

**Factors Affecting the Penetration and Utilization of ICT in Local Authorities
in Kenya:
ICT Policy, Regulatory and Strategy Solutions**

Boniface Mwirigi Kiula

**A thesis submitted in partial fulfillment for the Degree of Master of Science in
ICT Policy and Regulation in the Jomo Kenyatta University of Agriculture
and Technology**

2010

ABSTRACT

Effective penetration and utilization of ICT in the public service for high-end value-adding operations in local government is crucial to enhance effective and efficient services that satisfy the citizens and other stakeholders. ICT penetration and utilization in the local government has not reached the levels necessary to reap the benefits of ICT in service delivery. Effort must be made to identify the factors responsible for the slow penetration and utilization of ICT in the local government and develop practical solutions for improvement. This study sought to find out whether the institutional management systems; ICT policy, regulation and strategy; managers' attitude, awareness and skill and ICT resources affect ICT penetration and utilization and make recommendations towards improvement in local authorities. Three councils were purposively selected for this study. Stratified random sampling was employed to obtain respondents within the councils. Eighty respondents were obtained with a ratio of proportional allocation being used to allocate proportionate samples to the councils and their departments based on the respective staff populations. An ICT penetration and utilization index was developed based on a custom-made weighting. Pearson Moment of Correlation Coefficient and test of statistical significance were used to compare the strength of linear relationship between the index and the independent variables with descriptive statistics being used to analyze the results.

ICT penetration and utilization was found to have a significant linear relationship with ICT resources, ICT awareness, attitude and skill as well as the level of education, age, length of service and the job scale of staff. ICT policies and institutional management systems were found to have no significant linear relationship with ICT penetration and utilization. Great investment in ICT resources, ICT awareness, attitude and training as well as better educated staff with the government playing its policy role effectively were recommended towards improved ICT penetration and utilization in local authorities.