읽기 쉬운 관광안내체계 조성을 위한 보행네트워크 분석 연구

Pedestrian Network Analysis for Legible Tour Guide Systems

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SUMMARY

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The tour guide systems should be configured considering the pedestrian network analysis. So why is pedestrian network analysis important in walking tourism? Tourists including walking tourists who visit a certain area must travel at the main base such as airport or railway station through transportation. And it is a fact that all those using public transportation are 'pedestrians'. Individual walking tourists are required to walk long−distance and use public transportation systems when traveling for sightseeing in unfamiliar areas(Thomson 2004). As they walk they get information, and decide whether to walk further, to buy the area around, or to go to other sightseeing points. This information acquisition process is aimed at tourists who are unfamiliar with the area, rather than those who are familiar with the area, and a different approach must be made.

Most of the tourists cannot plan the travelling route of the tour area with enough time because they visit the area within a limited time using their vacation. And they do not have empirical urban images by trial and error. Therefore, it is very important for these individual walking tourists to have a guide system that can optimize various routes to visit the local tourist attractions according to their individual preferences and characteristics at a limited time on foot and by public transportation. In order to effectively combine this guidance system with the tourist attraction that serves as a landmark and nodal point in the area, systematic analysis of the pedestrian network in the area should be conducted and it should be installed to the points on the optimal route through the results.

However, the tour guide systems and their location so far have not been targeted to tourists who do not have any information about the area as a user, and many of them

were decided at the discretion of the decision maker. Since there are many cases where they are located at a position similar to a traffic sign without any careful analysis of the tourist site pedestrian network, the utilization has been very low until now. Beyond the simple way of installing at the entrance of a stop or sightseeing spot, a tour guide system should be constructed through pedestrian network analysis taking into consideration the local context.

The purpose of this study is to suggest a methodology of pedestrian network analysis related to the location selection of the tour guide system for the revision of 「The Guideline for Legible Tour Guide Systems」. This methodology is developed with the aim of being made easy for the person in charge to understand. And the data to build should be minimized.

First, in Chapter 2, previous studies related to methodology, related laws and existing guidelines is reviewed. Based on this, pedestrian network analysis methodology is developed in Chapter 3. Considering the difficulty of analysis, it is divided into three levels. The first-level methodology focus on the basic pedestrian network analysis using 'ArcGis' tool. The second-level methodology adds an analysis of the preferences of tourists through data mining and surveys. The third-level methodology includes user simulation analysis that reflects detailed street information and geometry such as space syntax. This graded methodology has the advantage that it can be selectively used according to local conditions. In Chapter 4, this methodology is applied to the case of Busan City, and illustrated the location-allocation process of the guide signs in sightseeing sites. The location-allocation results are compared with those presented in the 「The Guideline for Legible Tour Guide Systems」, we derived implications for methodology. In the conclusion, a revision plan is proposed to apply the pedestrian network analysis methodology to 「The Guideline for Legible Tour Guide Systems」 to be revised after 2019 as well as related laws such as 「Tourism Promotion Act」 and 「Outdoor Advertisement Law」.

This study shows the possibility that the location and the number can be derived through objective grounds related to the location-allocation of the guide signs which plays an important role in the tourism field unlike previous studies.

In addition, it can improve the efficiency of budgeting and execution of related ministries in the future. And It is also expected that this will contribute to the activation of walking tourism of foreign tourists.