

## **Does Transit-oriented Development Affect Metro Ridership? An Empirical Study in Taipei**

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This study attempted to confirm the advantages of transit-oriented development (TOD) in increasing transit ridership and dispersing transit ridership distribution in a timely manner. To examine the influences of the built environment of TOD on the number and temporal distribution of metro ridership, this investigation used 46 metro stations in Taipei City as a sample and performed cross-section analyses for the year 2004 by regression models and t-tests. The empirical results reached the following conclusions: daily ridership was positively affected by floor space area of the station areas, negatively affected by ratio of 4-way intersections and insignificantly affected by mixed land-use; ridership dispersion in time was positively influenced by walkway length, negatively impacted by retail and service floor space area and insignificantly influenced by density; the influences of density and pedestrian-friendly urban design on daily ridership differ significantly between weekdays and weekends, while the effects of all TOD characters on daily ridership dispersion differ significantly between weekdays and weekends. Finally, two potential applications of the empirical findings: TOD strategy directions corresponding to the studied cases, and planning analysis for a specific station area, are discussed.

## **Public Transportation Survey on Users Preference in Developing Countries**

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The transport survey is inevitable in the transportation field either at one or several stage(s) of any of its related projects in describing existing conditions of transport phenomena or in predicting models which forecasts future transport conditions due from any improvement measures. Between survey on an existing and expected conditions of transport, later one is the most crucial and unavoidable while measuring future effects.

However, in developing countries, survey undergoes more serious problem than developed countries in terms of literacy, composition of people speaking a variety of languages that necessitate the multilingual interviewers as well as conceptual translation than literal translation of questionnaires, existence of wide variation in socioeconomic characteristics (i.e. literacy, income, etc.) that results lack of uniformity of sample, and lack of sampling frame hence problematic in random sampling.

Considering these issues, an attempt was made to study the effect of questionnaire structure (mode explanation) and socioeconomic character variation based on public transportation users' preference by a paper based questionnaire survey conducted at a study area, the city of Colombo, Sri Lanka. The survey was conducted using face-to-face interview by means of conceptually translated questionnaire with clearly stated purpose of survey on questionnaire using selected interviewers, from trusted organization, who tagged their identity clearly visible to respondents during survey conduction. The study observed that sampling all socioeconomic groups needs more tactics and respondents do reluctant to express real information due to suspicious on survey purpose and data usage. Therefore, adding road side intercept survey simultaneously and indirect information gathering would be useful in covering all segment groups and in filling the gap between real and responded information respectively.

## **Bikeability strategy for a creative city-Chupe case**

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Hsinchu technopolis originated from the successful development of Hsinchu Science-based Industrial Park (HSIP). The regional development policy of HSIP is to compose Hsinchu city and Hsinchu county in one region. Chupei City is the political and economic center of Hsinchu county, integrating tradition and technology, it became a new creative city of technology with increased population of 120 000. With the Hsinchu county culture center, stadium, coastal area and food court, and 300km/hr High-Speed Railway Station, Chupei city has its new opportunity to be a living place for high-tech workers.

Cycling is frequently cited by high-tech workers as a preferred method to achieve relaxation, as well as a mode to interact with nature. High-tech workers typically regard cycling as a social activity. The county government has invested a dedicated bike lane along Chupei's coastline and riverside to attract recreational cycling.

Chupei city is an ideal location for promoting utility cycling, therefore, the Rasch model was applied to investigate the difficulty of cycling in the city, and the Geographic Information System (GIS) plus Global Positioning System (GPS) were applied to plan a city cycle way.

This study examined in depth the cyclists' ability in a techno polis based on different personal characteristics, cycling experience and cycling resources. By using Rasch Model, the difficulty that cyclists placed on cycling environment was examined. The research results provided a set of valuable information for evaluating the efficiency of government resource allocation and an appropriate cycling policy for constructing cycling facilities and bike ability strategy. (238)

## **GIS-based Analysis of Advantageous Zones for Transit-Oriented Development in Seoul**

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The purpose of this study was to answer two questions: (1) What changes in travel times and automobile and subway modal share have occurred within a geographical context between 1996 and 2002? (2) Have these developments corresponded to changes to the subway system? Moreover, in order to reduce commuter time and encourage the use of public transportation, which area of Seoul is best suited for development of the subway system? The main findings were as follows: (1) The modal share of the subway as a form of transportation increased by 12 % between 1996 and 2002. (2) The modal share of the subway as a form of transportation has increased as travel time has decreased with the construction of new subway lines. In addition, neighborhood networks connected to newly constructed lines show an increase in the modal share of the subway. (3) In terms of the relationship between change in the workers density by place of residence and work and the ratio of automobile use to subway use, we identified areas with a large change in density and share of automobile use, and areas with low density and a high share of subway use.