

# **EFFECTS OF TECHNOLOGICAL INTERVENTIONS ON EMPLOYEE PERFORMANCE: A CASE OF ELDORET WATER AND SANITATION COMPANY, KENYA**

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## **Abstract**

*The application of organization development in a public sector organization is full of difficulties. The study sought to find out the effect of technological interventions on employee performance at Eldoret Water and Sanitation Company. This study was guided by systems theory and employed a case study method. The target population consists of 215 managers and the employees working at the ELDOWAS Company. The sample size of 50% of the target population was selected. Stratified random sampling technique was used to ensure to select the respondents from the target population. In collecting data, questionnaires and interview schedules were used. Data was analyzed using descriptive statistical techniques that included frequencies and percentages. The findings revealed that technical interventions effects positively on the performance of employees. A range of technical interventions are required to enhance employee performance. In particular, the study established that ISO certification, provision of ICT facilities, job descriptions, payment of overtime and delegation improves employee's performance. The study recommended that the company to create a change management team which will be responsible for devising proposals for change and managing teams. There is also need to have executive coaching from OD practitioner experts since the findings indicated that there was lack of adequate information by both management and the workers.*

*Keywords: Organizational development, technological interventions, employee performance, ICT, Kenya*

## INTRODUCTION

According to Meyer and Botha (2004) organizations that develop the capacity to change constantly will survive in the volatile environment. Employees who are empowered in an organization can either portray a positive or negative picture to the customers. Considering that satisfied employees are valuable to the organization, it therefore becomes the duty of the management to put in place a system that would ultimately generate satisfaction from their employees since employees have a major role to play in determining whether a customer would enjoy the experience or turn to their competitors for better solutions. Technically, they need to be reinforced and motivated to be able to span boundaries. The simultaneity of services leads to an inherent link between employees' behavior, their motivation, competencies, satisfaction, and commitment (Looy, Gemmel, & Van Dierdonck, 2003). A complex combination of strategies is needed to ensure that service employees are willing and able to deliver quality services and that they stay motivated to perform in customer-oriented, service-minded ways. Paying attention to competencies and their continuous development should be reflected in human resource practices.

Performance can be considered an outcome of both organizational development interventions and human activities (Bennis, 2009). Performance is a set of practices through which work is defined and reviewed (Amagoh, 2008). The business climate has changed during the past few years. It seems that no industry is immune to a shake up as a direct or indirect consequence of deregulation or competition from abroad. For many organizations, one result of this trend is a justifiable obsession with quality and productivity. It's therefore more important than ever before to accurately measure job performance so that rewards can be distributed fairly and performance problems can be solved quickly by embracing organizational development interventions.

According to O'Brien (2002), the application of organizational development in a public sector organization is full of difficulties. Public sector organizations demonstrate bureaucratic norms and behavioral patterns that are at odds with the principles of organization development that affects employee's performance and morale. Further still there is too much emphasis on accountability and reporting relationships and the existence of multiple interests inside and outside such organizations which make it difficult to get support and approval for organizational development initiatives and ensure the smooth progress of the initiative.

Productions of goods and services in the world today have been greatly influenced by the systematic application of physical forces through different types of technology. Technology in most organization provided the required forces through various forms by which goods and services were produced. This to Dauda (2009) may be in forms of machine equipment

information and communication made up of knowledge, tools, method and system directed to work in specific manner. Technology is made up of the hardware, the software and the brain ware. The hardware is the physical structure and logical of equipment, the software is knowledge and method used for production or output from the hardware and the brain ware is the reason for using the technology in a particular way. All these depend on a particular way. Khalil (2000) sees technology to be the result of mans learned and acquired knowledge or his technical skills regarding how to do things well.

Technological change is labour saving biased or capital saving biased, the latter could led to reduction in total cost of production and the latter and the former enhance labour productivity Khalil (2000). In the second instance, same output can be produced with fewer men; the third is the reaction of demand to any consequent change in relative price which increases production and efficient. This expands output and promote employment prospect. Despite these, the rate of the transition from older technologies is accelerating and is creating what Joseph Schumpeter regarded as “creative destruction” whereby innovation would destroy existing technologies and method of production Dauda, (2010). Technological change has created newer and more efficient machines which workers will replace them.

Eldoret Water and Sanitation Company (ELDOWAS) has been implementing various organizational development interventions through its 2008-2013 strategic plan. According to Fraenkel and Wallen (2011) organizational change has negative effects on levels of job security, organizational commitment and increases employee turnover hence affecting employee performance. However, it is not known to what extent the implementations of these interventions at the Eldoret Water and Sanitation Company have influenced employee performance. It's against such a background that this study was conducted to assess the effect of technological interventions on employee performance using Eldowas as a case study.

## **METHODOLOGY**

This study was guided by systems theory as introduced into the organizational setting by Katz and Khan (1966). According to Smith (2003), a system refers to a bounded whole which has an identifiable inside (organization) open to an identifiable outside (environment). An organization that disregards its environment is likely to be strangled and die (Smith, 2003). The current study therefore seeks to assess the effect of technological interventions on employee performance using Eldoret water and Sanitation Company as case study.

The study employed a case study method. The target population consists of 215 managers and the employees working at the ELDOWAS Company. The sample size of 50% of the target population was selected. Stratified random sampling technique was used to ensure

that the target population was divided into different homogeneous strata and that each stratum was represented in the sample in a proportion equivalent to its size in the accessible population. In collecting data, questionnaires and interview schedules were used. Data was analyzed using descriptive statistical techniques that included frequencies and percentages.

## FINDINGS AND DISCUSSIONS

### Background information of the respondents

#### *Gender of Participants*

The study sought to establish the gender of the respondents. The variable gender was operationalized as male or female. Gender issue in organizational development interventions and employee performance is important because male and female employees have different perceptions pertaining organizational development interventions and affects their performance differently. After operationalizing gender the respective frequency and percentage for each category was calculated and tabulated as shown in the Table 1.

Table 1: Gender of Participants

<b>Gender</b>	<b>Frequency</b>	<b>Percentage</b>
Male	46	54.1
Female	39	45.9
<b>Total</b>	<b>85</b>	<b>=100%</b>

As shown in Table 1, 54.1 %(46) of the respondents were male while 45.9%(39) were female. These findings tend to suggest that majority of the employees at Eldoret Water and Sanitation Company were male. It is generally acknowledged that employees' reactions toward change are shaped by the way in which a change process is implemented, therefore from the findings we can conclude that gender fairness is put into consideration while implementing organizational change.

#### *Education Level of Respondents*

Academic and professional qualifications are crucial in the effective management of organizations and development of interventions. It further has a direct effect on the performance of employees. The researcher therefore set out to establish the respective qualifications of the employees at Eldoret Water and Sanitation Company. The results are presented in fig.1.

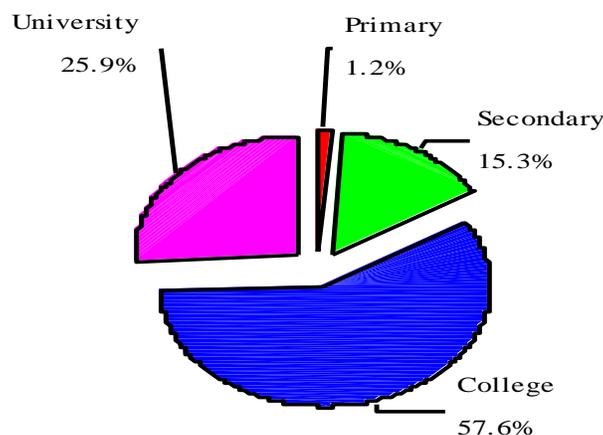


Figure 1: Education Level of Respondents

From figure 1, the researcher established that majority (57.6%) of employees at Eldoret Water and Sanitation Company were college graduates while 25.9% were university graduates. Further, 15.3% were secondary school holders while only 1.2% were primary school leavers. Therefore, employees at Eldoret water and Sanitation Company had relevant education level and therefore understand what technological interventions are and how it effects on their performance.

#### ***Number of years worked in ELDOWAS***

The results in figure 2 indicates that majority of employees had worked for between 0-5 years 40%, 6-10 years 24%, 11-15 years 15% and 16-20 years 16%. The results further revealed that only 5% of the respondent employees had worked at Eldoret water and Sanitation Company for over 20 years. Therefore, all the employees had relevant experience and knowledge of any development interventions made within the company and its effects on their performance.

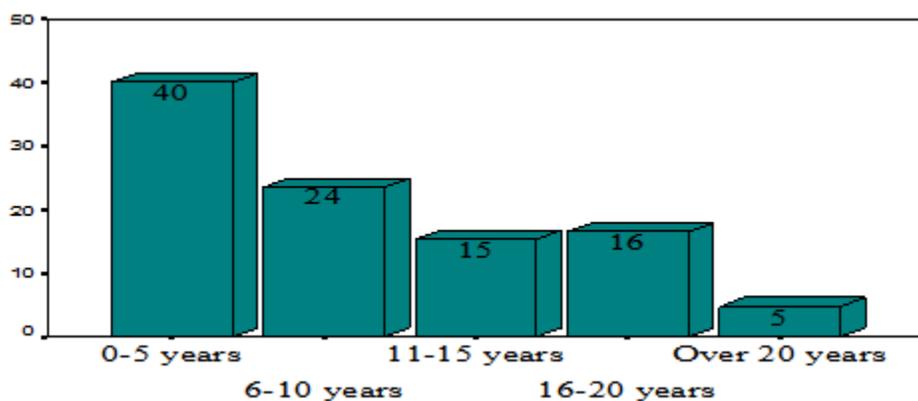


Figure 2: Number of years worked in ELDOWAS

### Effect of Technical Interventions on Employee Performance

An examination of the questionnaire response pertaining to the effects of technical interventions on employee performance for each of the 85 participants revealed the data presented in Table 2. From Table 2, majority (61.2%) of the respondents strongly agreed that ISO certification of Eldowas improved employees' service delivery while 35.3 percent agreed. Only 2.4 percent of the respondents disagreed that ISO certification of Eldowas improved employees' service delivery. This concurs with Dauda (2010) who found out that significant improvement in output, productivity and growth are achieved when there is use of new technology. He observed that increased productivity and general economic growth in most developed nations have been attributed to increasing technology and technological innovation.

Regarding whether provision of ICT facilities had led to improved employee performance, majority of the respondent employees 54.1 percent strongly agreed while 27.1 percent agreed. 12.9 percent of the respondents disagreed while 5.9 percent were undecided. These findings are supported by Khalil (2000) who postulated that the state of technology determines the quality and quantity of goods and services produced. On whether Job descriptions obligates employees to perform better, majority of employees 51.8 strongly agreed, 42.4 percent agreed, 3.5 percent disagreed while only 2.4 percent were undecided, 40 percent of the respondents strongly agreed that payment of over time is an incentive to good performance, 37.6 percent agreed, and 9.4 percent disagreed while 9.4 percent were undecided. Majority of the respondents 49.4 percent strongly disagreed that duties delegated /responsibilities i.e. higher than their positions boosted their morale to work even better, 20.0 percent agreed while only 12.9 strongly agreed that duties delegated /responsibilities (higher than their positions) boosted their morale to work even better, while 4.7 percent were undecided.

Table 2: Effect of Technical Interventions on Employee Performance

Effects			Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Total
ISO Certification of Eldowas improved employees service delivery			52(61.2%)	30(35.3%)	1(1.2%)	2(2.4%)		85(100%)
Provision of ICT facilities has led to improved employee performance			46(54.1%)	23(27.1%)	5(5.9%)	11(12.9%)		85(100%)

Job descriptions obligates employees to perform better	44(51.8%)	36(42.4%)	2(2.4%)	3(3.5%)			85(100%)
Payment of over time is an incentive to good performance	34(40.0%)	32(37.6%)	8(9.4%)	8(9.4%)	3(3.5%)		85(100%)
Duties delegated /responsibilities (Higher than my position) delegated to me boosted my morale to work even better	11(12.9%)	17(20.0%)	4(4.7%)	11(12.9%)	42(49.4%)		85(100%)

Interview conducted with heads of departments, revealed that their departments were implementing strategies to improve employee performance. They confirmed that technical strategies were being implemented and that it had a positive effect on employee performance. They concurred that in every adjustment of the intervention, employees want to know how the intervention will affect their day-to- day workflow, tasks and responsibilities before they support or resist its implementation.

### Discussion of Findings

According to Porras and Robertson (1992), organizational development intervention strategies include goals, strategies, structure, administrative policies and procedure, administrative systems, reward systems and ownership. This is further supported by Dauda (2009) that intervention strategies may be in forms of machine equipment information and communication made up of knowledge, tools, method and system directed to work in specific manner. With regard to the effects of technical interventions on employee performance, the results showed that ISO certification of Eldowas improved employees' service delivery. This concurs with Dauda (2010) who found out that significant improvement in output, productivity and growth are achieved when there is use of new technology. He observed that increased productivity and general economic growth in most developed nations have been attributed to increasing technology and technological innovation.

### CONCLUSION AND RECOMMENDATION

Regarding the effect of technical interventions on employee performance, the study established that technical interventions effects positively on the performance of employee's. A range of

technical interventions are required so as to enhance employee performance. In particular, the study established that ISO certification, provision of ICT facilities, job descriptions, payment of overtime and delegation improves employee's performance.

Since Eldoret water and Sanitation Company employ technical interventions such as ISO certification and provision of ICT facilities, there is need for the company to create a change management team which will be responsible for devising proposals for change and managing teams.

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