

## **ABSTRACT**

Evolution of technology in television and radio stations has had great impact in influencing activities and built forms that house these stations. It has simplified and reduced the need of additional spaces within studios due to digital equipment that can carry out several tasks. This simplicity has encouraged broadcasting stations to be easily set-up creating diverse content for consumers around the world. Unfortunately, this is not the case with contemporary television and radio stations where spaces and buildings designed for various other purposes are retrofitted to broadcasting spaces for these stations. This has been encouraged by evolving technology which has simplified means of broadcasting information where individuals can easily purchase equipment but choose to work in spaces not purposefully made for broadcasting activities in an attempt to avoid additional costs. This has created challenges such as ventilation and lighting within studios, lack of centralization of activities, lack of smart systems within the built form to enhance interactions, lack of flexible spaces within studios and newsrooms, and use of non-renewable sources of energy.

The objectives of this study are to understand the impact of evolution of technology in television and radio stations, to assess the state of television and radio stations within Nairobi, from the built form to activities being carried out within them, and to establish the design requirements for a digital television and radio station. Broadcasting is a field constantly affected by technology making it imperative for buildings housing these stations to address current and future needs brought by technology. The author uses a case study approach to conduct his research. The research design is descriptive in nature to portray an accurate picture of the cases under study. The cases studies selected are both on an international and local context to create a clear line of comparison. The local cases studies also selected included stations housed in retrofitted premises and buildings/spaces purposefully made for broadcasting.

The findings show that stations housed in retrofit buildings have several challenges and high dependency of artificial energy. Purpose made buildings have addressed issues affecting user comfort and functionality of the building/spaces in the long run, from the design stage. This careful planning has allowed integration of technology within the building, both systems and equipment, to complement the planning and design of the built form creating a lively environment for journalists to freely create and broadcast content.

Based on the research findings, the author draws four main conclusions that can be adopted in contemporary television and radio stations to fully exploit the potentials presented by technology. These are; creation of flexible and purposefully made spaces, natural means of ventilation in studios, renewable sources of energy, and recommendations for future research.