Roundtable on integrated and sustainable urban transport

Bike share deployment and strategies in Japan

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Contents

• Current situation of cycling in Japan

• Public bike system in Japan
  Example of Small City: Kita-kyusyu
  Example of Large City: Tokyo

• Potential of integration
Cycling modal share is higher than many Asian cities and EU cities (ex: Paris: 5.0% or London 2.0%).

Source:
City Clock Magazine (2014)
Passenger Transport Mode Shares in World Cities (2011,2014)
Bicycles are used in shopping and commuting.

Travel Distance by Bicycles in Tokyo

Bicycles are used in the short distance around under 5km. (mainly under 3km)

Source: Tokyo Person Trip Census (2008)
Accidents between Bicycles and Vehicles

International Comparison of Death Toll by Accident during Bicycling per Number of Cycles possession and Inhabitants.

More accidents (especially side crashes) between bicycles and vehicles has also occurred than the US and EU countries because of invisibility from vehicle drivers.

Trend of Policies for Bicycle Traffic in Japan

Nov.  2006  Recommendations for Promotion to Cycling Safety (MLITT)
Oct.  2007  Guidebook of Environment for Bicycle Usage (MLITT)
2008     Pilot Program for 98 Districts
Jul.    2009  Amendment of the Road Traffic Act
Oct.    2011  Circular Notice (NPA)
Apr.    2012  Recommendations for Development of Safe and Comfortable Bicycle Facilities Network (NPA and MLITT)
Nov.    2012  Guideline for Development of Safe and Comfortable Bicycle Facilities Network (NPA and MLITT)
Jun.    2013  Amendment of the Road Traffic Act
Jun.    2017  Act on Promotion to Bicycle Use
## Management & Operator

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<tr>
<th>Provider</th>
<th>Standard Operating Model</th>
<th>Program Example</th>
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| **Local Government/Public Authority** | Directly design and operate a BS program for the well being of cities or a local gov’t purchases BS services provided by others | • City Bikes (Denmark)  
• Bicincittà (Italy)  
• Nubija (South Korea)  
• YouBike (Taiwan)  
• Shanghai Public Bicycle (China) |
| **Non-Profit**               | Provide BS services with the support of public agencies or local councils                                          | • BIXI (Canada)  
• Hourbike (UK)  
• Wuhan Public Bicycle (China)  
• City Bike (Kitakyushu) |
| **Advertising Company**      | Advertising funding from city street furniture, billboards, bikes, and BS stations                                 | • SmartBike (U.S.)  
• Cyclocity (France) |
| **Public Transport Agencies** | Ads on bikes and BS stations                                                                                      | • Hangzhou Public Bicycle (China)  
• Call a Bike (Germany) |

(Revised by Authors based on the source: S. Shaheen, S. Guzman, and H. Zhang 2010)
Map of Interest Area

- Japan
  - Kitakyushu City
  - Kitakyushu City Public bicycle-sharing service area
  - Yahata Station
  - Kokura Station
- Rail line
- Public bicycle-sharing station
- North exit
- South exit
- City plaza
- City office
- Ward office
- Public facility

10 km
Spatial Concept for the Kitakyushu “City Bike” Service

- Bicycle-sharing station
- Bicycle parking lot
- Bus stop
- Bus main route
- Open space
- Public facility
- City center (shopping area)
The Spatial Amount of Average Monthly Usage

Amount of average monthly usage
- 151-300
- 51-150
- 1-50
Step 1: Promote safe private bicycle-use
   Reduce abandoned & illegally parked bicycles

Step 2: Bicycle parking management

Step 3: Bicycle rental or sharing (PBSP) Services

Step 4: Hybrid management (bicycle parking & PBSP)

Step 4: Various mobility sharing
Various Mobility Sharing System

Shopping EV Cart
EV Community Vehicle
City Bike
Partnership and Integration for Various Projects:
Kitakyushu Case

Kitakyushu City
User and Sponsor

NPO TMN
Kitakyushu

PBSB

Products development

Eco Points
Community development

Car-sharing
Parking
Traffic education
Cycle tour

Logo source: Relevant websites

Panasonic
Electric Bicycles

Locker, Battery
Case in Tokyo
- Access and Egress Modal Share in Tokyo

Bicycles are used especially as an access mode (under 5km), therefore bicycles are near the railway stations almost whole of working hours. Shoppers come around the stations in the afternoon, they can’t find the parking space.

Source:
Policy Research Institute for Land, Infrastructure (2012)
Cyclists are concentrated to the railway stations and the commercial facilities near them.
The municipalities try to put the both of them in the large parking facilities in front of (or underground) the railway stations. That’s why we’re lacking the parking lots.

Save of parking lots is one of strong motivation to promote public bikes for local governments in Tokyo.
Time trend of members and use in Tokyo
Effect of Mutual Operation in Tokyo

- In the case of Minato-Ward, commuters who used their own bicycles changed to public bikes.
- In the case of Chiyoda-Ward, “to provide parking lots certainly” motivates strongly to use public bicycles.
- Route between apartments and railway stations are used heavily.
- Some users choose other railway stations when they use public bike system for saving transfer.
Bicycles make 2 Lines.
(Because they’re operated by the beacon devices, the users don’t need to put bikes at racks.)
1. Dense of bicycle and ports are more important

2. Integration means “accessibility” and “discoverability”

3. Management models differ by venue and large-scaled model is globally well-known and small-scaled model needs careful concept

4. Hybrid management model and integrated strategies are important

5. Cooperation between several organizations is necessary for the hybrid management and integrated strategies
Thank you for your kind attention!