ABSTRACT

The days are gone when it was enough to give a clerk a pencil and a ruler and tell him to get on with it. Today's workstations are equipped with various sophisticated office automation (OA) devices to meet the ever-changing business requirements. Yet, all too often, organizations are unable to attain maximum OA benefits as their offices could not meet new environmental requirements of the new devices.

Thus, how do offices incorporate OA equipment and still provide a comfort environment for its occupants? This is an important issue as OA can negatively affect work environment and its occupants in terms of health and productivity. Here, the answer lies in office design.

This dissertation's objective is to address the OA impact upon office's physical environment. Several recommendations are made to counter-balance the impact. The work involves studying of OA's definition and evolution in order to gain a better understanding of the OA effects to enable better planning for the office of the future.

It is found that there is a need to reexamine the conventional office design approach to meet new sets of OA requirements in the office physical environment, i.e., building structure and environmental systems including corporate culture, health, and security. This dissertation is accompanied by photographs that manifest several environmental problems which occurred when OA changes are not planned for. Two case studies are shown to illustrate successful OA implementation into workplaces with full environmental considerations.

This dissertation concludes that flexibility and personal environmental control are two main characteristics in the physical environment that could accommodate the rapid changes in OA development.