

ABSTRACT

Cloud-based virtualization is a technology that has had a global entrance over the past few years. Volumes of data are handled in healthcare hence a need to embrace this technology. The primary concern has always been security. In the recent past better encryption techniques have been developed and with the rising population in Kenya, adopting this technology will be beneficial. This research focused on establishing the conceptual clarity of this technology among ICT healthcare professionals, the extent of its integration in healthcare, factors impeding the adoption process as well as those enabling it and a possible optimal model for cloud-based virtualization for healthcare in Kenya. The researcher administered questionnaires to system users. The study was exploratory in nature and took a quantitative approach. Cluster sampling was employed in the selection of respondents whilst judgment sampling was used within the clusters. Both descriptive and inferential techniques were used to analyze data. Results showed that workload followed by efficient resource utilization were touted as the factors that most call for the implementation of the technology. Geographical space did not have any positive correlation with the adoption of the technology. Other factors cited as positively influencing the process were system's compatibility with relevant infrastructure, good organizational structure, revised government tax policies, savings on time and improved database communication systems alongside better back-up. Poor conceptual clarity, system's complexity, financial constraints and a lack of expertise in this area were noted as impeding the adoption process. This study realized an optimal model, highlighting possible areas for improvement and thus creating room for further research.