

지자체 보행안전 평가체계 개선방안 연구

Revision of the Evaluation System for Pedestrian Safety Level and Local Public Policy

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National pedestrian safety policy and government projects are expanding since the enactment of the Pedestrian Safety and Convenience Enhancement Act in 2012. Nevertheless, the pedestrian safety level of South Korea still remains remarkably lower compared to advanced countries. In 2016, pedestrians accounted for approximately 40% of all traffic fatalities, of which 50.5% were senior citizens, indicating the necessity of a safer walking environment for pedestrians and vulnerable road users. In response to this, a 'Pedestrian Policy Performance Index' (Kim and Park, 2016), which is composed of 'pedestrian safety index' and 'green traffic vitalization index', was proposed in order to apprehend the pedestrian safety levels in municipalities and the thitherto policy outcome. This index, however, is restricted in its use as an evaluation system for the enhancement of pedestrian safety policies due to the inclusion of bicycle traffic, lack of policy-based evaluation indicators, and a non-objective relative evaluation method.

Thus, this research aimed for a new pedestrian safety evaluation system to objectively and efficiently measure municipal pedestrian safety level and policy endeavors. To this end, 'pedestrian safety index' and 'pedestrian policy index' have been determined and a test analysis results based on the categorization of 228 municipalities in 6 assessment groups are presented. The pedestrian safety index and the pedestrian policy index are put into five grades(A through E), and the grades of individual indicators that comprise each index are also presented. In doing so, this research helps identify vulnerabilities of each municipality and make improvements accordingly for a general enhancement of pedestrian safety.

In addition, 16 selected cases (2 to 3 cases per assessment group) were used to verify the outcomes of policy endeavors for pedestrian safety improvement with the pedestrian safety index and pedestrian policy index. Also, a survey on the perceived pedestrian safety in the selected cities provided aspects worthy of notice when applying the evaluation system.

The pedestrian safety evaluation system suggested in this research is designed to serve the decision-making in policy building and the implementation of policies on the national government level when real-time assessment and analysis of the status quo in municipalities is not feasible and to assist each municipality in designing local policies to enhance pedestrian safety. Furthermore, this evaluation system refrains from the uniform method of ranking and has been suggested in the hopes of leading to a variety of interpretations on the necessary actions depending on the municipality for pedestrian safety improvement. Accordingly, it is anticipated that the national government and municipalities make use of this evaluation system as a ground for more effective and efficient building and implementation of pedestrian safety policies based on the analysis of the relationship between the status quo and policy endeavors.

Keywords :

Pedestrian Safety, Policy Outcome, Evaluation System, Pedestrian Safety Index, Pedestrian Policy Index