

An Analysis on the Appropriateness and Effectiveness of CCTV Location for Crime Prevention

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Abstract : This study aims to investigate the possibility of crime prevention through CCTV by analyzing the appropriateness of the CCTV location, whether it is installed in the hotspot of crime-prone areas, and exploring the crime prevention effect and transition effect. The real crime and CCTV locations of case city were converted into the spatial data by using GIS. The data was analyzed by hotspot analysis and weighted displacement quotient(WDQ). As study methods, it analyzed existing relevant studies for identifying the trends of CCTV and crime studies based on big data from 1800 to 2014 and understanding the relation between CCTV and crime. Second, it investigated the current situation of nationwide CCTVs and analyzed the guidelines of CCTV installation and operation to draw attention to the problems and indicating points of domestic CCTV use. Third, it investigated the crime occurrence in case areas and the current situation of CCTV installation in the spatial aspects, and analyzed the appropriateness and effectiveness of CCTV installation to suggest a rational installation of CCTV and the strategic direction of crime prevention. The results demonstrate that there was no significant effect in the installation of CCTV on crime prevention. This indicates that CCTV should be installed and managed in a more scientific way reflecting local crime situations. In terms of CCTV, the methods of spatial analysis such as GIS, which can evaluate the installation effect, and the methods of economic analysis like cost-benefit analysis should be developed. In addition, these methods should be distributed to local governments across the nation for the appropriate installation of CCTV and operation. This study intended to find a design guideline of the optimum CCTV installation. In this regard, this study is meaningful in that it will contribute to the creation of a safe city.

Keywords : CCTV, safe city, crime prevention, spatial analysis

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