Effect Of Information And Communication Technology On Organizational Performance In Unga Limited Eldoret, Kenya

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Abstract: The purpose of the study was to assess the effect of ICT on the performance of Unga Ltd, Eldoret. The population under the study included the management team, heads of department and employees of Unga Ltd, Eldoret with a total of 65. Questionnaire was used as the data collection instrument. Descriptive and qualitative methods were employed in analyzing data. Tables were used in data presentation. The study found out that the presence of ICT improves service delivery, promotes quality service delivery and increasing organization performance. It was also found out that ICT enhances production in the company, strengthens organizational infrastructure and ensures all the systems are effectively and efficiently working. This study found out that ICT is very important in an organization whereby it enhances in capacity by increasing employees’ efficiency and also it promotes in increasing employee service delivery. ICT was an important aspect on competitiveness of Unga Ltd since it improves supply chain effectively and efficiently by promotes the flow of goods in the organization. The study concludes that ICT is an important aspect on company performance since it increases organization performance based on service delivery, production, employee work force and competitive advantage. The following recommendations were made from the study; the management needs to implement total quality management in the purchase of quality machines in order to increase service delivery. The management also needs to make sure that the ICT equipments used in the processing of the flour are of high quality in order to increase production.

Keywords: ICT, Organizational performance, Unga limited.

I. INTRODUCTION

A. BACKGROUND TO THE PROBLEM

The great expansion of Information and Communication Technologies (ICTs) that has taken place during the last decade has set the stage for a new age of opportunities and challenges in many economic regions. The adoption of quality technologies in many developed countries has been found to have positive effect on the organization’s performance. But not all countries are taking advantage of this kind of revolution in the same way and at the same pace (Owuor, 2004).

Brynjolfsson, Hitt & Yang (2002) showed that firms with a decentralized organizational structure gained higher performance from investments in ICTs than firms with a centralized structure. These results are consistent with the thesis of strategic complementarities between ICTs and organizational performance originally highlighted by Milgrom & Roberts (1990). In addition, Gretton, (2004) have observed that the impacts of ICTs' use on the performance growth in Australian firms were generally related to the level of human capital and skills within firms, as well as experience of these firms in innovation, adoption of advanced professional practices and intensity of organizational changes, Gera & Gu,
(2004) and Loveman & Lichtenberg (1994) obtained similar results in the case of Brazil and U.S. firms respectively.

According to Owuor, (2004) adoption of ICT in the Kenya firms is not only applicable for their competitive drive to stay ahead in technological progress, but also has a direct proposition for the performance of small local companies in the country. Unlike in the 1990’s, the majority of companies in the manufacturing industry have developed and have built up substantial financial resources and competence and are determined to compete with the industry major players in the use of ICT (www.ipea.co.ke). However, they still have to tackle issues such as the lack of experienced human resources, and the need for improved awareness of cutting-edge technology expertise, and business processes. The coming on of modern internet-based ICTs in the 1990s has increased the attention of firms in their aspiration to keep pace with their competitors.

In 2004, Kenya launched a nationwide program to promote the adoption of Information and Communication Technologies (ICTs) by local firms. A recent survey, carried out by the Kenya National Bureau of Statistics in 2009, reveals that 56% of companies have invested in at least a basic form of ICTs. However, it is unclear whether and to what extent these technologies have contributed to the growth of firms’ performance. This issue is ever more important since about 40 percent of local firms are still reluctant to use ICTs (RIA, 2010).

Information and communication technology (ICT) adoption have benefits for the growth of firms Oladejo & Adereti,(2010) asserts that Enterprises can benefit as users of ICT through increased productivity, faster communications, and reaching new customers. One of the main factors that influences the success or failure of Enterprises is technology. According to Oladejo, (2008), through the application of ICT, firms will become more competitive, new markets will be accessed, and new employment opportunities will be created and it will generate wealth and sustainable economic growth. Akande & Yinus (2013) also argued that Information technology has effect on Business operation. Many organizations have implemented the use of information and communication technology (ICT) in order to develop the products and services they offer to their customers.

The role of ICT in improving business performance is however at the forefront of development strategies (UNCTAD, 2003; 2005). Theoretically, ICTs can significantly contribute to firms’ performance through the improvement of production processes; especially by facilitating transactions and by stimulating labor productivity and multifactor productivity. This impact stems from the role that ICTs play as an input and on other hand, from their ability to reduce transaction costs and improve the coordination of different activities, not only within the firm (Dedrick et al., 2002), but also externally with business partners (Kaplan & Norton, 1992).

At the macroeconomic level, a set of conditions should also be ensured to allow productive use of ICT at the firm level, namely, the availability of skilled labor, regular electricity supply, adequate telecommunication infrastructure, etc. Thus, in the absence of an enabling environment, it might not be very productive to invest in ICT; may be one reason why firms’ investments in ICT are still very low (Bresnahan, 2002). It is also known that ICTs make services more easily tradable and increase firm’s performance (productivity) in manufacturing enterprises (Manochehri, Al-Esmaïl & Ashrafi, 2012). A growing number of studies confirmed a positive and significant effect on firm’s performance (productivity). In addition, other studies indicate that the firm’s performance effect is not only significant and positive, but increasing in both the private and public sectors.

B. STATEMENT OF THE PROBLEM

The absence of ICT in many firms in Kenya may result in ineffective production and due to current global competition; such firms are likely to lose their market shares. ICT enables the producer to produce customized products that meets the customers’ needs and quality customer service. It also enables the company to gather relevant market information concerning its competitors and changing trends. However, Unga Limited has not put in place adequate ICTs. This has made it lag behind in its production process and technology. With produce in low quantities and therefore has lacked the capacity to receive and process all the maize supplied by the farmers. There is need for the company to embrace information communication technology to overcome this challenge. There has been no specific research conducted in the Unga Limited concerning the roles of ICT in enhancing performance of the Unga Limited in Eldoret. For this reason; the study focused on the effect of ICT on organizational performance at Unga Limited.

C. RESEARCH QUESTIONS

This study was guided by the following research questions:

✓ What is the effect of Information and Communication Technology (ICT) on competitive advantage at Unga Limited?
✓ How does Information and Communication Technology (ICT) affect the production at Unga Limited?
✓ What is the effect of Information and Communication Technology (ICT) on quality service delivery at Unga Limited?
✓ How does Information and Communication Technology (ICT) affect the employee workforce at Unga Limited?

D. SIGNIFICANCE OF THE STUDY

The study will benefit the management and employees to know the importance of ICT and how it impacts the organization performance. It will also be beneficial to the management and employees to know how to improve the performance of Information and Communication Technology (ICT). It will also help them to know the challenges faced in using Information and Communication Technology (ICT) and how to overcome the challenges in order to increase the organization performance. It will also help scholars to know the possible solutions to improve the efficiency and
effectiveness of ICT. In addition the study will be of great benefit to other companies to know how ICT impact their operations in the organization.

E. THEORETICAL FRAMEWORK

This study was guided by TAT which was proposed by Davis (1989), it is a theoretical model aiming to predict and explain ICT usage behavior and what causes potential adopters to accept or reject the use of information technology. Theoretically, TAT is based on the Theory of Reasoned Action (TRA). TAT predicts user acceptance of any technology is determined by two factors: perceived usefulness and perceived ease of use. At Unga Ltd, technology is still being gradually adopted. Most of the processors and related activities are done manually. This theory demonstrates willingness within a user group to employ information technology for the tasks it is designed to support.

F. CONCEPTUAL FRAMEWORK

This study adopted the following conceptual framework as illustrates below. It shows the relationship between Information and Communication Technology (ICT) and competitive advantage, production, quality service delivery and employee workforce.

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance of firms</td>
<td>Competitive Advantage</td>
</tr>
<tr>
<td></td>
<td>Production</td>
</tr>
<tr>
<td></td>
<td>Employer Workforce</td>
</tr>
<tr>
<td></td>
<td>Quality Service Delivery</td>
</tr>
</tbody>
</table>

**Source:** Adopted from the literature of Owuor (2004); Oladejo&Adereti, (2010); Akande and Yinus (2013) and based on Technology Acceptance Theory (TAT).

Figure 1.1: Conceptual Framework

II. LITERATURE REVIEW

A. REVIEW OF THEORIES

a. INNOVATION DIFFUSION THEORY (IDT)

Diffusion theory posits five characteristics of innovations that affect their diffusion: relative advantage (the extent to which a technology offers improvements over currently available tools), compatibility (its consistency with social practices and norms among its users), complexity (its ease of use or learning), trainability (the opportunity to try an innovation before committing to use it), and observability (the extent to which the technology's outputs and its gains are clear to see). Each of these characteristics on its own is insufficient to predict either the extent or the rate of diffusion, but diffusion studies have demonstrated that innovations affording advantages, compatibility with existing practices and beliefs, low complexity, potential trainability, and observability, will be more extensively and rapidly diffused than an innovation with the cluster of opposite characteristics (Rodgers 1990).

Diffusion theory posits five characteristics of innovations that affect their diffusion: relative advantage (the extent to which a technology offers improvements over currently available tools), compatibility (its consistency with social practices and norms among its users), complexity (its ease of use or learning), triability (the opportunity to try an innovation before committing to use it), and observability (the extent to which the technology's outputs and its gains are clear to see). Each of these characteristics on its own is insufficient to predict either the extent or the rate of diffusion. This theory will enable the researcher to understand how ICT has been used to improve operations at Unga Limited if at all it has been embraced and its compatibility with the organizational norms and practices. It will also offer a basis to the answers of the research questions that if at all technology has been used in the operations of the company, and if then has it been of any tangible benefit that can be clearly seen in terms of overall performance.

b. UNIFIED THEORY OF ACCEPTANCE AND USE OF TECHNOLOGY (UTAUT)

Venkatesh et al. (2003) The model considers four constructs as direct determinants of user acceptance and usage behavior, namely performance expectancy, effort expectancy, social influence and facilitating conditions. It provides a tool for managers to assess the likelihood of success of technology introductions and to understand the drivers of acceptance in order to design interventions, which include training or marketing. UTAUT focuses on users who may be less willing to adopt and use new system.

c. BEHAVIORAL THEORY

According to this approach, optimal organization performance is achieved by jointly optimizing both social and technical systems used in production (Mum ford, 2000). Adopting this perspective helps to avoid a purely technological approach to information system. Indeed the fact that information technology is rapidly declining in the cost and growing in power does not necessarily mean enhanced productivity or bottom line –profit. Likewise the fact that a firm has recently introduced a new business procedure and processes does not necessarily mean employees will be more productive. In the absence of investment in new information systems does not mean well for the firm putting in mind the constantly changing production processes and also customer needs that are also becoming dynamic.

B. CRITICISM OF THE THEORIES

Organization invest heavily as per the technology acceptance theory on the belief that I.C.T infrastructure will result in reduced long term costs and efficiency forgetting that automation calls for more than just capital outlay. The consequences of a failed automated system are dire.
Furthermore, technology acceptance theory is defined to demonstrate willingness within a user group to employ information technology for the tasks it is designed to support.

The behavioral theory calls for a complete overhaul of the personnel as the employees will have to be trained and if not declared redundant, the latter will attract resistance and so technological change will be resisted. The resistance of change in itself will negatively impact on performance of the company. This is due to the fact that the organization will have to undergo frictional adjustments in trying to lay off employees, recruiting new ones and also retraining existing employees to suit the new technology. This in itself is a costly process.

The Unified Theory of Acceptance and Use of Technology claims that internal management cost will be reduced, because automation reduces staff number. This is because I.C.T will replace human beings and even perform more activities with lesser time as compared to human person. This contention is partly untrue as the cost of maintaining the IT infrastructure is high as compared to the cost of manual staff, moreover it is believed that IT reduces fraud or eliminates errors but this is misconceived since computers will still have human beings as the operators and so it can be manipulated as well.

C. EMPIRICAL REVIEW

Gretton, J. & D. Parham (2004) conducted a survey of 70 Australian firms. The paper examined the “Effects of ICTs and Complementary Innovations on the performance growth in Australian firms”. The study surveyed the opinion of the Australian firms chosen for the study located in Sydney, Australia. Analysis of Variance (ANOVA) and Factor Analysis were used in order to have insights on the information and communications technology being used by the different Australian firms. Observation was that the effect of ICTs’ use on the performance growth in Australian firms were generally related to the level of human capital and skills within firms, as well as experience of these firms in innovation, adoption of advanced professional practices and intensity of organizational changes. The findings based on the factor analysis of the data found two clear factors affecting the relationship between ICTs’ use and the performance growth in Australian firms. These two factors are labeled as level of human capital and skills within firms. Also the results based on the Analysis of Variance (ANOVA), found that the experience of these firms in innovation, adoption of advanced professional practices and intensity of organizational changes can have significant impact on the relationship between ICTs’ use and the performance growth in Australian firms.

Basant,(2006) conducted a study on “the effect of information and communications technology on firm performance in India”. The data were collected by means of a questionnaire. Basant found out that information and communications technology (ICT) on its own cannot achieve strong, efficient and competitive of firm in India. However, the study, recommended that ICT can be supplemented by other measures such as enhancing the expertise and professionalism of the personnel and bringing about more effective corporate governance to further increase the resilience and competitiveness of the firms in the context of the challenges of a globalized and liberalized environment.

Gera, S. & W. Gu(2004) conducted a study on the “effect of organizational innovation and information and communications technology on firm performance in Brazil”. The data were collected by means of a questionnaire. Factor Analysis was used to have insights on the information and communications technology being used by the different firm in Brazil. The results from the study indicated that the relationships between ICTs and performance of firms depend on particular circumstances in which the ICTs are used i.e. organizational changes and qualification of employees using the information and communications technology (ICT).

Owuor, (2004) conducted a study on “the Impact of ICT adoption on financial performance of commercial banks in Kenya”. The research design used was Correlation. The population of study was the commercial banks in Kenya. The data collection instrument used was questionnaires which was administered by the researcher through drop and pick method. Responses were grouped into various categories for analysis using descriptive statistics. Statistical Package for Social Sciences (SPSS version 17) was used to analyze the structured questions while the use of descriptive statistics determined frequencies and percentages. The results were presented in prose, tables, bar graphs and charts. The study found out that ICT improved the operations, improved the liquidity and the asset quality in commercial banks in Kenya. This not only increased their markets but also helped the organizations to remain competitive in the market. ICT also deepen liquidity of banks in existing markets, for example by reducing excessive reliance on a narrow base of depositors for funding and improves on earnings, asset quality and this increased efficiency in the operations as a whole and especially in commercial banks in emerging markets and developing countries such as Kenya. The research indicates that there is need to adopt ICT innovations in order to improve the commercial banks’ financial performance. The study concluded that in technological innovations, the banks should introduce ICT products that are relatively simple and standard and that offer clear value added. The rapid proliferation and diffusion of ICT in the Banking Industry in Kenya provides a platform to use modern technologies to develop operational efficiency and quality of service to attain and retain customers and in the process enhance the financial performance of the commercial banks.

Kenya National Bureau of Statistics,( 2009) conducted a survey on “On whether Information Technology have an effect on Organizational Performance of insurance companies”. Primary data were collected using a pretested interview guide that was used to interview 10 senior managers drawn from key functional areas of the insurance companies. Secondary data was collected from published annual financial statements of the insurance companies. The data findings were analyzed using Excel software tools and showed a positive relationship between Information Technology and Organizational performance.
D. KNOWLEDGE GAP

Most research has usually focused on direct, easy measurable effects of ICT (e.g. growth, profits etc.) while indirect effects (e.g. competitiveness, productivity, quality service delivery and satisfaction of customers and employees, etc.), especially of ICT on firm’s performance, have been, in general, less studied. Relating all of the above to the goals of manufacturing firms it could be proposed that exceptional attention should be paid to the indirect effects of ICT on firm’s performance. However, the extent through which ICT adoption in production processes and its effects on organization performance is still not clear. For scholars, ICT and its adoption in production is an upcoming phenomenon in the business fraternity, and needs to be critically analyzed. For production/ operation managers, ICT adoption in production applications creates a need to understand the impact of information technology on the achievement of organization goals on a practical level. Therefore this study assists in providing information on the effect of ICT on organization performance.

III. RESEARCH DESIGN AND METHODOLOGY

A. RESEARCH DESIGN

The research design that was used in this study was an ex-post facto research design, since there was cause and effect relation.

B. TARGET POPULATION

The target populations under this study was 65 comprising of 5 corporate management team (1 manager and 4 head of departments), and 60 employees of Unga limited in order to get information on the effect of ICT on organizational performance at Unga limited Eldoret, Kenya. Hence the target population was 65 respondents

C. DESCRIPTION OF THE SAMPLE SIZE AND SAMPLING PROCEDURE

The study employed both simple random sampling technique and purposive sampling technique. Simple Random Sampling technique was used to select 28 employees (7 employees from each of the 4 departments: Technical Department, Commercial Department, Finance Department and Administration Department). The 5 Corporate Management Team (CMT) comprising of the Managing Director, Head of Technical Services, Head of Financial Services and Head of Commercial Services from Unga limited were used in the study. Sampling technique is the procedure a researcher uses to gather people, places or things to study (Red, 2007).

Simple random sampling technique was used to select the most informed respondents from the organization. The management team was also included in the sample for the study. Hence the sample size was 33 respondents

<table>
<thead>
<tr>
<th>Category</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managing Director</td>
<td>01</td>
</tr>
<tr>
<td>Heads of Department</td>
<td>04</td>
</tr>
<tr>
<td>Employees</td>
<td></td>
</tr>
<tr>
<td>Technical Department</td>
<td>13</td>
</tr>
<tr>
<td>Commercial Department</td>
<td>25</td>
</tr>
<tr>
<td>Finance Department</td>
<td>10</td>
</tr>
<tr>
<td>Administration Department</td>
<td>12</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>65</strong></td>
</tr>
</tbody>
</table>

Source: Unga Limited Human resource data as at 31 September 2014
Table 3.1: Shows the Sample Size

D. DESCRIPTION OF THE RESEARCH INSTRUMENT

The researcher used a questionnaire as the only research instrument. The questionnaire was issued to all the respondents chosen for the study to seek their responses on the research questions. The questionnaire was divided into 2 sections, section A and section B. Section A has demographic data of the respondents such as age, gender and years worked in the organization (background information) while section B contained respondent’s perceptions on the various effect of ICT on organizational performance at Unga limited Eldoret, Kenya (specific information) which assisted the researcher to be able to answer the research questions.

E. DESCRIPTION OF DATA ANALYSIS PROCEDURE

The structured questionnaires were coded in respect to questions for ease of electronic data processing prior to the commencement of the fieldwork. After tabulation, the data were coded to facilitate statistical analysis. Descriptive statistics such as percentages and frequency distribution were used to enable the researcher to meaningfully describe the distribution of measurements.

F. ETHICAL CONSIDERATIONS

Before an individual becomes a subject of research, he/she was notified of: the aims, methods, anticipated benefits and potential hazards of the research; his/her right to abstain from participation in the research and his/her right to terminate at any time his/her participation; and the confidential nature of his/her replies. No pressure or inducement of any kind was applied to encourage an individual to become a subject of research. The identity of individuals from whom information was obtained in the course of the project was kept strictly confidential.
IV. RESULTS

Frequency tables, charts and graphs were used to present statistics pertaining to the information collected from the field. The results in regards to the effect of ICT in Unga Limited Eldoret and its effect on the performance of the firm are presented below.

1. BACKGROUND INFORMATION OF RESPONDENTS

a. ACADEMIC QUALIFICATION OF RESPONDENTS

The study sought to compare the gender characteristics by Education level of the respondents to determine which gender was more educated, in Table 4.1 below.

<table>
<thead>
<tr>
<th>Sex</th>
<th>Certificate</th>
<th>Diploma</th>
<th>Degree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>08</td>
<td>10</td>
<td>08</td>
<td>26</td>
</tr>
<tr>
<td>Percentage</td>
<td>13%</td>
<td>17%</td>
<td>13%</td>
<td>43.0%</td>
</tr>
<tr>
<td>Male</td>
<td>08</td>
<td>14</td>
<td>12</td>
<td>34</td>
</tr>
<tr>
<td>Percentage</td>
<td>13%</td>
<td>23%</td>
<td>21%</td>
<td>57.0%</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>24</td>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>Percentage</td>
<td>26.0%</td>
<td>40.0%</td>
<td>34.0%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Primary data (2015)

Table 4.1: Gender Characteristics by Education level of the Respondents

The data collected showed that 26% of the respondents were certificate holders while 34% were degree holders and 40% were holders of a diploma. This shows that majority of respondents had reached diploma level implying that the company had strong work force and therefore had some knowledge and were able to effectively participate in the study as they could understand the objective of the study and the questions that were in the questionnaires.

b. DURATION SERVED BY RESPONDENTS IN THE COMPANY

The study also compared the gender characteristics of the respondents with work experience and obtained the findings summarized in Table 4.2.

<table>
<thead>
<tr>
<th>Sex</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>07</td>
<td>07</td>
</tr>
<tr>
<td>Male</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>23%</td>
<td>30%</td>
</tr>
</tbody>
</table>

Source: Primary data (2015)

Table 4.2: Gender Characteristics by Work Experience

From the data it was established that 23% of the respondents, had served for a period of less than ten years, 30% had served for between 10 and 14 years, while 27% had served between 15 and 19 years, 10% had served between 20 and 29 years and 10% had served for 30 years and above. The results shows majority of respondents had served between 10 years and 14 years. This implied that they had enough experience on the background of the company and hence their responses could be sufficient for the study.

c. THE EFFECT OF ICT ON COMPETITIVE ADVANTAGE AT UNGA LIMITED, ELDORSET

The researcher sought to identify the effect of ICT on competitive advantage at Unga Limited Eldoret.

Table 4.3 below show the results regarding the effect of ICT on competitive advantage at Unga Limited Eldoret.

<table>
<thead>
<tr>
<th>Effect on competitive advantage</th>
<th>Descriptive</th>
<th>%</th>
<th>Frequency</th>
<th>%</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improves supply chain effectively and efficiently</td>
<td>Frequency</td>
<td>20</td>
<td>16</td>
<td>8</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Percentage</td>
<td>33.3</td>
<td>26.7</td>
<td>13.3</td>
<td>10</td>
<td>16.7</td>
<td>10</td>
</tr>
<tr>
<td>Helps the company to provide its customers superior products</td>
<td>Frequency</td>
<td>20</td>
<td>16</td>
<td>6</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Percentage</td>
<td>33.3</td>
<td>26.7</td>
<td>10</td>
<td>16.7</td>
<td>13.3</td>
<td>10</td>
</tr>
<tr>
<td>Enhance the company to use upgraded technology in terms of machines</td>
<td>Frequency</td>
<td>24</td>
<td>18</td>
<td>6</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Percentage</td>
<td>40</td>
<td>30</td>
<td>10</td>
<td>13.3</td>
<td>6.7</td>
<td>10</td>
</tr>
<tr>
<td>Helps the company to know its</td>
<td>Frequency</td>
<td>22</td>
<td>16</td>
<td>8</td>
<td>6</td>
<td>8</td>
</tr>
</tbody>
</table>

The researcher sought to identify the effect of ICT on competitive advantage at Unga Limited Eldoret.

Table 4.3 below show the results regarding the effect of ICT on competitive advantage at Unga Limited Eldoret.
The researcher sought to determine the effect of ICT on production at Unga Limited, Eldoret. Table 4.4 below shows the results regarding the effect of ICT in the production process.

### Effect of ICT on Production at Unga Limited, Eldoret

<table>
<thead>
<tr>
<th>Effect on production</th>
<th>Descriptive</th>
<th>SA</th>
<th>A</th>
<th>UD</th>
<th>D</th>
<th>SD</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhance and strengthen organizational infrastructure</td>
<td>Frequency</td>
<td>20</td>
<td>18</td>
<td>4</td>
<td>10</td>
<td>8</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Percent age</td>
<td>33.3</td>
<td>30</td>
<td>6.7</td>
<td>16.7</td>
<td>13.3</td>
<td>100</td>
</tr>
<tr>
<td>Enhance in tracking organizational production</td>
<td>Frequency</td>
<td>24</td>
<td>18</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Percent age</td>
<td>40</td>
<td>30</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>Promotes in the reduction</td>
<td>Frequency</td>
<td>26</td>
<td>20</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>60</td>
</tr>
</tbody>
</table>

### Key
- **SA:** Strongly Agree
- **A:** Agree
- **UD:** Undecided
- **D:** Disagree
- **SD:** Strongly Disagree

### Source
- Primary data (2015)

### Table 4.3: Effect of ICT on competitive advantage at Unga Limited Eldoret

The findings indicate that 33.3% of the participants strongly agreed, 26.7% agreed, 13.3% were undecided, 10% disagreed and 16.7% strongly disagreed that ICT improves supply chain effectively and efficiently where it promotes the supply of goods in the organization and outside the goods in the right time and at the right place.

The results shows 33.3% of the respondents strongly agreed, 26.7% agreed, 10% were undecided, 16.7% disagreed and 13.3% strongly disagreed that it helps the company to provide its customers superior products.

From the findings 40% of the responses strongly agreed, 30% agreed, 10% were undecided, 13.3% disagreed and 6.7% strongly disagreed that it enhances the company to use automated machineries.

The study shows 36.7% of the respondents strongly agreed, 26.7% agreed, 13.3% were undecided, 10% disagreed and 13.3% strongly disagreed that it helps the company to know its competitor strengths and weaknesses.

Information Communication Technology at Unga Limited Eldoret is very important especially on the competitive advantage, since majority of the employees were of the opinion that ICT improves the supply of goods in the organization and outside the goods in the right time and at the right place. It also helps the company to provide its customers with superior products, enhances the company to use upgraded technology in terms of machines and also helps the company to know its competitors strengths and weaknesses.

d. **THE EFFECT OF ICT ON PRODUCTION AT UNGA LIMITED ELDOROT**

The researcher sought to determine the effect of ICT on production at Unga Limited Eldoret. Table 4.4 below shows the results regarding the effect of ICT in the production process.

### Table 4.4: Effect of ICT on production at Unga Limited Eldoret

The results shows 33.3% of the respondents strongly agreed, 30% agreed, 10% were undecided, 16.7% disagreed and 13.3% strongly disagreed that use of ICT enhances and strengthens organizational infrastructure in the company making sure all the systems and machines work effectively and efficiently hence increasing the production of the organization.

From the data collected, 40% of the respondents strongly agreed, 30% agreed, 10% were undecided, 10% disagreed and 10% strongly disagreed that it enhances tracking of organization production making sure the production of the organization are produced in the right quantity and quality.

From the findings 43.4% of the respondents strongly agreed, 33.3% agreed, 3.3% were undecided, 10% disagreed and 10% strongly disagreed that it also enhances the organization in the use of preservation system after production hence maintaining products not to be spoiled for long.

In addition the data shows 36.7% of the respondents strongly agreed, 30% agreed, 10% were undecided, 10% disagreed and 10% strongly disagreed that it promotes in the reduction of waste products hence increasing production.

From the findings majority of respondents asserted that ICT is very important in the company’s production since it enhances and strengthens organizational infrastructure in the company making sure all the systems and machines work effectively and efficiently hence increasing the production of the organization, also it enhances tracking of organization products making sure the production of the organization are in the right quantity. In addition it promotes the reduction of waste products hence increasing production.

e. **THE EFFECT OF ICT ON EMPLOYEE WORKFORCE AT UNGA LIMITED ELDOROT**

The researcher sought to find out the effect of ICT on employee workforce at Unga Limited, Eldoret. Table 4.5
below show the results regarding the effect of ICT on employee workforce at Unga Limited, Eldoret

<table>
<thead>
<tr>
<th>Effect on employee workforce</th>
<th>Descriptive</th>
<th>SA</th>
<th>A</th>
<th>UD</th>
<th>D</th>
<th>SD</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhance in capacity by increasing employee's efficiency</td>
<td>Frequency</td>
<td>20</td>
<td>16</td>
<td>6</td>
<td>10</td>
<td>8</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Percentage</td>
<td>33.3</td>
<td>26.7</td>
<td>10</td>
<td>16.7</td>
<td>13.3</td>
<td>100</td>
</tr>
<tr>
<td>Promotes in increasing employee service delivery</td>
<td>Frequency</td>
<td>22</td>
<td>16</td>
<td>6</td>
<td>6</td>
<td>10</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Percentage</td>
<td>36.6</td>
<td>26.7</td>
<td>10</td>
<td>16.7</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Promotes to employee skilled personnel in the using of the ICT</td>
<td>Frequency</td>
<td>24</td>
<td>16</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Percentage</td>
<td>40</td>
<td>26.7</td>
<td>13.3</td>
<td>10</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>Enhance the employees operations to be run effectively and efficiently</td>
<td>Frequency</td>
<td>22</td>
<td>18</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Percentage</td>
<td>36.7</td>
<td>30</td>
<td>13.3</td>
<td>10</td>
<td>10</td>
<td>100</td>
</tr>
</tbody>
</table>

Key: (SA: Strongly Agree; A: Agree; UD: Undecided; D: Disagree and SD: Strongly Disagree)

Source: Primary data (2015)

Table 4.5: Effect of ICT on employee workforce at Unga Limited, Eldoret

From the findings 33.3% of the respondents strongly agreed, 26.7% agreed, 10% were undecided, 16.7% disagreed and 13.3% strongly disagreed that ICT plays a major role in an organization since it enhances capacity by increasing employees’ efficiency.

The results shows 36.6% of the participants strongly agreed, 26.7% agreed, 10% were undecided, 10% disagreed and 16.7% strongly disagreed that it increases employee service delivery.

The findings indicates 40% of the response strongly agreed, 26.7% agreed, 13.3% were undecided, and 10% strongly disagreed that it promotes employee skilled personnel in the use of the ICT.

In addition the study shows 36.7% of the respondents strongly agreed, 30% agreed, 13.3% were undecided, 10% disagreed and 10% strongly disagreed that it enhances the employees operations to be run effectively and efficiently.

Information communication technology plays a major role in the company’s operations especially on employee workforce since it enhances capacity by increasing employees’ efficiency, also it promotes employee service delivery, promotes employee skilled personnel in the use of ICT and in addition it enhances the employees operations to run effectively and efficiently.

f. THE EFFECT OF ICT ON QUALITY SERVICE DELIVERY AT UNGA LTD. ELDORET

The researcher sought to investigate the effect of ICT on quality service delivery at Unga Ltd. Table 4.6 below show the findings regarding the effect of ICT on the quality of service delivery at Unga Ltd. Eldoret.

<table>
<thead>
<tr>
<th>Effect on quality service delivery</th>
<th>Descriptive</th>
<th>SA</th>
<th>A</th>
<th>UD</th>
<th>D</th>
<th>SD</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhance the company to use automated machines in the weighing of flour at the processing point</td>
<td>Frequency</td>
<td>30</td>
<td>16</td>
<td>4</td>
<td>6</td>
<td>4</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Percentage</td>
<td>50.0</td>
<td>26.7</td>
<td>6.7</td>
<td>10.0</td>
<td>6.7</td>
<td>100</td>
</tr>
<tr>
<td>Promotes the company in increasing quality service delivery</td>
<td>Frequency</td>
<td>24</td>
<td>20</td>
<td>4</td>
<td>8</td>
<td>4</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Percentage</td>
<td>40.0</td>
<td>33.3</td>
<td>6.7</td>
<td>13.3</td>
<td>6.7</td>
<td>100</td>
</tr>
<tr>
<td>Reduce wastage of time</td>
<td>Frequency</td>
<td>18</td>
<td>16</td>
<td>8</td>
<td>8</td>
<td>10</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Percentage</td>
<td>30.0</td>
<td>26.7</td>
<td>13.3</td>
<td>13.3</td>
<td>16.7</td>
<td>100</td>
</tr>
<tr>
<td>Promotes in service coordination</td>
<td>Frequency</td>
<td>22</td>
<td>18</td>
<td>6</td>
<td>6</td>
<td>8</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Percentage</td>
<td>36.7</td>
<td>30.0</td>
<td>10.0</td>
<td>10.0</td>
<td>13.3</td>
<td>100</td>
</tr>
</tbody>
</table>

Key: (SA: Strongly Agree; A: Agree; UD: Undecided; D: Disagree and SD: Strongly Disagree)

Source: Primary data (2015)

Table 4.6: Effect of ICT on quality service delivery at Unga Ltd Eldoret

From the findings 50% of the respondents strongly agreed, 26.7% agreed, 6.7% were undecided, 10% disagreed and 6.7% strongly disagreed that use of ICT at Unga Limited enhance the company to use automated machines in the weighing of flour at the processing point where queuing time is minimized improving service delivery.

The results indicates 40% of the response strongly agreed, 33.3% agreed, 6.7% were undecided, 13.3% disagreed and 6.7% strongly disagreed that ICT promotes the company in increasing quality service delivery hence increasing organization performance.

The results shows 30% of the respondents strongly agreed, 26.7% agreed, 13.3% were undecided, 13.3% disagreed and 16.7% strongly disagreed that use of ICT in the organization reduces wastage of time hence increasing service delivery to its customers since it easy access to customer and organization information.

From the data collected, 36.7% of the respondents strongly agreed, 30% agreed, 10% were undecided, 10% disagreed and 13.3% strongly disagreed that it promotes service coordination in the organization hence increasing organization performance.

Use of ICT at Unga Limited Eldoret, promotes quality service delivery where majority of the respondents were of the opinion that it enhances the company to use automated...
machines in the weighing of flour at the processing point. It minimizes long queues hence increasing service delivery, it also promotes the company in increasing quality service delivery hence increasing organizational performance, in addition it reduces wastage of time hence increasing service delivery to its customers since it easy access to customer and organization information and promotes service coordination in the organization hence increasing organizational performance.

g. LEVEL OF ICT USED AND PERFORMANCE UNGA LIMITED ELDORET

Table 4.7 and Figure 4.3 below shows data as regards the level of ICT used and the performance of Unga Limited Eldoret

<table>
<thead>
<tr>
<th>level of ICT used and the performance of Unga Limited Eldoret</th>
<th>Descriptive</th>
<th>SA</th>
<th>A</th>
<th>UD</th>
<th>D</th>
<th>SD</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhance the company to use automated machines in the weighing</td>
<td>Frequence</td>
<td>38</td>
<td>14</td>
<td>04</td>
<td>04</td>
<td>00</td>
<td>60</td>
</tr>
<tr>
<td>of flour at the processing point</td>
<td>Percent age</td>
<td>63.33</td>
<td>23.33</td>
<td>6.67</td>
<td>6.67</td>
<td>00</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Primary data (2015)

Table 4.7: Level of ICT used and performance of Unga Limited Eldoret

Figure 4.3: level of ICT used and performance of Unga Limited Eldoret

Source: Primary data (2015)

Figure 4.3: level of ICT used and performance of Unga Limited Eldoret

An average of 66.67% of the respondents agreed that the benefits of adopting ICT outweigh the cost of adopting ICT. Only 10% of the respondents were unsure. This means the company enjoys more benefits when it adopts ICT than the cost it will incur in adopting the same

G. DISCUSSIONS AND CONCLUSIONS

A. SUMMARY OF THE FINDINGS

a. BACKGROUND INFORMATION OF THE RESPONDENTS

From the findings it shows majority of respondents had reached diploma level implying that the company had strong working force and therefore had some knowledge and therefore were able to effectively participate in the study as they could understand the objective of the study and the questions that were in the questionnaires. The results shows majority of respondents had served between 10 years and 14 years since the employees are always transferred to other branches due to the Company’s Act.

b. EFFECT OF ICT ON QUALITY SERVICE DELIVERY AT UNGA LIMITED ELDORET

Internally, improved IT systems can enhance and strengthen organizational infrastructure and capacity by increasing employees’ efficiency; service coordination; information sharing between departments, financial record keeping and tracking of an organization’s production and impact. Externally, information technology solutions can fundamentally transform business organization service delivery

Use of ICT at Unga Limited Eldoret promotes in quality service delivery where by majority of the respondents were on the opinion that it enhances the company to use upgraded
machines in the weighing of flour at the processing point where by it minimizes long queues hence increasing service delivery, it also promotes the company in increasing quality service delivery hence increasing organization performance, in addition it reduces wastage of time hence increasing service delivery to its customers since it easy access to customer and organization information and promotes service coordination in the organization hence increasing organization performance.

c. **EFFECT OF ICT ON PRODUCTION AT UNGA LIMITED ELDORET**

From the findings majority of respondents asserted that ICT is very important in the company production since it enhances and strengthens organizational infrastructure in the company making sure all the systems and machines work effectively and efficiently hence increasing the production of the organization, also it enhances tracking of organization production making sure the production of the organization are produced in the right quantity and quality and enhances tracking of organization production making sure the production of the organization are produced in the right quantity and quality. Due to the globalization of markets and competitive developments in the demand for new technologies and innovations hand in small businesses and large industries are growing and even large companies that are able to survive in competitive markets and to make sure market share for years and also have found that competition in the business world rapidly increasingly difficult and to survive and prosper should learned that it had been following the development activities and to respond to business changes rapidly and created regular improvement and modernization of production and processes, (Eraut, 1998).

d. **EFFECT OF ICT ON EMPLOYEE WORKFORCE AT UNGA LIMITED ELDORET**

Information communication technology plays a major role in company operations especially on employee workforce since it enhances in capacity by increasing employees’ efficiency, also it promotes in increasing employee service delivery, promotes to employee skilled personnel in the using of the ICT and in addition it enhances the employees operations to be run effectively and efficiently.

e. **EFFECT OF ICT ON COMPETITIVE ADVANTAGE AT UNGA LIMITED ELDORET**

Information Communication Technology in Unga Limited Eldoret is very important especially on the competitive advantage since majority of the employees were on the opinion that ICT improves supply chain effectively and efficiently where it promotes the supply of goods in the organization and outside the goods in the right time and at the right place, helps the company to provide its customers superior services, enhances the company to use upgradted technology in terms of machines and also helps the company to know its competitor strengths, and weakness.

B. **CONCLUSIONS**

Information communication technology is very important since it increases organization performance based on service delivery, production, employee workforce and competitive advantage. Introduction of ICT at Unga Limited Eldoret has played an important role since it has increase the company performance.

Information communication technology at Unga Limited Eldoret enhances service delivery by minimizes long queues hence increasing service delivery, it also promotes the company in increasing quality service delivery hence increasing organization performance, in addition it reduces wastage of time hence increasing service delivery to its customers since it easy access to customer and organization information and promotes service coordination in the organization hence increasing organization performance.

In addition ICT affects Unga Limited Eldoret production since it enhances and strengthens organizational infrastructure in the company making sure all the systems and machines work effectively and efficiently hence increasing the production of the organization, also it enhances tracking of organization production making sure the production of the organization are produced in the right quantity and quality and enhances tracking of organization production making sure the production of the organization are produced in the right quantity and quality. In addition it promotes in the reduction of waste products hence increasing production.

Moreover ICT affects company competitive advantage since it improves supply chain effectively and efficiently where it promotes the supply of goods in the organization and outside the goods in the right time and at the right place, helps the company to provide its customers superior services, enhances the company to use upgraded technology in terms of machines and also helps the company to know its competitor strengths, and weakness.

C. **RECOMMENDATIONS**

Based on the findings, the following recommendations are made to improve effectiveness and efficiency of Information Communication Technology hence improving performance of Unga Limited Eldoret.

- The management needs to implement total quality management in order to purchase quality machines in order to increase service delivery in the company.
- The operations management needs to make sure the ICT equipment’s used in the processing of the flour are of high quality in order to increase production of the company.
- The management needs to employ skilled personnel who are conversant with use of ICT in order to increase employee workforce.
- The management needs to introduce high quality ICT equipment in the company in order to increase competitive advantage hence increasing company performance.
D. AREAS RECOMMENDED FOR FURTHER STUDIES

Given that research is a continuous process, the following areas are for further research:

- An assessment on the challenges faced in implementation of ICT in processing firms.
- The impacts of ICT on company efficiency.

REFERENCES


[34] Owuor, O. (2004): The use of Information Technology as a facilitator of Business Process Re-engineering; An unpublished MBA project, UoN


