

整合VIKOR與AHP建立自行車路線決策模式-以豐原區為例 A Decision Model for  
Bike Routes Selection Using AHP Integrated VIKOR : A Case Study In  
Fengyuan

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摘要

In this study, the application of the integration of AHP and VIKOR to build bike routes selection Decision Model in Fengyuan, Taichung City. Through literature review and expert interview, a hierarchical structure of the four dimensions of the 16 evaluation criteria was built. AHP was used to compute the weights of all criteria. VIKOR was used to rank all bike routes. The results showed that road is the most significant dimension for bike riders since whose weight accounts for 63.42%. The criteria weights in the top five are road surfacing accounts for 36.21%, road bikes accounts for 9.82%, road gradient accounts for 8.11%, shade Facility accounts 7.58%, and gender accounts for 7.51%. It can be seen in the assessment guidelines that bike riders firstly emphasize on road infrastructure related criteria, and secondly on bike equipment. All routes are ranked by the VIKOR, route D is the first, route A and route E are the second, followed by route B, and route C. This result is helpful for bike enthusiasts or groups to select their favorite routes.

關鍵字：AHP, Cycling Routes, VIKOR