From individual mode of transportation to public transport
A Diagnosis of bike rental services in Chinese cities

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INTRODUCTION

► Why this topic
  ▪ Chinese cities are known as the “kingdom of bicycles”
  ▪ The bicycle becomes a good indicator of public policies on urban transportations

► Plan of presentation
  ▪ The evolution of bicycle as an individual urban transportation mode
  ▪ The recent development of bike rental service in Chinese cities: the cases of Beijing, Shanghai, Hangzhou
  ▪ What are the messages we can get from this new trend?
Evolution since the last 4 decades

- Before 1980s
- 1980s
- 1990s
- Since new millennium
Before 1980s

- The production of bicycle, considered as a consumptive product, is strictly regulated and limited.
- The distribution of bicycle had been put on rations.

consequences:

- The bicycle has been looked as a luxurious belongings to a family, reserved to certain social categories
- The role it played in urban transportation has been very weak
Shanghai in 1970s: the bicycle is not a specific transportation mode for Chinese cities
1980s: explosive growth

In Shanghai
- 1.77 million, 1980
- 5.6 million, 1988
The reasons...

- 1983, release the control on the production of non-industrial goods
- 1987, abolishment of rationing system on commodity distribution
- The growth of urban population
- The improvement of the standard of living
1990s
Problematic age

► The growth of bicycle slowed down
  ▪ +1 million per year in the beginning of 1990s to + 500 thousand in 1998
  ▪ **42.05%** of trips realized by bike in 1995, only **28.61%** in 1998

► The development of scooters
  ▪ 1993, the scooter is authorized
  ▪ 500 thousands in 1997...

► The bicycle/moto-cycle became a trouble
  ▪ Road safety
  ▪ Pollution...
Since 2000...

► The motorization
  - 80,000 (2001), 140,000 (2002), 630,000 (2008)

► Public transit
  - Transfer the cyclists to public transit

► E-Bike
  - 2003, elimination of fuel motorized scooter
  - 2003, Law of road safety integrate the e-bike in the category of non-motorized vehicle
  - 2003-2006, +40,000-50,000 E-bikes per year
A summary review

► Bicycle is not a specific mode of transportation for Chinese cities. Its evolution resulted from the transformation of social-economic situations and urban space.

► As an individual mode of transportation, the bicycle hasn’t been integrated into the considerations of local public policy on urban transportations. Its evolution remains spontaneous.

► Absence of political orientation had led to its savage growth in urban area. In consequence, the two wheels has been considered more as a trouble than a solution to urban mobility.
Development of bike rental services

- Beijing
- Hangzhou
- Shanghai
General situation

- Since 2005, Beijing, Shanghai, Hangzhou, Jinan, Wuhan, Changzhou, Nanchang... have developed the bike rental services in large scale, the trend goes on in other cities

- A new trend against the motorization?
- A political intention to promote the bicycle?
Beijing

- The pioneer city since 2005
- Run by several private operators
  - Bicycle Rental: 80p + 8000 bicycles
  - Ibike Media: cooperation with universities and hotels
  - Fortune: 1,000 sp + 10,000 bicycles
- From Sep. 2007 to May 2009, the usage of rental bike exceed 1 million.
May 1, 2008, 2,500 bikes have been put in 61 service points

- The operation will provide data for drawing the Hangzhou public bicycle Plan

Public operator: Hangzhou public bicycle service is a subdivision of the Hangzhou Bus group
Total investment in 2008:
270m CNY

May 1, 2009:
800 sp + 20000 bikes

End 2009:
2,000 sp + 50,000 bikes
Turnover:

- 100,000 vehicles rented per day
- 6 rents per bike per day
- 94% free
Shanghai/Zhangjiang

► First project: Sep 2008, Zhangjing Administration and the local bike maker Forever created together two bike rental self-service points, one is in the subway terminal of Line 2

► Price:
  free for less than 30min,
  1-3 Yuan/hr,
  60Yuan/Day,
  150Yuan/Year

► Today, 33 sp+800bikes

► 5 rents/day/bike
Shanghai/Minghang

- Second project: June 2009, the district government of Minghang buy the public bike service provided in 25 s.p from the bike maker Forever.
  Final target: 400 s.p. + 15,000 bikes in 370 km²
- Free for local inhabitant
Could bike rental become a public service?

- Inspiration from European cities
  - The concept of “public bike system” (PBS)
  - Paris, Lyon, Amsterdam...

- However, the Chinese cases are all thought as a complementary to PT
  - A solution for the “final 1 kilometer”
  - Feeder mode for rapid transit
[3] Could bike rental become a public service?

- **Low price principle**

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<td>60/day, 150/yr</td>
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Could bike rental become a public service?

Is public fund necessary?

- A common business model: get profit from advertising
- Hangzhou municipal government promise not to use public money to develop bike rental service
- Beijing private operator try to get subsidy from local government
- PPP of Shanghai could be more efficient?
[3] Could bike rental become a public service?

- A city wide service or a local scale more reasonable?
  - Beijing and Hangzhou: commuting users are less than visitors
  - The rental services have not led to rethink urban road system
  - How to integrate the existing bicycles in large quantity?
Findings

- The development of bike rental services in Chinese cities is due to the improvement of PT.
- It is considered as a complementary to PT system, rather than an alternative mode of transportation to automobile.
- The Shanghai case which is limited in a local scale is relatively more efficient than the others.
- If the local government engage to develop a new kind of public transportation service, it would be necessary to take into consideration:
  - General policy and planning on urban road system
  - Integration of existing bicycle
THANK YOU!

......any questions?

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