) + (X^2 * P * (1 - P))}$$

Where

n=Sample size

X²=Chi Square for the specified confidence level at 1 degree of freedom= (3.841) from tables

N=Population size

P=Population proportion (.50 in the table)

ME=Desired margin of error (expressed as a proportion=0.05)

The sample size was;

$$n = 74.8995 / 1.15275$$

$$= 65$$

The sample size is presented in Table 1.

Table 1: Sample size

Management Level	No. of employees	Sample size
University Council	9	7
Management Board	18	15
Senate Members	20	17
Heads of Departments	31	26
Total	78	65

Source: Field Data, 2016

The members of each subgroup included were selected using simple random sampling.

3.5 Data Collection Instruments

Data for the study were collected through the use of questionnaires. Both open-ended and closed questionnaires were administered to the target staff. The questions were structured so as to be both qualitative and quantitative in nature to capture all the aspects of the effectiveness of change management strategies in an organization.

3.6 Data Analysis

The data collected from questionnaires was summarized according to the study themes being change management strategies and organizational effectiveness. Data was then analyzed to determine its accuracy, credibility, usefulness and consistency. Quantitative data was analyzed through coding in SPSS version data editor where inferences were drawn and descriptive statistics like mean, mode, median and frequencies of responses were used to give the results of the analysis which were then presented in form of charts and tables and prose for qualitative data. Pearson Correlation analysis was used to test the hypotheses of the study.

Regression analysis was used to establish the effect of office automation on organizational effectiveness. The implicit model of the of the regression is as indicated below;

$$Y = \beta_1 X_1 + e$$

Where;

Y = Organizational Effectiveness

X₁ = Office Automation

e = Error Term

β_1, \dots , is the coefficients that will indicate the robustness of the effects independent variable have on the dependent variable.

The error term is expected to be independent and normally distributed with mean zero and a constant variance in the model's output.

4.0 Findings

4.1 Effects of Office Automation on Organizational Effectiveness

The first objective of this study was to appraise how changes in office automation affect organizational effectiveness of University of Eldoret. To achieve this objective, the respondents were requested to rate their level of agreement on a five point Likert scale items in the questionnaire on effects of office automation organizational effectiveness. Their responses were tabulated and the results are presented in Table 2.

Table 2: Responses on Effects of Office Automation on Organizational Effectiveness

Statement	SD		D		UD		A		SA	
	F	%	F	%	F	%	F	%	F	%
Administration units have been equipped with document management systems and solutions	0	0.0	10	16.9	0	0.0	25	42.4	24	40.7
The university has developed an ICT platform with several modules for financial management, human resources, procurement, student information management solutions library management and timetabling solutions	0	0.0	10	16.9	5	8.5	25	42.4	19	32.2
I can access all information of the university through an automated internet platform	9	15.3	8	13.6	0	0.0	27	45.8	15	25.4
Office automation system has speeded in processing and dissemination of up-to-date information	8	13.6	12	20.3	0	0.0	22	37.3	17	28.8
Automation has enables most effective resource sharing in and out of the university	9	15.3	7	11.9	2	3.4	25	42.4	16	27.1
Office automation systems has led to an increase in the span of monitoring and control by managers thus improved productivity	5	8.5	10	16.9	4	6.8	29	49.2	11	18.6
Automation systems, especially communications functions, has improved the degree of perceived interdependence among departments hence effective dissemination of management information	5	8.5	6	10.2	4	6.8	39	66.1	5	8.5

Table 2, shows that 25(42.4%) respondents agreed with the statement that administration units have been equipped with document management systems and solutions and 24(40.7%) respondents strongly agreed with the statement while 10(16.9%) respondents were in disagreement with the statement. The study findings showed that majority (83.1%) of the senior management staff members in the University of Eldoret reported that administration units have been equipped with document management systems and solutions. This implies that the university has installed softwares for the management of student results at departmental level enabling efficient management of documents at departmental level. Similarly, 25(42.9%) respondents agreed with the statement that the university has developed an ICT platform with several modules for financial management, human resources, procurement, student information management solutions library management and timetabling solutions, 19(32.2%) respondents strongly agreed with the statement and 10(16.9%) respondents disagreed with the statement while 5(8.5%) respondents were undecided on the statement. From the responses, it emerged that majority (74.6%) of the respondents believed that the university had an ICT platform for financial, human resource, procurement and student records management.

Further, 27(45.8%) respondents agreed with the statement that they could access all information of the university through an automated internet platform, 15(25.6%) respondents strongly agreed with the statement while 9(15.3%) respondents strongly disagreed with the statement. The findings showed that majority (71.2%) of the respondents believed that they could access all university information through an automated network system. This shows that some university information are accessed by senior members of the university through an enabled internet platform. This

Moreover, 22(37.3%) respondents agreed with the statement that office automation system has speeded in processing and dissemination of up-to-date information, 17(28.8%) respondents strongly agreed with the statement and 12(20.3%) respondents disagreed with the statement while 8(13.6%) respondents strongly disagreed with the statement. From the responses, it emerged that majority (66.1%) respondents reported that office automation system had enhanced speedy processing and dissemination of up-to-date information. This implies that the university had implemented office automation where all the deans and heads of departments receive firsthand information thus enhancing efficiency in service delivery in the university.

Furthermore, 23(39.0%) respondents agreed with the statement that automation had enables most effective resource sharing in and out of the university, 16(27.1%) respondents strongly agreed with the statement, 9(15.3%) respondents strongly disagreed with the statement and another 7(11.9%) respondents disagreed with the statement while 2(3.4%) respondents were undecided on the statement. From the responses, it emerged that majority (69.5%) of the senior university staff members in charge of change management noted that automation had enabled most effective resource sharing in and out of the university. This implies that that office automation that has been implemented in the university had enabled sharing of vital information among the management staff within and outside the university.

Moreover, 29(49.2%) respondents agreed with the statement that office automation systems had led to an increase in the span of monitoring and control by managers thus improved productivity, 11(18.6%) respondents strongly agreed with the statement, 10(16.9%)

respondents disagreed with the statement and 5(8.5%) respondents strongly disagreed with the statement while 4(6.8%) respondents were undecided on the statement. The study findings showed that majority (67.8%) of the university staff management members believed that office automation in the university had led to an increase in monitoring and control by university management members thus improving service delivery and productivity in general. Similarly, 39(66.1%) respondents agreed with the statement that automation systems, especially communications functions, had improved the degree of perceived interdependence among departments hence effective dissemination of management information, 6(10.2%) respondents disagreed with the statement, 5(8.5%) respondents strongly disagreed with the statement and another 5(8.5%) respondents strongly agreed with the statement while 4(6.8%) respondents were undecided on the statement. The study findings suggested that majority (74.6%) of the university management members perceived that automation systems had improved the degree of perceived interdependence among departments hence effective dissemination of management information.

4.2 Organizational Effectiveness

The purpose of this study was to investigate the effects of change management strategies on organizational effectiveness of the University of Eldoret. The dependent variable in this study was organizational effectiveness. In achieving organizational effectiveness, the respondents were asked to rate their level of agreement in a five point Likert scale items on organizational effectiveness. The results of data analysis are presented in Table 3.

Table 3: Responses on Organizational Effectiveness

Statement	SD		D		UD		A		SA	
	F	%	F	%	F	%	F	%	F	%
The information in the university flows without any distortion	4	6.8	9	15.3	1	1.7	33	55.9	12	20.3
I access quality services across all departments in a timely and efficient manner	6	10.2	10	16.9	2	3.4	27	45.8	14	23.7
Recruitment process is transparent and timely done as per the staff establishment	0	0.0	15	25.4	0	0.0	30	50.8	14	23.7
There is a participatory decision-making for both senior and middle-level managers of the university	9	15.3	10	16.9	0	0.0	26	44.1	14	23.7
Strategic goals of the university is always clearly communicated to all staff and students	0	0.0	10	16.9	4	6.8	31	52.5	14	23.7
There is an effective mechanism for delegation of authority and responsibility to functional units within the structure to take initiatives	0	0.0	21	35.6	0	0.0	33	55.9	5	8.5

Table 3 shows that 33(55.9%) respondents agreed with the statement that the information in the university flows without any distortion, 12(20.3%) respondents strongly agreed with the

statement and 13(22.1%) respondents were in disagreement with the statement while 1(1.7%) respondents was undecided on the statement. The study findings showed that a majority (71.2%) of the university management members in the University of Eldoret believed that there was effective flow of information in the university. This shows that the University has developed an effective communication channels within the university which ensures effective flow of information. Vogel, (2000) encourage effective communication in organizations for the right 'spirit' to be embraced within the organization.

In addition, 27(45.8%) respondents agreed with the statement that they accessed quality services across all departments in a timely and efficient manner, 14(23.7%) respondents strongly agreed with the statement, 10(16.9%) respondents disagreed with the statement and 6(10.2%) respondents strongly disagreed with the statement while 2(3.4%) respondents were undecided on the statement. From the responses it can be argued that majority (69.5%) of the respondents believed that there was access of quality services across all departments in a timely and efficient manner in the university. Marzano *et al.*, (2005) reported that high-quality leadership leads to efficient delivery of services and therefore it seems that the university has high quality leadership which has enhanced efficient service delivery.

On the statement that the recruitment process was transparent and timely done as per the staff establishment in the university, 30(50.8%) respondents agreed with the statement and 15(25.4%) respondents were in disagreement with the statement while 14(23.7%) respondents strongly agreed with the statement. From the responses, it can be shown that majority of the respondents (74.5%) believed that there was transparent recruitment process in the university and was done as per the staff establishment in the university. this shows that there is integrity in the recruitment process in the university.

Further, 26(44.1%) respondents agreed with the statement that there is a participatory decision-making for both senior and middle-level managers of the university, 14(23.7%) respondents strongly agreed with the statement and 10(16.9%) respondents disagreed with the statement while 9(15.3%) respondents strongly disagreed with the statement. The responses shows that majority (67.8%) of the university management members reported that there was a participatory decision-making for both senior and middle-level managers of the university. Participatory decision making ensures that all values and views of an individual are tapped as noted by Bartol and Srivastava, (2002).

Similarly, 31(52.5%) respondents agreed with the statement that strategic goals of the university is always clearly communicated to all staff and students, 14(23.7%) respondents strongly agreed with the statement and 10(16.9%) respondents disagreed with the statement while 4(6.8%) respondents were undecided on the statement. It emerged from the study findings that a majority (76.2%) of the respondents believed that the strategic goals of the university was always clearly communicated to all staff and students. Communication ensures that all information is passed to individuals enhancing success in the project.

Moreover, 33(55.9%) respondents agreed with the statement that there was an effective mechanism for delegation of authority and responsibility to functional units within the structure to take initiatives, 21(35.6%) respondents were in disagreement with the statement while 5(8.5%) respondents strongly agreed with the statement. The responses showed that majority (64.4%) of the university of Eldoret management members believed that there is an effective mechanism for delegation of authority and responsibility to functional units within the structure to take initiative.

4.3 Conclusions and Recommendations

The study concluded that there was significant relationship between office automation and organizational effectiveness of the University of Eldoret. Showing that Office automation positively influences organizational effectiveness. Based on the findings the study recommended that there is need for the university to automate all the university activities as automation influences positively organizational effectiveness.

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