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ASSESSING INFORMATION COMMUNICATION TECHNOLOGY AS A STRATEGIC TOOL IN THE DELIVERY OF JUDICIAL SERVICES

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# ASSESSING INFORMATION COMMUNICATION TECHNOLOGY AS A STRATEGIC TOOL IN THE DELIVERY OF JUDICIAL SERVICES

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#### Abstract

*Purpose*: The purpose of the study was to assess the information communication technology as a strategic tool in the delivery of judicial services.

*Methodology:* The study adopted a descriptive case study design. The population of the study was staff drawn from various departments of the judiciary. The sample of 59 was selected using a stratified sampling technique. The data collection tool was questionnaire. The data was analyzed using descriptive statistics such as means, frequencies and percentages. In addition, SPSS was used to conduct factor analysis.

*Results:* Results indicate that the factors that affect the strategic adoption of ICT in the judiciary had a positive relationship with the adoption of ICT. The findings indicated that the judiciaries in Kenya face low adoption of ICT.

Unique contribution to theory, practice and policy: Following the study results, the judiciary was recommended to introduce induction training in basic computer packages. The judiciary was also recommended to change the attitudes and perception of staff towards technological factors which include the perceived relative advantage of ICT, compatibility of ICT, complexity of ICT, Triability of ICT, and observability of ICT. It was also recommended that the organization should have adequate resources so as to enhance smooth adoption of ICT. The judiciary was also recommended to try and incorporate young people in the system as they tend to embrace ICT as compared to older managers, employ qualified personnel who are enthusiasts, pragmatists and artisans.

*Keywords: Skills and competence, strategic adoption of ICT, technological factors, leadership and management and organizational attributes.* 

#### **1.0 INTRODUCTION**

#### **1.1 Background of the Study**

Democratization forces and pressures for more market-oriented economies have made judicial reform a priority for modernizing the machinery of government in many countries. This is equally true for countries rooted in European civil law or English common law traditions. The reformers' vision was for the judiciary to deliver more equitable, expeditious and transparent services to citizens, the legal profession and the state. They wished for an effective judiciary—



capable of enforcing the rule of law—to be strong and independent, consistent in high quality operations, adequate in size, dignified and efficient. They hoped it would foster an enabling legal and judicial environment that was conducive to trade, financing and investment and promotes social peace and trust (Malik, 2002).

Velicogna (2007) argued that to achieve those purposes, judicial reform—improvement in the quality and efficiency of the administration of justice—typically involved: simplifying and rationalizing laws and procedures; strengthening the independence of judges; improving the administration of the courts; balancing the costs of justice; upgrading the physical facilities of the courts; improving legal education, training, and user perception of the legal system; expanding access to justice for the poor and other disadvantaged groups; enhancing the quality of the legal profession; providing alternative dispute resolution mechanisms; and strengthening the impact of court decisions on society at large. All these elements are interrelated, multidimensional and need attention over the medium and long term. The administration of justice was essentially a service delivered by the state to the community in order to preserve social peace and facilitate economic development through the resolution of disputes, the enforcement of criminal justice, and the determination of laws (Shollei, 2009).

Indicators of inefficient and ineffective administration of justice included lengthy case delays; extensive backlogs of cases; limited access to justice; a lack of transparency and predictability in court decisions; a shortage of financial, physical and other resources; and weak public confidence in the judicial system. Such inefficiencies are more pronounced in African countries within and without the Commonwealth (Velicogna , 2007).

Most of the Commonwealth States are developing countries, more so those in the African, Asia and Caribbean regions. The common denominators in these countries are low per capita income, widespread poverty, and low capital formation. The Judiciary in these countries has suffered as a result. These countries usually lack resources to adequately support the judicial sector of governance. The number of judges as compared to the population they serve is inadequate. For instance, in Kenya, the total number of High Court judges is about 50 as opposed to the total population numbering about 30 million. Canada, on the other hand, has about 1150 judges serving a similar population of about 30 million. The number of court stations were also too few in number to adequately meet the needs of the public (Shollei, 2009).

Informational Communication Technology (ICT) has been used as a tool by various countries to harness significant social and economic development. Just like industrialization revitalized some economies during the 19<sup>th</sup> century, ICT has been used to spur economic growth in some countries. ICT is an increasingly powerful tool for participating in global markets; promoting political accountability; improving the delivery of basic services; and enhancing local development opportunities (Velicogna, 2010).

Many of the current debates in the e-Justice field focus on the development and implementation of e-filing, organizational and cross national borders data exchange and systems integration. In this short paper I will instead address the role and some of the dynamics and emergent problems related to the development, implementation, maintenance and evolution of ICT within courts of justice, using examples from numerous European studies. These technologies can be divided into four groups based upon their technological but also organizational characteristics and functions.



The first group consists of basic computer technologies such as desktop computers, word processing programs, spreadsheets and both internal and external e-mail for judges as well as administrative personnel. The second group consists of applications used to support the court's administrative personnel, which include automated registries and case management systems. The third group consists of technologies supporting the judges' activities, such as law and case law electronic libraries, and sentencing support systems. Finally, the fourth group includes the technologies used in the courtroom (Velicogna, 2010).

# **1.2** Statement of the problem

According to Shollei (2009), indicators of inefficient and ineffective administration of justice include lengthy case delays; extensive backlogs of cases; limited access to justice; a lack of transparency and predictability in court decisions; a shortage of financial, physical and other resources; and weak public confidence in the judicial system. Such inefficiencies are more pronounced in African countries within and without the Commonwealth. Kenya being a common wealth country is not an exception to the inefficient and ineffective administration of justice. Shollei (2009) asserts that the grim picture in the Kenyan judiciary can be remedied by the use of ICT. Shollei (2009) argues that the use of ICT is considered one of the key elements to significantly improve the administration of justice. ICT can be used to enhance efficiency, access, timeliness, transparency and accountability, helping the judiciaries to provide adequate services. New possibilities are emerging for the integration and automation of court procedures and practices. In addition, the use of the internet, can offer the chance to open the Judiciary to the public, providing both general and specific information on its activities, thereby increasing legitimacy. The problem is that despite the realization of the importance of ICT in facilitating the delivery of justice, the rate of ICT adoption in Kenyan Judiciary is very low.

The low adoption of ICT in the Judiciary may have negative consequences to the speedy administration of justice. For instance, a Daily Nation article published on 19<sup>th</sup> February 2010, asserted that hundreds of thousands of people are languishing in prison because their cases are still pending. Some have been waiting for as long as 10 years. By the end of 2008, there was a backlog of 788,595 cases. According to the article, the backlog may increase to about one million cases by the year 2012.

Studies on low adoption of ICT and the factors affecting the strategic adoption of ICT include Shollei (2009), Menjo and Boit (2005), Golding et al (2010) and Velicogna (2010). From a contextual point of view, studies such as Golding et al (2010) was carried out in rural and urban Jamaica and Velicogna (2010) was carried out in Italy. The findings of the two studies may not necessarily apply to Kenyan courts because Kenya is a developing country and its socio economic and political settings are different from Italy and Jamaica. Another study with a contextual gap is Menjo and Boit (2005) since it addressed factors affecting ICT adoption in secondary schools. However, all of these studies suffered from both conceptual gaps and contextual gaps. From a conceptual standpoint, the studies were not grounded on a strong theoretical background. In addition, some of the studies did not aim to identify the factors affecting the low adoption of ICT but rather attempted to identify the role and potential use of



ICT. It is from these evident research gaps that the study wishes to establish the factors that affect the strategic adoption of ICT in the Kenyan Judiciary.

#### **1.3 Objective of the Study**

The objective of the study was to assess the adoption of Information Communication Technology as a strategic tool in the delivery of services in the judiciary taking a case study of the Milimani Commercial Courts.

#### 2.0 LITERATURE REVIEW

#### **2.1 Theoretical Review**

#### **2.1.1: Innovation Diffusion Theory (IDT).**

Innovation diffusion theory provides well-developed concepts and a large body of empirical results applicable to the study of technology evaluation, adoption and implementation. Diffusion theory provides tools, both quantitative and qualitative, for assessing the likely rate of diffusion of a technology, and additionally, identifies numerous factors that facilitate or hinder technology adoption and implementation. These factors include characteristics of the technology, characteristics of adopters, and the means by which adopters learn about and are persuaded to adopt the technology (Rogers 1983). It is not surprising then, that innovation diffusion is becoming an increasingly popular reference theory for empirical studies of information technologies (IT).

Much of classical diffusion theory was developed in the context of adopters making voluntary decisions to accept or reject an innovation based on the benefits they expect to accrue from their own independent use of the technology. Yet, adoption of IT may be encouraged by management (Leonard-Barton and Deschamps 1988) or even mandated (Moore and Benbasat 1991). Adopters, rather than making a binary decision to adopt or reject, may choose differing levels of IT use (Bayer and Melone 1989). In addition, the adoption decision of individuals or organizations may depend on the dynamics of community-wide levels of adoption (i.e., whether

"Critical mass" has been established) because of network externalities (Katz and Shapiro 1986; Markus 1987). These sorts of complicating factors are quite common in the context of IT adoption; hence, the opportunities to apply classical diffusion "as is" may be rare indeed.

#### 2.2 Empirical Review

Rogers (1983) pioneered the study of innovation diffusion patterns in social systems – including social programs, fads, and products and services. His work is especially applicable to evaluating new technology in IT - namely the behavioral factors that enable or impede the acceptance of a new technology, service, or policy innovation. Rogers (1983) posited five basic factors that govern the rate of the Diffusion of Innovation (DOI). Technology innovators should plan to address all the factors in order to maximize their probability of success.Technological factors may influence the decision to adopt ICT or the extent to which ICT adoption. Technological factors include the perceived relative advantage of ICT, compatibility of ICT, complexity of ICT, Triability of ICT, observability of ICT.



Previous research suggested that managers/owners are a key influence in determining use of ICT which is impacted by their attitudes, level of ICT skills, and management orientation. Martin and Margi (2003) also argued that managers/owners of SMEs that are attracted to ICT tend to be more entrepreneurial, innovative and risk takers. In addition, Braun (2004) found that the education and professional background of managers/owner have proven to be a significant factor to the adoption of ICT. In terms of attitude, Dixon et al (2002) in citing Blackburn and McClure (1998) characterized management into three (3) categories, namely, enthusiasts, pragmatists and artisans. Enthusiasts have high IT skills, positive attitude towards IT and have an IT management focus. Artisans on the other hand have low IT skills, an unconvinced attitude and IT operations / administrative focus.

The impact of organizational attributes on the adoption of ICT has been identified in the literature as an area which warrants further attention. According to Taylor (2003) and Dixon et al (2002) organizations are not a homogeneous set as they vary significantly by size, age, sector, motivation, mode of organization, ethnic background, location, knowledge base, power and control of resources, and innovative capacity among other things. Taylor (2003) elaborates further that all these characteristics can directly affect the organization's adoption of ICT. This may be seen in Braun's (2004) citing the example given by Werthner and Klein (1999) that highlighted the fact that small and medium size sectors such as tourism tend to be time and resource poor, with their size being the main disadvantage in adopting ICT. Lucchetti and Sterlacchini (2002) also substantiate the claim that size plays a role in the adoption of ICT. They further indicate that the adoption of ICTs is directly related to the type of industry to which the organization belongs. They found that production integrating ICTs are significantly and positively associated with firm size, while market-oriented ICTs are independent on a firm's size or its productive or technological features.

Menjo and Boit (2005) examined the challenges faced by Kenyan secondary schools in the use of ICT to enhance school administration. The study was conducted in 12 randomly selected secondary schools that had introduced computers in, Nandi North District. The findings of the study showed that ICT, as an administrative tool in secondary schools was not used effectively to address administrative issues. It was employed mainly for clerical activities and to a lesser extent on a few other administrative duties, particularly processing of examinations. Major challenges faced by the schools which have contributed to the limited use of ICT in school administration included lack of adequate training in ICT for teachers and administrators.

Baylor and Ritchie (2002) carried out a quantitative study that looked at the factors facilitating teacher skill, teacher morale, and perceived student learning in technology-using classrooms. They found that professional development and competence has a significant influence on how well ICT is embraced in the classroom. Also, they added that teachers' training programmes often focus more on basic literacy skills and less on the integrated use of ICT in teaching. Despite the numerous plans to use technology in schools, however, teachers have received little training in this area in their teacher education programs. Hence, inadequate preparation to use technology is one of the reasons that teachers do not systematically use computers in their classes.



# 3.0 RESEARCH METHODOLOGY

The study adopted a descriptive case study design. The population of the study was staff drawn from various departments of the judiciary. The sample of 59 was selected using a stratified sampling technique. The data collection tool was questionnaire. The data was analyzed using descriptive statistics such as means, frequencies and percentages. In addition, SPSS was used to conduct factor analysis.

#### 4.0 RESULTS AND DISCUSSIONS

#### 4.1 Response Rate

The response rate was 50 out of 59 questionnaires. This represented a response rate of 84.7%.

# 4.2 Demographic Characteristics of Respondents who participated in the Primary Study.

# 4.2.1 Gender of Respondents

Figure 1 show results on gender of respondent.



# **Figure 1: Gender of Respondents**

As illustrated in figure 1, the findings indicated that majority 80% of the respondents were male while 20% were female. The findings imply that the sector was dominated by male.

# 4.2.2 Level of Education

Figure 2 presents the results on level of education



# Figure 1: Level of Education

The study findings in figure 2 revealed that majority 60% of the respondents had reached the secondary level, while 30% respondents had reached college level and 10% of the respondents had reached university level.



# 4.2.3 Number of Years in Employment

Figure 3 shows the results on number of years in employment of the respondents.



#### Figure 2: Number of Years in Employment

Results in figure 3 revealed that a majority (68%) of the respondents had been in their current employment for more than five years, while 16% of the respondents had been in their jobs for 3 to 5 years and 8% of the respondents had been in the employment for 1 to 2 years and the same percentage indicated that they had been in the employment for less than one year. The findings imply the staff had all the knowledge about the organization hence accurate results for the study.

# 4.3 Factors Affecting the Strategic Adoption of ICT in Delivering Judicial Services

# 4.3.1 Skills and competence factors

Results in figure 4 are for skills and competence.



Figure 3: Skills and competence factors

Table 1: Skills and Competence.

Component

Initial Eigen values

**Extraction Sums of Squared Loadings** 



	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	1.593	39.813	39.813	1.593	39.813	39.813	
2	.930	23.256	63.069				
3	.852	21.298	84.367				
4	.625	15.633	100.000				
Extraction Method: Principal Component Analysis.							

Results in figure 1 revealed that majority 80% of the respondents disagreed with the statement that stated the majority of judiciary staff are highly skilled in desktop computers, basic computer packages such as Microsoft word, excel, power point, internet and email, while 80% respondents further disagreed with the statement that stated the majority of judiciary staff are highly skilled in advanced ICT programs such as applications used to support the court's administrative personnel, which include automated registries and case management system and 90% respondents disagreed with the statement that stated the majority of judiciary staff are highly skilled and competent on technologies for supporting the judges' activities, such as law and case law electronic libraries, and sentencing support systems. Finally the study findings indicated that 90% of the respondents disagreed with the statement that stated the majority of judiciary staff are highly exposed to technologies used in the court room such as teleconferencing.

#### 4.3.1.1 Factor Analysis

Factor analysis was conducted using the principal component method. The numbers of factors were extracted using Kaiser criterion which asserts that a factor may be extracted on the basis of Eigen values. A factor is extracted if it has an eigen value of 1 or more than 1.

Results revealed that one factor was extracted. The selected factor had an eigen value of 1.593. The extracted factor had a cumulative variance of 39.8%. This implies that the factor shared 39.8% of its variance with the other remaining factors (factor 2 to 4).

#### 4.3.1.2 Correlations between Skills and Competence Factors and Level of ICT Adoption.

Correlation results in revealed that there exists a positive and significant correlation between level of ICT adoption and staff are highly skilled in desktop computers (correlation coefficient =0.407,p value=0.003), staff are highly skilled in advanced ICT programs (correlation coefficient =0.303, p value=0.032), An increase in skills and competence factors identified is associated with an increase in the level of adoption.

#### 4.3.2 Technological Factors

Table 2 presents results on technological factors.



# **Table 2: Technological Factors**

	Strongly disagree	Disagree	Neither agree not disagree	Agree	Strongly agree
Statement					
The Majority of judicial staff perceive ICT as being superior to manual systems in terms of economic profitability	28 (56%)	9 (18%)	0 (0%)	13 (26%)	0 (0%)
The Majority of judicial staff perceive ICT as being superior to manual systems in terms of low initial cost	23 (46%)	12 (24%)	2 (4%)	10 (20%)	3 (6%)
The Majority of judicial staff perceive ICT as being superior to manual systems in terms of a decrease in discomfort and savings in time and effort	30 (60%)	9 (18%)	1 (2%)	9 (18%)	1 (2%)
The majority of judicial staff perceive ICT applications as being relatively easy to understand and use	28 (56%)	12 (24%)	0 (0%)	8 (16%)	2 (4%)
The majority of judicial staff f perceives that ICT technologies can be used on a trial basis before confirmation of the adoption must occur.	29 (58%)	9 (18%)	1 (2%)	10 (20%)	1 (2%)
The majority of judicial staff perceive that ICT technologies are highly compatible	30 (60%)	12 (24%)	1 (2%)	7 (14%)	0 (0%)



	Strongly disagree	Disagree	Neither agree not disagree	Agree	Strongly agree
Statement					
with existing beliefs, experience and needs of potential adopters					
The majority of judicial staff perceive that ICT technologies are highly observable	33 (66%)	9 (18%)	0 (0%)	6 (12%)	2 (4%)

Results in table 2 revealed that majority 56% of the respondents strongly disagreed with the statement that stated the majority of judicial staff perceive ICT as being superior to manual systems in terms of economic profitability, while 46% of the respondents strongly disagreed with the statement that stated the majority of judicial staff perceive ICT as being superior to manual systems in terms of low initial cost and 60% respondents strongly disagreed with the statement that stated the majority of judicial staff perceive ICT as being superior to manual systems in terms of low initial cost and 60% respondents strongly disagreed with the statement that stated the majority of judicial staff perceive ICT as being superior to manual systems in terms of a decrease in discomfort and savings in time and effort.

The study findings further revealed that a majority (56%) respondent strongly disagreed with the statement that the majority of judicial staff perceives ICT applications as being relatively easy to understand and use. Majority (58%) respondent strongly disagreed with the statement that the majority of judicial staff perceives that ICT technologies can be used on a trial basis before confirmation of the adoption must occur.

Sixty percent of the respondents strongly disagreed with the statement that stated the majority of judicial staff perceives that ICT technologies are highly compatible with existing beliefs, experience and needs of potential adopters.

Finally the study findings indicated that 66% of the respondents strongly disagreed with the statement that majority of judicial staff perceives that ICT technologies are highly observable.

#### 4.3.2.1 Factor analysis

Factor analysis was conducted using the principal component method. The numbers of factors were extracted using Kaiser criterion which asserts that a factor may be extracted on the basis of Eigen values. A factor is extracted if it has an eigen value of 1 or more than 1. Table 3 revealed that one factor was extracted. The selected factor had an eigen value of 5.130. The extracted factor had a cumulative variance of 73.3%. This implies that the factor shared 73.3% of its variance with the other remaining factors (factor 2 to 7).

#### Table 3: Extraction of Technological Factors

ComponentInitial EigenvaluesExtraction Sums of Squared Loadings	Component
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	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.130	73.279	73.279	5.130	73.279	73.279
2	.657	9.382	82.661			
3	.440	6.289	88.950			
4	.386	5.511	94.460			
5	.224	3.194	97.654			
6	.137	1.957	99.611			
7	.027	.389	100.000			

Extraction Method: Principal Component Analysis.

# **4.3.2.1** Correlation between technological factors and level of ICT adoption

Correlation results revealed that there exists a positive and significant correlation between level of ICT adoption and economic profitability of ICT (correlation coefficient =0.669,p value=0.000), initial cost (correlation coefficient =0.672, p value=0.000), savings in time and effort of ICT (correlation coefficient =0.642, p value=0.000) , user friendliness of ICT(correlation coefficient =0.642, p value=0.000), user friendliness of ICT(correlation coefficient =0.642, p value=0.000), compatibility(correlation coefficient =0.586, p value=0.000) and observability of ICT(correlation coefficient =0.556, p value=0.000). An increase in technological factors identified is associated with an increase in the level of adoption.

#### 4.3.3 Organizational Factors.

Table two shows results on organizational attributes.

#### **Table 4: Organizational Attributes**

Statement	Strongly disagree	Disagree	Neither agree not disagree	Agree	Strongly agree
A majority of courts and judiciary offices have adequate financial resources to adopt and implement ICT technologies	23 (46%)	9 (18%)	0 (0%)	14 (28%)	4 (8%)
A majority of courts and judiciary offices have adequate ICT staff to adopt and implement ICT technologies	22 (44%)	11 (22%)	4 (8%)	10 (20%)	3 (6%)



Statement	Strongly disagree	Disagree	Neither agree not disagree	Agree	Strongly agree
A majority of courts and judiciary offices have staff who are highly motivated to adopt and implement ICT technologies	24 (48%)	10 (20%)	2 (4%)	10 (20%)	4 (8%)
A majority of courts and judiciary offices have embraced the culture of innovation	25 (50%)	10 (20%)	0 (0%)	9 (18%)	6 (12%)
The size of a court does not influence the rate of adoption and implementation ICT technologies	24 (48%)	8 (16%)	1 (2%)	11 (22%)	6 (12%)
Rural courts are more likely to adopt and Implement ICT compared to urban courts	28 (56%)	10 (20%)	4 (8%)	7 (14%)	1 (2%)
Older courts are more likely to adopt and implement ICT technologies	30 (60%)	7 (14%)	0 (0%)	7 (14%)	6 (12%)

As illustrated in table 4, the study findings revealed that majority 46% of the respondents strongly disagreed with the statement that majority of courts and judiciary offices have adequate financial resources to adopt and implement ICT technologies, while 44% respondents strongly disagreed with the statement that majority of courts and judiciary offices have adequate ICT staff to adopt and implement ICT technologies and 48% of the respondents strongly disagreed with the statement that majority of courts and judiciary offices have adequate ICT staff to adopt and implement ICT technologies. The study findings further revealed that majority 50% respondents strongly disagreed with the statement that majority of courts and 48% of the respondents strongly disagreed with the statement that the size of a court does not influence the rate of adoption and implementation ICT technologies. Furthermore the findings indicated that majority 56% of the respondents strongly disagreed with the statement that rural courts are more likely to adopt and implement ICT compared to urban courts and 60% respondents strongly disagreed with the statement that older courts are more likely to adopt and implement ICT technologies.

#### 4.3.3.1 Factor analysis

Factor analysis was conducted using the principal component method. The numbers of factors were extracted using Kaiser criterion which asserts that a factor may be extracted on the basis of Eigen values. A factor is extracted if it has an eigen value of 1 or more than 1. Table 5 revealed that one factor was extracted. The selected factor had an eigen value of 5.130. The extracted



factor had a cumulative variance of 73.3%. This implies that the factor shared 73.3% of its variance with the other remaining factors (factor 2 to 7).

	Initial Eigenvalues			Extraction Sums of Squared Loadings			
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	5.130	73.279	73.279	5.130	73.279	73.279	
2	.657	9.382	82.661				
3	.440	6.289	88.950				
4	.386	5.511	94.460				
5	.224	3.194	97.654				
6	.137	1.957	99.611				
7	.027	.389	100.000				

#### Table 1: Extraction of Technological Factors

Extraction Method: Principal Component Analysis.

#### 4.3.3.2 Correlation between Organizational Attributes Factors and Level of ICT Adoption

Correlation results revealed that there exists a positive and significant correlation between level of ICT adoption and adequate financial resources (correlation coefficient =0.669,p value=0.000), adequate ICT staff (correlation coefficient =0.685, p value=0.000 staff who are highly motivated (correlation coefficient =0.650, p value=0.000), embraced the culture of innovation (correlation coefficient =0.624, p value=0.000), The size of a court (correlation coefficient =0.615, p value=0.000), Rural courts vs urban courts (correlation coefficient =0.582, p value=0.000) and Older courts vs new courts (correlation coefficient =0.524, p value=0.000). An increase in organizational attributes factors identified is associated with an increase in the level of adoption.

#### 4.3.4 Leadership Factors

Respondents were asked to indicate their level of agreement on statements on leadership factors. Table 3 shows results.

Statement	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
A majority of courts and judiciary senior officers are enthusiastic about ICT	24 (48%)	14 (28%)	5 (10%)	6 (12%)	1 (2%)

#### Table 6: Leadership Factors



Statement	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
technologies					
A majority of courts and judiciary senior officers are highly experienced in ICT technology	24 (48%)	15 (30%)	1 (2%)	7 (14%)	3 (6%)
A majority of courts and judiciary senior officers have face book and twitter accounts	24 (48%)	14 (28%)	1 (2%))	6 (12%)	5 (10%)
A majority of the of courts and judiciary senior officers have a dynamic management orientation	27 (54%)	12 (24%)	0 (0%)	7 (14%)	4 (8%)
A majority of the of courts and judiciary senior officers employ transformation leadership tactics	22 (44%)	13 (26%)	5 (10%)	6 (12%)	4 (8%)
A majority of the of courts and judiciary senior officers have made use of a strategic plan which factors ICT technologies	30 (60%)	13 (26%)	0 (0%)	4 (8%)	3 (6%)

Results in table 6 revealed that majority 48% of the respondents strongly disagreed with the statement majority of courts and judiciary senior officers are enthusiastic about ICT technologies, while a further 48% of respondents strongly disagreed with the statement majority of courts and judiciary senior officers are highly experienced in ICT technology, and a majority (48%) respondents strongly disagreed with the statement majority of courts and judiciary senior officers have face book and twitter accounts.

A majority (54%) respondent strongly disagreed with the statement majority of the courts and judiciary senior officers have a dynamic management orientation, while 44% of the respondents strongly disagreed with the statement that majority of the courts and judiciary senior officers employ transformation leadership tactics. Finally 60% of the respondents strongly disagreed with the statement that a majority of the courts and judiciary senior officers have made use of a strategic plan which factors ICT technologies.

#### 4.5.4.1 Factor analysis

Factor analysis was conducted using the principal component method. The numbers of factors were extracted using Kaiser criterion which asserts that a factor may be extracted on the basis of Eigen values. A factor is extracted if it has an eigen value of 1 or more than 1. Table 4.13



revealed that one factor was extracted. The selected factor had an eigen value of 3.470. The extracted factor had a cumulative variance of 57.8%. This implies that the factor shared 57.8% of its variance with the other remaining factors (factor 2 to 6).

	Initial Eigenvalues			Extraction Sums of Squared Loadings				
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %		
1	3.470	57.840	57.840	3.470	57.840	57.840		
2	.857	14.281	72.122					
3	.644	10.737	82.858					
4	.522	8.693	91.551					
5	.336	5.608	97.159					
6	.170	2.841	100.000					
Extraction Method: Principal Component Analysis.								

#### Table 7: Extraction of Leadership Factors

#### 4.3.4.2 Correlation between Leadership Factors and Level of ICT Adoption

Correlation results revealed that there exists a positive and significant correlation between level of ICT adoption and officers are enthusiastic about ICT technologies (correlation coefficient =0.559,p value=0.000), officers are highly experienced in ICT technology (correlation coefficient =0.463, p value=0.001 officers have face book and twitter accounts (correlation coefficient =0.547, p value=0.000), officers have a dynamic management orientation (correlation coefficient =0.371, p value=0.008), officers employ transformation leadership tactics (correlation coefficient =0.527, p value=0.000), and officers have made use of a strategic plan which factors ICT technologies (correlation coefficient =0.443, p value=0.001. An increase in leadership factors identified is associated with an increase in the level of adoption.

#### 5.0 CONCLUSIONS AND RECOMMENDATIONS

#### **5.1 Conclusions**

The study concludes that there exists a positive and significant correlation between level of ICT adoption and staff is highly skilled in desktop computers. The study concludes that there exists a positive and significant correlation between level of ICT adoption and economic profitability of ICT. The study concludes that there exists a positive and significant correlation between level of ICT adoption and economic profitability of ICT. The study concludes that there exists a positive and significant correlation between level of ICT adoption and economic profitability of ICT.



The study concludes that there exists a positive and significant correlation between level of ICT adoption and officers are enthusiastic about ICT technologies.

#### 5.2 Recommendations

Following the study results, the judiciary was recommended to introduce induction training in basic computer packages. The judiciary was also recommended to change the attitudes and perception of staff towards technological factors which include the perceived relative advantage of ICT, compatibility of ICT, complexity of ICT, Triability of ICT, and observability of ICT. It was also recommended that the organization should have adequate resources so as to enhance smooth adoption of ICT. The judiciary was also recommended to try and incorporate young people in the system as they tend to embrace ICT as compared to older managers, employ qualified personnel who are enthusiasts, pragmatists and artisans

#### REFERENCES

Bayer, J.; & Melone, N. "A Critique of Diffusion Theory as a Managerial Framework for Understanding the Adoption of Software Engineering Innovations." *Journal of Systems and Software*, Volume 9, 1989, pp. 161-166.

Katz, M. L.; & Shapiro, C. "Technology Adoption in the Presence of Network Externalities." *Journal of Political Economy*, Volume 94, 1986, pp. 822-41.

Leonard-Barton, D.; and Deschamps, I. "Managerial influence in the implementation of new technology." *Management Science*, Volume 34, 1988, pp. 1252-1265.

Malik,W. H (2002) E-Justice: Towards a Strategic Use of ICT in Judiciary Reform available at http://www.pogar.org/publications/judiciary/wmalik/index.html#intro

Markus, M. L. "Toward a 'Critical Mass' Theory of Interactive Media: Universal Access, Interdependence and Diffusion." *Communications Research*, Volume 14, 1987, pp. 491-511.

Martin, M.H. (2003). Factors influencing faculty adoption of Web-based courses in teacher education programs within the State University of New York (Doctoral dissertation, Virginia Polytechnic Institute and State University, 2001). *ProQuest DigitalDissertations*. (UMI No. AAT 3089087)

Menjo, D. K & Boit J.M (2005). The challenges of using information communication technology (ICT) in school administration in Kenya. Unpublished PHD Thesis. School of Education, Moi University.

Moore, G. C.; & Benbasat, I. (1991). "Development of an Instrument to Measure the Perceptions of Adopting an Information Technology Innovation." *Information Systems Research*, Volume 2, 1991, pp. 192-222.

Rogers, E. M. (1983). Diffusion of Innovations. New York: The Free Press, 1983, (3rd edition).

Shollei, B.G. (2009). Practical Use Of Computers In The Judiciary. Paper To Be Presented At The Judicial Training Institute In Nairobi Kenya, August 2009

Velicogna M. (2010). ICT within the Court in the E-justice Era. Research Institute on Judicial Systems of the Italian National Research Council. Utrecht law review, 3, 1, 2007, pp.130-137.

Velicogna M.,(2007). Justice Systems and ICT. http://www.utrechtlawreview.org/ Volume 3, issue 1 (June)2007