Urban Competitiveness and Regional City-to-city (C2C) Cooperation in the Yangtze River Delta Region: a Case Study of Joint Development Zones

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Outline

1. Research background
2. Literature Review and Methodology
3. Empirical analysis
4. Findings and implications
5. Conclusions
Research background

- Urbanization, globalization and neoliberalization (Peck and Tickell, 2002; Brenner and Theodore, 2002).
- The rise of cities as geographical units (Kresl and Fry, 2005; Harvey, 2007) and intense intercity interaction (Tjandradewi and Marcotullio, 2009)
- “Urban competitiveness”—a concept tied to intercity competition (e.g. Deas and Giordano, 2001; Kresl and Ni, 2006).
- Government-led intercity cooperation at regional scale—regional City-to-city (C2C) cooperation booms in China in the last decade (e.g. Zhang, 2006; Heeg et al., 2003; Luo, 2005)
- Research relating urban competitiveness to regional C2C cooperation is limited and inexplicit (e.g. Begg, 2002; Shen, 2008; Turok, 2004; Beaverstock et al., 2002).
Connecting urban competitiveness with regional C2C cooperation—a research agenda

- Conceptualizing urban competitiveness
- Regional C2C cooperation—a theoretical framework
Urban competitiveness

• Definition:

“being influenced by multi-dimensional factors, urban competitiveness is the capacity of a city to attract, control, and transform limited resources to create wealth and provide jobs and ultimately, to achieve sustainable development and improve the living standard of local residents compared with other cities.”

• Theoretical Model (concept model; driven stages’ model)

Figure 1 Theoretical model of Urban Competitiveness
Source: developed by author amended from Begg’s maze (Begg, 1999, p.802)
Conceptual three-tier driven stages of urban competitive advantage

Additional information

Figure 2 Conceptual three-tier tree branched-driven stages of urban competitive advantage
Source: amended from Porter (1990); Porter and Ketels (2003); Yu (2004); Hong and Chan (2003)
Regional City-to-city (C2C) cooperation

The term “C2C cooperation” was introduced by Nigel Ringrose of the United Nations Development Programme (UNDP) in 2000.

C2C cooperation was chosen by UN-Habitat as the theme of World Habitat Day in 2002.

Regional City-to-city (C2C) cooperation—definition:

“long-term multi-lateral cooperation between cities in a region involving city governments working in a more or less official framework, and where collaboration is fostered for the attainment of common goals.”
City-to-city Cooperation

Key Factors of C2C cooperation

C2C cooperation process (partnership approach)

Key actors (two levels):
- Macro level: the two partner-cities;
- Micro level: governments (municipal, provincial, central), firms, residents

Scope (Regional)—local context

Joint added value

C2C ICO Added value

Individual added value

Regional C2C cooperation Process (regional C2C partnership)

Strategy formulation & partner selection

Negotiation for partnership establishment

Partnership maintenance

Partnership stagnancy/termination

C2C ICO Possibility

Rules

ICO performance

Figure 3 Regional C2C cooperation—a theoretical framework
Source: author
In regional C2C cooperation, urban competitiveness serves as an asset of partner-cities and usually as one of the targets (Beaverstock et al., 2002).

research relating urban competitiveness to regional C2C cooperation is limited (Begg, 2002; Shen, 2008; LeRoux and Carr, 2007; Turok, 2004; Yu, 2004; Sotarauta and Linnamaa, 2001; Beaverstock et al., 2002).

More attention has been paid to the impacts of regional C2C cooperation toward urban competitiveness, and less attention to the reverse relationship (Sotarauta and Linnamaa, 2001; Beaverstock et al., 2002; Yeh and Xu, 2008; Yeh et al., 2006).
Connecting urban competitiveness with regional C2C cooperation—a research agenda

Figure 5 Incentives and three types of C2C cooperation in terms of mobilization

Benefits

Economic benefits:
Institutional requirements
(Heeg etc, 2003)

Added value

Added value of urban competitiveness
Political added value

Three types of C2C cooperation in terms of mobilization

Spontaneous
Hybrid
Hierarchical
Research questions

1. Mechanisms for the three different types of regional C2C cooperation (i.e., hierarchical, hybrid and spontaneous)?

2. The nature and function of urban competitiveness and intervention from higher-level governments?

3. Impact of China’s local context? the roles of governments?
Urban Competitiveness (UC)

Urban Competitive Advantage
Urban competitive advantages theory
Driven-stages of UC

Influence Factors of Urban Competitiveness
Conceptual model of UC

Influence Factors of Urban Competitiveness

Driven-stages of UC

Case study
C2C interaction
Factors analysis
Process analysis
Actor interaction
Factors analysis
Process analysis

Key Factors of C2C cooperation

Regional City-to-city Cooperation

Regional C2C cooperation Process
(regional C2C partnership)
Strategy formulation & partner selection
Negotiation for partnership establishment
Partnership maintenance
(evaluation)
Partnership stagnancy/termination

C2C ICO
Added value
Joint added value
Private added value

Key actors (two levels):
Macro level: the two partner-cities;
Micro level: governments (municipal, provincial, central), firms, residents

C2C ICO
Possibility
Rules
ICO performance

Case 1 (hybrid regional C2C cooperation)
Case 2 (hierarchical regional C2C cooperation)
Case 3 (spontaneous regional C2C cooperation)

Case study
Local Context of The YRD region in transitional China

Local Context
Dynamic Perspective

Empirical Study
Theoretical study
Study Area: the Yangtze River Delta (YRD) region

- The YRD region stands to be among the most developed areas in China: With 11.11 percent of the population and 2.22 percent of the land area in the whole country, the YRD region in 2009 generated 21.29 percent of GDP and 39.46 percent of export revenue; moreover, it accounted for over half of the actually used foreign capital.

- Facing intercity competition on the regional, national, and even global scope; urged in industrial upgrade and economic restructure to achieve urban competitiveness;

- Increasing costs of production, bottlenecks in resources, and pressure of environmental protection in southern Jiangsu, northeast Zhejiang, and Shanghai;

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**Figure 7 the Study Area—the YRD Region (2011)**

Source: Author
Solutions?
City-to-city (C2C) Joint Development Zones

City-to-city joint development zones as new phenomena

C2C
Joint development zone

Figure 4. Booming C2C Joint Development Zones constructed by Shanghai in the YRD region
Methodology

Case studies—three cases of C2C joint development zones in the Yangtze River Delta (YRD) region

• Jiangyin-Jingjiang Industrial Park of Jiangsu Province (JYJJP) – hybrid
• Suzhou-Suqian Industrial Park (SSIP) – hierarchical
• Shanghai Caohejing Hi-Tech Park Haining Sub-park (CHJ-HN) – spontaneous

Quantitative & qualitative research methods

• Quantitative: measuring urban competitiveness in the YRD region in 2002, 2005, 2008 (EW, PCA, ridge regression)
• Qualitative: literature review, archival research, on-site observation, semi-structured in-depth interviews
• Triangulation
Urban Competitiveness (UC) in YRD


<table>
<thead>
<tr>
<th>City</th>
<th>Rank in the YRD region in 2002</th>
<th>Rank in the YRD region in 2005</th>
<th>Rank in the YRD region in 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jiangyin</td>
<td>19</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>Jingjiang</td>
<td>83</td>
<td>57</td>
<td>34</td>
</tr>
<tr>
<td>Suzhou</td>
<td>7</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Suqian</td>
<td>98</td>
<td>100</td>
<td>94</td>
</tr>
<tr>
<td>Shanghai</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Haining</td>
<td>23</td>
<td>69</td>
<td>32</td>
</tr>
</tbody>
</table>

Table 2 Urban competitiveness of partner-cities in JYJJP, SSIP and CHJ-HN (2002, 2005, 2008)

Source: author
Case 1. Jiangyin-Jingjiang Industrial Park of Jiangsu Province (JYJJP) – hybrid regional C2C cooperation

- From informal market interaction to formal C2C cooperation (first on port open-up)

  Seeking ante-approval (JYJJP): A proposal was submitted to the Jiangsu provincial government;

- Promotion of “Development along the Yangtze River” by Jiangsu provincial government (2002);

- Established in 2003;

Figure 10. Location of the Jiangyin–Jingjiang Industrial Park of Jiangsu Province, Yangtze River Delta (YRD) region, China

Source: Authors.
<table>
<thead>
<tr>
<th>Item</th>
<th>Jingjiang Municipal Government</th>
<th>Jiangyin Municipal Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>JZJ Management</td>
<td>Provide infrastructure and services to the border of the zone, such as roads, energy, water supply and communication network, and so on</td>
<td>Responsible for social affairs and administration in the zone</td>
</tr>
<tr>
<td>Investment</td>
<td>Establish investment corporation and contribute 10 percent of the principal</td>
<td>Establish investment corporation and contribute 90 percent of the principal</td>
</tr>
<tr>
<td>Promises</td>
<td>Ensure that no local administration fee will be collected as Jiangyin is in charge of administration.</td>
<td>Encourage Jiangyin’s manufacturing enterprises and finance companies to invest in the zone</td>
</tr>
<tr>
<td>Project Management (Proposal and approval, etc.)</td>
<td>Report directly to the provincial government without the need for any approval from the county-level and prefecture-level cities</td>
<td></td>
</tr>
<tr>
<td>Statistical Data Collection</td>
<td>Double counting, count JZJ’s social and economic statistics in two cities</td>
<td></td>
</tr>
<tr>
<td>Revenue Distribution</td>
<td>No distribution of revenue in the first 10 years; 50/50 share of the revenue will be observed between Jiangyin and Jingjiang after 10 years, which is decided by Jiangsu provincial government</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 Agreement between Jiangyin and Jingjiang on rules governing the JZJ (JYJJP)
Source: revised from Luo (2005) with data obtained in recent interview (No. 18061002), the original table by Luo (2005) is based on the Jiangyin Municipal Government’s document No. 2003 (62)
Case 1. Jiangyin-Jingjiang Industrial Park of Jiangsu Province (JYJJP) – hybrid regional C2C cooperation

Performance

“Jiangyin offers the advantages of financial capital resource, management skills, human capital resource, and technology resource, while Jingjiang has the advantage of land resource, waterfront resource, and labor force supply. Without the cooperation of JYJJP, neither is able to accomplish current profits and achievements of the industrial park.”

(an official from JYJJP Administrative Committee, in-depth interview, June 18, 2010)

Table 4 Foreign capital to account of JZJ (JYJJP) (million USD), 2004-2007

<table>
<thead>
<tr>
<th>Year</th>
<th>Foreign capital to account (million USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>0</td>
</tr>
<tr>
<td>2005</td>
<td>10.3</td>
</tr>
<tr>
<td>2006</td>
<td>50.22</td>
</tr>
<tr>
<td>2007</td>
<td>104</td>
</tr>
</tbody>
</table>

Sources: Data compiled by author from JYJJP, the “Eleventh Five-Year Plan” of JYJJP (2006-2010) and the website of JYJJP, www.jyjjp.com

Table 5 Fiscal revenue and tax of JZJ (JYJJP), 2004-2008

<table>
<thead>
<tr>
<th>Year</th>
<th>Fiscal revenue (100 million yuan RMB)</th>
<th>Tax (100 million yuan RMB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2005</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>2006</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>2007</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>2008</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>

Sources: Data compiled by the author from JYJJP, the “Eleventh Five-Year Plan” of JYJJP (2006–2010), and the Web site www.jyjjp.com
**Case 1. Jiangyin-Jingjiang Industrial Park of Jiangsu Province (JYJJP) – hybrid regional C2C cooperation**

![Diagram](image-url)

**Figure 12 Urban competitiveness and mechanism of regional C2C partnership maintenance of JZJ (JYJJP)**

Source: author
Case 2. Suzhou-Suqian Industrial Park (SSIP) – hierarchical regional C2C cooperation

- Aiming at reducing regional disparity within the province,
- November 2, 2001, the provincial government initiated the “North and South Cooperation” scheme;
- The “revitalization of northern Jiangsu” scheme proposed by the Jiangsu provincial government since 2004;
- Suzhou and Suqian: sister cities
- established in December 2006;

Figure 13. Location of the Suzhou-Suqian Industrial Park, China
Source: SSIP website, last accessed on 19th Jan, 2012
<table>
<thead>
<tr>
<th>Item</th>
<th>Suqian</th>
<th>Suzhou</th>
<th>Jiangsu Province</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSIP Management</td>
<td>Officials from Suzhou are appointed to serve for three years. Suqian is responsible for local affairs and in charge of three out of eight bureaus</td>
<td>SSIPAC consists of eight bureaus. Suzhou is responsible for economic-related affairs and in charge of five out of eight bureaus</td>
<td>SSIPAC is under the leadership of the Suqian municipal government; internally, SSIPAC is led by Suzhou, with an official from Suzhou acting as its director and one official from each side serving as vice directors. Within SSIPAC, the standards of officials from Suzhou are nominated by Suzhou while their position and duties are decided by Suqian.</td>
</tr>
<tr>
<td>Investment</td>
<td>Suqian municipal government has invested 50 million RMB, Market operation of land acquisition is by SSIPAC, and Suqian has no land input in its equity share in SSIP.</td>
<td>Suzhou has infused a total of 150 million RMB.</td>
<td>Jiangsu provincial government has invested 100 million RMB through the Jiangsu Guoxin Investment Group Co., Ltd.</td>
</tr>
<tr>
<td>Promises</td>
<td>Suzhou Industrial Park’s experience is leveraged in terms of infrastructure, investment promotion, and administrative service while Suqian’s actual condition is taken into account.</td>
<td>SSIPAC is endowed with municipal standard at the division level.</td>
<td></td>
</tr>
<tr>
<td>Project Management</td>
<td>Authorization in personnel; management practices are fully authorized and closed operations are maintained.</td>
<td>The Suqian municipal government provides the SSIP with authorization in 13 bureaus. The SSIP has established an independent treasury for independent operations.</td>
<td></td>
</tr>
<tr>
<td>Human Capital and Technology</td>
<td>There are 24 training quotas per year for SSIP to send staff members to gain management experience in Singapore; professional training opportunity (e.g., planning) commenced in 2010.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue Distribution</td>
<td>There has been no distribution of revenue in the first 10 years, and another agreement on the distribution will be made after 10 years.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 6 Agreement between Suzhou and Suqian regarding rules setting of SSIP**

Source: Compiled by author based on data obtained from government bulletins, documents, and interviews (No. 15071001, No. 14071001, No. 29061001)
**Case 2.** Suzhou-Suqian Industrial Park (SSIP) – hierarchical regional C2C cooperation
**Case 2. Suzhou-Suqian Industrial Park (SSIP) – hierarchical regional C2C cooperation**

**Figure 16 Urban competitiveness and the mechanism of regional C2C partnership maintenance of SSIP**
Source: author
Case 3. Shanghai Caohejing Hi-Tech Park Haining Sub-park (CHJ-HN)–spontaneous regional C2C cooperation

Shanghai:

Development bottlenecks

- Global city; urged in industrial upgrade and economic restructure
- Development bottlenecks in resources and shortage in spaces.
- Shanghai: new economic spaces for innovation and creativity–imperative for competitiveness building both at the city level and firm level.

![Composition of Shanghai’s GDP (1978-2009)](source: Shanghai Statistical Yearbook (2010))

![Population density of cities in the YRD region (10,000 /sq.km.)](source: National Bureau of Statistics (2009); Urban Statistical Yearbook of China 2009)
**Haining**

- Haining: a county-level city—With Shanghai about 100 km to the east and Hangzhou 60 km to the west
- Great prospective benefits
- Shanghai Caohejing Hi-Tech Park Haining Sub-park (CHJ-HN) established in December 2009

**CHJ-HN:**

- Electronic information
- New energies
- New materials
- Biomedicine
- Automotive accessories

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**Figure 20. Location of Haining and Haining Economic Development Zone**

**Figure 21. Map of Caohejing Hi-tech Park Haining Subpark**

Assessing the incentives—micro level

Micro level:

- For CHJ as developer: new economic spaces for innovation and creativity

- For local enterprises/transnational corporations (TNC) as investors:
  
  basic factors of production—cheaper land, cheaper labour cost, sound business environment, service standard;

  e.g. French Bourgeois Company

- For Haining Municipal government: investment, local economic growth
Assessing the incentives—macro level

Urban level: urban competitiveness building of partner cities

- For Shanghai
- For Haining

Regional level: YRD region’s development trajectory:

industrial relocation and upgrade

Urban competitive advantage mainly in human capital, innovation and technology, company characteristics; mainly at the stage of UC transferring from investment driven toward innovation-driven

Urban competitive advantage mainly in resources, particularly in land resources, labour supply, good infrastructure; mainly at the investment-driven stage of UC

Goals sought (investment, industrial upgrade, economic restructure [alleviated its pressure on land resources shortage, labour cost increase])

Goals sought (investment [employment, industrial upgrade, economic restructure, human capital/management, company characteristics, business environment, increasing revenue from land])

Figure 24. Urban competitiveness and making of new economic spaces by the construction of CHJ-HN—incentives at macro level  Source: Author
1. **Mechanism of urban competitiveness impacting regional C2C cooperation**

- Urban competitiveness impacting strategy formulation and partner selection.

  Interdependence and preference diversity of partner-city;

  Seeking ante-approval,

  Intervention from provincial government is effective in strategy formulation and partner selection;

- Urban competitiveness impacting power balance and rules.

  three cases: the city of larger urban competitiveness obtain the leading role.

  Intervention from provincial government tend to consolidate impacts of urban competitiveness on power balance.

  (design for learning ) (SSIP case)

  prospective benefits discount power balance (CHJ case)

- Urban competitiveness impacting performance and partnership maintenance.


  urban competitiveness is more important for C2C partnership performance and maintenance  --SSIP case

  (Suzhou: from “assignment” to “ win-win situation”)

  Changes in urban competitiveness—changes in regional C2C cooperation.
Changes of sequence of determinants’ weighting in the YRD region

Figure 25  Radar chart of determinants’ weighting of urban competitiveness in 2002, 2005 and 2008  Source: Author

X1: sectoral trends and macro influences
X2: company characteristics
X3: the business environment (basic factors)
X4: investment
X5: human capital and capacity for innovation and technology

•Driven stage of urban competitiveness in YRD: evolving from investment-driven to innovation- and human capital-driven during the study period

•Increasing weighting of business environment (basic factors of production) cannot be explained by Porter’s theory of urban competitive advantage

•Localization of Porter’s urban competitive advantage theory when apply it to the YRD’s or to China’s local context
3. Imprints of China’s transitional local context

Debates:

• Weakening provincial government in China’s political restructuring;
• Political fragmentation and China’s urban entrepreneurialism v.s. C2C cooperation

Findings:

• Role of provincial government—continue to matter (strategy formulation and partner selection)

Hierarchical C2C cooperation (SSIP); Seeking ante-approval (JYJJP), power over JYJJP and SSIP “up-scaled” to the province

• Recent shift in China’s urban entrepreneurialism found in the YRD region—increasing emphasis on environmental care for sustainable development

Policy implications
Conclusions

- Joint development zones as an institutional innovation;
- Mechanism of urban competitiveness impacting regional C2C cooperation;
  - Urban competitiveness is essential in regional C2C partnership maintenance, while intervention from upper-level governments is effective and efficient in strategy formulation and partner selection;
- Localization of Porter’s urban competitive advantage theory;
- Imprints of China’s local context;
- the recent shift in China’s Urban entrepreneurialism.