Application of Information and Communication Technology in Institutions of Higher Learning in Kenya

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Abstract

Technology in the 21st century has grown in leaps and bounds. Information and Communication Technology today is applied in nearly all spheres of human life. For institutions of higher learning, ICT has offered a window through which they efficiently carry out their day to day activities of teaching, research and community service. It was against this background that the current study sought to investigate application of ICT in academic and administrative realms of these institutions. The specific objectives were to: explore how ICT is applied to run administrative functions in Kenyan universities; investigate how ICT is applied to run teaching-learning activities in Kenyan universities; describe how ICT is applied to conduct research activities in Kenyan universities; identify barriers facing effective implementation of ICT in Kenyan universities and recommend solutions. The study applied a descriptive survey design. The study targeted the 70 public and private universities in the republic. Out of this population, 21 public and private universities were purposefully sampled to take part in the study. Respondents were sampled randomly. They comprised of 384 members of academic staff and 58 members from various departments of university administration. The researcher engaged the services of 21 research assistants who were responsible for administering questionnaires in the sampled institutions. The researcher tested the validity and reliability of this instrument by piloting it in one university which was not included in the final study. Data analysis was done by grouping data according to the study objectives. Quantitative data from the questionnaire was coded into categories based on the study objectives and fed into SPSS computer software version 20 which analyzed it using percentages and frequencies. Data was presented in frequency tables. The study established that ICT is applied in various domains such as: offering distance learning courses, delivering lessons, analyzing research data, conducting webinars, managing students' fees records, booking hostel rooms, processing examinations and submitting staff's performance appraisals. Among the challenges facing integration of ICT in these institutions included lack of enough computers with reliable internet, lack of political goodwill to implement the national ICT policy, inadequate time for lecturers to incorporate technology in teaching and lecturers' negative attitude towards use of ICT in teaching. In light of this, a number of workable recommendations were proposed to address these challenges.

Key Words: Administration, Barriers, ICT, Teaching-Learning, Research.