A study of City Branding in the Yangtze River Delta in perspective of Ecological Modernization

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Title Page

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Executive Summary

Instead of merely ecological preservation, cities are now going through a road of "ecological modernization" which aims at generating more economic values with higher efficiency, thus benefiting both economy and ecology. Cleaner, greener manufacturing and high-tech service industries become favored among city competitors. Primary and secondary sectors will continually shift towards tertiary sector, which generates less emissions per GDP-growth via high quality services, coincides with higher GDP per capita and higher investment, and attracts more highly educated workforces.

As industrial development and transformation inevitably involves fierce competition for limited resources, branding strategies are utilized by cities to promote and distinguish themselves among competitors to face the challenges of ecological modernization. City brand is a multi-facet concept. Brand identity is what city brand decision makers want their cities to be remembered and recognized by the other cities via distinguished characteristics. Brand position indicates cities' strength from specific aspects.

From both city brand identity and position perspectives, this research is implemented by three main parts: theoretical modeling, data overview, and data analysis.

In the theoretical part, a conceptual framework of ecological mode pathways was proposed. We argue that the city branding practices can be explained by its economic development stage and position within the region. Based on these two factors which can impact a city's choice of city branding strategies, prediction of city branding options can be made about different pathways of ecological modernization mode of each YRD city.

In the data overview part, profiles of the YRD and its constituent cities are mapped including their historical evolution, geographic and industrial features. Statistics such as land area, population, GDP per capita, location and dominant industries are also collected. Realization of city branding strategies is checked and summarized in both qualitative and quantitative ways from urban master plan, land use plan and five-year plan.

In the data analysis part, cities were classified into three groups based on economic development stage namely primary sector dominated city, secondary sector dominated city and tertiary sector dominated city. Regarding position within the region, three categories are identified as international, national and regional city. Based on the five-pathway method proposed in theoretical framework, predictions on city branding choices are made. These predictions illustrate the proper city branding sets the cities choose according to their economic stage and position. In the end, whether the city branding practices in reality are consistent with the prediction is checked for both city brand identities and positions, and explanations for outliers are given.

Conclusion points out that even though the pathway model method could lead to predictions of the city branding options, the branding strategies chosen in reality still depend on the credibility of the city brands. Reasons why there exists gap between city brand practices in reality and prediction still need further research.

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Chapter 1 Introduction

Civilization development produces cities, and market economy development produces urbanization. New cities have emerged worldwide, sprouting like bamboo shoots in the soil after a spring rain. More than half of the global human population currently live in cities creating over 80% Gross Domestic Product (GDP) (Liu Y. , 2013). Recent rapid population expansion in South America and Asia, especially China, are causing profound changes to the global urban system. Cities must now compete for limited resources, such as foreign investments, talented workforces, and vibrant tourism industries. Worldwide, however, cities have instigated regional collaboration to increase city interconnectedness and networking.

As globalization and networking cause cities to aggressively compete, brand competitions have become significant influencers of success, prompting a global trend in which an increasing number of cities actively utilize and explore city brands (Van den Berg & Braun, 1999). In an exceptionally competitive situation, cities need to outline positive images and distinguish themselves from other cities based on unique advantages, consequently attracting more tourists and investors. A successful city brand is exceedingly valuable because it improves country-level city's reputations, revitalizes aged industrial cities, and rebrands developed cities (North, 2014). Consequently, city branding has been accepted in urban governance as an effective management approach to enhance city competitiveness and strategic connections among regions (Eshuis & Edwards, 2013; Eshuis & Klijn, 2012).

City branding in China has developed at a fast pace since the 1990s, and many local governments currently utilize city branding strategy by creating high-level urban settings to improve accommodation conditions. For example, the municipal government of Tianjin planned to build or upgrade ten natural parks in 2016 (Feng, 2016). The city of Shenzhen created a unified service platform in 2009 so that each user can borrow and return books using his or her personal ID card at any location of the city's 633 libraries (Wang B. , 2010). Large cities also seek opportunities to promote themselves by hosting national and international events, including the Beijing Olympic Games in 2008, Shanghai Expos in 2010, and the Guangzhou Olympic Council of Asia in 2010.

However, this rapid urbanization has caused many Chinese cities to tend to develop themselves with similar goals, urban functions, industrial structures and city images. City branding strategies are designed without clear city positioning and sufficient characterized advantages. Cities are often similarly built with commercial streets in the city center and centrally located skyscrapers, fast food restaurants, and bank branches, thereby deterring city's distinctions and seriously hindering the city's future development. According to results of a survey of international images of Chinese cities in 2010, 655 cities were planning "to the world," and 183 of 200 prefecture-level cities were attempting to be "international metropolises." Although city brands such as eco-city, garden city and forest city are universally popular, professional researches and investigations have not accounted for regional characteristics to determine whether these city brands are suitable for local development. Investors readily flock to popular industrial sectors that lack appropriate city positioning, resulting in overlaps and imbalance in industrial structure (Lin & Cai, 2013).

Besides, current city branding practices in China also suffer from other prominent issues, including the failure of brand promotion to incorporate key spiritual and cultural values of a city. Large-scale reconstruction of an ancient city frequently damages the city's physical and

intangible cultural heritages. The propaganda process also often lacks an ongoing and systematic process in which the geographical city image is delivered, and the characterized spirit is expressed to the target audience. In addition, city branding practices in China are mainly dominated by government and rarely engaged by social sectors. Traditional strategies of TV, radio, newspaper, magazines and mega events are used, but they lack efficient feedback and communication between government and other stakeholders, which may reduce city brand's appeal of citizen's supports (Levinson, 2011). Even worse, cities occasionally propagate only to the external public with one or two slogans and minimal video advertisements to showcase the city. Without scientific analysis and systematic planning on branding method, the overall brand practice cannot coincide with target audience characteristics and interests. Now a more effective method of utilizing social media has been evolved in advertisement of city brands, it cannot fully replace tradition media because not everybody can afford the necessary equipment (including smart phones and computers) in current China, and it is still waiting to be solved for the Chinese public sectors about how to handle negative information during city marketing (Zhou & Wang, 2014).

Urban and regional governance issues have been increasingly prevalent due to globalization, decentralization, and marketization in China since the 1970s as a result of significant economic and political restructuring of cities and regions (Wei, 2001; Luo, Shen, & Gu, 2014). Studies have been conducted on urban and regional governance in China to analyze Chinese governance restructuring, applying city scale theories such as growth coalition, urban regime, and entrepreneurial city (Zheng, 2011). Regional scale theories, however, primarily include only regionalization, regional planning and intercity cooperation (Li & Wu, 2012; Luo & Shen, 2009). China contains unique economic, societal, cultural, and political situations requiring intentional analysis of Chinese policy documents and urban planning with Chinese specific characteristics (Luo, Shen, & Gu, 2014).

Figure 1. Main Economic Rims of China

Since China's entry into the World Trade Organization in 2001, the Yangtze River Delta (YRD), together with the Pearl River Delta (PRD) and Bohai Economic Rim[1] (BER) have been rapidly expanding. According to Yin, Zhen, & Wang (2011), Chinese city networks based on

[1] Bohai Economic Rim is the same as Jing-Jin-Ji

financial enterprises layout consist of five main city regions- "three major two small"[2], of which Beijing, Shanghai and Shenzhen are core nodes. These node cities develop within the context of region, and these regions influence cities in turn in their developing path. Therefore, the study of city branding and economic development of the YRD, PRD and BER regions (Figure 1) is extremely valuable to summarize the relation between city branding practices and ecological modernization, which offers city branding policy makers academic knowledge.

Although cities attract populations with wealth and talent, mega-cities also encounter enormous ecological challenges and increasing social conflicts due to globalization, leading to public concerns about traffic congestion, ecological deterioration, toxic food, costly housing prices and unpredictable natural disasters. In the initial stages of Chinese Reform and Opening Up Policy, decision makers focused primarily on economic growth by rapid industrialization and urbanization and neglected environmental protection. Consequently, ecological deterioration increased significantly in China. Recently, several cities made headlines with unbelievable $PM_{2.5}$ Air Quality index, news which negatively impacted those cities' images. In 2010, $PM_{2.5}$ caused approximately 13,162 deaths and 22.1 billion yuan of fiscal loss in YRD, where Shanghai, Nanjing, Hangzhou, and Suzhou suffered the most loss, contributing to nearly 50% of the financial loss of the entire region (Wang, et al., 2015). In 2015, annual average concentrations of $PM_{2.5}$ in Shanghai, Nanjing and Hangzhou were $53.9\mu g/m^3$, $57.4\ \mu g/m^3$, and $54.7\ \mu g/m^3$, respectively, 5-6 times higher than World Health Organization Air Quality Guidelines (WHO, 2005) and greatly exceeding current annual air quality standards of $35\ \mu g/m^3$ (GB 3095-2012). In addition, since January 2013, when the Ministry of Environmental Protection released the first official city ranking of air quality, air quality has become a significant factor influencing city branding and city competitiveness in China. Strategies for industrial transformation and sustainable development are needed in order to improve air quality (Sheng & Tang, 2015).

In summary, the dilemma between economic growth and serious issues introduced by rapid urbanization must be solved. Chinese governments sense that they must change the pattern of economic development from rapid industrialization with environmental deterioration into ecological modernization (EM), a proven, successful practice that uses fewer ecological resources to produce increasing economic value. In addition to promoting economic growth, however, high eco-efficiency in industrial production should also mitigate environmental pollution. Therefore, Chinese cities also desire to reposition themselves based on the concept of "EM," which is more suitable to the current situation of China.

EM can also be applied to the industrial transformation process since fewer developed and county-level cities in China are undergoing urbanization to enlarge population and construct infrastructures. In fact, some wealthy cities in the eastern and coastal cities in YRD have already begun the industrial transformation to improve economic growth and realize sustainable development. In general, industrial transformation means the development focus changes from manufacturing industries with heavy pollution to green manufacturing and high-tech industries. Shanghai, Nanjing, and Hangzhou in the YRD are evolving from capital-intensive to technology-intensive manufacturing and producer services. Specially, technology-intensive manufacturing is the focus of Suzhou (in YRD), capital-intensive industry is the target of county-level cities around Shanghai, and cities far from YRD central cities are still pursuing labor-intensive manufacturing or agriculture (Tang & Zhao, 2010).

[2] "Three major" include YRD, BER, and PRD, "two small" include middle urban area taking Wuhan and Changsha city as regional center, southwest urban area taking Chongqing and Chengdu as regional center.

Above all, this thesis attempts to further analyze on city branding practices in conjunction with EM in China. More specifically, this research investigates what city branding strategies have been proposed and adopted and during this process, whether these policy initiatives are shifting towards EM.

To analyze city branding practices in China, the theoretical framework and methodology are described in Chapter 2, with a focus on city branding and EM, including synthesis of insights in the theoretical framework, and a description of research methods. Chapter 3 presents a comprehensive overview of the region and its various cities, and Chapter 4 identifies general city brands of each city in their region. Chapter 5 identifies and analyzes the city brands they adopted related to EM. Chapter 6 demonstrates data analysis from previous chapters, and Chapter 7 offers conclusions.

Chapter 2. Theoretical framework and methodology

2.1 City branding

2.1.1 Concept and evolution of city branding

Chinese cities have been keen to rebrand their city identities internationally. However, it is difficult for cities to pursue this strategy thoroughly, with debates in city branding concepts, applications, and effects (Braun, 2012). To better understand this process, a brief history of city branding and its focus is in lieu, where we will cover its definition, concepts with marketing and branding theory applied (Kavaratzis, 2008).

In the literature, the concept of city branding originated from marketing and branding theories, in which value, attributes and positioning of commercial products were used to distinguish them during brand competitions (Kavaratzis, 2004). Brands are not only identifying names, songful slogans or beautiful logos, but also tools to distinguish themselves through personality and positioning, combining functional attributes with symbolic values (Hankinson & Cowking, 1993). The aims of these brands are adding extra values on the product through a careful selection of relevant attributes (Knox & Bickerton, 2003).

A brand generally consists of three components- *brand identity*, *brand positioning* and *brand image* (Kavaratzis & Ashworth, 2005). Overall for cities, city brand identity is the general self-description and its essence is how the city sees itself. City brand position is the various aspects of the brand for various target group. City brand image is how the outside world sees the city.

City identity is a complicated combination of spatial configuration and distinctive characteristics from the cultural values of a city (Zhang & Zhao, 2009). Those characteristics need to be carefully considered and creatively synthesized to design a meaningful and irreplaceable identity. City identity of a city helps people remember, recall and recognize it ahead of other places, making its promotion the foundation and main goal of city branding.

City position is the decision makers' expectation of the city's future direction and their cherishment to history, influencing a city's development path from various aspects. For example, if a city positions itself as a 'global city', then it will make a great deal of efforts to enhance its international reputation. Therefore, city positioning is crucial to city's future. Within the context of this paper, we pay much attention to those city brand positions related to ecological modernization.

City image is comprised of urban elements including public spaces, architectures and natural environments (Riza, Doratli, & Fasli, 2012). City images could deeply impress visitors, such examples can be found in fantastic skyscrapers in Dubai, shining beaches in Barcelona and central park in New York. City image could therefore be the key concern of city branding. Since this paper mainly focuses on the relationship between city branding and ecological modernization, only city brand identity and position which are important elements in brand building process are considered.

There are multiple ways to realize city branding practices such as logos and slogans. Logos have been utilized as city branding strategy to express spirit of the city, such as Suzhou's garden

logo and Hong Kong's red dragon logo. Slogans and terms, on the other hand, are used more frequently by cities to show their characteristics and advantages, including "romance" of Paris, "modernity" of Tokyo, and "fashion" of Milan. These well-known novel concepts have also been used to rebrand cities, including green city, smart city, and knowledge city and so on. Even though creating and promoting a city brand is expensive and time consuming, government officials still actively take part in the practices and try to make their city brands reflect the soul of those cities and millions of people are inspired to have a visit, thus attracting investments, tourists and world's attention.

2.1.2 Implementation of city branding

The implementation of city branding in reality is far more complicated and affected by various factors. Since city branding is closely related to policies and part of urban governance, its materialization is also influenced by the governance settings and municipal leaders' decision. (Hatch & Schultz, 2009; Lucarelli & Giovanardi, 2016). There are factors that can affect its implementation from perspective of urban governance and city branding respectively (Braun, 2012). Firstly, city officials need to correctly understand the city branding theory, which has positive effect on city branding practices. Since definition of city branding differs academically, a common understanding requires to be agreed by municipal leaders so that unnecessary option divergences resulted from definition variations can be avoided. Secondly, city branding should be of a reasonable political priority and be planned with foresight so that its implementation won't be influenced by change in the leadership. Clear division and responsibility allocated for different departments could be a great start to help achieving this.

Moreover, the city branding should be credible and sincere. Because a gap between the city branding slogans and real city images may harm visitors' impression of the cities. Besides, to include all target groups of city branding, it is beneficial to combine the umbrella brand for the general target audience and sub-brands for particular city customer groups. In this way, it is much more flexible to promote city to the targeted citizen groups such as college students and commuters besides the general audience, namely, residents, companies, visitors and investors. Furthermore, it is of great benefit if the municipal government can adopt co-branding strategy by combining city brands with renowned brands of people, organizations, institutions, events and companies in the city. For example, Barcelona, a Spanish city, becomes more well-known when the Football Club Barcelona won a lot of champions and reached an unbelievable achievement in football history, leaving FC Barcelona as one of the best city brands of Barcelona (Belloso, 2011).

City brands have been used popularly by cities to advertise themselves to the outside world. This advertisement includes not only the economic and industrial aspects of a city like advanced technologies, but also the improvement of the current living and ecological conditions for potential investors and present residents. Concerns of environment problems can be addressed by integrating concept of Ecological modernization(EM) to city branding, methods of which has already been applied in some regions from different countries (Anderberg & Clark, 2013; Antrobus, 2011; Goess, de Jong, & Meijers, 2016). Therefore, this thesis will address the EM as an appropriate point to understand city branding in the following sections.

2.1.3 EM city brand

Various city brands have been applied by a great many of cities in their city planning documents and slogans for the outside world. Compared with design process of a commercial brand, city branding is much more complicated because it should cover city's core value, cultural

characteristics and behavior. Furthermore, city brand's target groups are even more complex including citizens, tourists, private organization leaders and government policy-makers (Middleton, 2011).

Additionally, city brands are not only colorful and unique, but also involving sustainable elements, such as the Dubai's brand image of luxury, prestige and modernity (Govers, 2012), Washington DC's brands of power and epicenter of world politics (Zhang & Zhao, 2009) as well as Curitiba's city brand of 'the Greenest city on Earth' (Macedo, 2004). Among these city brands, cities in the world now tend to use brands involving sustainable elements more frequently which shows these cities' preference to pursue a sustainable development (De Jong, Joss, Schraven, Zhan, & Weijnen, 2015). Even though these city brands seem interchangeable and probably cause terminological fuzziness, most of these city branding express their desires to balance the ecological, economic and societal development, and to obtain higher economic efficiency and better livable communities through promotion of technological innovation, scientific plan and other efficient measures.

In this thesis, the city brands not only decorate the city's image to attract attentions but also provide essential goal for these cities to realize ecological modernization are defined as EM city brands. Besides, these EM city brands also emphasize on positioning and advertising in certain scales, such as regional, national or international. From a perspective of ecological initiative, the 12 most frequently used city brand types with more narrowly defined concepts: "ecological city", "low carbon city", "sustainable city", "green city", "digital city", "smart cities", "intelligent city", "information city", "knowledge city", "resilient city" and "livable city" (De Jong, Joss, Schraven, Zhan, & Weijnen, 2015). In general, they have different conceptual perspectives and each of them will result in diverse development process.

2.2 Ecological modernization

2.2.1 Historical background of EM

Stimulated by industrialization in 1800s, urbanization rate was predicted to triple in the next 40 years so that size and quantities of cities will continue to increase (Suzuki, Dastur, Moffatt, Yabuki, & Maruyama, 2010). Research institutions and companies were aspired to create theories and approaches to tackle problems including environmental deterioration caused by rapid growth of technologies, economics and population. Sustainable development is one of those approaches, and its definition is to address environmental, economic and social problems at the same time by protecting the environment through a series of systemic changes and understanding of the relation between human and nature. Although this concept was once a successful guide worldwide for institutional capital building, the application of sustainability is limited because of its vagueness in workable principles for land use plan and urban plan (Kasioumi, 2011; Khakee, 2002). Thus, people seeks to a more effectively sustainable development method, and then the concept of EM emerges as a part of historical evolution of sustainable development.

Sustainable development defined as 'without compromising the ability of future generations to meet their needs, satisfy the needs of the present generation' by the World Commission on Environment and Development, shows the identification of economic system, ecological system and social system in the development process (Holling, 2001). Viewed as the most important reference for the environment policy, sustainable development has a great influence on the government's policy-making process. Although it helps to reduce the pollutants and

enhance the green field in some area, improvements in the global ecological environment are still limited (Zaccai, 2012).

Despite its principle that no compromises should be made with the resource of future generations in sustainable development, EM has gone further step by highlighting on reconciliation and mutual enhancement of economy and ecology (De Jong, Joss, Schraven, Zhan, & Weijnen, 2015). Langhelle (Langhelle, 2000) points out the similarity and difference between EM and sustainable development. Discussions and topics of EM revolve around area of sustainable development. However, these two concepts cannot be conflated due to their different actuating range. EM belongs to global issues in economic and ecological aspects while sustainable development is designed to solve a full scope of developmental, economic, environmental issues, population, peace, security, and social justice within and among all generations. Sustainable development has an all-encompassing nature, but it lacks clear workable principles to implement. EM can be a complimentary method to conciliate economic development and environmental problems, but it cannot solve the equity or democratic participation which are central issues of sustainable development. Urbanization can obtain benefits from both sustainable development and EM. As EM and sustainable development are complimentary to each other, EM is viewed as a most used approach when developing goals are beyond the scope of sustainable developments.

2.2.2 Content of EM theory

In the 1970s, the ecological perspective emerged in policies and ideologies area, which involved constructing environmental institutions and organizations of the government (Mol, 2006). It challenged the old development thinking where production and consumption were only determined by economic principle. With growing autonomy and independence of ecological perspective and ecological rationality, concept of Ecological modernization(EM) was introduced by Joseph Huber and Martin Jänicke, and widely accepted by social scientists in western European countries in 1980s (Mol, Spaargaren, & Sonnenfeld, 2014; Szarka, 2012). It claimed that active combination of economy and ecology could drive economic growth and social development by effectively using natural resources and environmental components. Economic growth and industrial development use ecology as a source to benefit from EM, and in turn their influence on the environment will be mitigated by these achievements. Since then, design, analysis and management of economic processes were not only based on economic perspective, but also on a view of environment.

Developed by studying the relationship between environmental deterioration and changes of society and institution, EM approach appeared to be limited only within Europe in the 1990s, and then its substantial theoretical researches and empirical studies were extended to more countries including Canada, European countries and China (Davidson & MacKendrick, 2004; Gouldson & Murphy, 1996; Geng & Doberstein, 2008). Progress could be seen in ecology using EM theory in aspects of urbanization and industry. EM theory was developed through debates from the national scale and on theoretical basis. At first, technological innovation was viewed as an important role in environmental reform. In the second period, more focus was put on the role of the states and market in ecological transformation in balance rather than technological innovation. Lastly, EM concept was broadened in boundary of theory and geography to evolve globalization and newly industrializing and less developed countries (Mol & Sonnenfeld, 2000). Research on EM increasingly put emphasis on societal issues and physical conditions in economic and ecological aspects.

Originated from debates and dominated by deindustrialization, the initial approaches of EM focus on challenging the core institutions in modern society (Spaargaren & Mol, 1992; Mol & Spaargaren, 2000). The concept of EM defined by Hajer evolve variants of technological administrative approach and institutional arrangement approaches (Hajer, 1995). Based on that, these two opinions of EM concept were further categorized and renamed by Christoff as weak and strong type of EM (Christoff, 1996). In the weak type of EM, technological solutions are used to solve environmental problems, and all policies need to be made by scientific, economic and political elites. It is restricted to developed countries to consolidate their global economic advantages in a single, closed-ended framework. In the strong type of EM, changes were brought to institutional and economic structure of society, and the decision-making process is more open than the weak type which is only open to related elites. Janicke defined EM as a 'technology-based' and 'innovation-oriented' way in policies to solve environment problems, and claimed that EM belongs to market based solutions to meet requirements of market (Jänicke, 2008).

EM can be treated as a strategy of environment-inspired government policies since it has different understandings within various distinguished contexts. Its core features are that modern science and technology are identified as central part of EM; economic and market dynamics play an important role in ecological reform; EM is closely related to the country in comparison with other theories (Mol, 1996). However, with the development of EM theory, some previous core characteristics are no longer correct. For example, technological innovations are no longer treated as the most important role in the environmental reform (Mol & Sonnenfeld, 2000). The core of EM theory is neither the increasing compatibility between environmental protection and economic growth, nor the innovation or technology used in environmental reform. It is about the movement direction of environmental interests and ecological concerns in the practice and development of modern society, resulting in environmental transformation (Mol, 2006). Realizing the core of EM, policymakers no longer treat ecology as obstacles in social development practices. In contrast, they begin to actively implement environmental transformation to make full use of ecological interests. In specific, ecological interests transit social practices through the social mechanisms, dynamics and actors. Besides governments, market dynamics and economic agents like consumers, producers and enterprises also take part in ecological restructuring, innovation and reform to improve the environment. Thus, environment movements garnered a new role in the decision-making process in urban development.

2.2.3 Development of Chinese environment reform

To further explain EM phenomenon in China, it is useful to first in retrospect review the historical development process of environmental reform in relation to environmental institutions and laws. After the United Nations Conference on the Human Environment in 1972 where emphasis on environmental protection became pivotal, China held the first National Environment Protection Conference in Beijing in 1973 (Child, Lu, & Tsai, 2007). In the years to follow, Chinese government set up a National Environmental Protection Bureau (NEPB) dedicated to deal with environment issues. The first was the Environmental Protection law of the PRC (for trail implementation), which was enacted in 1979 and revised in 1989. In 1983, the second National Environment Protection Conference selected population control and environment protection as national basic policies. In 1988, NEPB, China's top environmental institution, was expanded and renamed as National Environmental Protection Agency (NEPA), with a larger staff size and enlarged organization's authority (Ma & Ortolano, 2000). Afterwards, more laws concerning environment protection were promulgated, including land management law in 1989, law on prevention and control of atmospheric pollution in 1991, law

on the prevention and control of environment noise pollution in 1996. The environmental law system kept on being developed and improved by offering more details and covering more areas so that governments have sufficient legal basis to plan and manage modernization in an ecological way (Mol & Carter, 2006).

Besides NEPA, there are another two agencies that became important in influencing the promotion of environment protection, namely the State Development Planning Commission (SDPC) and the State Economic and Trade Commission (SETC) (Mol, 2006). The SDPC, renamed from the State Planning Commission (established in 1952) during the reorganization of central government in 1988, is responsible for national social and economic planning (Houqi & Rist, 2002). SETC, set up in 1993, arrange resources for development of sectoral technology and control line industrial sectors (Zhao J. , 2001). The department of SDPC produces annual and long-term plan of the national economy and society, and SETC will coordinate the implementation of production in these plans. The provincial and municipal governments will make their Five-Years Plans(FYPs) based on the directions from national plans, so that concerns about environment protection in planning documents of SDPC and SETC could have great influence on the city development of the whole country. In essence, the scales of government environmental institutions keep extending, and both the quantity and quality of the officials are increasing.

Environmental indicators were clearly defined in the 4th National Environment Protection Conference in 1996. It claimed that government is responsible to control over the total emission of the 12 main pollutants, including Sulphur dioxide, carbon dioxide, dust and heavy metals. In the 11th FYP (2006-2010), the emission of Sulphur dioxide and carbon dioxide was decreased by 14.29% and 1.46 billion tons respectively, and energy consumption per unit of GDP decreased by 19.1%, compared with corresponding data during the 10th Five-year (1996-2000) (Energy saving "12th Five Plan, 2012).

With an improvement in living standards of Chinese, there has been a greater awareness of quality of life and environment situation. The previous Chinese strategy of 'developing first and treating the pollutions second' has changed gradually. The governments notice that the developing strategy in future should combine economic development with ecological modernization (Zhang, Mol , & Sonnenfeld, 2007). In this case, cities in China could absorb the experience from the theory and practices in other countries to create the ecological culture through the ecological modernization.

2.3 Research questions

In this master thesis project, it is attempted to answer the following main question and its related sub questions:

Main research question

How do cities in the Yangtze River Delta(YRD) position themselves through city branding in light of ecological modernization?

Sub questions

1. *What are the general geographic and industrial features of the YRD and its constituent cities?*
2. *What general city brands do the various cities adopt?*
3. *What city-brands do they adopt related to ecological modernization?*

2.4 Research methodology

2.4.1 Selection of cases studies

As a part of comprehensive broader research program that covers regions of YRD, Pearl River Delta (PRD), and Bohai Economic Rim (BER, same as Jing-Jin-Ji), this dissertation focuses on studying city branding practices in YRD. Serving as one of the three economic engines in China, YRD region consists of 16 cities, including Shanghai, southern part of Jiangsu Province and northern part of Zhejiang province. From city scale, they are all important cities in YRD undergoing different urbanization transformation process with various characteristics. Those cities on the one hand are competitors to each other, and in the meantime, have to depend on each other to develop the YRD area together with common interests. The YRD region is then divided into three parts based on their hierarchical structure or economic size, and compare differences between them through region scale analysis. Thus, this study will not only figure out the city-branding strategies regarding ecological modernization in YRD, but also examines their mutual relationships.

2.4.2 Research methods

In order to answer these sub-questions, a variety of methods will be used as explained as the following.

1. *What are the general geographic and industrial features of the YRD and its constituent cities?*

A literature study is conducted, consisting of articles and books about the city branding policies in YRD and official governmental documents in China. Official documents include 12th Five Year Plan(FYP), Urban master plan, Land Use Plan. Data will be obtained from city-level and provincial level statistical yearly report to indicate economic development stage of each city, as the following: GDP and GDP per capita, percentage of the primary, secondary and tertiary (in economy and workforce respectively), territory (in km2), resident population and registered population.

2. *What general city brands do the various cities adopt?*

To analyze city branding practice, three documents are consulted: 12th five-year social economic plan, urban master plan and land use plan, all principle guidelines for Chinese municipal governments to make decisions. Through qualitative methods, summary, introduction and conclusion of each plan were analyzed. First, crucial sentences about their historical characteristics, actions to be taken now and vision about future are given. Then, an overview table of the general city brands will be constructed.

3. *How city brands do they adopt related to ecological modernization?*
City categories of ecological modernization given in de Jong et al. (2015) will be modified taking practical Chinese characterizes into account. A list of ten main brands was analyzed. Namely, smart city, innovation city, resilient city, eco city, low carbon city, livable city, advanced manufacture city, service city, modern agricultural city.

First, with qualitative method, the thesis identifies crucial sentence with city brand identities from their planning documents. In a quantitative way, we calculate the frequency of city brands related to ecological modernization. The 12 FYP and urban master plans were fully counted through, while excluding the land use plans which mainly focus on control of land use.

2.4.3 Methodological framework

Where do we come from, where are we now, where to go tomorrow? Only through reviewing the evolution of each city, can we see the future direction of development more clearly.

The methodological framework is shown in Figure 2.1, which suggests the method of this paper about how choice of examination in geographic and industrial feature can define city identity and city positioning. Dependent variable of *city branding practices* can be explained by two independent variables-*economic development stage* and *position within the region*, since these two independent variables will have impact on cities' choice of realization of EM and brand themselves. In addition, cities in modern society are eager to follow the path of EM instead of merely environmental preservation. Given each pair of independent variables, prediction about future direction of city branding will be conducted based on the intermediate variable-*mode of ecological modernization*, which came from our research group. Finally, predictions will be checked whether they are in accordance with evidence of city branding practices in YRD region.

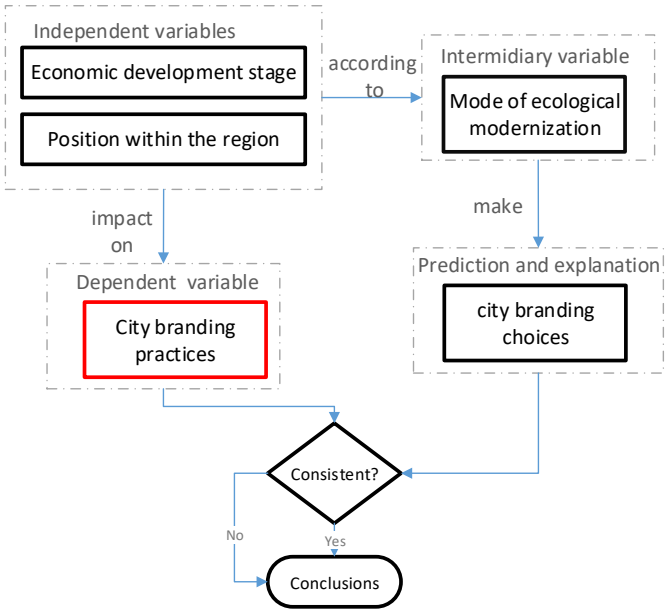


Figure 2.1 Theoretical framework

2.5.3.1 Economic development stage

In order to retrieve values of the two independent variables, study will be started by retrieving data about characteristics of the YRD cities in Chapter 3 with a path of past-present-future structure, which are important basis for cities to build city brands. Information will be gathered from aspects including population, economics, environment, culture, city space structure. Characteristics such as geographical advantages and historical evolution will be given for each city. Key developing strategies or projects in the old policy documents such as FYPs of decades before are also pointed out to understand what has happened in each city and how they drive the city to become the current status step by step. Secondly, after clearly describing each city's developing path in the past, current status with their EM aspects in plan documents are explored. In addition, city statistics concerning population, economics and land size are given.

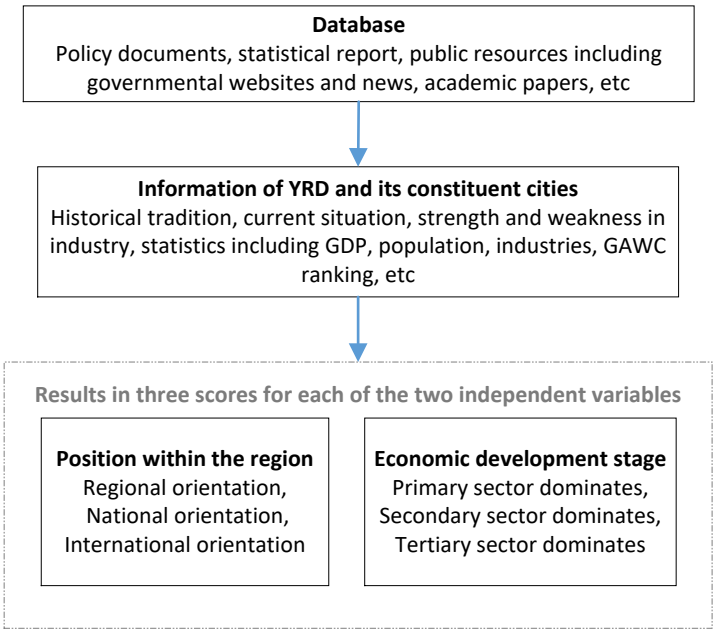


Figure 2.2 Establishment of two independent variables

EM is a way in which cities are developing from production oriented towards more knowledge intensive-serviced cities or information driven society so that the production is more efficiency and environmental friendly. In this case, industrial transformation is inevitable and cities are trying to replace their highly-polluted industries through cleaner and high-tech industries. That is, cities dominated by primary and secondary industries will continue to shift to focus on tertiary sector through adding more value through high quality services and less emissions.

Moreover, three indicators below are used to measure scale of independent variable of economic development stage. Note that indicator 3 of land size is an additional information, and the score of the independent variable is mainly decided by the first two indicators. Cities that are still in quite undeveloped (or developing) economic phase and mainly focused on extraction of natural resource, such as agriculture, fishing, mining and so on, belongs to stage of Primary sector dominates. While cities that are comparatively developed but not highly developed, they focus on processing raw material gained from primary industries and manufacturing. As for this category, we summarize it as Secondary sector dominates here taking both tradition industries and economic phase into consideration. The highly-developed cities which increasingly have emphasized in service oriented industries such as retails, tourism, restaurants and so on, belong to Tertiary sector dominating ones.

Indicator 1: GDP and GDP per capita
Indicator 2: Primary secondary and tertiary measured as a) percentage of the GDP and b) percentage of the workforce respectively.
Indicator 3: Size of land area (in km2) in relation to population numbers, both in Year-end registered population and Year-end resident population.

2.5.3.2 City position within the region

Independent variable of *city position within the region* can be classified into *regional orientation*, *national orientation* or *international orientation* by indicator of GAWC ranking. Provincial capital with international importance, and vice provincial capital or vice-provincial cities with no global importance, and very important cities in national level. The remaining cities are regional cities, performing only regional functionalities.

The GAWC Network is an organization doing research upon the external relations of world cities. It assesses cities in terms of their advanced production services based on the interlocking network model, and classifies cities into different levels of world city network integration. These levels are defined as following interpretation. Alpha+ cities are highly integrated cities filling in advanced service needs for the Pacific Asia. Alpha and Beta level cities are very significant global cities which connect major economic area into the world economy. Gamma level cities are world cities connecting smaller regions into the world economy, or whose major global capacity is not in advanced producer services. Cities with sufficiency of services are cities that are not world cities, but they have sufficient services so as not to be overly dependent on world cities. According to the GAWC's two latest reports, all Chinese cities are summarized in the following table where the cities with bold font belong to YRD.

Table 2.1 City classification selected from GAWC data[3]

	2010	2012
Alpha+	Hong Kong, **Shanghai**	Hong Kong, **Shanghai**, Beijing
Alpha	Beijing	
Alpha-	Taipei	Taipei
Beta+		Guangzhou
Beta	Guangzhou	
Beta-	Shenzhen	Shenzhen
Gamma-		Tianjin
High Sufficiency City	Tianjin	Chengdu, Qingdao, **Hangzhou**, **Nanjing**, Chongqing
Sufficiency City	**Nanjing,** Chengdu, **Hangzhou**, Qingdao, Dalian, Macao	Dalian, Xiamen, Wuhan, Xi'an, Macao

2.5.3.3 City branding practices

Figure 3 illustrates how elements of city brands, namely city brand identity and city position can be deducted from each of the cities. Then city brand position will be analyzed in Chapter 4 and 5. Evidence are checked from the official governmental documents, namely every city's Urban Master Plan (UMP), Land Use Plan and Five-Year Plan (FYP), creating the same baseline for comparison. City brand positions will be gained in both qualitative and quantitative ways. First, we identify crucial sentences in UMPs and FYPs, then identify all the general city brands appeared in the whole documents. The EM-city categories, namely brand position with regard to EM, are summarized from the general city brands and then calculate their frequencies through the whole planning documents.

[3] http://www.lboro.ac.uk/gawc/world2010t.html

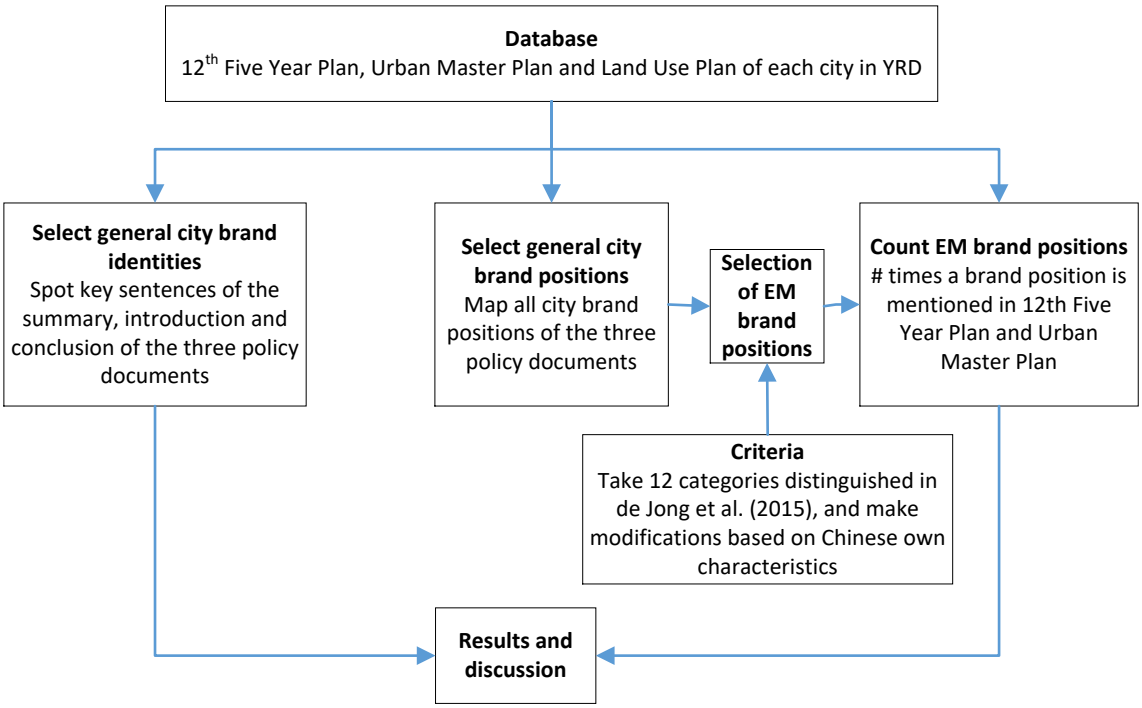


Figure 2.3 Establishment of dependent variable of city branding practices

2.5.3.4 Ecological modernization mode

In order to analyze city branding practices from the perspective of EM, variable of "ecological modernization mode" which came out of our theoretical group work, is introduced here to connect variables of "city branding" and "EM" first. The current economic strength and industrial characteristics of each city will have great impact on how they choose to response to environmental challenges. As there are three possible scores for stage of economic development and position within the region, a table with 9 boxes is ended up with 5 possible pathways as shown in Table 2.2. Cities will choose corresponding city brands practices to realize each pathway. In reality in China, there exist no cities belong to category where stage of economic development is primary sector dominates and at the same time national or international dominates, so 'n.a.' is marked in the two boxes indicating there no pathways exist.

Table 2.2 modes of ecological modernization ((De jong, et al., coming soon))

Stage of economic development(x) / *Position within the city (y)*	*Primary sector dominates*	*Secondary sector dominates*	*Tertiary sector dominates*
Regional orientation	PATHWAY 1 Eco-tourism (accommodating manufacturing)	PATHWAY 2 Advanced, low carbon manufacturing	PATHWAY 4 Knowledge and culture-oriented services
National orientation	n.a.	PATHWAY 2 Advanced, low carbon manufacturing	PATHWAY 4 Knowledge and culture-oriented services
International orientation	n.a.	PATHWAY 3 High-tech innovation	PATHWAY 5 Global advanced producer services

- Pathway 1: in this stage, cities are deeply rooted in primary industry such as forestry and agriculture and so on to provide natural resources. Therefore, they would select

green spaces to promote ‘clean’ industries like tourism and feel needed also to develop manufacturing industries.

- Pathway 2: in this path, cities have developed and make much efforts to try to improve their material processing techniques, which we call advance manufacturing here and at the same time do less harm to environment.
- Pathway 3: in this path, cities are of international orientation and mainly focused manufacturing feel obliged to develop in a high-tech and innovation way so as to merge advanced manufacturing and service industries and maximize profit.
- Pathway 4: cities in this path are eager to further upgrade their tertiary industries through knowledge intensive activities and be more competitive through offering attractive spaces with culture characteristics.
- Pathway 5: Cities of this path are focused on world-class living environment and distinguished between other cities in the world.

Chapter 3 YRD and its constituent cities

In this section, sufficient information is given for the 16 YRD cities including historical evolution, city positioning, dominant industries and city statistics. Data obtained are of great importance to help establish the two independent variables of *economic development stage* and *position within the region* used later in data analysis.

3.1 Overview of YRD

As one of the three biggest mega regions, namely Yangtze River Delta (YRD), Pearl River Delta (PRD) and Bohai Economic Rim (same as Jing-Jin-Ji), YRD is the largest economic center in China. It covers a total area of 212,000 square kilometers with a population of 50.33 million (Yangtze River Delta Urban Agglomeration Development Planning, 2016). According to Shanghai municipal development and reform commission, YRD occupies 2.1% land area, accounts for 11% population, and creates 21.7% GDP, 24.5% fiscal revenue and 47.2% foreign trade of China respectively. YRD cities are mainly located in the downstream area of Yangtze River, along Yellow Sea and East China Sea. Centered in Shanghai, YRD includes 8 cities in Jiangsu and 7 cities in Zhejiang in its north and south part respectively as shown in Figure 3.1. The main stream of Yangtze River enters the region via Nanjing, then goes through Jiangsu Province, and finally drains into the sea via Shanghai. The branch of Yangtze River goes through Zhejiang Province.

In 1982, the State Council issued to establish Shanghai Economic Zone, which became the first prototype of YRD economic circle concept. During the prototype era, Shanghai was a developing center and cities around it were selected for the YRD economic circle. Later on, YRD Fourteen Cities Association was established in 1992. In 1997, YRD economic cooperation was officially established with the clear proposition of the YRD economic circle concept, and Taizhou (in Jiangsu Province) entered as the 15th member of YRD. In 2003, Taizhou (in Zhejiang Province) was approved to join the YRD economic cooperation, and YRD became a real concept of economic circle composed of 16 cities without constrain of geography. During 2010 to 2013, YRD economic circle expanded by accepting 14 new members in total, namely 5 cities in Anhui Province, 5 cities in Jiangsu Province and 4 cities in Zhejiang Province. For the scope of this paper, YRD with 16 cities is considered neglecting those areas after expansion.

YRD Regional Plan, issued by the State Council, set goals to become “an important international gateway in Asia-pacific region, an important global center of modern service industry and advanced manufacturing, and Chinese first world-class urban agglomeration area”. It aims to develop YRD region into a well-off society in an all-round way by 2015, and realize basic modernization by 2020. This plan shows the important strategic position of YRD in the global China modernization construction development.

Shanghai is the core part of YRD metropolis circle, and Nanjing, Suzhou, Hangzhou, Wuxi and Ningbo are the sub-core cities. China have made great efforts in the past few years to construct Shanghai into the “four centers”- “international economics center, financial center, trade center and shipping center”. Until now, to the outside world, Shanghai has become a global city with great influence attracting international investments and businesses. In China, Shanghai is playing a central role in YRD economy, as a flagship to China's economy. Shanghai is also responsible to benefit the development of sub-core cities. Thus, with a healthy

development, prosperity of industry and economy create great business opportunities and promote industrial cooperation for the neighboring cities. In this case, the goals of sub-cores are to improve the urban internationalization level and speed up the modernization.

Figure 3.1 Cities in Yangtze River Delta

3.2 Various cities

3.2.1 Shanghai

3.2.1.1 Historical evolution and current status

In AD 1292, Shanghai became a city for the first time in Yuan dynasty. Then it became the national industrial center of textile handicraft in the 16th century, Ming dynasty. In the middle 19th century, Shanghai became a prosperous harbor where merchants gathered with its brand

"ten miles of luxury"[4]. Shanghai had been called as "city of light" by an English tour book since 1935, and was globally reputed as "Paris of the East", "Pearl of the Orient" in the early 20th century (Lin J. , 2014). Following the PRC establishment in 1949, it went into a period of depression and suppression. From 1953 to 1978, Shanghai gradually developed into an important industrial base with strategy of "transition from consumer city to production city".

Since 1978 when Chinese Reform and Opening Up policy began, Shanghai's economy began to recover and transit from secondary industry to tertiary industry dominated. From 1979 to 2014, the percentage that tertiary sector contributed to the whole GDP increased from 18.8% to 64.8%, and the secondary industry's portion decreased from 77.2% to 34.7% in 2014[5]. In 1990, a breakthrough year for Shanghai, when former mayors of Shanghai Jiang Zemin and Zhu Rongji became national leaders, State Council promoted the opening up of Pudong New Area (Tang W. , 2009). Then it began to revive as the international financial capital with the official slogan, "Let Shanghai Light Up!" (Yeung, 2015). In 1992, the 14th National Congress of the Chinese Communist Party (CPC) made a national strategy "build Shanghai into an international economic, financial and trade center". In the 8th FYP and 9th FYP periods, economic structure of Shanghai was turned from traditional planned economy to socialist market economy, and city was developed from "industrial and commercial city" towards "economic central city". Goals of "international economic, financial, trade and shipping center" and "socialist modern international metropolis" were stated in its 10th FYP (2001-2005). While in comparison, its 11th FYP not only continued its vision of "four centers" and "international metropolis", but also elaborated the goal to run a successful, splendid and unforgettable World Expo. Focus for sustainable development was added in "city innovation system, recycling economy and a resource-saving type environment-friendly city".

Recently, Shanghai is developing towards a global city from the fourth category (Alpha-) in 2000 towards the second category (Alpha+) in 2012, which is only behind London, New York, Hong Kong, Paris and Singapore (GAWC Team, 2012). Shanghai is the global resources "use" and "transformation" hub of China's overall economic and YRD region (Zhao, Li , & Xu, 2014). Its global business competitiveness profit not only from itself, but also from overall Chinese economy and international division of YRD region. To further improve its global positioning, Shanghai should strengthen cooperation with YRD and other hinterland cities.

The 12th FYP pointed out importance of innovation driver and restructuring development and put "form industrial structure mainly based on service economy" as the main goal. In the 12th FYP, Shanghai should take advantage of Pudong New District and Shanghai's World Expo effectiveness. The 13th FYP strived to build "innovation center for science and technology with global impacts" and construct more mature institutional in terms of norms regarding globalization, marketing and legalization. For a modern global city, it tries to improve the happiness and living standards of the citizens with slogan "city, makes life better". The newest 13th FYP points it out that as a shipping center, container throughput of Shanghai Port ranks first in the world. As a financial center, Shanghai financial market and direct financing of its non-financial corporate is more than 18% of national total social finance.

3.2.1.2 GDP and dominant industries

At the end of 2014, its GDP had reached 2356.09 billion RMB, accounting for 22.22% of YRD GDP. The proportion of industrial structure is 0.52: 34.65: 64.82, and the main

[4] in Chinese "十里洋场"

[5] Shanghai statistical year report

industries are electronics, chemicals, textiles, steel, metal fabrication, medical, petrochemical and logistics.

3.2.1.3 Major strengths and weaknesses

As a central city of the nation and YRD, Shanghai is in the first batch of cities supported with financial subsidies when China implements new preferential policies and transformation actions. For example, Shanghai Pudong New Area is set up in 1992 as the first National New Area in China, pilot area of reform, national first Pilot Free Trade Zone. Benefiting from its central position, a prosperous Shanghai is expected to become economic growth pole that promotes the whole YRD region and helps China strengthen its international influence in economic, financial and trade field. Shanghai has advantages in convenient ground and ocean transportation, high-educated people and education resources. However, environment issues emerge due to limited natural resources, and it is hard to maintain steady growth and industrial transformation and upgrading. There is a gap between urban and rural development, and bottleneck in the equalization of basic public services in health care, education, transportation, food and drug safety.

3.2.2 Nanjing (JS)

3.2.2.1 Historical evolution and current status

Nanjing, a capital city of ten dynasties, had been a trade port since 1858, providing Qing Dynasty government with considerable trade tariffs (Xu L. , 2015). From 1927 to 1948, it gained remarkable achievement in urban planning and construction by investing new schools, developing transportation and industries to solve unemployment issues, and renewing social welfare systems to improve living standards (Jiang, 2006; Tan & Fan, 2005). In 1949, Nanjing became “an important industrial base” with large scale of industry system. During 1949-1978, its urban area increased 28 square kilometers and population increased from 2.56 million to 4.12 million (He & Cui, 2000).

During 1984 to 1991, Nanjing developed fast in urban construction with many projects and reform measures, including completion of highways and overpasses, enhancement of housing and environmental conditions (Tang S. , 2008). During the 9th FYP period, percentage of manufacturing industry in industrial structure decreased, and that of service industries increased. In 10th FYP, it was positioned as “a provincial capital city, a commercial central city in YRD, a modern riverside city with beautiful environment and style of ancient capital”. Both 11th FYP and YRD regional plan positioned it as “an important gateway to central and western parts of YRD, national comprehensive transportation hub and technology innovation center”.

Within Nanjing metropolitan area, Nanjing acts as a logistics hub making full use of the throughput capacity of Nanjing port. As an innovation center, it has built 10 characteristic industrial bases for national torch plan, 20 national incubators, 5 national college science parks and Nanjing New High Technology Development Zone. Policies are made to attract high educated people such as nine policies for innovation and entrepreneurship, seven strategies for entrepreneurship, policy of Nanjing as an entrepreneurship city.

Its Urban Master Plan (UMP) defined the city nature as “a renowned ancient capital city, provincial capital and important central city of Yangtze River”. It aims to construct a “central city with economic vigor, an international historical city with culture characteristics, a harmonious city with good living environment”. Its Land Use Plan (LUP) puts emphasis on cultivated land and ecological construction, harmonious use and protection of land. The 12th FYP set goals for Nanjing to become an “international modern green capital city”, driven by

innovation, green development, integration of urban and rural areas, priority of enriching people and city internationalization. In its 13th FYP, it clearly shows Nanjing will cooperate with other cities in finance, business, logistics and tourism, and together make investments in service sector, industrial park, economic development zone of a high-quality life.

3.2.2.2 GDP and dominant industries

At the end of 2014, the GDP of Nanjing reached 882.08 billion RMB, occupying 8.32% of YRD GDP. The industrial structure measured as the ratio of primary/secondary/tertiary sector in percentage of GDP is 2.43: 41.08: 56.49, with main industries: petrochemicals, iron and steel, automobile, electronics and power generation.

3.2.2.3 Major strengths and weaknesses

Nanjing has advantages to play a leading role including education and talent resource, convenient transportation system, profound history and culture, and beautiful environment. Although most Chinese cities claim themselves as "historical and cultural cities", Nanjing stands out with its long history among other competitors. Nanjing's education system is the most developed within YRD region, and its population of higher-education students is even larger than that of Shanghai. It is home to 54 higher education institutions, which ranks only behind Shanghai in YRD (JLL, 2014). The ratio of industries measured as percentage of working population is about 54.0% in services sector compared to 36.8% in manufacturing sector and 9.2% in agriculture. Strong in services, its tertiary sector is relatively diverse compared to its neighbors most of which are dominated by manufacturing. Strong in software sector, Nanjing became the first city with the reward of "national famous software city" in 2010. However, Nanjing's economy is weak in advanced service sector and relied too much on real estate and heavy industry according to its 12th FYP. In addition, dominated by the nation-owned sector, its nation-owned enterprises account for one third of the industry output. Nanjing was left behind other YRD cities like Suzhou, Hangzhou, Ningbo and Wuxi in terms of entrepreneurial spirit to a certain degree.

3.2.3 Hangzhou (ZJ)

3.2.3.1 Historical evolution and current status

Hangzhou, sub-central city in YRD, is the political, economic, cultural and financial capital of Zhejiang province. As a tourist city, it is one of the seven ancient Chinese capitals with affluent cultural heritages and beautiful natural sceneries. Since Beijing-Hangzhou Grand Canal was built in 600 AD, Hangzhou had been an important commercial center and a major port to sell grain and fine silk (Zhang & Li, 2012). Before 1949, Hangzhou's economy developed in an unstable cycle influenced by factors including foreign aggression and civil war (He & Zhang, 2000). With undeveloped industry and heavy dependence on business, its economy was vulnerable to the unsteady political circumstances. From 1957 to 1978, Hangzhou's GDP only increased from 2.84 billion to 6.08 billion due to a sequence of political events, but industrial enterprises in textile, steel and electronic instrument industries still struggled to strengthen themselves.

After 1978, Hangzhou started to boost through introducing foreign investments and establishing joint venture enterprises and individual proprietorship enterprises. GDP increased by about 15 percent each year in period of 1978 to 1985. The economy of Hangzhou is greatly dominated by its light industrial products of silk, television and refrigerators. After being positioned as a 'national tourist city' in 1982, the service industry developed quickly. Since 1990, Hangzhou entered a stable economic development period with GDP ranking among the top ten cities in China. The Hangzhou government put emphasis on education and

transformation from knowledgeable and technological results towards productivity (Hui, 1990). Several high technological development zones were built since 1990 and have made a great contribution to the economic growth of Hangzhou (Liu & Peng, 2001).

In the 21st century, Hangzhou became an electronic commerce center in China where famous network technology companies such as Alibaba Group, Netease and Tecent Company set headquarters or branches. Its 10th FYP (2001-2005) proposed a city brand of 'living in Hangzhou, travelling in Hangzhou, learning in Hangzhou, entrepreneurship in Hangzhou,' and fought for 'a strong economic city, cultural city and a modern international tourist city.' From 2004 to 2008, Hangzhou was selected as the happiest city in China five times. In 2006, 'city of life quality' was selected as its city brand. In 2007, it won 'international gold star tourist city'. Hangzhou not only improved its economy with network and technology, but also constructed itself to be a world tourist city and livable city.

The UMP positions Hangzhou as "an economic, cultural and educational central city in Zhejiang Province" and "a renowned historical tourist city in China", which focuses on technological innovation and development of service industry. Its LUP stated that the protection of "natural ecology, cultivated land and tourist resources" is of the most importance, and land exploitation should be focused on high-tech industry and other low resource consuming industries. The 12th FYP aims to build "the city of life quality" by 'internationalization, prioritization of service industry, soft power enhancement, environment protection and livelihood of the citizens.'

3.2.3.2 GDP and dominant industries

At the end of 2014, the GDP of Hangzhou reached 920.62 billion RMB, accounting for 8.68% of YRD GDP. The industrial structure of Hangzhou is 2.98: 41.77: 55.25, with main industries of tourism, financial services, e-commerce, information software, advanced equipment manufacturing, food, and textiles.

3.2.3.3 Major strengths and weaknesses

As the sub-core of YRD and provincial city of Zhejiang, Hangzhou is the economic center, cultural center, education and technology center. Hangzhou obtains strong policy supports from the nation and Zhejiang Province. Named as the "self-dependent innovation demonstration area" in 2015, industrial clusters of information economy such as electronic information manufacturing, software and information technology services, big data and cloud computing, and network security are of the highest priority to develop. As a service trade innovation and development pilot in 2016, the service companies who promote advanced technology in Hangzhou could enjoy a preferential tax rate, and small-scale and middle-scale service companies can obtain financial support.

Hangzhou has a wonderful tourism resource, which is famous all over the world. Its education resources provide high-educated workforce for its IT development and high-technology companies. Furthermore, investors choose Hangzhou due to lower office set up costs, competitive tax incentives and a strong network of IT companies. However, Hangzhou faces economic transformation and upgrading pressures in industry. Independent innovation ability is not strong and restricted by old institution mechanisms.

3.2.4 Ningbo (ZJ)

3.2.4.1 Historical evolution and current status

With 7000 years of history, Ningbo is proven to be one of the world's oldest areas where rice was first cultivated. Once named Míngzhōu in the Tang dynasty, Ningbo started its foundation as a city in AD 821. Since AD 1381 Ming dynasty, it was named "Ningbo" (Ningbo Municipal Bureau of Statistics, 2015). In 1984, Ningbo was selected as one of the 14 coastal open cities in China, and Ningbo University was built. In 1986, it was listed as a national "historical and cultural city". In 1994, it became a sub-provincial city and on the Ningbo 8th Party Congress, the goal of "socialism modern international port city" were proposed, leading to large-scale urban construction. From 1978 to late 1990s, its development was mainly led by the County level including vitality from agriculture and economic institutional innovation (Chen, 2008). In 1999, on the Ningbo 9th Party Congress, objective of "international port city" was emphasized again, an important turning point for Ningbo to step into the development of central city level. After 1999, Ningbo central city's competencies got unprecedentedly enhanced with improvement in city's appearance and richness in city's connotation.

In 10th FYP period (2001-2005), it promoted city brand of "safe Ningbo". Ningbo's comprehensive competitiveness ranked top ten in China with GDP over 240 billion RMB in 2005. Its 11th FYP plan (2006-2010) versioned "legal Ningbo, safe Ningbo, and cultural city, modern global port city". In 2006, Ningbo ranked 12th among mainland cities and ranked within top five which is only after Shenzhen, Guangzhou, Qingdao and Hangzhou among the 15 sub-provincial cities (Ni, 2007). <Ningbo urban development strategy 2030> positioned the city as "Asia-Pacific international gateway, mountain and sea livable city" in 2009, and <Ningbo city development strategy>posed future development position as "International gateway city, city of innovation and entrepreneurship, livable city of quality", which is consistent with the strategic positioning defined in <YRD region planning> (Zhejiang provincial development and reform commission, 2013) and reflects its focus on the Ningbo port and aspects of industry, culture and ecology. In 2009, Ningbo selected its City slogan as: A city of culture and a gateway to the world[6], originated not only from its long history and enriched culture, but also showing characteristic of a modern international port city. From 2007-2011, Ningbo was honored five times in Happiest Cities Ranking in China. Nowadays, Ningbo is developing into a regional central city.

The GDP of the urban district in 2015 occupied 56.74% of the whole city, thus it is shown from the economic index that Ningbo has transitioned from development led by County level towards Central city level. In 2015, Ningbo was selected as "cultural city of East Asia" and "top ten smart cities in China". Wang Liping, Director of Ningbo Planning Bureau, stated that 'Optimizing the ecological pattern of urban and rural areas" was in the first place, and one reason is that "ecological environment is facing greater pressure[7]'. Its Urban Master Plan positions its development orientation as "Important port city of China's southeast coast, economic center of southern part of YRD, important city of YRD city cluster, and national historical and cultural city". In the end, the 12th FYP emphasized "six speed up" as strategy to realize future economic social development: "building international strong port, constructing modern city, industrial transformation, constructing smart city, building ecological civilization, improving quality of life."

3.2.4.2 GDP and dominant industries

At the end of 2014, the GDP of Ningbo reached 761.03 billion RMB, accounting for 7.18% of overall YRD GDP. The industrial structure of Ningbo is 3.62: 52.30: 44.07, with main

[6] in Chinese 书藏古今，港通天下

[7] Zhou, W., Qianjiang Evening News. Retrieved on January 7, 2014 from http://qjwb.zjol.com.cn/html/2014-01/07/content_2493264.htm?div=-1.

industries of textiles, garments, home electronics, plastics, auto parts, stationary, mold-production, electronics, IT industry and new materials.

3.2.4.3 Major strengths and weaknesses

The Port, private economy and opening up policy are great advantages of Ningbo. What's more, in the latest version of 'Yangtze River delta city cluster development planning' in 2016, scope of Ningbo Metropolitan Circle is clearly defined, which is positive to the future of Ningbo. It is beneficial for competitive enhancement and resource sharing of Ningbo, Zhoushan and Taizhou (Zhejiang). However, on the negative side, per capita farmland in Ningbo is only 40% of the average of China in 2011, indicating its limitation in resources and need for sustainable development instead of traditional mode[8]. Its 12th FYP pointed out the exacerbation of resource and environment constrained development, low technological innovation capability and lagging behind of social development.

3.2.5 Zhenjiang (JS)

3.2.5.1 Historical evolution and current status

Zhenjiang is a prefecture-level city in the southwestern part of Jiangsu Province with more than 3000 years of history. As a transportation hub, it connects the south and the north areas of Jiangsu Province. Zhenjiang, where Yangtze River and Jing-Hang Grand Canal meet, is called 'the overpass of rivers' since its area is passed through by more than 60 rivers. What's more, Zhenjiang port is the third biggest container port in YRD, with more than yearly 110 million tons in volume of cargos. It is a core city in Nanjing Metropolitan Circle and a member of Southern Jiangsu modernization demonstration area. In 1858, due to the Treaty of Tientsin, several western countries took charge of the Yangtze River and Zhenjiang became an important trading port. This period is called 'Yangtze shipping period', marking the start of modern industries. During this period, paper production factories, machine repairing factories, and water treatment plant were built and foreign businessmen come to Zhenjiang to invest. In 1912, with the completion of the Hu-Ning railway and the Jing-Pu railway, the development of Zhenjiang entered the 'railway period'. As textile and powder industries in Wuxi and Changzhou rose, Zhenjiang became a 'goods transit city'. Since the Grand Canal was blocked, the goods were transported to Shanghai which greatly weakened Zhenjiang's role as a trading port. Later on, it was chosen as Jiangsu province capital in the Republican period (1928-1949). After 1949, it was gradually repositioned from a goods transit city to an industrial city. Its 11th FYP (2006-2010) proposed to build a harmonious new Zhenjiang pursuing a people-oriented, comprehensive, coordinated and sustainable development.

3.2.5.2 GDP and dominant industries

At the end of 2014, the GDP of Zhenjiang reached 325.24 billion RMB, accounting for 3.07% of overall YRD GDP. The industrial structure is 3.73: 50.15: 46.12, with main industries of chemicals, automotive, electro-mechanical, high-tech, biotechnology and new materials.

3.2.5.3 Major strengths and weaknesses

Zhenjiang has an advantage in location since it is the center of YRD north wing and influenced by the Shanghai economic circle and Nanjing metropolis circle.

3.2.6 Yangzhou (JS)

3.2.6.1 Historical evolution and current status

Yangzhou is a noted historical city in the central Jiangsu Province with more than 2,500 years of profound cultural heritage. It has experienced thriving and prosperous periods since the Han

[8] http://english.ningbo.gov.cn/art/2011/12/25/art_421_517138.html

Dynasty due to its wonderful natural environment. It is those thriving periods that attract poets to write famous poems about Yangzhou and make contributions to Yangzhou's culture. From those vivid impressions in poems, it can be inferred that Yangzhou is a beautiful and rich city in Tang Dynasty. In the middle 19th century, Yangzhou faced a very adverse situation, Jing-Hang Grand Canal was blocked, and no railways passed through Yangzhou, so the construction of Hu-Ning railway began. Since then, Yangzhou lost its position advantages and economic prosperity, becoming a common regional city (Yang, 2007). Afterwards, this economic recession lasted for almost 100 years, while its neighboring cities were prospering such as Shanghai and Wuxi.

In 1994 when its economy started to recover, the "Yangzhou economic phenomenon" caught media's attention with its economic indicators ranking top in Jiangsu Province. However, it failed to continue and the development speed was slow after that. It was until 2004 that the first railway passing through Yangzhou was put into operation. Yangzhou peoples' a hundred-year dream of railway was realized, and the level of urban modernization was improved. Later, it was rewarded nationally as an 'outstanding tourist city' in 1998, 'water-saving city', 'ecological demonstration city' in 2004 and 'livable city' in 2006. Besides these, its city brands also include "national forest city" and "Chinese Harmonious Urban Management". In 10th FYP period, its city image was improved with title gained from a "National Sanitary City, National Environmental Protection Model City, National Garden City, and China Habitat Environment Prize". Its 11th FYP (2006-2010) fully implemented strategies of open development, industrialization, urbanization, enriching the people first, science and education, and goal of "a more prosperous, civilized and beautiful new Yangzhou".

Its 12th FYP's development focus was on "innovation and transformation development", in which innovation development was selected as an important engine for the economic development. Yangzhou government will implement further innovation drive by putting education in first place, encouraging industrial and technological innovation, and insisting on political system innovation in order to promote the economic restructuring from material resource consumption-dependence to innovation-driven. With the goal of 'creative Yangzhou, delicate Yangzhou and happy Yangzhou', Yangzhou promoted the city brands of "National City", "national ecological city", "famous city with modern and historical culture" and "national forest city', and made preparation to apply for the World Culture Heritage City.

3.2.6.2 GDP and dominant industries

At the end of 2014, the GDP of Yangzhou reached 369.79 billion RMB, accounting for 3.49% of overall YRD GDP. The industrial structure is 6.15: 50.99: 42.86, with main industries as machinery, automotive, shipbuilding, (petro) chemical, IT, new materials and biotechnology.

3.2.7 Wuxi (JS)

3.2.7.1 Historical evolution and current status

Wuxi, famous as 'pearl of Tai Lake' with abbreviation 'Xi', is located in the hinterland of YRD plain. It acts as a transportation hub in Tai Lake region and connects Suzhou to its east, Changzhou to its west, which form the Su-Xi-Chang Metropolitan Region. As a historical and cultural city, Wuxi's reputation 'land of fish and rice' since ancient times clearly indicates its essential role of economics in China. In the late 19th century to early 20th century, Wuxi people represented by Rong Brothers started to establish national capitalism enterprises, and the three major industries (cotton textile, silk reeling and flour processing). After 1949, Wuxi developed fast and birthed both the Township and Village Enterprises (TVEs) and Sunan Model (Wuxi history office, 2012).

In post-reform period, Wuxi continuously explored city repositioning and made slight changes in policy expressions from time to time, but the main body remained almost unchanged. From the 1980s, Wuxi was successively listed as one of the 15 economic centers and 10 key tourist cities. Wuxi's 7th and 8th Party Congress in 1985 and 1990 both positioned the city focusing on 'central city, civilization, and tourism'. Later on, attentions to 'regional transportation hub, environment' and 'globalization, sustainability' were added on its 9th and 10th Wuxi Party Congress in 1995 and 2001 respectively. In the early 21st century, its competitiveness ranked the 7th in China. Afterwards, Wuxi City carried on a series of environmentally friendly implementations, such as constructing city parks to raise its position in the national ecological garden city ranking index, and became the first to be named "National Forest City" in Jiangsu province in 2009. Also, electronic information, precision machinery, mechatronics, chemicals, biological pharmaceutical and other higher value-added manufacturing activities evolved during economic restructuring (Zhu, Bernard Jr, Plaisent, & Chiang, 2014). Wuxi's Low-Carbon City Development Strategic Planning document was released in 2010, which aims at decreasing carbon intensity by 45% by 2020 and spends much on modernizing its transportation network to connect with neighboring cities with low-carbon emissions (Zhou N. , 2014).

In 10th FYP period between 2001 to 2005, Wuxi brand is 'vibrant Wuxi, rich Wuxi, green Wuxi, civilized Wuxi, legal and peaceful Wuxi.' Wuxi expanded its city influence, and ranked top ten cities in China and won among 'ten vibrant cities', 'brand economic city', 'best business city'. Afterwards, its 11th FYP (2006-2010) aims at creating 'five centers' and 'five famous cities', which is 'advanced manufacturing technology center, regional logistics center, creative design center, vocational education center, tourist resort center', and 'industrial and commercial city most suitable for business investment, innovative city most suitable for creative design, mountain and water city most suitable for living, resort city most suitable for tourism resort, cultural city richest in humane features. In its 12 FYP (2011-2015), Wuxi's brand is "an eco-city, city of tourism and modern services, city of high-tech industry and livable city". Later on, in 2012, Huang Lixin, high political leader, proposed 'Four-type Wuxi', that is 'Charming Wuxi, Innovative Wuxi, Pioneering Wuxi, Happy Wuxi', which is highlighted as official guidance of Wuxi's urban development (Wuxi city governmental website)

3.2.7.2 GDP and dominant industries

At the end of 2014, the GDP of Wuxi reached 820.53 billion RMB, accounting for 7.74% of the overall YRD GDP. The industrial structure of Wuxi is 1.68: 49.92: 48.40, with main industries as iron and steel, IT and electronics, textiles, apparel and solar energy and metallurgy.

3.2.8 Taizhou (JS)

3.2.8.1 Historical evolution and current status

Taizhou is a famous historical and cultural city located in Jiangsu Province. Its name 'Taizhou' has over 2100 years of history with a meaning of 'Peaceful country and lucky people'. In addition, its ancient name 'Hailing' meant 'old county of Han and Tang dynasties, famous areas along Huaihai', echoing 'Guangling' (Yangzhou), 'Lanling' (Changzhou) and 'Jinling' (Nanjing). More than seven hundred years ago, Marco Polo Italian traveler praised 'the City of Phoenix' (another name for Taizhou in history) as 'this city is not big, but can provide every comfort and happiness people enjoyed' (Ding & Li, 2014). It is also a city of heroes, whose magnificent history in modern times reveals unyielding personality of Taizhou people. In the first Opium War, Taizhou people bravely fought blood battles with invaders by fowling pieces and old fashioned guns thus the British military ship was sunk. During war of resistance against

Japan, CPC leader Chen Yi entered Taizhou three times, which consolidated the national united front and was reserved in today's Huang Qiao Campaign Memorial Hall. In 1949, Baima Temple became the birthplace of the Peoples Liberation Army Navy Force. After CPC's victory, especially the Chinese Economic Reform and open up in 1978, Taizhou developed both in social and economic aspects. With largest Pharmaceutical Park in China, Taizhou is the China's largest pharmaceutical production and research base, and has ranked first nationwide for years. In its 11th FYP (2006-2010), it strived to build an economically prosperous, civilized society, life healthy and friendly environment harmonious new Taizhou. More specifically, its development goal was to build Taizhou into modern manufacturing base taking scale economies and innovative enterprises as the main body, regional logistics center, important sector of middle Jiangsu Province, sustainable developed region with friendly environment and healthy ecology. In addition, it plans to build the central city of Taizhou into an industrial and trade city of YRD, an important component of Xi Chang Tai urban agglomeration, a modern livable city.

In its 12th FYP (2011-2015), strategy of "three famous city": "Medical city, cultural city, eco-city" was proposed. On January 18, 2016, the fourth Taizhou City People's Congress pointed out the 13th FYP should include "four famous city", in which "port city" was added (Taizhou government, 2016). More specifically, as a medical city, it should leverage the opportunity of "Healthy China" and gather large health industries. For the national historical cultural city, image and reputation of "health, rich and lucky"[9] need to be continually improved. In addition, its brand of eco-city should be featured with Watertown and garden city. Lastly, port city aims at enhancing regional coordination.

3.2.8.2 GDP and dominant industries

At the end of 2014, the GDP of Taizhou (Jiangsu) reached 337.09 billion RMB and accounts for 3.18% of YRD GDP. The industrial structure is 6.21:50.35:43.44 and the primary industry is more than 5%. The main industries are pharmaceutical, biomedical, biochemical and bio-tech enterprises, mechanical, electrical manufacture, and food manufacturing.

3.2.8.3 Strength and weakness

Taizhou is located in the edge area of the YRD core area, thus it is poor in resources and may not develop continually only relying on driving force from inside. Therefore, it needs to seek collaborations with other cities near the sea.

3.2.9 Changzhou (JS)

3.2.9.1 Historical evolution and current status

Known as "China Dragon city" for its prosperity in history, Changzhou is a middle-sized prefecture-level city in southern Jiangsu Province. It faces Shanghai and Nanjing and locates close to Suzhou and Wuxi. Founded more than 3200 years ago, it got its present name "ordinary prefecture" in 589 AD, Sui dynasty. Since spring and autumn period, it was known as "pilot among the eight towns" "important site in central Wu"[10]. It is characterized with Jiangnan water villages, where canals spread within the urban area. Historically it was also named as 'take grand canal as latitude, waters around as longitude"[11]. Changzhou boosted its economy by using canals and succeeded by Wu culture. Since 609, Changzhou had become an important commercial center and transportation hub for agricultural produce in particular. Rice, fish, tea,

[9] in Chinese 康泰之州, 富泰之州, 祥泰之州
[10] in Chinese 八邑名都、中吴要辅
[11] in Chinese 运河为经，左右诸水为纬

silk, bamboo and fruit were produced and then shipped by canal to the north and later to Shanghai. Cotton textile industry began to be developed from 1920s, and grew quite fast in the late 1930s. However, business was gradually transferred to outside Shanghai at the start of Japan invasion. Changzhou site was built into a city in 1949, and was turned into provincial municipality in 1953. After 1949, it began to develop into a center of engineering industries (diesel engines, generators, transformers and other machinery) and continued to boost its economics even within Cultural Revolution period. In 1980s, Changzhou was already a famous manufacturing base in China. It grew fast into an economic pole with three high speed stations of today and two industrial zones, namely Changzhou Export Processing Zone and Changzhou National Hi-Tech District.

In 10th FYP period (2001-2005), construction of 'digital Changzhou' achieved initial success, and 'national sanitary city, national environmental protection model city and provincial garden city' were created. The 11th FYP (2006-2010) proposed to accelerate the construction of "regional central city, modern manufacturing base and cultural tourism city". In 21st century, Changzhou also took good initiatives in investment on city, habitat, tourism, culture and other aspects of branding practices. It had been awarded as National comprehensive strength Top 50 city, National optimal investment environment Best 40 City. In addition, it also successfully created its city brands as "health city", "eco city", "2012 Charming city in China", "international garden city", which greatly improved its reputation and promoted social economic development.

Changzhou 12th FYP proposed goal to construct Changzhou into 'Innovation and Entrepreneurship City, modern industrial city, livable city, happy and harmonious city'. It made efforts to build 'national historical and cultural city' and projects such as China dinosaur land. Up until now, Changzhou ranked sixth after Suzhou, Nanjing, Wuxi, Nantong and Xuzhou in Jiangsu province with city's GDP 527.32 billion RMB in 2015. Overall, its good quality of life which consists of accessible housing, efficient transport system and wide capacity of employment has also left a deep impression to the outside world.

3.2.9.2 GDP and dominant industries

The GDP of Changzhou reached 490.19 billion RMB accounting for 4.62% of the overall YRD GDP. The industrial structure of Changzhou is 2.82: 49.12:48.05. Its four pillar industries were agricultural machinery manufacturing, power transmission equipment manufacturing, motor vehicles and accessories manufacturing, new textile and apparel industry. Industrial products made in Changzhou were famous both inside and outside China, such as: Changchai, Dongfeng and Xinke. In the network of YRD city cluster, Changzhou is important network node city in 'Su-Xi-Chang' metropolis circle, and 'Xi-Chang-Tai' economic circle, thus it is obviously effected by this network.

3.2.10 Shaoxing(ZJ)

3.2.10.1 Historical evolution and current status

Shaoxing is a prefecture-level city in northern Zhejiang Province with a rich 9,000 year history starting from metaphase of Neolithic Age. Abbreviated as 'Yue', Shaoxing city is formerly called as 'Kuaiji', and its history as a city is more than 2500 years since ancient capital of Yue kingdom was built there in 490 BC. Later, it also became capital of East Jin Dynasty, then Wu Kingdom. It was ever called 'birthplace of celebrities' by previous Chairman Mao Zedong because it birthed many celebrities such as Wang Xizhi, Lu You, Lu Xun and Zhou Enlai. The orchid pavilion in Shaoxing is the cultural center of Chinese calligraphy, where Wang Xizhi created the most famous calligraphy named Lanting Xu. Later on, fascinating stories like Butterfly Lovers (love story of Liang Shanbo and Zhu Yingtai), and famous historical figures

such as Xishi (one of the 'Four Beauties' in Chinese history) were born in Shaoxing. Both its 10th and 11th FYP which together formed timespan of 2001-2010. It was constructing Shaoxing as 'economic strong city, cultural city, ecological Shaoxing, ecology, harmonious Shaoxing'. Its brand 'Shaoxing Vintage China' in 2008 is a successful case in the practices of destination branding, and the main unique selling propositions recognized in it are yellow rice wine, ancient canal city, celebrities, nature, artistic impression, beauty and love (Morrison, 2013).

Many efforts were made to construct the city into a strong brand city, thus Shaoxing's economy and society are rapidly improved (Zhang J. , 2005). Newly-added number of its enterprises brands that became Chinese famous brands ranked the first in the whole province so that Shaoxing co-brands its city brand with these successful commercial brands. Shaoxing city was not only one of the 68 provincial cities and central cities in China, but was also in the first batch of 24 national historical and cultural cities. It received various awards assessed by state ministries and agencies, such as national 'Science and technology advanced city', 'excellent tourism city', 'environment friendly model city', 'sanitary city', 'garden city', 'the best charming city', 'best brand commercial city', 'water-saving city', 'calligraphy city', 'happiest city', 'outstanding innovative city', and also 'the World's Best Living Place' awarded by UN. Today, Shaoxing is an important hub of transportation, business and commercial logistics, brand center, international fabric trade center in China. In addition, rice wine industry, viewed as a "gold card", and textile are important pillar industries in Shaoxing. In 2011, 'Shaoxing Home Textile' was proposed by Zhejiang famous brand strategy promotion committee as 'regional famous brand of Zhejiang province' (Shaoxing County Newspaper, 2011). In its Urban Master Plan of year 2011-2020, its characterized city development goal is set as 'famous cultural city, Jiangnan water city and livable city'.

3.2.10.2 GDP and dominant industries

At the end of 2014, the GDP of Shaoxing reached 426.59 billion RMB which accounts for 4.02% of the overall YRD GDP. The industrial structure of Shaoxing is 4.55: 51.89: 43.6. The main industries are textiles, machinery, pharmaceuticals and chemicals, and electronic information.

3.2.11 Nantong (ZJ)

3.2.11.1 Historical evolution and current status

Standing on the northern wing of YRD, Nantong is one of China's first fourteen coastal cities opened to foreign investment. With abbreviation 'Tong', it was known as 'gate to the sea and river' and 'the first window on Yangtze river' with a history of over 5000 years. Nantong's development of city branding practices and could be categorized into three main stages (Liu & Ren, 2014). In the first stage, it was developed in the unique city pattern of 'one city with three towns, urban and rural areas interphase' earliest proposed by scholar Zhang Jian in late Qing Dynasty, the first case of city planning in modern China, because of which it got name "the first city with characteristics of China in modern times" commented by Academician Wu Liangyong. More specifically, Nantong founded the first normal school, folk museum garden, textile school, embroidery school, drama school, blind dumb school, and weather station, altogether called as 'seven first'. Later on, as economic boosted, it built brands of 'city of textile, city of architecture, city of longevity, city of culture, city of sports, city of education, city of peace'.

However, much difficulty in city branding was caused in reality due to its distributed image description. The 10th FYP (2001-2005) stated to build Nantong into a "modern port, industrial, trade and tourism city" for Shanghai north wing, and important window for eastern Jiangsu coast to open up. In 11th FYP (2006-2010), its city brands are "modern international port city",

"the economic center of northern YRD" and the domestic "first-class livable entrepreneurial city". In early 21st century, city brand of 'Nantong Phenomenon', was created by media and scholars indicating a unique development pattern. The city is elaborated as 'Nantong model, Nantong speed, Nantong Characteristics, Nantong style, Nantong Spirit', which is corresponding to the five perspectives of institution reform, economic growth, civilization construction, urban construction and image improvement.

Its 12th FYP proposed to build Nantong into a "modern historical city, river sea leisure harbor" combining spiritual heritage and location near the water. Nantong Port is one of the top 10 greatest ports in China and is the first city of longevity in the world. As a textile city, it has become center of three largest home textile products distribution in the world. As a construction city, its construction industry is leading in economic aggregate, implementation capacity, and quality level and market coverage. Named 'Nantong Iron Army', it won Luban Prizes in 69 items and awarded 'Strong city in Building' by provincial government. As a safe city, it won titles of 'National Outstanding City for Comprehensive Control of Public Security' and 'Long Security Cup'. Recently, thanks to national strategies of YRD integration, Nantong developed faster in commerce, and ranked the fourth largest among the cities of Jiangsu province, after Suzhou, Wuxi and Nanjing in GDP[12]. Growing from a traditional industrial city of China back in early time from salt to cotton textile productions, today it has been listed as the No.1 city in the YRD Economic Zone for foreign investment, surpassing even its all rivals including Suzhou, Hangzhou and Nanjing with the openings of Sutong Yangtze Bridge in 2008 and Chonghai Crossing Yangtze Bridge in 2009.

3.2.11.2 GDP and dominant industries

At the end of 2014, the GDP of Nantong reached 565.27 billion RMB which accounts for 5.33% of the overall YRD GDP. The industrial structure of Nantong is 6.01:49.75:44.24. The main industries of Nantong are logistics, textile, shipbuilding, fishing, construction, new energy, bio-medicine, software outsourcing.

3.2.11.3 Major strengths and weaknesses

Nantong ranks high in YRD cities in terms of location and resources. It has three great advantages, which is near the river, sea and Shanghai. Among YRD cities, the first batch of open coastal cities in 1984 are Shanghai, Ningbo and Nantong. In addition, only Shanghai, Nanjing, Zhenjiang and Nantong have docks along Yangtze River in YRD central cities, thus except for Shanghai, Nantong is the only one which can completely be regarded as intersection city of rivers and seas[13]. Rich resources in fresh water and comfortable living environment helps it to attract foreign investment and develop port economy. However, on the negative side, dense population (second to Shanghai) and large proportion of agriculture (second to Zhoushan) leads to disadvantage of Nantong with YRD competitors. The gap between urban and rural structure, relatively small city size results in the difference between industrial structures, in which high-tech industry characteristics are not significant.

3.2.12 Huzhou (ZJ)

3.2.12.1 Historical evolution and current status

With a history of over 2300 years, Huzhou is the only city named after the Taihu Lake. It is an important transportation hub for Shanghai, Hangzhou and Nanjing. As an important node city, it connects YRD from south to north and links mainland China from eastern to central part.

[12] http://hkmb.hktdc.com/en/1X0A3RHA/hktdc-research/Nantong-Profile-of-a-Consumer-Market
[13] http://www.jssb.gov.cn/jstj/fxxx/tjfx/200401/t20040118_18019.htm

The economic zone centered in Huzhou city can reach the 16 YRD cities within 2-hour travel time. Besides, Huzhou is also rich in history and culture. In 248 BC Chu dynasty, it was called 'Gucheng' and in 602 AD, it started to be called as today's name 'Huzhou' because of its location near Taihu Lake. In 1912, the name was changed into Wuxing County. Later on after 1949, its headquarter, the Jiaxing district of Zhejiang Province. Then in 1983 the Jiaxing District was split into Huzhou city and Jiaxing city. Known as 'land of fish and rice, land of silk', it birthed the well-known 'Huzhou writing brush', ranking first in 'Four treasures of study' in China, and 'Huzhou silk', winning gold prize in 1985 first London World Expo. What's more, it is also the hometown of tea culture, where Lu Yu, 'Tea Saint' in Chinese history, wrote down the world's first treatise of tea, namely The Classic of Tea (in Chinese Cha Jing). Moreover, it is the most suitable living place marked by poet Dai Biaoyuan's poem 'After travelling entire Jiangnan beautiful places, Huzhou is the only place I will spend the rest of my life'[14] and birth place of 'China beautiful countryside'.

In recent years, Huzhou developed fast with its pillar industries including textiles, ferrous metal processing industry, wood processing, non-metal products, electricity and heat supply and chemicals. In the 11th FYP (2006-2010), creation of 'powerful Huzhou, legal Huzhou, cultural Huzhou and harmonious Huzhou' was highlighted. What's more, it proposed to build the city into a modern ecological lake-side metropolis with best eco environment in YRD, significant industrial characteristics and so on. Ecological construction was put in a more important strategic position to further create the brand of 'beautiful landscape, eco Huzhou'[15] and reputation of 'safe Huzhou' and 'legal Huzhou'.

Currently, Huzhou has been constructing the modern and ecological lakeside metropolis via industrial transformation and upgrading, in line with idea 'Green water and mountains are equal to mounts of gold and silver' come up with by the President Xi Jinping and provincial blueprint 'Double Eight Strategies'. Huzhou made great efforts to build its city brand 'beautiful Huzhou, cultural city of lake'[16], and got entitled as 'national hygienic city', 'garden city', 'tourism city', 'forest city', 'happiest City', 'demonstration area of ecological civilization in China' and so on.

3.2.12.2 GDP and dominant industries

The GDP of Huzhou reached 195.60 billion RMB which accounts for 1.84% of the overall YRD GDP in 2014. The industrial structure of Huzhou is 6.15:51.08:42.77. The main industries include textiles, non-metal products, electric equipment and machinery, ferrous metal smelting and rolling processing, electricity and heat supply, chemical raw materials and chemical products manufacturing industry[17].

3.2.13 Suzhou (JS)

3.2.13.1 Historical evolution and current status

Suzhou locates in the southeastern Jiangsu Province. With its abbreviation 'Su' and ancient name 'Wu', Suzhou city is known as a famous 'ancient water town' in China and 'East Venice' in the world. The city was built in 514 BC as the capital of Wu kingdom and until now it still remained the landscape at the time of establishment. It is rare in world civilization history that in the later 2500 years, Suzhou's location basically remained unchanged. Only 6 cities survived until today among 140 Chinese cities built in the same period with Suzhou, and Suzhou is the

[14] in Chinese 行遍江南清丽地，人生只合住湖州
[15] in Chinese 山水清远，生态湖州
[16] in Chinese 清丽湖州， 文化湖城
[17] http://www.chinaknowledge.com/CityInfo/City.aspx?Region=Coastal&City=Huzhou#Economic

only one remained unchanged in the original site, regarded as 'living fossil' of city history[18]. Thus, famous scholar Gu Jiegang commented 'ancient degree of Suzhou city ranks first in China'[19]. As the Wu capital, Suzhou gradually became a political, economic and culture center of Tai Lake area. However, Suzhou lost its importance and became a remote local town in 473 BC when Wu Kingdom was defeated by Yue Kingdom. Until 248 BC, it became capital again in Chu dynasty. After that, its economy grew slowly, and fast economic growth occurred until ninth and tenth centuries (Xu Y. , 2000). With the adoption of new agriculture technique in Song Dynasty, rice-growing areas boosted and became the richest place, marked by the saying "Paradise above, Suzhou and Hangzhou below". Then in the 14th century when wars began in Ming dynasty, Suzhou temporarily slowed its development.

Later on, Suzhou is developing from a city mainly based on consumption towards multiple function such as production, technology, information and so on. However, in the 1990s in terms of developing city branding practices, It relied too much on tourism, and met problems in looking for new economic growth point. In 10th FYP period, it was titled "a model city cluster for national environmental protection and ecological demonstration, international garden city". It 11th FYP (2006-2010) aims at building a "harmonious Suzhou" by implementing science and education, international economy, urbanization and sustainable development.

Now, it development goal "livable new Suzhou, entrepreneurial new paradise, happy new home" and city image "Home in Suzhou" are clearly shown on its governmental website. From perspective of visual identification, green background of its city image logo exactly reflects the Suzhou's characteristics of 'water town'. As a "historical cultural city", the four vigorous Chinese calligraphy of '中国苏州' show its long history and the English characters in the circle showed its focus on opening up, a perfect combination ancient and modern times. In its city slogan 'New Suzhou, New paradise', the 'new paradise' not only demonstrated its emphasis on traditional culture and protection of historical sites, but also shows aim in urban development, which can be shown in construction of Sino-Singapore Suzhou Industrial Park[20].

3.2.13.2 GDP and dominant industries

At the end of 2014, the GDP of Suzhou reached 1376.09 billion RMB, accounting for 12.98 % of overall YRD GDP. The industrial structure of Wuxi is 1.48: 50.09: 48.43, with main industries as iron and steel, IT and electronic manufacturing, textiles.

3.2.14 Jiaxing (ZJ)

3.2.14.1 Historical evolution and current status

Jiaxing is known as "village of fish and rice" and "hometown of silk" for its richness and wealth in the past. In history, it was ever called Zuili, Jiahe and abbreviated as 'He'. From the year of 242, the name of Jiaxing, meaning "auspicious and flourishing", began to be used. Between the Jin and Tang dynasties, the city went through further growth and became important food production area in southeast China with irrigation and transportation advantages brought by the Grand Canal from Hangzhou to Zhenjiang. In the Song and Yuan dynasties, it was well developed in agriculture and handicrafts industry, and grew a prosperous commodity economy. At that time, its products were sold nationwide and worldwide, earning reputations of 'handicraft skill is equal to Suzhou and Hangzhou', 'clothing the world' and 'producing ten thousand silk daily'[21]. However, its economy and city landscape declined due to exploitation

[18] http://www.szlib.com/sztsg/szzy/zjszzy/szdjt/show.aspx?ID=3&n=582
[19]转引自朱永新主编《吴文化读本》第 6 页，苏州大学出版社，2003 年版
[20] 2009.8, 论苏州城市品牌建设，彭虹， 114-115
[21] In Chinese 百工技艺与苏杭等,衣被天下，日产万匹

of imperialism and feudalism after the 1860 Qing dynasty. As a famous revolutionary site in China in 1921, the First National Congress of CPC, known as 'south lake red boat,' was successfully held in Jiaxing and declared the birth of CPC. Throughout its whole ancient history, civilizations of dynasties got repeatedly flourished and then depressed. Looking through the 581 years between the Yuan dynasty (1356) to Republic of China (1937), Jiaxing city suffered devastating war five times. Its urban construction in modern times developed slowly until 1949, so there were almost no ancient buildings left in Jiaxing city except for a few re-built churches, temples and residual towers of the late Qing dynasty[22]. After 1949, the economy gradually recovered and urban construction developed faster.

Jiaxing's urban construction process in new China can be divided by three periods. In the first period, 'the two bridges and one road' project was implemented. Transportation pressure was released by the completion of Zhongshan Road, Railway overpass and Zhongshan West Bridge. Secondly, in 'Times of Zhonghuan South' since 1994, ecological urban space structure was formed. Lastly in the 21st century, Jiaxing city entered in a golden development stage of 'time of network garden city'. The project of '1640' stepped forward, which made the entire region of Jiaxing a city, and constructed the 'big Jiaxing' by taking the central urban area as the center, five counties (cities) and Binhai New Area as sub-centers, and about 40 new towns as nodes. This is the first regional planning in Zhejiang Province, also advanced in China. In recent years, Jiaxing's energy-saving products of buildings developed rapidly, in which solar water heater production became one of the three major industrial bases in China, and foam glass production accounts for 80% of domestic production. Furthermore, local governments decided to carry out 'green actions' from the late 1990s. Large number of parks and green spaces were constructed, based on a goal of creating 'a national garden city' clearly stated in its urban planning documents in 2000. Besides, it won the 'hygienic City', 'excellent tourism city', 'green model city' and more. Its 11th FYP (2006-2010) proposed to building Jiaxing into a strong economic city, Hangzhou Bay new city, Jiangnan cultural city. More specifically, for a cultural city, it aims at building 'city of science and technology, education city, city of human resource, Hygiene City and City Sports'. In 12th FYP period, its positioned as 'an innovative economic powerful city of YRD, eco-cultural Jiangnan water city, livable coastal new city in Hangzhou Bay and a modern network-type garden city'.

3.2.14.2 GDP and dominant industries

At the end of 2014, Jiaxing's GDP reached 335.26 billion RMB which accounts for 3.16% of the overall YRD GDP. Its industrial structure is 4.32:54.10:41.58. The main industries are printing, textile, leather, electricity supply and chemicals.

3.2.15 Zhoushan (ZJ)

3.2.15.1 Historical evolution and current status

Situated in the northeast Zhejiang province, Zhoushan is a prefecture-level city established based on islands. Zhoushan has the reputation of "enjoy convenience of water transport, benefit from fishery and salt" since ancient times[23]. It is China's largest seafood production, processing and sales base, known as "East Sea fish warehouse" and "seafood capital".

Zhoushan's history as a city can be traced back to Wengshan County created in 738 of the Tang dynasty. Song dynasty government renamed it as Changguo County, meaning "prospering the country". Decades after that, it became the political, economic, cultural, transportation and

[22] http://www.nhqzx.cn/newsdetail.php?cat_id=12&news_id=196
[23] in Chinese 行舟楫之便，得渔盐之利

military center of the Zhoushan archipelago. However, the ban on the sea in 1387 and Japanese pirates' invasion in 1554 caused big setback in Zhoushan's city development, in which residents migrated elsewhere and city walls collapsed. In 1688, it continued the development in urbanization and was renamed as Dinghai County in Qing dynasty. Since then, its industries of fishing and shipping greatly developed, with its land marked "Shenjiamen" where the amount of fishing vessels and ships docking rapidly rose. During the Republic of China, luxury courtyard becomes a major feature of island city's architecture. Ancient city of Dinghai is a typical "Jiangnan water city", whose landscape was better than Wuzhen and Xitang[24]. In the second stage, Zhoushan city gradually developed towards an open city from the closed ancient city in the past. Changes of ancient city landscape were started at the end of The Revolution of 1911, because its narrow space was no longer able to bear the heavy load of industrialization. In the first thirty years after 1949, speed of urban construction was moderately slow. In the late 1950s, it began to dismantle the old city walls, making itself open to the outside.

By the 1980s, the city lost its landscape as an ancient Dinghai town because most river channels were filled or blocked. New village construction was started after 1978 and it became an "important base for marine fisheries" in China until 1986. In the third period, Zhoushan developed from a small coastal town to an island garden city. From 1995, it began to develop rapidly when the real estate industry was boosted by housing policy reform. By 2000, it has initially formed its framework as a "modern port city". In the 21st century, its 10th FYP (2001-2005) clearly defined development orientation of "marine economy city, marine and cultural city, and garden city at sea". Later on, it continued on constructing its three brands of "marine economy, marine and cultural city, garden city at sea" and four bases of "port industry, port logistics, marine tourism and modern fisheries" in 11th FYP period. Zhoushan Archipelago New Zone, the first national-level new district based on marine economy, was approved by State Council on June 30th, 2011. On Jan. 17th, 2013, Zhejiang Zhoushan Archipelago New Zone development plan stated the goal of "the pilot area of marine economy development in Zhejiang", "important economic growth pole of YRD", "national storage, transit, processing and trade center of bulk commodity", "industrial base of modern marine", "demonstration area of marine island protection". Until now, Zhoushan has won reputation of "Safe Zhoushan" and "the sports paradise", famous Zhejiang provincial brand of "Zhoushan Seafood", "Zhoushan memory". The 12th FYP proposed "New Zhoushan" with "international bulk commodity logistics base, archipelago garden city and national base of marine science and education". In its 13th FYP, it aims at "river and sea transport service center", "an international logistics hub island", "international ecological leisure island", "marine garden city, ocean health cities, urban safety, maritime and cultural city".

3.2.15.2 GDP and dominant industries

At the end of 2014, Zhoushan's GDP reached 101.53 billion RMB which accounts for 0.96% of the overall YRD GDP. Its industrial structure is 9.94:41.89:48.17. Its primary industry almost reaches 10% of its industry avenue which is the highest in the YRD region. The main industries are Harbor Logistics, Shipping, Aquatic Product Processing and Marine Tourism.

3.2.15.3 Major strengths and weaknesses

Zhoushan has a wonderful location, deep coast, tourist resort and ocean resources. YRD Region Plan positions Zhoushan as "a marine industry base" which focuses on building port industry, port logistics, marine fishery, and as "a coastal port city" which supports the function of Shanghai, Ningbo and other cities. Zhoushan Archipelago New Area is one of 11 national new

[24] http://dhnews.zjol.com.cn/dhnews/system/2012/05/02/014993234.shtml

areas, and the first national new area focusing on marine economy. It aims to build Zhoushan into a world-class port city like Hongkong and Singapore, so that the entire YRD regional economy can be improved.

However, even though it is supported by the national and YRD regional policies, Zhoushan is still small in economic scale. Due to slow developing speed, it is difficult for Zhoushan to play an effective role in economic development in the YRD as a main growth pole. The industrial development foundation is not strong enough and needs transformation and upgrading. Zhoushan is not able to take full advantage of marine and port since service industry is still in development. Investment effect coefficient decreases year by year, and the input-output effect is not obvious. Enterprises are lacking in scientific and technological innovation ability and unwilling to adopt innovation to upgrade their industrial condition. According to its UMP, its development was greatly restricted by the substantially saturated land use in its old town.

3.2.16 Taizhou (ZJ)

3.2.16.1 Historical evolution and current status

Surrounded by mountains with one side near the coast, Taizhou is located in southeast of Zhejiang province. At first, it communicated with the outside world mostly by water transportation due to poor natural conditions, and transport did not begin until the late 1920s. In the first three dynasties, no famous people were born; in the Han and Jin dynasties there was occasionally a celebrity; in the Sui and Tang dynasties, it was a place where politicians were banished and exiled. In early Qin period, it was also a remote place without regulation. In 85 BC, Taizhou established the first county administrative system. The place was named 'Haizhou' in 621 and renamed 'Taizhou' in memory of Tiantai Moutain in the following year. In the Tang dynasty, concept of 'cultural Tiantai' had already been formed, and Tiantai became a cultural symbol. Tiantai Mountain became the most desired place of pilgrimage for Tang dynasty poets. More than one-fifth of 2200 poets in Tang dynasty had been to or written about Tiantai Mountain, which birthed many figures such as Ji Gong, and was well-known with its image of 'magical mountain, origin of Buddhism'[25,26]. In the Song dynasty, the city developed gradually due to continuous boost of social economics and an increase of population. Then it entered a stable situation and became the vice capital, whose political position was just lower than the capital Lin'an (Hangzhou). However, in the Ming and Qing dynasties, especially in 1616, the ban on maritime trade and closed-door policy greatly impeded Taizhou's city development. At the end of Qing dynasty, its city development was lagging behind Hangzhou and Jiaxing in both city scales and economics.

Its modern industry started in the early 20th century, focusing mainly on the textile and knitting industry. Taizhou urbanization of traditional rural areas entered a peak period in the 1930s and became a regional culture center, with a big improvement in industry, economics and business. But it met a depression at the end of 1930s, and the depression shifted to deeper recession after the war of aggression. Taizhou's culture comes from both mountain and sea, and differs in the focus in different periods, which is shown in its political center's setting. At first, the city center was in Zhang'an near the sea and convenient for water transport, targeting the sea utilization with an open mind. Later on, the center was moved to Linhai County by the mountain, becoming more conservative and lowering water traffic status. Today, it is near the ocean and sea again. In 1994, Taizhou Municipality was set up in place of Taizhou Prefecture by State Council, with politics situated at port Jiaojiang moved from Linhai County. In its 11th FYP

[25] in Chinese 山岳神秀，佛宗道源

[26] http://paper.taizhou.com.cn/tzrb/html/2015-09/15/content_641737.htm

(2006-2010), it aimed at a regional central city, modern manufacturing base and cultural tourism city, and focused on a resource-saving and environmentally-friendly society with high efficiency, low consumption, low emission and sustainable economies. Efforts have been made to build city brands as a strong education city, city of science and technology, Hygiene city, sport city and cultural city. Besides 'national top ten livable city, 'happiest city', 'China science and technology advanced city', 'Chinese top 12 brand economic city', 'most vigorous city of Chinese private economy', Taizhou won various names in comparison with others such as 'capital of sewing machinery manufacturing', 'capital of plastic commodity', 'capital of renewable metals', 'valve capital', 'capital of craft gift', 'township of sprayer', 'export base of motorcycle', and 'export base of pumps'. In 2015, city's 4th CPC party congress positioned its city development as a 'modern harbor metropolis area' with its strategic support of building 'famous city of International smart-made', 'port city of maritime silk route', and 'livable beautiful city of mountain and sea'. In recent years, it aims at promoting its city tourist brand 'magical mountain and sea, vitality Taizhou', which continually improves Taizhou's reputation as a tourism city[27].

3.2.16.2 GDP and dominant industries

At the end of 2014, Taizhou's GDP reached 338.74 billion RMB which accounts for 3.20% of the overall YRD GDP. Its industrial structure is 6.37:46.61:47.02. The main industries of Taizhou are automobile manufacturing, pharmaceutical chemical industry, plastics and dyes, household appliances, clothing machines, pumps and valves, craftworks and gifts, foodstuff processing, footwear, caps and apparels, and electric power.

3.3 Statistics for each city

Summarization for each city on its location, population numbers, geographical size, GDP and GDP per capita are given in Table 3.1 and Table 3.2.

Table 3.1 YRD city statistics

City at end of 2014	Gross Domestic Product(GDP)	Primary industry	Second industry	Tertiary industry	Industry	GDP per Capita (by registered Population)	Year-end Registered Population	Year-end Resident Population	Land area
	100 million RMB	100 million RMB	100 million RMB	100 million RMB	100 million RMB	RMB	10 000 persons	10 000 persons	Square kilometers
Shanghai	23560.94	124.26	8164.79	15271.89	7362.84	97 343	1 438.69	2425.68	6341
Hangzhou	9206.16	274.35	3845.58	5086.24	3414.90	129 448	715.76	889.2	16596
Suzhou	13760.89	203.98	6892.98	6663.93	6360.14	129 926	661.08	1060.40	8488
Nanjing	8820.75	214.25	3623.48	4983.02	3119.12	107 545	648.72	821.61	6587
Ningbo	7610.28	275.70	3980.41	3354.17	3533.68	130 769	583.78	781.1	9816
Zhenjiang	3252.44	121.45	1631.10	1499.89	1498.41	102 651	272.07	317.14	3847
Yangzhou	3697.91	227.36	1885.75	1584.80	1634.48	82 654	461.34	447.79	6591
Wuxi	8205.31	138.13	4095.89	3971.29	3747.59	126 389	477.14	650.01	4627
Taizhou(JS)	3370.89	209.25	1697.45	1464.19	1462.03	72 706	508.51	463.86	5787
Changzhou	4901.87	138.46	2408.11	2355.3	2170.19	104 423	368.64	469.64	4372
Shaoxing	4265.88	194.28	2213.48	1858.12	1926.32	96 437	443.04	495.6	8279
Nantong	5652.69	339.57	2812.34	2500.78	2307.64	77 457	767.63	729.8	8001
Huzhou	1956.00	120.34	999.10	836.56	901.76	74 334	263.78	292.80	5820
Jiaxing	3352.60	144.77	1813.67	1394.17	1636.88	96 607	348.14	457.00	3915
Zhoushan	1015.29	100.90	425.27	489.09	336.20	104 239	97.49	114.6	1455
Taizhou(台州)	3387.38	215.63	1578.85	1592.89	1374.80	56 876	597.10	601.5	9411

[27] http://www.zjtz.gov.cn/rdzt/hyjj/sdjd/201110/t20111009_131889.shtml

Table 3.2 Percentage of working people regarding industries[28]

City at the end of 2012	Working people in Primary industry	Working people in Second industry	Working people in Tertiary industry
Shanghai	0.040	0.394	0.564
Hangzhou	0.113	0.453	0.433
Suzhou	0.036	0.615	0.348
Nanjing	0.109	0.334	0.556
Ningbo	0.037	0.531	0.431
Zhenjiang	0.127	0.480	0.393
Yangzhou	0.198	0.455	0.348
Wuxi	0.047	0.575	0.378
Taizhou(JS)	0.256	0.419	0.325
Changzhou	0.113	0.528	0.360
Shaoxing	0.134	0.518	0.348
Nantong	0.244	0.457	0.299
Huzhou	0.143	0.51	0.347
Jiaxing	0.092	0.566	0.342
Zhoushan	0.144	0.347	0.510
Taizhou(ZJ)	0.194	0.438	0.368

The cities show difference in population numbers, geographical size, GDP and GDP per capita. Shanghai has the highest GPD and the largest population in YRD. Suzhou and Hangzhou have the highest GPD per capita (by registered Population) and their GDP contribution in 2014 just following Shanghai. Hangzhou and Ningbo occupy large land with less population density, and their GDP contribution in 2014 just following Shanghai.

Despite the degree of economic development in the YRD region as a whole, marked differences in industrial activity exist across the three vice-provincial municipalities and the prefecture-level municipalities. Shanghai and Suzhou are actively upgrading their industrial structure in comparison with other cities. Just like Shanghai, Hangzhou, Nanjing, Zhoushan and Taizhou, their tertiary sector has also become overtaken other industries in terms of their contribution to GDP. As for Shanghai, its tertiary sector has approached double of its second sector. The second sector and tertiary sector of other cities are comparable. However, the primary sector in all cities occupies quite little proportion totally.

As for the percentage of working people regarding industries, the working people in secondary and tertiary industries are more than which in primary industry in most cities. Shanghai has the lowest people proportion working in primary industry and largest in tertiary industry compared with other cities. But the population in second industry is lagging in respect to Suzhou, which is with the largest working people.

[28] Note: statistics for Jiaxing, Shaoxing, Ningbo are at end of 2014 retrieved from Zhejiang Province Statistic Year Book

Chapter 4 General city brands

In this chapter, city brand identities and positions are identified and summarized from three key policy documents, namely five-year plans, urban master plans and land use plans for each of the 16 YRD cities.

4.1 Three policy documents

A city-level Five Year Economic and Social Plan (FYP) is a comprehensive and strategic planning of a city for the next five years. Based on the national Economic and Social Five Year Plan, it makes goals for the city regarding economic development. As the blueprint for a city, FYPs include aspects of urban construction projects, productivity distribution, and important economic ratios.

Urban Master Plan (UMP) elaborates deployment and implementation measures in a city's future positioning, land utilization, spatial distribution and construction plans. It is designed by municipal governments based on current situation and national long-term plans of the city.

Land Use Plan (LUP) is an overall allocation on the development, utilization, management and protection of land based on China's sustainable development requirements and local socio-economic conditions. It is the basis for the country to realize land use control for a certain period which often lasts for fifteen years.

As an overall planning document, FYP covers both the contents of UMP and LUP, while the latter two belong to a more special planning. If the FYP is treated as a set, then UMP and LUP are its two subsets with an intersection[29]. Since all of them are guidance of the city and will have impacts on decisions made by the municipal governments, all the three document are consulted to establish city brand identities and positions (Wu, 2015).

4.2 City brand identities

For city brand identities, key sentences are spotted through going through the summary, introduction and conclusion in each of the three plan documents. The results are presented in Table 4.1. It shows that relatively developed cities such as Shanghai and Nanjing have adopted complicated and distinguished brand identities, which are consistent among the three documents. As for the rest, several cities have initially formed their city brand identities, but neither so distinguished from others nor consistent among the documents. There are cities that haven't established clear brand identities yet and just express their goals for the future.

Table 4.1 City brand identities in the YRD cities

City	Plan	City brand identity
Shanghai	FYP, page 11	Shanghai aims to be a "**global economic, financial, trade and shipping center**" and a socialist "**modern international metropolis**" with prosperous economy, harmonious society and beautiful environment.
	UMP, page 9	The "excellent **global city"**, which is a city of innovation, ecology and humanity. Build Shanghai into a comprehensive global city, **international economic, financial, trade, shipping and technological innovation center**, and an **international cultural metropolis**.
	LUP, page 9	Aiming at a **world city** with global influence and competitiveness, build Shanghai into a **global economic, financial, trade and shipping center**, with capability of innovation, functionality of high-level service, and industrial structure dominated by service economy.

[29] Here mathematical concept of 'set' is used to describe the relations of these three documents to make it easier to be understood.

Nanjing (JS)	FYP, Page 10	Taking "city of happiness" as the fundamental goal, build Nanjing into a "**modern international green city of humanity**."
	UMP, page 7	Build a "**modern international green city of humanity**", featured with active economy, vivid cultural characteristics, beautiful living environment and harmonious society.
	LUP, page 6	Build Nanjing into a "**modern international green city of humanity**", featured with active economy, vivid cultural characteristics, beautiful living environment and harmonious society.
Wuxi (JS)	FYP, page 4	Taking "promote scientific development, build innovative and happy Wuxi" as the theme, develop Wuxi into an innovative, service-oriented, internationalized and modernized **regional central city**, with a unique influence and competitiveness.
	UMP, page 5	Goal of Wuxi is to become an **international manufacturing base**, lakeside mega city in YRD, domestic and worldwide **tourism destination, national livable eco-city**.
	LUP, page 9	Build Wuxi into a national leading "**famous city of ecological mountain and water, famous city of tourism and modern service, famous city of high-tech industries, and famous livable city."**
Suzhou (JS)	FYP, page 15	Goal of Suzhou is to build a demonstration area for scientific development, innovation and opening up, an **advanced industrial city**, **cultural tourism city** where historical culture and modern civilization integrate, **most livable city** with a beautiful ecological environment.
	UMP, page 5	Goal of Suzhou is to build a "**new paradise of green hills and clean water**", based on protection of the famous city and themed by "harmonious Suzhou".
	LUP, page 8	Build Suzhou into a **high-tech industrial area** gathering advanced manufacturing and modern service industries, the **most livable area** and a **cultural tourism zone.**
Taizhou (JS)	FYP, page 10	Promote economy restructuring, integration of urban and rural development, construction of **cultural Taizhou**, protection of environment, and harmonious and stable society.
	UMP, page 3	Goal of Taizhou is to actively build a "**regional central city, transportation hub city, eco-livable city, and historical cultural city**."
	LUP, page 13	Taizhou is positioned as important agglomeration **area of advanced manufacturing** in YRD, important gateway in Jiangsu, new demonstration area of urban development in middle Jiangsu.
Zhenjiang (JS)	FYP, page 20	Build Zhenjiang into a modern "**garden city of mountain and water**", characterized in developed industries, innovation and entrepreneurship, harmony and happiness.
	UMP, page 17	Develop into **city strong in economy in Jiangnan**, beautiful **Jiangnan famous city** full of vitality, modern **civilized city** with social undertakings developed in an all-round way, which is featured in YRD regional center city, historical and cultural city, famous tourism city and eco city of mountain and water.
	LUP, page 13	Strive to build a modern **garden city of mountain and water**, characterized with developed industries, innovation and entrepreneurship, harmony and happiness.
Changzhou (JS)	FYP, page 13	Build Changzhou into an "**innovative and entrepreneurial city, city of modern industries, eco livable city, harmonious and happy city**".
	UMP, page 8	Goal of Changzhou is to become an **economy strong city** with advanced manufacturing industries and wealthy people's, **famous cultural city** with highlighted historical context, modern education and science, **regional hub city** and **eco city** where man and nature harmoniously coexist.
	LUP, page 16	Changzhou will strive for the goal of a city with more powerful comprehensive strength, more scientific growth method, harmonious society, better people's lives and more complete urban functions.
Yangzhou (JS)	FYP, page 7	Taking "innovative, exquisite and happy Yangzhou" as development theme, build a "**famous city where ancient culture and modern civilization illuminate each other."**
	UMP, page 3	Yangzhou is aimed to become a **regional central city, a famous historical city combining features of ancient and modern times**, and a **livable city** where water and green plants blend.
	LUP, page 10	Create **famous city of ancient culture and modern civilization,** which is featured in a national industrial base of new green energy, a first-class livable eco garden city, and a cultural heritage city and excellent tourism city, regional center and the gateway hub city in YRD north part.
Hangzhou (ZJ)	FYP, page 7	Development goal of Hangzhou is to build and share the "**city of living quality**.'
	UMP, page 3	Taking beautiful China's first demonstration area, build high-tech industrial base, international tourism and leisure center, international e-commerce center, national cultural and creative center and regional financial services center.
	LUP, page 7	Make efforts to build Hangzhou as "**city of living quality**", thereby ensuring land resources for Hangzhou to realize modernization and become an international city.
Ningbo (ZJ)	FYP, page 5	Build Ningbo into a "**modern international port city**" by strengthening port competitiveness, speeding up industrial upgrade, and construction of a smart City, realization of ecological civilization and improvement of the living quality.
	UMP, page 2	Ningbo is an important **port city** in China's southeast coast, **economic center** of the YRD south part, national **historical and cultural city.**

	LUP, page 7	Ningbo's future development is positioned as important **port city** in China's southeast coast, **economic center** of the YRD south part, important city in the YRD city cluster and national historical and cultural famous city.
Taizhou (ZJ)	FYP, page 5	Taking "**beautiful mountain and the sea, wealth and harmony**" as the goal, make new breakthroughs in areas of marine economy, circular economy, urban agglomeration and so on.
	UMP, page 9	Develop Taizhou into a prosperous, beautiful and civilized **regional central city**, and a **eco city of mountain and water** which is suitable for entrepreneurship and living.
	LUP, page 17 and 18	Taizhou's strategic goal is to build an advanced manufacturing base, provincial economic strong city, modern coastal port city and innovation demonstration zone of private economy in China. Build Taizhou into a modern **coastal eco city** in YRD, with innovative vitality, good entrepreneurial environment, wealthy people and harmonious society.
Nantong (ZJ)	FYP, page 3	Built Nantong into a modern "**international port city**" where rivers and seas convergence, "**economic center in YRD north part**" and "**livable entrepreneurial city**."
	UMP, page 8	Development goal of the city is a "**international port city, regional economic center, historical and cultural city, livable entrepreneurship city.**'
	LUP, page 8	Develop Nantong into an **international port city, economic center in YRD north part, historical and cultural famous City, and livable entrepreneurial city**.
Shaoxing (ZJ)	FYP, page 7	Goal of Shaoxing is to build "**city of characterized industries, city of culture and leisure city, eco livable city**", and citizens will live a better life.
	UMP, page 2	Build Shaoxing into a "**city of characterized industries, city of culture and leisure, eco-livable city**" where the culture and modern civilization integrate.
	LUP, page 18	Shaoxing is positioned as is a national **historical and cultural city**, domestic and overseas famous **tourism leisure city**, **eco livable city** in YRD south part and **city of characterized industries** based on advanced manufacturing.
Jiaxing (ZJ)	FYP, page 13	Build a modern **network-type garden city**, which is an innovative YRD city strong in economy, an eco-cultural city of Jiangnan water village and a livable coastal city of Hangzhou Bay.
	UMP, page 1	Build a "**strong Jiaxing, Jiaxing of humanity, eco Jiaxing, Jiaxing of laws**", benefiting from geographical locations, traffic conditions, characteristics of a water village and culture.
	LUP, page 5	Finally realize the goal of modern **network-type garden city**, which is the deputy central city in Shanghai metropolis cluster, the deputy central city of YRD regional Science and technological innovation, model city of humanity and ecology in Jiangnan water town.
Zhoushan (ZJ)	FYP, page 11	Build an international logistics base of bulk goods, **modern marine industrial base**, national marine science and education base, and **an archipelago garden city** with unique characteristics.
	UMP, page 1	Achieve the goal of building a **hub island of international logistics, a portal island for opening up, an island agglomerating marine industries, international eco leisure island and garden city at the sea.**
	LUP, page 17	Goal of Zhoushan is to develop into a **city strong in marine economy**, and build a livable environment of **garden city at the sea**.
Huzhou (ZJ)	FYP, page 6	Huzhou focuses on building a modern "**lakeside big eco city**" rich, which is featured in "prosperous, beautiful, livable and happy life".
	UMP	Development goal of Huzhou central city is to become **a garden city and eco-tourism city**, which is the most suitable for living and entrepreneurship in south part of Tai Lake area.
	LUP, page 5	Take building a modern **lakeside big eco city** as the goal, promote harmonious development of Huzhou's economy, society and environment.

Note: The table was filled only when there is an obvious branding purpose in the prominent place, including city vision defining place of the first chapter or when there is an obvious branding purpose, e.g. "Build Shanghai into a smart city", "smart Suzhou". Translation was made by the author, and the corresponding original text in English for the sixteen YRD cities can be found in Appendix.

Shanghai, Nanjing, Nantong and Shaoxing's brand identities are consistent among all the three plans. Brand identities utilized by Shanghai and Nanjing are more complicated than others and show their intention to develop in an ecological modernization way. Shanghai's identities of "international metropolis" and "four center", namely "global economic, financial, trade and shipping center" express its ambition for the world and focuses on tertiary sector. Nanjing portrays itself as "a modern international green city of humanity", which showed its expectation of participating world competition and awareness of development with less pollution. Both these cities used "international" in their brand identities, which can be explained by their leading positions. Shanghai is the direct-controlled municipality by the national government, and Nanjing is the provincial capital of Jiangsu province.

In comparison, though brand identities of Nantong and Shaoxing are consistent in the three documents, they are not as complicated and unique as those used by Shanghai or Nanjing. Nantong describes itself as "international port city, economic center in YRD north part, livable entrepreneurial city". Shaoxing claims to be the "city of characterized industries, city of culture and leisure, eco livable city". "Port city", "culture city" and "livable city" are too general terms and can be easily found in other cities. For example, Ningbo city also describe itself as a "port city". Though Zhoushan's brand identities are not all consistent among documents, its strength of "marine economy" and aim for "garden city" are reflected in all the plans.

Brand identities of Hangzhou, Yangzhou, Jiaxing, and Yangzhou are distinguished but only exist in two plans. The terms in the third document serve more like an explanation of the common identity. Hangzhou's "city of living quality" and Yangzhou's "famous city of ancient culture and modern civilization", which haven't been found in other cities' plans, clearly expressed their expectation for "livability" and "culture" respectively. Instead of imitating each other, Jiaxing and Zhenjiang each designed a distinguished city brand identity by adding features to the term "garden city." Jiaxing uses "network-type garden city" to distinguish itself from Zhenjiang's "garden city of mountain and water."

For the rest, Suzhou, Wuxi, Taizhou in Jiangsu province and Changzhou all mentioned "industry" in their brand identities and expressed their intention for upgrading in terms of "modern industries", "advanced manufacturing" and "high-tech industries". However, those identities are designed in all aspects, which are more of future development goals. For example, Wuxi's brand identity is related to "manufacturing, tourism, ecology, livable, service, tourism", which doesn't reflect the main focus of the city. Similarly, Taizhou in Zhejiang province and Huzhou's brand identities are not clear, but they both portray themselves as "eco city."

In order to further understand city brands, city positions of the YRD cities will be identified and summarized in the next step.

4.3 City brand positions

Using the same documents as city brand identities, all the general city brands of the YRD cities are collected and presented in Table 4.2. The brands summarized offer a whole picture of branding practices of each city, which are not limited to EM brands. Characteristics of branding practices are summarized by comparing the cities' brands among three documents.

Table 4.2 City brand positions in the YRD cities

City	Plan	City brand position
Shanghai	FYP	"four centers" (global economic, financial, trade and shipping center), international cultural metropolis, innovation city, **smart city**, **eco livable green** homeland, safest metropolis
	UMP	**green city**, **resilient city**, city of prosperity and innovation, **smart city**, city for start-ups, city of public transport, city of happiness and humanity, global city, city of innovation, **eco city**, historical and cultural city, international cultural metropolis, international tourism city
	LUP	garden city, pilot city of circular economy, 'four centers' (international economic, financial, trade and shipping center), modern international metropolis, world city
Nanjing (JS)	FYP	innovation city, advanced manufacturing base, cultural Nanjing, **smart Nanjing**, comprehensive transportation hub, technology innovation center, city famous for software, **green city**, civilized city, modern global **green capital** of humanity, city of happiness
	UMP	riverside **eco livable city**, technological innovation base, historical and cultural city, famous ancient capital, regional central city, comprehensive transportation hub, regional modern service center, advanced manufacturing base, modern global **green** capital of humanity, city of public transport

	LUP	historical and cultural city, comprehensive transportation hub, technological innovation base, regional modern service center, advanced manufacturing base, riverside **eco livable city**, modern global **green** capital of humanity, innovation city
Wuxi (JS)	FYP	innovative Wuxi, happy Wuxi, **low carbon city**, **livable city**, innovative economy leading city, water saving city, forest city, historical cultural famous city, **eco city**, high-tech industrial city, tourism and modern service city, regional central city, innovation city, **eco garden city, livable city**
	UMP	international manufacturing base, YRD metropolis lakeside, domestic and international tourism destination, scenic tourism city, **eco livable city**, **eco city**, city of mountain and water, historical cultural city
	LUP	historical cultural city, scenic tourism city, civilized city, **eco city** of mountain and water, tourism and modern service city, high-tech industrial city, **livable city**, **green Wuxi**
Suzhou (JS)	FYP	city of talents, high-tech industrial city, cultural tourism city, **livable city**, **smart city**, **smart Suzhou**, Suzhou of integrity, innovation city, city strong in culture, healthy city, civilized city, **green city**, garden city, model area of scientific development and open innovation, demonstration area of urban and rural integration
	UMP	historical cultural city, scenery tourism city, cultural city, **livable city**, Jiangnan water city, city of talents, innovation city, harmonious Suzhou, high-tech industrial base, YRD second-class business and trade logistic center
	LUP	cultural city, high-tech industrial base, **livable city**, Jiangnan water city, capital of mountain and water, garden city
Tàizhōu (JS)	FYP	city of Chinese medicine, cultural Taizhou, hygienic City, model city of environment protection, garden city, tourism city
	UMP	**eco city**, water city of humanity, **livable** city, **eco livable city** rich in culture, city strong in tourism, regional central city, **eco livable city**, historical cultural famous city, regional transport hub city, harmonious transport city, city of public transport
	LUP	**eco city**, production base of Chinese medicine, central city of YRD north-part, historical cultural city, riverside **eco livable city**, base of leisure and tourism
Zhenjiang (JS)	FYP	happy and harmonious new Zhenjiang, garden city of mountain and water, **smart Zhenjiang**, green **eco Zhenjiang**, innovation city, healthy city, city for start-ups
	UMP	**eco city**, historical and cultural city, port city, scenery tourism city, regional central city, Jiangnan city strong in economy, civilized city, **eco city** of mountain and water, garden city
	LUP	**eco city**, historical cultural city, port city, scenery tourism city, regional central city, garden city of mountain and water
Changzhou (JS)	FYP	innovation city for start-ups, modern industrial city, **eco livable city**, harmonious and happy city, 'Changzhou pattern', safe Changzhou, Changzhou of law, garden city, **eco city**, city strong in technology city, city strong in education, city of talents, innovation city, civilized city
	UMP	**eco city**, cultural city, historical cultural city, modern city, city strong in economy, regional hub city, civilized city, national leading innovation city, YRD regional innovation center
	LUP	Resource-saving city, **eco Changzhou**, innovation and entrepreneurship city, advanced manufacturing city, **eco livable city**, city of happiness
Yangzhou (JS)	FYP	innovative Yangzhou, innovation city, exquisite Yangzhou, happy Yangzhou, **eco city**, forest city, civilized city, world cultural heritage city, city where ancient culture and modern civilization illuminated with each other, Yangzhou of law, safe Yangzhou
	UMP	scenery tourism city, city of humanity, **city of ecology**, exquisite and livable characteristics, region central city, historical famous city, **livable city**, advanced manufacturing base
	LUP	historical and cultural city, **eco livable city** of humanity, hygienic city, model city of environment protection, garden city, national industrial base of green and new energy, **eco livable** garden city, cultural heritage tourism city, YRD north-part regional center, gateway hub city, "city of humanity, ecology, exquisite and livable characteristics", civilized city, forest city, **eco** garden city
Hangzhou (ZJ)	FYP	**city of living quality**, intelligent Hangzhou, **eco city**, innovation city, city strong in education, city of talents, learning city, Hangzhou of integrity, city strong in private economy, "Hang business" brand, cultural famous city, innovation city
	UMP	**eco city**, high-tech industrial base, national cultural and creative center, innovation center, historical and cultural city, city of mountain and water, scenery tourist city, regional financial service center, modern logistics center, transport hub, center of information economy and innovation, destination of tourism and leisure, pilot area of beautiful China, international e-commerce center
	LUP	International scenery tourism city, historical and cultural city, **city of living quality**, cultural tourism city, **livable city**, Silicon Valley paradise, oriental capital of leisure, international tourism destination
Ningbo (ZJ)	FYP	international port city, city strong in marine economy, **smart city**, innovation city, cultural city, civilized city, city of happiness, safe Ningbo
	UMP	Water network city, historical and cultural city, **livable city** of mountain and sea, port city, economic center of south-part YRD, global trade logistic port, deep-water hub port of Shipping

		center in Northeast Asia, advanced manufacturing base, port of foreign trade, demonstration area of Zhejiang marine economic development
	LUP	port city, economic center of south-part YRD, historical and cultural city, best leisure tourism destination in YRD
Tāizhōu (ZJ)	FYP	**eco city**, cultural city, advanced manufacturing base, demonstration area of private economy innovation, model area of Circular Economy, node city of south-part YRD, first-class special equipment manufacturing base in China, port city
	UMP	livable mountain and water type **eco city** for start-ups, modern coastal city, port city, node city of southern YRD, model innovation area of private economy, modern manufacturing base, trade center
	LUP	node city of south-part YRD, **advanced manufacturing base**, modern port city, innovation demonstration area of private economy, modern **eco city** at the sea, **eco city** of mountain and water
Nantong (ZJ)	FYP	modern international port city, economic center of YRD north-part, **livable city** for start-ups, safe Nantong, Nantong of integrity, green Nantong, civilized city, hygienic city, model city of environment protection, garden city, historical and cultural city, innovation city, Nantong of Law, cultural city featured in river and sea, **eco city**, world brand of "Nantong Textile"
	UMP	**eco city**, international port city, regional economic center, historical and cultural city, **livable city** of start-ups, city of mountain and water, city of humanity, gateway city
	LUP	"the first city of China in modern times", international port city, economic center of northern YRD, historical and cultural city, city for start-ups, **green Nantong**
Shaoxing (ZJ)	FYP	city of characterized industries, city of culture and leisure, **eco livable city**, **eco Shaoxing**, **eco civilized city**, **eco city**, innovation city, city of talents, city strong in economy, city strong in culture, harmonious Shaoxing, model city of environment protection, historical and cultural city, Shaoxing of Law, safe Shaoxing
	UMP	**eco-tourism city**, **eco livable city**, city of characteristic industries, cultural leisure city, historical cultural famous city, Jiangnan water city, Shaoxing of strength, culture and integrity, transport hub of YRD, advanced industrial and trade base of YRD
	LUP	city strong in economy, city strong in culture, **eco Shaoxing**, harmonious Shaoxing, tourism city, historical and cultural city, city of tourism and leisure, **eco livable city**, city of characterized industries, trade base, eco city, cultural eco livable city, Jiangnan water city, **livable city**, city of bridges, city of wine, city of calligraphy, city of celebrities
Jiaxing (ZJ)	FYP	innovation city strong in economy in YRD, Jiangnan water city **eco** cultural city, **livable** coastal city in Hangzhou Bay, modern network-type garden city, **livable** tourism city good for start-ups, modern logistic hub city, innovation city, city of talents, learning city, civilized city, node city of YRD
	UMP	**eco Jiaxing**, livable city, Jiaxing of strength, Jiaxing of Humanity, Jiaxing of Law, port city, cultural city of Jiangnan, city strong in tourism, eco garden city, **historical and cultural city**, water city
	LUP	Jiangnan modern **garden city**, tourism destination, YRD regional tourism hub, international tourism leisure city, deputy central city of Shanghai Metropolitan, YRD regional innovation sub-center city, **eco city** of humanity with characteristics of Jiangnan water city, modern network-type garden city, logistic hub center, innovation center of technology and education, garden water city, advanced manufacturing base
Zhoushan (ZJ)	FYP	international logistics base of bulk commodities, modern marine industrial base, national base of marine science and technology, archipelago garden city, international island of logistics, innovation city, **green smart city**, beautiful island, safe Zhoushan, marine cultural city, city strong in education
	UMP	international **eco** leisure island, garden city at sea, capital of fishing in China, international logistic hub island, gateway island of opening up, agglomeration island of marine industries, international archipelago marine leisure tourism destination, tourism destination of Buddhist culture, pilot area of marine economy, international port city, island tourism city, free trade port, historical and cultural, modern marine industrial base, international logistics base of bulk commodities
	LUP	**livable garden city** at sea, global port city, national harbor-type industrial base, marine development base, marine tourism base, modern fishing base, city strong in marine economy, marine cultural city, YRD marine leisure tourism holiday center, worldwide famous marine leisure tourism destination
Huzhou (ZJ)	FYP	**eco Huzhou**, **eco city**, forest city, city of talents, safe Huzhou, Huzhou Pattern, node city, agglomeration area of characterized industries, pilot area of urban and rural integration, model area of **eco** civilization, happy and **livable** harmonious area, 'rich, beautiful, **livable** and happy' modern **eco** lakeside metropolis, innovation city
	UMP	**eco-tourism city**, **eco city**, urban **resilient** agricultural base, garden city of mountain and water suitable for start-ups, historical and cultural famous city, advanced manufacturing base, modern service industrial base, logistic center
	LUP	modern **eco city** at lake, high-tech industrial area, most **livable** area, cultural tourism area, characterized garden tourism destination, **eco livable city**

General city brand positions of each city presented in Table 4.2 mainly reflect three features, *development goal of a city's position*, *industries* and *the twelve categories related to ecological modernization*.

(1) *City's position*

City brand position with this characteristic appears in almost all cities' plans. It can be commonly used either by itself or in combination with brand positions with other features. More specifically, this position feature reflects a city's goal of influence within the region, namely "international city", "national city" and "regional city". For instance, Shanghai brands itself as "a modern international metropolis", "world city" and "global cultural metropolis". Hangzhou designs brands of "national cultural and creative center", while Taizhou and Zhenjiang position themselves as "regional central city."

(2) *Focus on industries and urban functionalities*

These brand positions show a city's industrial advantages and urban functionalities. A successful brand position of this category is likely to attract more targeted group to study, work and travel in this city. For instance, Suzhou, famous as "high-tech industrial base" and "innovation city", attracts many high-educated talents to work and settle in Suzhou. Shaoxing's brands of "tourism city", "historical cultural famous city" and "Jiangnan water city", bring millions of travelers each year to experience its tea culture, wine culture and historical site. In order to make the brand position act effectively, those brand position are often promoted based on their advantage of industries and unique characteristics of urban functionality. Having strength in various kinds of industries, cities design corresponding brand positions including Nanjing's "advanced manufacturing base", Wuxi's "high-tech industry city", Taizhou's "production base of Chinese medicine", and Ningbo's "Port city". Strong in tourism and service, cities brand themselves accordingly such as Hangzhou's "International scenery tourism city", Zhenjiang's "mountain and water garden city", and Yangzhou's "historical and cultural city".

(3) *Brand positions of the twelve categories*

As mentioned in Chapter 2, there are twelve brand categories related to ecological modernization namely "*ecological city*", "*low carbon city*", "*sustainable city*", "*green city*", "*digital city*", "*smart cities*", "*intelligent city*", "*information city*", "*knowledge city*", "*resilient city*", "*ubiquitous city*", and "*livable city*" classified by de Jong et al. (2015). Taking this as a departure, we can be see that those EM brand positions are the most popular ones in Table 4.2. Brand positions concerning EM appear in all three policy documents of each city with different frequencies, in which "eco city" appears 20 times in Jiaxing's 12th FYP. Different types of EM brand positions can be often used in combination with each other, such as "eco livable city" of Huzhou and Nanjing. Resilient is rare in the city documents of the sixteen cities.

All the three characteristics mentioned above are important for analyzing city branding practices, and since the second and third ones are closely related to ecological modernization, brand positions are commented in bold.

4.4 Conclusion

In this Chapter, we have analyzed the city brand practices of each city in YRD in terms of two brand components: city brand identity and brand position. For developed cities, design of city brand identity is often more complicated, and brand identity of middle sized cities are more simple. City brand positions reflect three characteristics including city's position, industries

and 12 categories related to ecological modernization. In conclusion, the focus on ecological modernization can be reflected from both city brand identity and position, as shown in Table 4.1 and Table 4.2 from qualitative observation. Though EM brands are very popular among the YRD cities, quantitative calculations are still needed in order to further analyze the relationship between city branding and EM. In next Chapter, EM-brand will be first selected from on general city brands gained in these Chapter and modified the 12-categories according to YRD city characteristic. Then, their frequencies of appearance will be counted to compensate for the limitations of qualitative selection.

Chapter 5 City brands in relation to ecological modernization

5.1 EM categories selection

Though the twelve city categories in relation to ecological modernization were overlapped and interrelated, they were important, conceptually different and not interchangeable according to de Jong et al. (2015). In their findings, six categories were conceptually different to each other, which could be supported by specific theories, namely "sustainable city, smart city, eco city, low carbon city, resilient city and knowledge city", and the others were excluded for various reasons. According to abstracts, keywords and titles of more than 1000 collected academic literatures in Scopus from 1996 to 2013, "Information city" and "livable city" we mentioned less than twice in the samples, showing their insignificance in academic literature. "Green city" failed to show its importance as an indistinct satellite of "sustainable city". "Intelligent city", "digital city" and "ubiquitous city" were closely related to the "smart city", however, "Intelligent city" and "ubiquitous city" were very peripheral (De Jong, Joss, Schraven, Zhan, & Weijnen, 2015).

In these six more independent categories, "sustainable city" is a comprehensive umbrella concept. In this case, it is a broader concept in ecological modernization rather than just one type of city brand. "Sustainable city" works as a mathematic set, whose elements are the city brands with ecological initiatives. Thus, "sustainable city" is not considered as an EM profile category in this paper. EM profiles categories include "smart city, eco city, low carbon city, resilient city and knowledge city". Furthermore, since all the previous analysis is based on the academic literature more dominated by western scholars, EM profiles in terms of Chinese developing characteristics are added as well. For recent decades, Chinese development is greatly based on the people oriented idea and quality of life, and a "Livable city" has already became the goal of Chinese cities. "Innovation city" is another Chinese typical city brand since China central government keeps on emphasizing on the importance of innovation. In developing China, many cities adopt construction of "innovation city" as their developing target. Therefore, "livable city" and "innovation city" should be included in our EM profile set. In summary, our EM profiles include "smart city, eco city, low carbon city, resilient city, knowledge city, livable city and innovation city".

Unlike western policy documents, key words of the city categories in Chinese can vary in single form. Here in Chinese, we search their corresponding variations mainly focus on their form in adjective and noun, because most both English character's multiple forms and corresponding single form of a word can be referred to the same word in Chinese. In addition, several Chinese words can be translated to the same meaning, and are also included in the same category.

Table 5.1 EM city brand positions

Variation / *EM Position*	City brand positions varieties found in planning documents
Smart city	"smart city", "smart Nanjing", "smart Zhenjiang", "smart Suzhou", "smart new city", "intelligent city", "intelligent Hangzhou", "intelligent Shaoxing", "information city", "information Nantong", "green smart city".
Innovation city	"innovation-type city", "innovative city", "innovation center", "innovative Yangzhou", "innovative Wuxi", "City strong in innovation", "innovation-type city strong in economy", "entrepreneurial innovative city", "first zone of innovation", "learning city", "base of innovation", "livable entrepreneurial city"

Resilient city	“sponge city”, “resilient city”, “safe city”, “safe Nantong/Zhoushan/Ningbo/Nanjing/Zhenjiang/ Yangzhou/Wuxi/ Changzhou/Huzhou/Suzhou/Jiaxing/Taizhou(JS)”
Tourism city	“tourism city”, “tourism centre”, “scenery city”, “tourism destination city”, “famous tourism city”, “scenery tourism city” “historical city”, “famous historical city”, “famous historical cultural city” “cultural city”, “famous cultural city”, “global cultural big city”, “cultural metropolis”, “cultural Nanjing/Taizhou”, “city strong in culture” “Jiangnan water city”, “city of mountain and water” “ancient city of humanity”, “Jiaxing of humanity”
Eco city	“eco city”, “eco-type city”, “eco Huzhou/Jiaxing/Nanjing/Shaoxing/Zhenjiang/Huzhou/Zhoushan” “green city”, “green smart city”, “green Nanjing/Nantong”, “green city of humanity”, “eco livable green home”, “cultural green city”, “forest city”, “forest Shaoxing/Ningbo/Zhoushan” “garden city”, “garden city at the sea”, “pastoral city”, “island-type garden city” “green model city” “environmental protection model city”, “water saving city” “coastal city”, “eco-type lakeside city”,“eco garden city”, “eco livable city”, “eco civilized city”
Low-carbon city	“low-carbon city”, “recycling economy advanced city”
Livable city	“liveable city”, “city of life quality”, “eco livable green home”, “eco livable city”, “entrepreneurial livable city”, “national best city of living environment”, “eco livable happy city”
Advanced manufacturing city	“advanced manufacturing center/base”, “high tech base city”, “advanced equipment manufacturing base”
Service city	“service centre for industries”, “service base in YRD”, “trade centre”, “financial centre”, “financial service centre”, “transport centre”, “logistics base/island/centre/city”, “trade logistics port city” “e-commerce pilot city”, “service outsourcing demonstration city”, “port transport city”, “shipping centre”, “global shipping service centre”, “exhibition centre”
Modern agriculture city	“modern agriculture city/centre”

5.2 EM-brands frequencies

To further analyze city brand positions in relation to EM, frequencies of appearance of the nine EM city brand categories are counted.

Since land use plans put more focus on the land use control rather than vision and strategies about a city’s future development, only the count of EM terms in the five-year plans and urban master plans are quantified and presented in Table 5.2 and Table 5.3 respectively.

Table 5.2 Frequencies of EM Categories in 12th Five Year Plan

	Smart city	Innovation City	Resilient city	Tourism city	Eco city	Low carbon city	Livable city	Advanced Manufacture city	Service city	Modern Agriculture City
Shanghai	3	4	1	5	1	0	1	1	38	0
Nanjing	6	13	1	20	12	0	4	3	30	1
Hangzhou	4	17	0	4	1	6	7	2	18	0
Ningbo	13	13	2	12	3	1	1	5	29	0
Zhenjiang	3	7	7	8	19	0	1	6	9	0
Yangzhou	2	10	2	2	13	0	1	1	2	0
Wuxi	0	6	2	6	15	3	3	3	1	0
Taizhou(JS)	0	2	2	11	6	0	0	0	2	0
Changzhou	1	7	2	4	6	0	1	0	1	2
Shaoxing	2	7	0	9	7	6	3	1	3	3
Nantong	1	6	2	10	8	1	1	0	11	0
Huzhou	2	4	1	4	17	0	0	0	8	3
Suzhou	11	6	2	19	8	0	3	1	4	0
Jiaxing	1	17	3	23	20	0	3	0	3	0
Zhoushan	2	1	3	4	14	0	0	0	5	0
Taizhou(ZJ)	0	0	2	1	1	0	1	3	1	0

Table 5.3 Frequencies of EM City Brands in Master Plan

	smart city	innovation city	resilient city	tourism city	eco city	low carbon city	livable city	advanced manufacture city	service city	modern agriculture city
Shanghai	2	3	4	10	5	0	3	4	9	0
Nanjing	1	2	0	25	6	0	1	4	9	0
Hangzhou	0	1	1	10	3	0	0	2	7	0
Ningbo	0	0	0	5	0	0	1	3	5	0
Zhenjiang	0	0	0	25	22	0	0	0	4	0
Yangzhou	0	0	0	21	1	0	2	1	2	0
Wuxi	0	1	0	17	11	0	0	1	1	0
Taizhou(JS)	0	0	0	16	2	0	5	1	3	0
Changzhou	2	4	0	14	6	0	2	2	1	0
Shaoxing	0	0	0	10	5	0	3	0	1	0
Nantong	1	9	0	36	4	0	4	1	42	1
Huzhou	0	1	0	11	7	0	1	2	4	1
Suzhou	0	4	0	37	0	0	4	4	18	0
Jiaxing	0	0	0	19	3	0	3	1	6	0
Zhoushan	0	0	0	11	14	0	0	0	7	0
Taizhou(ZJ)	0	0	0	4	11	0	0	3	11	0

5.3 Analysis on frequencies

Since both urban master plans and master plans are entirely about a city's future positioning and strategies, the frequencies gained from two plans are overall in consistent with each other for most cities comparing percentage of those from Table 5.2 and 5.3. It is no surprise that the numbers of the count gained from two documents are slightly different for one city, because the number of words of urban master plan and five-year plan are different. Overall, "tourism" and "service" are the target of all YRD cities since these two terms appear in all policy documents, while "modern agriculture city" is rarely used.

Since counts of EM in two documents for a city are comparably consistent with each other, and decisions made by urban master plans will follow the five-year plans, which means five year plans have a leading impact on urban master plans. Therefore, data gained from five year plans are more comprehensive than those deducted from urban master plan. Raw data in Table 5.2 are equally shown in radar chart to make it become more visually intuitive. But note that the insights given below for each YRD city's radar chart will based on not only radar charts but also data from Table 5.2 and Table 5.3.

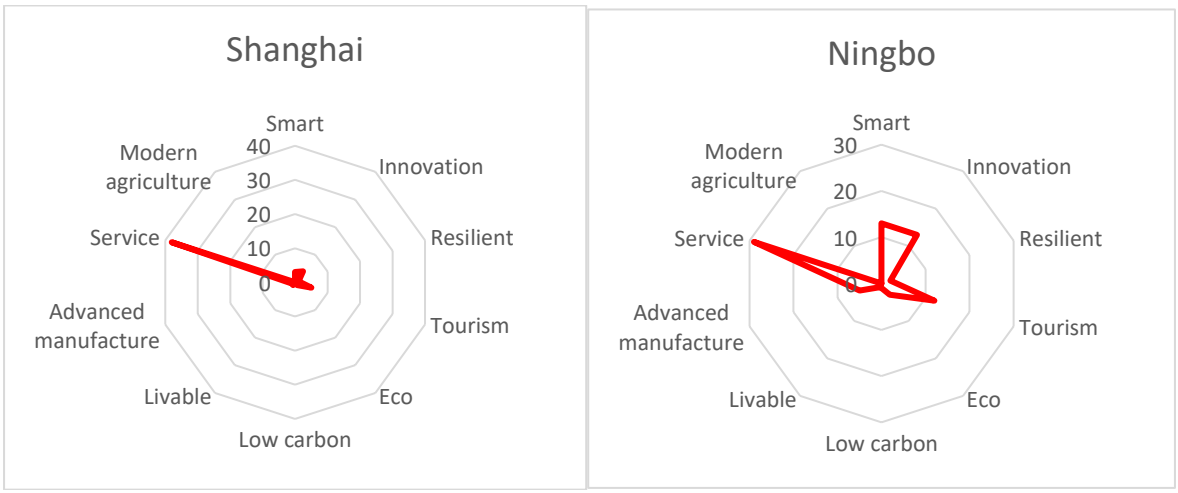
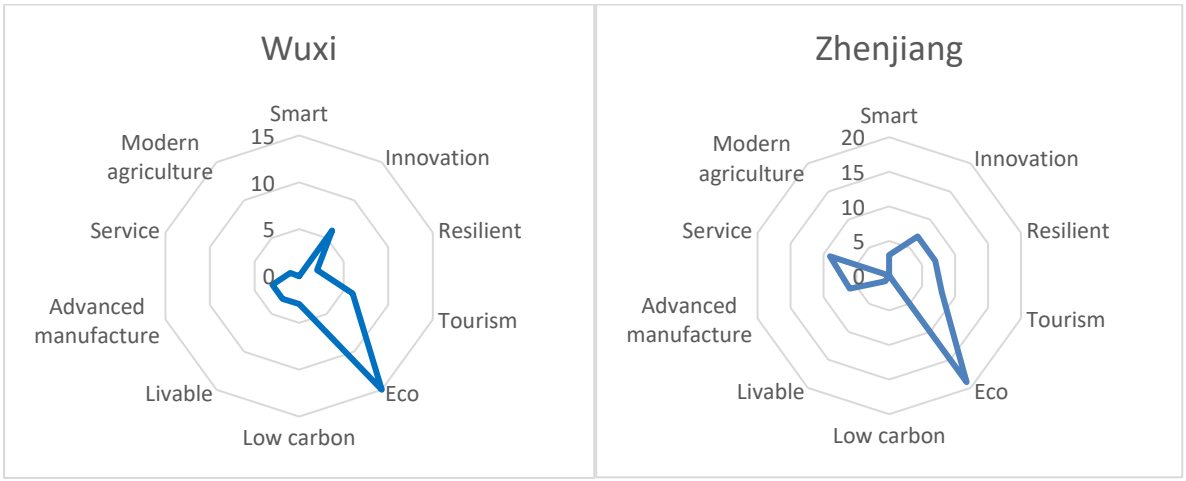


Figure 5.1 EM brands of Shanghai, Nanjing, Hangzhou, Ningbo and Nantong(12th FYP)

Shanghai, Nanjing, Hangzhou, Ningbo and Nantong's rada chart are all put in Figure 5.1, because "service city" is of great dominance for each of these cities. Especially the former four cities are quite developed and have great strength in teritary industries. Shanghai is very special with the highest score of "service city" in YRD, and it also develops in a all round way. Hangzhou's second dominant EM brand is "innovation". Both Nanjing and Ningbo have comparaly high score in "innovation" and "tourism", while Ningbo focuses also on "smart". Besides attention on service, Nantong puts a lot efforts on "tourism", "eco" and then "innovation".



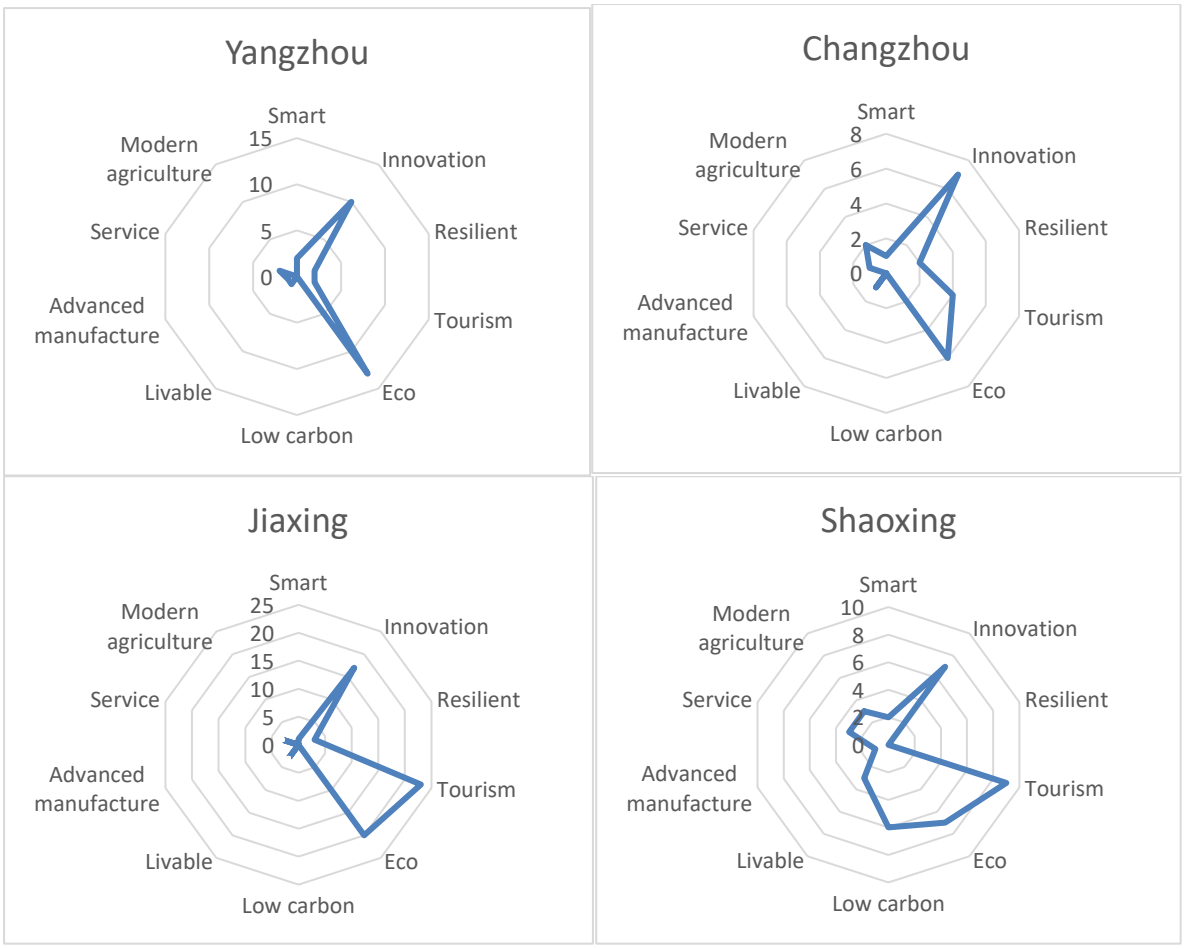


Figure 5.2 EM brands of Wuxi, Zhenjiang, Yangzhou, Changzhou, Jiaxing, Shaoxing(12th FYP)

Wuxi, Zhenjiang, Yangzhou, Changzhou, Jiaxing and Shaoxing are put into Figure 5.2, because they have similar shapes of rada chart to some extent. From the previous tables, we know that all these cities mentioned "advanced manufacturing" in their plan documents. Furthermore, Wuxi, Zhenjiang, Yangzhou are dominated by brands of "innovation" and "eco" seen from Figure 5.2. "Innovation", "tourism" and "eco" are dominant EM brands of Jiaxing, Shaoxing and Changzhou.

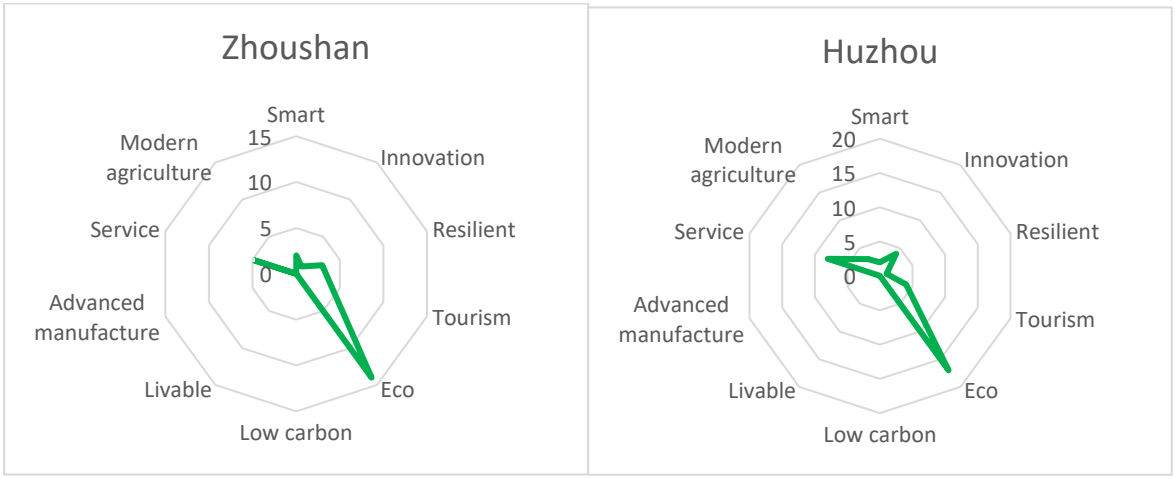


Figure 5.3 EM brands of Zhoushan and Huzhou(12th FYP)

Both Zhoushan and Huzhou are clearly dominated by “eco city” within the 12 EM categories, so these two cities are put in Figure 5.3. In addition, they small scores in “service city” and “innovation”, but there is clear gap from “eco city”.

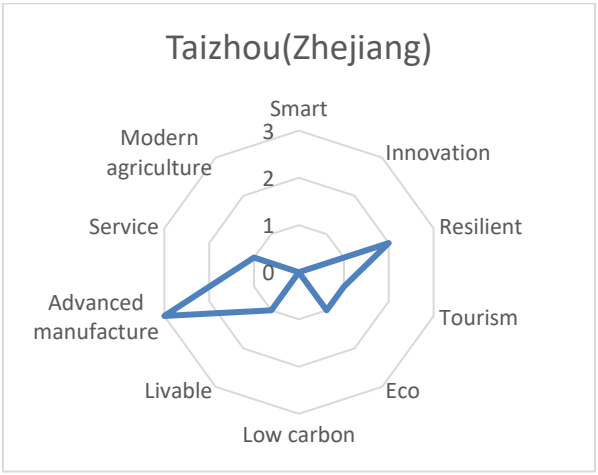


Figure 5.4 EM brands of Taizhou in Zhejiang

Although Taizhou in Zhejiang province is dominant in “advanced manufacturing” according to its radar chart, it is not included in Figure 5.2 since the scores of all the EM categories remain very low compared to other YRD cities. Therefore, it may indicate that Taizhou’s city brand development in relation to ecological modernization is quite left behind in YRD and its radar chart is shown in Figure 5.4.

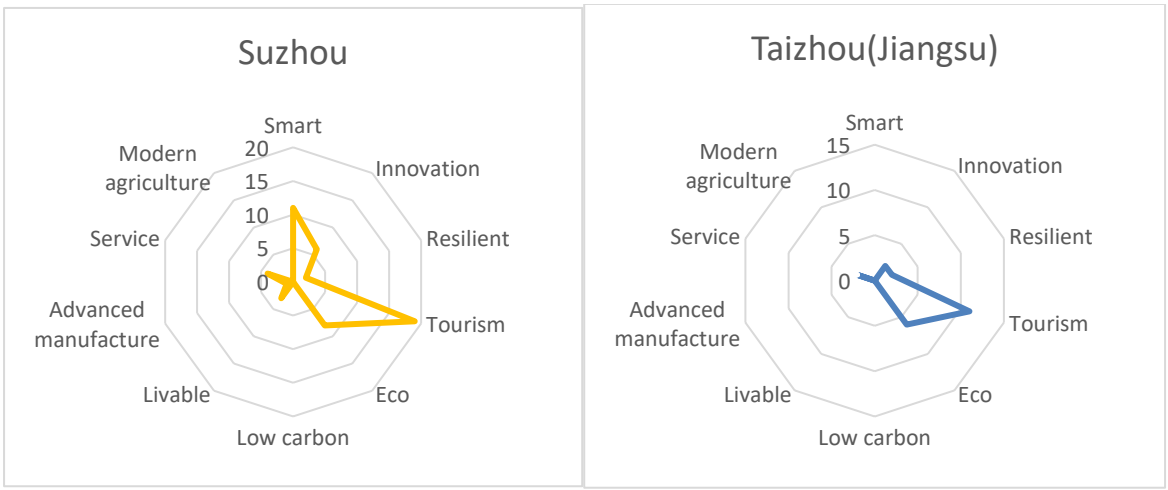


Figure 5.5 Suzhou and Taizhou in Jiangsu (12th FYP)

Radar charts of Taizhou and Suzhou are put into Figure 5.5, because they have no clear similarities with other cities in terms of the shape of the radar charts. These two cities can be regarded as cities with special characteristics different from other YRD cities. “Tourism” and “eco” are their popular EM brands. In comparison, Suzhou has a large score in “smart”, whereas Taizhou in Suzhou do not have this feature.

5.4 Conclusion

In this Chapter, EM brand positions are selected from the urban master plans and five-year plans of each cities, and their corresponding frequencies are counted and presented in Table 5.2 and Table 5.3. Given the fact that frequencies are consistent in the two policy document of each city, and that five year plans have leading effects on urban master plan, radar chart is utilized based on results of Table 5.2. Radar chart of the 16 cities are classified into five categories and their main characteristics are described. These initial conclusions are obtained mainly from radar chart, but also taking data in tables as an additional factor. The data given in this chapter is going to be used as evidence for city branding practices, which is a dependent variable in the data analysis of next chapter.

Chapter 6 Data analysis

In this Chapter, data analysis is conducted based on the methodology proposed in Chapter 2. City branding practices are explained by two factors of economic development stage and position within the region, which are established with data collected in Chapter 3. Prediction is made based on five pathway method. At last, evidence of city branding practice given in Chapter 4 and Chapter 5 are checked whether they are in corresponding to the prediction. Finally, conclusion is made and explanation are given for the outliers.

6.1 Economic development stage

6.1.1 Data visualization of each indicator

Software of Tableau 9.3 and Microsoft excel were utilized to visualize the raw data of *economic developing stage* given in Chapter 3 to make it more direct and clearer.

- Indicator 1- GDP and GDP per Capita

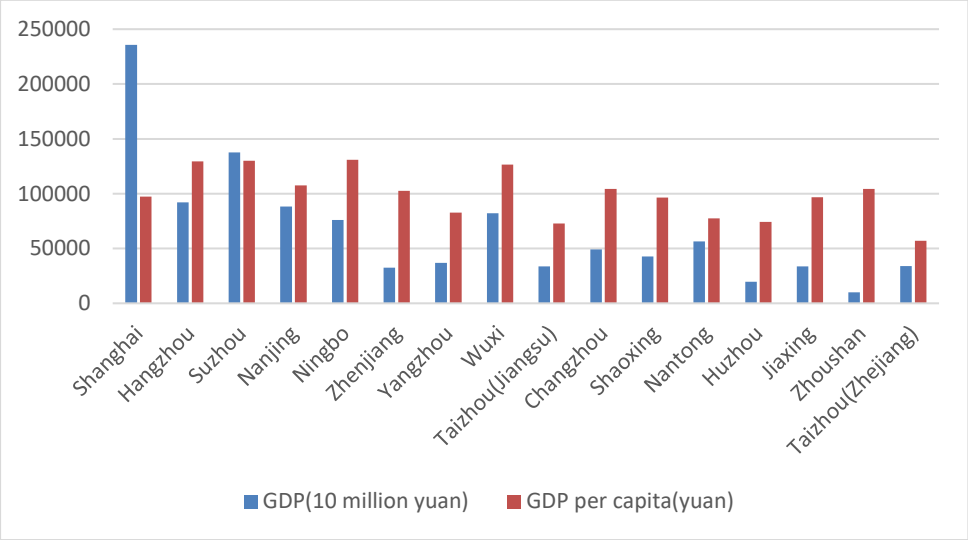


Figure 6.1 GDP and GDP per capita of the YRD cities

As shown in Figure 6.1, the blue bar and red bar represent the GDP and GDP per capita of a city respectively. It is obvious that Shanghai has the largest GDP while Zhoushan city has the lowest GDP. GDP of Shanghai is almost twice that of Suzhou and more than twenty times that of Zhoushan. However, the GDP per capita of Zhoushan is larger than that of Shanghai since Zhoushan has a smaller population. And Zhoushan has a very small GDP but a large size of GDP per capita benefiting from its ocean industry and port industry. Therefore, both these two parameters should be considered to establish proper score for the economic situation of the sixteen cities.

Overall, Shanghai and Suzhou are in the lead position in YRD in terms of GDP, while Hangzhou, Nanjing, Ningbo and Wuxi have similar size of GDP, and the other cities' GDP are close to or less than 500000 million. With respect to GDP per capita, Hangzhou, Suzhou, Ningbo and Wuxi are in the prominent position, while Shanghai, Nanjing Zhenjiang, Changzhou, Shaoxing, Jiaxing and Zhoushan are of same level, and the rest are left behind.

- Indicator2- industries measured as a) percentage of the GDP and b) workforce

To clearly show the contribution to GDP made by primary, secondary and tertiary industry, a new coordinate system is built up based on linear programming. The horizontal axis and vertical coordinates are GDP percentage of tertiary industry and GDP percentage of secondary industry respectively. In order to classify the 16 cities based on indicator 2, the plane can be separated into three areas and each one is dominated by one type of industry.

Primary industry dominated cities whose primary industry percentage is larger than secondary and tertiary industry, can be described by the following equation set. The zone determined by these inequations, locates in the section 1 in Fig. 6.2.

$$\begin{cases} 1-x-y > x \\ 1-x-y > y \end{cases}$$

Where *x* is GDP percentage of Tertiary industry, y is secondary industry of each city, and *1-x-y* is the percentage of primary industry.

Similarly, cities led by the Secondary industry (section 2 in Fig 6.2) is determined by

$$\begin{cases} y > 1-x-y \\ y > x \end{cases}$$

The Tertiary industry dominated cities (section 3) is the decided by

$$\begin{cases} x > 1-x-y \\ x > y \end{cases}$$

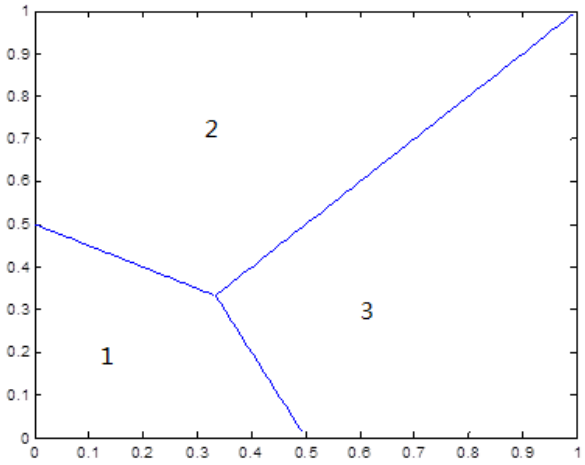
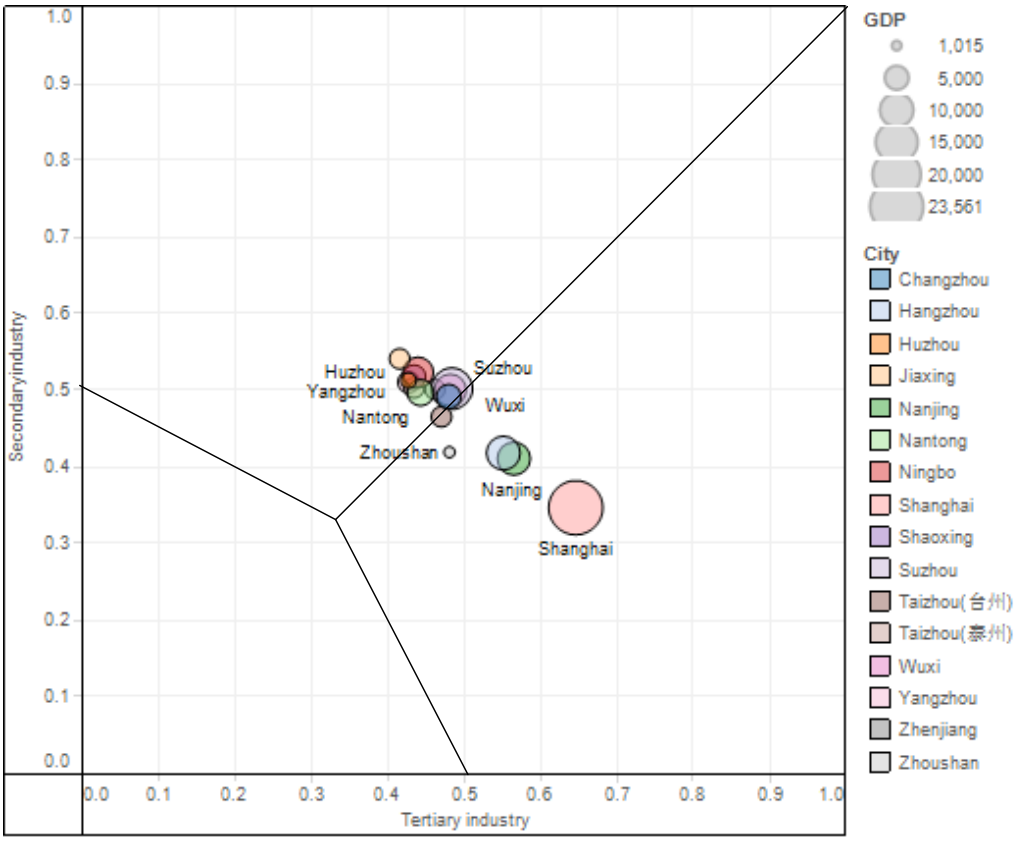


Figure 6.2 classifcation methodology

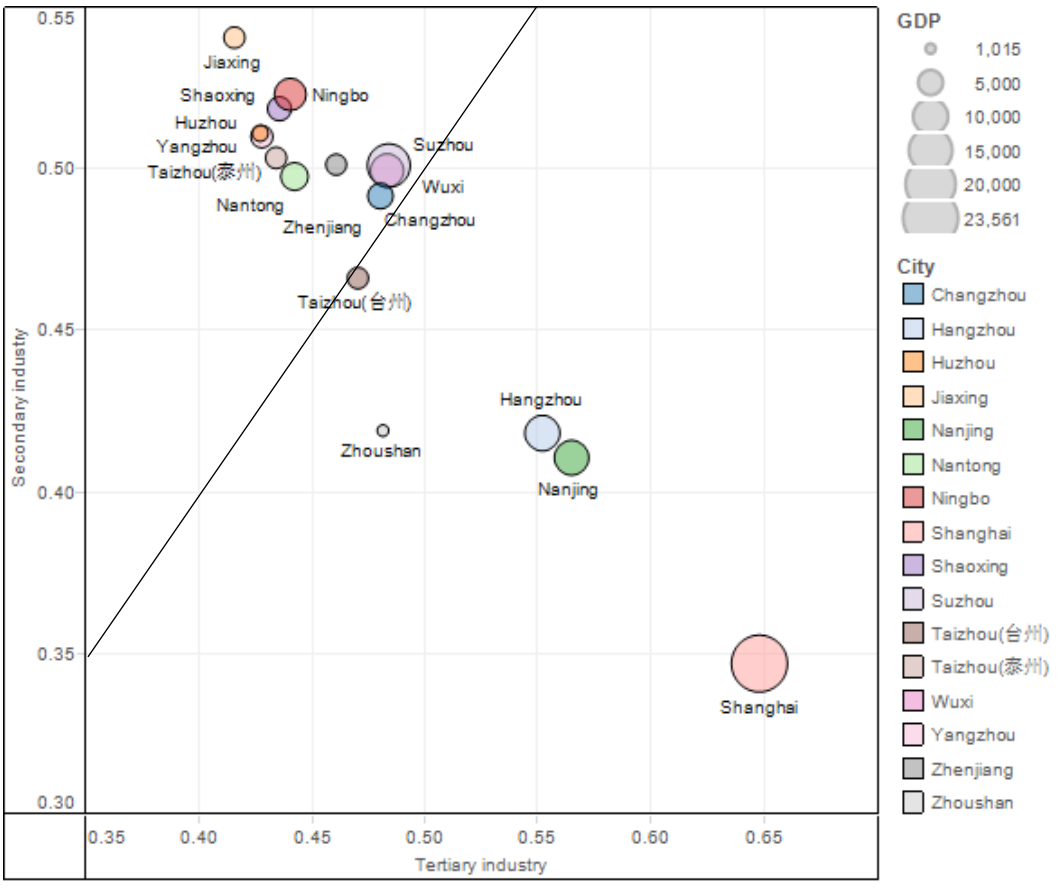
Then substitute variables *x, y* above with raw data given in Table 3.1 and Table 3.2 (page 37) and show the results in Figure 6.3, in which the size of each circle represents the quantity of GDP.

It is seen that none of 16 YRD cities is dominated by primary industry. Derived from the GDP data, 5 cities are tertiary industry dominated city and the other 11 cities are secondary industry dominated. Note that there are 3 cities very closed to boundary in the 11 secondary industry dominated cities.

Since no cities locates in section 1 that is primarily dominated here, further zoom out 2nd and 3*rd* sections of the results, shown in Fig. 6.3 b).



a) Primary secondary and tertiary industries measured as percentage of GDP



b) Secondary and tertiary industries measured as percentage of GDP(zoom in version)

Figure 6.3 industries measured as percentage of GDP

Until now, there is a popular trend that cities are transforming into tertiary industries dominated cities. From figure 6.4, it is seen that quite developed cities including Shanghai, Hangzhou, and Nanjing, percentage of Tertiary industry in these three cities has passed 50%. Secondly, Economic structure of Zhoushan whose GDP is rather small compared with other cities is also dominated by tertiary industry. Thirdly, all the rest of the cities are located in the secondary industry dominated section. Even though the size of their GDP varies, the percentage of their industries are very similar. They are relatively close to the Tertiary industry dominated section, where especially Taizhou, Wuxi, Changzhou, and Suzhou are on the boundary of secondary industry and tertiary industry section.

Figure 6.4 industries measured as percentage of working people

- Indicator 3-population and land size

Population and land size of each city considered as background information is presented in Figure 6.5, in which size of the circle also represent sizes of GDP of the cities. From the figure, it is shown that Shanghai has largest size of population, and Zhoushan is of the smallest size of population. Hangzhou has a large land size while Zhoushan has the most limited space.

Though three indicators are listed, the score of the economic development stage of each city is mainly dependent on the second indicator. The first indicator is also taken into account if indicator 2 cannot clearly lead to a final conclusion. Indicator 3 is just an additional information which is not of great impact on the decision making of the scores of each of the city.

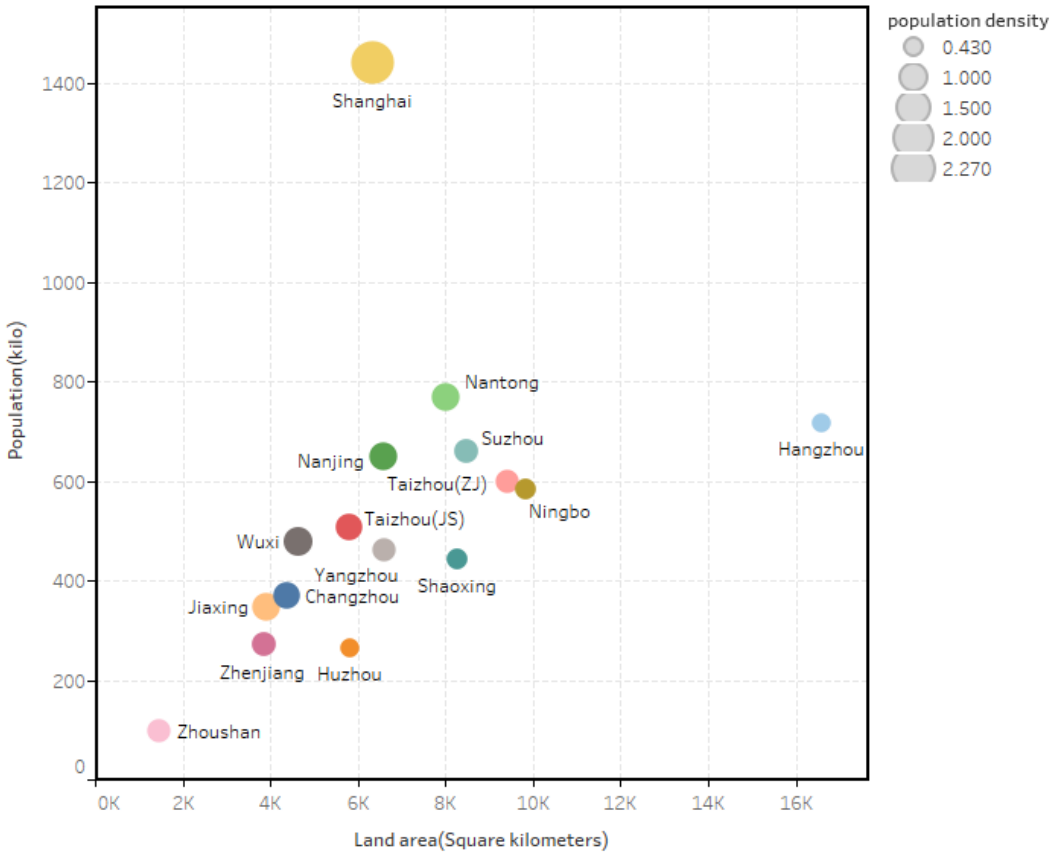


Figure 6.5 population and land area

6.1.2 City classification based on economic development stage

In this section, cities are classified based on their economic development stages. Scores of "primary sector dominates, secondary sector dominates and tertiary sector dominates" are given for each city using indicator information given in the last section. As we know, the dominant sector of industry can be simply induced by their industry structure based on its GDP contribution. However, it is not accurate and comprehensive to make classification only based on industrial structure. In our analysis, industry conditions will be considered to draw a final conclusion about one city's stage of economic development, including distribution of workforce, main industries conditions, and industry developing history. All these factors will work as a correction term to modify the classification obtained from the industry structure.

(1) *Tertiary industry dominated cities*

Shanghai: From Fig. 6.3, it is obvious that Shanghai's economic structure is dominated by tertiary industry, with industries measured as percentage of GDP 0.52: 34.65: 64.82. Medical and logistics are its dominant industries in addition to electronics, chemicals, textiles, steel, metal fabrication petrochemical as described in Chapter 3. Based on the goal of "economic, trade and financial center" proposed on National CPC Congress in 1992, "shipping center" together with the previous "three center" became the "four center" strategy in 10th FYP (2001-2005). Its 12th FYP pointed out "it should form an industrial structure mainly based on service economy", and the 13th FYP stated that "the container throughput of Shanghai port ranked first in the world", which all indicate strengths of Shanghai's tertiary industry. From Table 3.1 at end of Chapter 3, GDP of Shanghai has reached 2356094 million yuan in 2014, ranking first in YRD region. Its year-end registered population and resident population rank first in YRD region, suggesting that it is very developed among YRD cities. From industrial structure measured as percentage of working population, working population of tertiary sector over that

of second industry is 0.564: 0.394, which is also compatible with the results obtained from industries measured as percentage of GDP.

***Nanjing**:* Though Nanjing's main industries include heavy industries such as petrochemicals, iron and steel, automobile, electronics and power generation, its services sector has a big advantage over the secondary industry. As shown in Fig. 6.3, Nanjing locates in zone of tertiary industry dominant cities, with GDP contribution of industrial structure as 2.43: 41.08: 56.49. Nanjing's stage of economic development is also comparably high in YRD. Its workforce distribution based on industries is 9.2% in agriculture, 36.8% in manufacturing sector and 54.0% in services sector, which validate the results. Nanjing is known as "the first city of Software in China", and strong in education resources, which is more than that of Shanghai. 13th FYP pointed out that the "focus on service-oriented economy, and economy of transportation hub". Given that working population of tertiary over that of second industry is 0.556: 0.334, Nanjing is also a tertiary industry dominant city.

Hangzhou: Hangzhou's is in this category since its industries measured as percentage of GDP is 2.98: 41.77: 55.25. Its tertiary industries include tourism, financial services, e-commerce and information software. In history, service sector developed quickly after it was positioned as the "national tourist city" in the year of 1982. Hangzhou put much investments in education and construction of high-tech development zones, as a result high technology makes a great contribution to its economic growth. As a service city, Hangzhou was entitled as "pilot city of e-commerce" in 2011, and "service trade innovation and development pilot" in 2016. To promote advanced technology, Hangzhou offers great financial supports and preferential tax rate for small and middle-scale service companies. The Urban Master Plan (UMP) puts emphasis on technological innovation and the service functionality of the central city. Although percentage of its working population in tertiary sector which is 0.433 is slightly lower than that of second industry which is 0.453, Hangzhou is still scored as a tertiary industry dominant city.

Zhoushan: Zhoushan is scored as a tertiary industry dominated city since both its tertiary industry measured as percentage of GDP and percentage of working force are higher than that of secondary industry, as shown in Fig 6.3 and Fig 6.4. Zhoushan is a very special city in YRD due to its archipelago characteristics. Although Zhoushan's GDP and population are rather small compared with other cities, Zhoushan ranks top five in all 16 YRD cites in terms of contribution and working force of tertiary industry. It is shown that Zhoushan has a good industry structure and strong in tourism and service.

(2) *Secondary industry dominated cities*

Suzhou: Suzhou's economic structure is dominated by secondary sector, percentage of which is a little bit higher than that of tertiary industry as showed in Fig. 6.3, with GDP contribution of industry structure 1.48: 50.09: 48.43. In addition, primary, secondary and tertiary industry measured as percentage of working population is 3.6:61.5:34.8, indicating secondary industry is leading in its industrial structure. Taking these two aspects into account, Suzhou is classified into Secondary industry dominated category.

Taizhou (Zhejiang): Taizhou's economic structure is dominated by both secondary and Tertiary industry with similar scores. As shown in Fig. 6.3, its percentage of tertiary industry is only slightly higher than its secondary industry with GDP contribution of industry structure 6.37: 46.61: 47.02. However, composition of employed persons by primary, secondary and tertiary industry is 1.78:44.7: 37.5. Taking both indicators into account, this city is put into score of Secondary dominated city category at the moment.

Similarly, ***Ningbo***, ***Zhenjiang, Yangzhou, Wuxi, Taizhou (Jiangsu), Changzhou, Shaoxing, Nantong, Huzhou, Jiaxing*** are also secondary industry dominated cities. This is because the percentage of secondary industries are the highest according to the percentage data of their industry structure. In addition, this can also be verified by the fact that in Chapter 3, their main industries mostly belong to Secondary industries.

(3) *Primary industry dominated cities*

No cities are dominated by primary industry in YRD area.

6.2 Position within the region

In this section, the YRD cities are classified based on their position within the region.

(1) *International orientation*

Shanghai*:* Until now, Shanghai has grown up to an international orientation city. Focus of "international" or "global" frequently appeared in its policy documents. Goal of "an international financial capital" was proposed since beginning of Pudong New Area opening up policy in 1990. In 1992 CPC congress, "international" was an adjective to decorate the "four-center" strategy. Term of "international metropolis" appeared both in its 10th and 11th FYP. With great support from central government and effects of world expo, "global city" was also stated in its master plan. From data of GaWC ranking, Shanghai belongs to Alpha+, indicating its strength of a global city.

(2) *National orientation*

Nanjing: Its UMP aims to construct "a central city with economic vigor, an international historical city with culture characteristics". 12th FYP sets goal to build "an international modern green city, national central city and global city". However, it is still qualified as a "national city" due to the its current situations. Nanjing is a high sufficiency city according to classification by GaWC in 2012, which can provide sufficient service without enough network connectivity as a world city. In addition, there is big gap between GDP of Nanjing and Shanghai. As capital of Jiangsu, Nanjing is qualified as a national orientation city.

Hangzhou*:* Its 10th FYP clearly stated the goal of a modern "international tourist city", and its 12th FYP aims at "city of life quality" with "internationalization". It was selected as sufficiency city in 2010 and high sufficiency city in 2012 defined by GaWC. Therefore, Hangzhou is still qualified as a national city, although it enthusiastically expresses its expectation to the world. As capital of Zhejiang Province, Hangzhou is put into category of National orientated cities.

Ningbo: Ningbo together with Nanjing and Hangzhou are the three vice provincial cities according to latest <YRD Urban agglomeration development planning> issued on 2016 June. It clearly stated its role as a regional leader and position as a radiation center. Ningbo Metropolitan Area is one of five city circles in the YRD strategy of "one center, five city circles, four developing bands" proposed in <YRD Urban agglomeration development planning>. The other city circles include Nanjing Metropolitan Area, Hangzhou Metropolitan Area, and Suzhou-Wuxi Metropolitan Area. Thus, Ningbo is of the same level with Hangzhou and Nanjing regarding its position within YRD region.

Suzhou and Wuxi: Suzhou and Wuxi are two central cities of Su-xi-chang Metropolitan Area, which is composed of three prefecture-level cities and nine county-level cities. They are playing leading roles in this city circle. With strong economic, prosperous culture, long history,

and convenient traffic, Suzhou and Wuxi are developed areas of China, the economic core and innovation base of Jiangsu province, and important component of YRD. Therefore, Suzhou and Wuxi belong to national cities.

(3) *Regional orientation*

All the rest cities belong to category of regional orientation cities, namely Yangzhou, Changzhou, Taizhou (JS), Nantong, Zhenjiang, Huzhou, Jiaxing, Taizhou (ZJ), Shaoxing, Zhoushan. Taking their own region as the major playground, these cities will mainly perform regional functionalities.

6.3 Ecological modernization mode

6.3.1 City branding sets followed by each pathway

Those regional cities mainly dominated by primary industries are unlikely to be positioned as knowledge intensive service cities. Similarly, the global cities dominated by service industries rarely aim for an advanced agriculture city. In practice, cities' selections of city brands are assumed to be restricted by their regional position and economic stage. Otherwise, it will become problematic to realize those ambition goals. For each of the pathway, cities tend to choose the corresponding city brands as presented in Table 6.1.

Table 6.1 Five pathways and corresponding city brand sets

Pathway	*Explanation*	*City brand sets*
1	Cities dominated by primary industry would tend to select green spaces to promote "clean" industries such as tourism. Though they realize manufacturing is harmful to the environment, they have to allow manufacturing industries for economic reasons.	eco city, tourism city, advanced-agriculture
2	Cities try to improve their material processing techniques by introduce high technology to make the manufacturing productivity more efficient and more environment friendly.	advanced manufacture city, low carbon city, innovation city, eco city
3	International cities focused on manufacturing feel obliged to follow a high-tech and innovation way through combining advanced manufacturing and service industries to maximize profit.	innovation city, smart city
4	Cities are eager to further upgrade their tertiary industries through knowledge intensive activities and be more competitive through offering attractive spaces with culture characteristics.	service city, tourism city, innovation city
5	Cities are focused on world-class living environment and distinguished between other cities in the world.	service city, tourism city, smart city, livable city

6.3.2 Reasons for city brand set categorization

Pathway 1: Cities under this pathway are eager for "clean" industries, and city brand of "tourism city" is obviously one option here. Benefiting from green spaces, those cities rooted in agriculture will also try to brand themselves as "eco city", which is not only good for the development of tourism industries, but is also helpful to attract investors with the advantage of green spaces. "Advanced agricultural city" is selected since it can help cities enhance their agriculture industries and become more competitive.

Pathway 2: Secondary industry dominated cities would probably brand themselves as "advanced manufacture city' to upgrade their current extraction processing activities. "Innovation city" is chosen because its subset brands include "high tech" and "innovation", which are all approaches to improve and dream for "advance manufacture". "Low carbon" and

"eco city" are included since they are closely related with each other and are ambitions that the modern polluted manufacturing industries are seeking for.

Pathway 3: Compared with pathway 2, cities in this category will still focus on manufacturing industries, but they will devote more efforts to try to improve their strength in service industries. Consequently, "innovation city" is in need to achieve this ambition. It is very likely that they will take "smart city" as a city brand for the world. Main focus of "smart" is an information-driven society where machines can communicate with each other. "Smart city" is now an important aspect and hot topic for global cities. Since its realization would require innovative ideas to improve current devices, "innovation city' is also quite included.

Pathway 4: Tertiary industry dominated cities with nation or regional position are very likely to develop in a knowledge-intensive service way. "Innovation city" is included since its subset includes "knowledge city" and "learning city", which indicate knowledge-intensive orientation. "Innovation city" can be beneficial for upgrade current tertiary industrial activities. "Service city" is also included here since it is an important component of "tertiary industries."[30] "Tourism city" with its subset "historical cultural city" is quite important for cities in pathway 4 to distinguish themselves among competitors.

Pathway 5: "Smart city" is included since it is a common goal for global cities. Compared with cities in pathway 4, global cities dominated by tertiary industries will continue to brand as "service city" but with higher frequencies in policy documents. "Tourism city" with culture characteristics will often help them distinguish from others and attract more tourists to the city. "Livable city" is selected because very good living environment will become top concern of city governors after a city enters a highly-developed stage.

6.3.3 Prediction formulation

Table 6.2 Prediction on ecological modernization pathways

Results / *YRD cities*	*Position within the city*	*Economic stage*	Predicted pathway
Shanghai	International	3	5
Nanjing(JS)	National	3	4
Hangzhou(ZJ)	National	3	4
Ningbo(ZJ)	National	2	2
Wuxi(JS)	National	2	2
Suzhou(JS)	National	2	2
Taizhou(ZJ)	Regional	2	2
Taizhou(JS)	Regional	2	2
Zhenjiang(JS)	Regional	2	2
Nantong(JS)	Regional	2	2
Shaoxing(ZJ)	Regional	2	2
Changzhou(JS)	Regional	2	2
Yangzhou(JS)	Regional	2	2
Jiaxing(ZJ)	Regional	2	2
Zhoushan(ZJ)	Regional	3	4
Huzhou(ZJ)	Regional	2	2

Predictions are presented in Table 6.2 based on the 5-pathway method proposed in Chapter 2.

[30] http://www.economicshelp.org/blog/12436/concepts/sectors-economy

Dependent variable of city branding strategy is limited by independent variables of city's regional position and economic stage. The former can be classified into regional, national or international orientation, while the latter one is classified as primary, secondary or tertiary sector dominated city based on comprehensive analysis.

6.4 City branding practices

To test whether the prediction is correct or not, this section provides evidence of city branding practices in reality. To obtain the accurate value, city branding practices are analyzed in two ways. In the qualitative method, key brand identity descriptions in Chapter 4 are picked out and listed in Table 6.3 to confirm the developing pathway of each city. EM brand positions frequencies gained from Chapter 5 are used to verify the predicted brand sets of each pathway.

6.4.1 City branding identity

Whether city brand identities correspond to the expected characteristics of each pathway are checked and the results are shown in Table 6.3.

Table 6.3 Established ecological mode and city brand identities

Results / *YRD cities*	Predicted pathway	Brand identity description(source)	Conformity with prediction
Shanghai	5	Shanghai aims to be a "**global economic, financial, trade and shipping center**" and a socialist "**modern international metropolis**" with prosperous economy, harmonious society and beautiful environment (12th FYP).	Yes-5
Nanjing (JS)	4	Build a "modern international green city of humanity", featured with active economy, vivid cultural characteristics, beautiful living environment and harmonious society (UMP).	Yes-4
Hangzhou (ZJ)	4	Taking beautiful China's first demonstration area, build high-tech industrial base, international tourism and leisure center, international **e-commerce** center, national **cultural and creative center** and regional **financial services** center (UMP).	Yes-4
Ningbo (ZJ)	2	Ningbo is an important port city in China's southeast coastal, economic center in the south wing of the YRD, national historical and cultural city. It has following functions: International Trade Logistics Port, **advanced manufacturing industry base** in East China, an important foreign trade port in the YRD south wing (UMP). It strives to be a smart city (12th FYP).	Yes-2
Wuxi (JS)	2	Build Wuxi into a national leading "**famous city of ecological mountain and water, famous city of tourism and modern service, famous city of high-tech industries, and famous livable city.**" (LUP) It aims to be an international manufacturing base (UMP).	Yes-2&4
Suzhou (JS)	2	Goal of Suzhou is to build a demonstration area for scientific development, innovation and opening up, **an advanced industrial city**, cultural tourism city where historical culture and modern civilization integrate, most livable city with a beautiful ecological environment (FYP).	Yes-**2**&4
Taizhou (ZJ)	2	Taizhou's strategic goal is to build an **advanced manufacturing base**, provincial economic strong city, modern coastal port city and innovation demonstration zone of private economy in China. Build Taizhou into a modern coastal eco city in YRD, with innovative vitality, good entrepreneurial environment, wealthy people and harmonious society (LUP).	Yes-**2**&4
Taizhou (JS)	2	Taizhou is positioned as important agglomeration **area of advanced manufacturing** in YRD, important gateway in Jiangsu, new demonstration area of urban development in middle Jiangsu(LUP).	Yes-2
Zhenjiang (JS)	2	Build Zhenjiang into a modern "**garden city of mountain and water**", characterized in developed industries, innovation and entrepreneurship, harmony and happiness (FYP).	No-4
Nantong (JS)	2	Built Nantong into a modern "**international port city**" where rivers and seas convergence, "**economic center in YRD north part**" and "**livable entrepreneurial city**." (FYP)	**No**-4
Shaoxing (ZJ)	2	Shaoxing is positioned as is a national **historical and cultural city**, domestic and overseas famous **tourism leisure city**, **eco livable city** in	Yes-2

		YRD south part and **city of characterized industries** based on **advanced manufacturing** (LUP).	
Changzhou (JS)	2	Goal of Changzhou is to become an **economy strong city** with **advanced manufacturing industries** and wealthy people's, **famous cultural city** with highlighted historical context, modern education and science, **regional hub city** and **eco city** where man and nature harmoniously coexist(UMP).	Yes-2
Yangzhou (JS)	2	Create **famous city of ancient culture and modern civilization,** which is featured in a national **industrial base of new green energy**, a first-class livable eco garden city, and a cultural heritage city and excellent tourism city, regional center and the gateway hub city in YRD north part.	Yes-2
Jiaxing (ZJ)	2	Build a modern **network-type garden city**, which is an innovative YRD city strong in economy, an eco-cultural city of Jiangnan water village and a livable coastal city of Hangzhou Bay(FYP).	**No**—4
Zhoushan (ZJ)	4	Build an international **logistics base** of bulk goods, **modern marine industrial base**, national marine science and education base, and **an archipelago garden city** with **unique characteristics** (FYP).	Yes-4
Huzhou (ZJ)	2	Huzhou is the central city of Taihu Lake, a provincial historical and cultural city, an industry and trade city, as well as the ecological tourism city in the YRD. It has the functions as the **advanced manufacturing base** in the YRD, modern service industry base, urban agriculture base (UMP)	Yes-2

Shanghai: Evidence verifies the prediction of Shanghai on pathway 5 is true. In its 12th FYP, UMP and LUP, "four center" and "international metropolis" express its development focus on "service" and "global", which clearly reflect the characteristics of pathway 5.

Nanjing, Hangzhou and Zhoushan: Nanjing and Hangzhou are on Pathway 4 in both prediction and evidence. Nanjing's brand identity focuses on "humanity", "culture" and "living" without focus on manufacturing and agriculture, which results in the most possibility to be on pathway 4. "Financial center" and "e-commerce" clearly show Hangzhou's strength in tertiary sectors. "High tech", "tourism" and "culture center" indicate it tend to develop in a knowledge intensive way and with a culture feature to distinguish from other cities, corresponding to definition of pathway 4. "Logistics base" and "marine science and education" indicate Zhoushan's focus on tertiary industry and preference on knowledge intensive activities, which verifies that its ecological mode of pathway 4.

Suzhou, Wuxi, Taizhou (ZJ): These three cities are expected to be on pathway 2, but they have characteristics of both pathway 2 and 4 in reality. Suzhou and Taizhou's identity point out "advanced industrial city" and "advanced manufacturing base" respectively, which are obvious features of pathway 2. Therefore, it proves the correctness of prediction on pathway 2. At the same time, their brand identities also include characteristics of pathway 4 indicated by "tourism city", "port city" and so on.

Ningbo, Taizhou (JS), Shaoxing, **Changzhou, Yangzhou and Huzhou:** These cities' prediction on pathway 2 proves to be correct. "Area of advanced manufacturing", "developed industries" "advanced manufacturing", "industrial base of new green energy" and "eco city" shows their focus on manufacturing and intention to upgrade the heavy industries into an environmentally friendly way.

Zhenjiang, Nantong and Jiaxing: These four cities' prediction pathway are all pathway 2, but in policy documents they have characteristics of pathway 4, which means that evidence do not conform with prediction.

6.4.2 City brand position

For each city, EM brand positions frequencies gained from 12th FYP are added together according to the city brand sets of each pathway (Table 6.1) to confirm its developing pathway. Please not that radar chart in Chapter 5 is considered as a correction factor to verify and revise

the results seen from Figure 6.6. When the sum shows no significant difference between pathways and cannot lead to convincing conclusions, results of radar chart is taken into account. The final conclusion is given in Table 6.4.

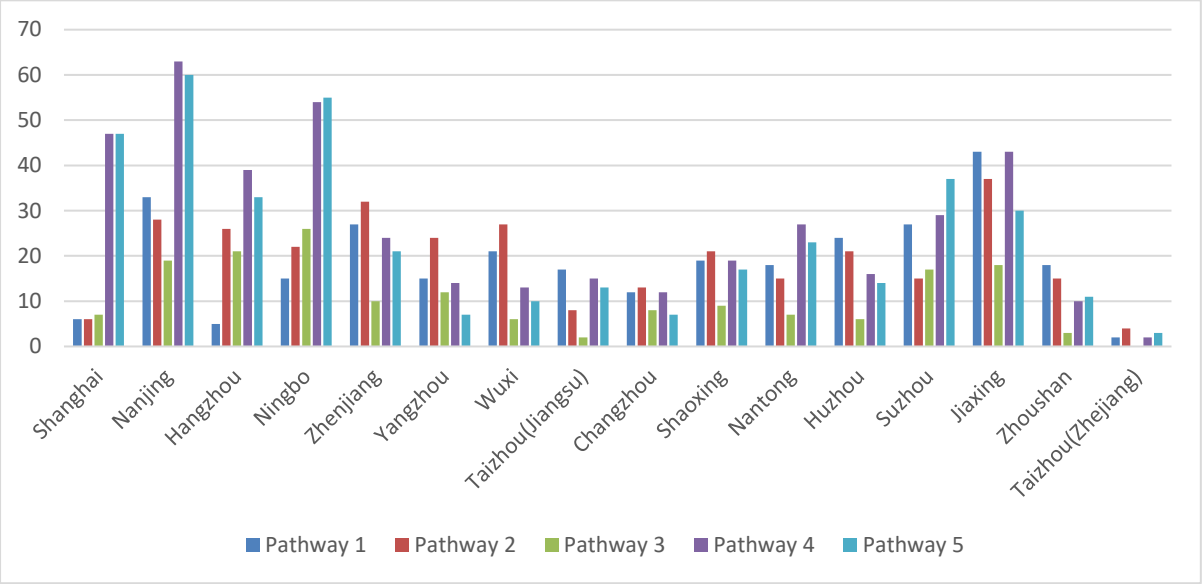


Figure 6.6 Established ecological mode and EM brand positions

Table 6.4 Established ecological mode and EM brand positions

Results / *YRD cities*	Predicted pathway	Pathway resulted	Conformity with prediction
Shanghai	5	5	Yes
Nanjing(JS)	4	4	Yes
Hangzhou(ZJ)	4	4	Yes
Ningbo(ZJ)	2	4	**No**
Wuxi(JS)	2	2	Yes
Suzhou(JS)	2	5	**No**
Taizhou(ZJ)	2	2	Yes
Taizhou(JS)	2	4	**No**
Zhenjiang(JS)	2	2	Yes
Nantong(JS)	2	4	**No**
Shaoxing(ZJ)	2	2	Yes
Changzhou(JS)	2	2	Yes
Yangzhou(JS)	2	2	Yes
Jiaxing(ZJ)	2	4	**No**
Zhoushan(ZJ)	4	4	Yes
Huzhou(ZJ)	2	4	**No**

Shanghai: From results in Figure 6.6, Shanghai belongs to either pathway 4 or 5. However, Shanghai has a more tendency to be on pathway 5 compared to other cities in pathway 4, since it has very clear prominent advantage in Service sector according to radar chart result. Therefore, Shanghai is concluded to be on pathway 5, which conforms the pathway predicted.

Nanjing and **Hangzhou**: Both Nanjing and Hangzhou are on pathway 4 with advantages in service sector. Their score on pathway 5 is also comparably high since both of these two cities have an ambition for the global orientation in policy documents. However, from radar chart results, there is still gap between these two cities and Shanghai regarding the strength in brand

set of pathway 5 especially in “service city”. Therefore, Nanjing and Hangzhou are still on pathway 4 rather than pathway 5, which verify the prediction to be correct.

Wuxi, Yangzhou and **Zhenjiang**: From both Figure 6.6 and radar chart, there is no doubt that Wuxi, Yangzhou and Zhenjiang is on pathway 2 which conforms the prediction.

Shaoxing and **Changzhou**: Both Shaoxing and Changzhou are taken as on pathway 2 since their score on pathway 2 is the highest among their scores for the five pathways respectively. However, their score on pathway 2 is not very distinguished in the bar chart, so their radar charts are also checked to verify the results. Both these two cities’ three dominant city brands are “innovation city”, “tourism city” and “eco city” which are characteristics of pathway 2. In addition, “advanced manufacturing” and “low carbon” occurred in their plan documents with small scores. Therefore, Shaoxing and Changzhou is categorized in pathway 2 cities.

Suzhou: From figure 6.6, Suzhou is on pathway 5. From Suzhou’s radar chart in Section 5.3, it can be seen that its shape is very special among YRD cities, with prominent strength in “smart city” and “tourism city”. Taking these two factors into account, Suzhou is regarded to be on pathway 5 in reality. However, Suzhou is predicted to be on pathway 2, so Suzhou is taken as an outlier and explanations are given as the following.

It is possible that Suzhou belongs to pathway 5 because Suzhou is currently a well-known smart city in the world and tourism city. Also, Suzhou’s GDP is quite high, ranking second in YRD region. Compared with most cities on pathway 4 and 5, Suzhou does not have a very clear dominance in service sector regarding shape of the radar chart, but at the same time it cannot be concluded to be on other pathways. In its radar chart, “advanced manufacturing” and “service city” is slightly high, therefore it is reasonable to conclude that Suzhou is on pathway 5 given its characterized conditions.

Taizhou (ZJ): Taizhou city in Zhejiang Province is on pathway 2 which can be seen from Figure 6.6. However, compared with other YRD cities, its city branding practices is not high promoted since its frequencies of each brand are low, indicating that strategy of city brand may not be commonly utilized. This can be explained by the fact that Taizhou’s economic stage is left behind with very low GDP among YRD cities.

Ningbo: From Figure 6.6, scores on pathway 4 and pathway 5 are both clearly higher than that of other pathways, but its radar chart has very similar shape and characteristics of Nanjing and Hangzhou. Therefore, Ningbo is concluded to be on pathway 4. This it is not in correspondence with the predicted pathway 2, but can be explained by its strength in port industries.

Nantong: Nantong’s predicted pathway is 2 but the result is 4, which may be due to its strength in port (service).

Jiaxing and Taizhou(Jiangsu): At first glance of Figure 6.6, it can be seen that Jiaxing is either on pathway 4 and pathway 1 with similar scores. In its radar chart results, its three-dominant city brand are “innovation city”, “eco city” and “tourism”. This is why it has similar scores on pathway 1 and 4, which is because of our selection of the city brand sets of each pathway. However, since “innovation city” which often requires high technology to upgrade industries should not be a dominant city brand of cities in pathway 1, therefore Jiaxing is concluded to be on pathway 4 taking both Figure 6.6 and results of radar chart. Compared with other cities such as Nanjing and Hangzhou, Jiaxing has a tendency to develop in a eco way trying to make full use of its natural resources. In a similar way, we can conclude that Taizhou in Jiangsu Province is also on pathway 4. These two cities are both on pathway 4 in reality which do not match their prediction of pathway 2.

Zhoushan, Huzhou: From results in Figure 6.6, Zhoushan and Huzhou are both of the highest score on pathway 1. However, as discussed before, all the YRD cities are comparably developed regarding economic stage, so it is not realistic for them to be on pathway 1. This results come from the fact that both these two cities have very high scores in "eco city", which result in inaccuracy of Figure 6.6. So, we take radar chart results into account. These two cities have very similar shapes in terms of radar chart, and both their most two popular brand are "eco city" and "service city", which are characteristics of pathway 4. However, "eco city" is much more dominant than other YRD cities on pathway 4 regarding the shape of radar chart. This can be explained by the fact that Zhoushan and Huzhou have lower GDP and their service sectors are not so strong as developed cities such as Nanjing and Hangzhou.

6.5 Conclusion

In this Chapter, data analysis is conducted based on the casual framework in Chapter 2. Overall, our model works well among YRD cities. From results of Table 6.3 and Table 6.4, it appears that most cities in YRD are on the pathway we expected, and all the cities that do not conform the prediction are those on pathway 2. From perspective of city brand identities, there are three cities (Zhenjiang, Nantong and Jiaxing) predicted to be on pathway 2 but on pathway 4 in reality. Cities of Taizhou, Suzhou and Hangzhou who should follow pathway 2 are actually developing in a combined pathway 2 and 4. Similar results can be found in brand positions, in which pathway 2 cities tend to develop on pathway 4. This reflect the current hidden problems exit in Chinese city branding practices. There is a tendency that cities are taking city branding as a way to greenwash themselves instead of truly brand themselves toward ecological modernization in accordance with their own characteristics. The reason why those pathway 2 cities tend to brand themselves as pathway 4 needs further research. In addition, there are no cities on pathway 1 and 3, which is limited by the scope of this paper.

Chapter 7 Conclusions

In this chapter, answers to the research questions of this graduation project will be given first. Critical reflection is given on the outcomes and recommendations are provided. Limitations of the research and a future research agenda are presented at the end.

7.1 Conclusion of the research questions

The goal of this project is to study the city branding in Yangtze River Delta regarding ecological modernization. To achieve this objective, the main research question "***How do cities in the YRD position themselves through city branding in light of ecological modernization?***" need to be answered by using the theoretical framework proposed and data gained from the above case study.

The general answer to this main research question is: "***Cities in the YRD position themselves through city branding in light of ecological modernization on the Five Pathways distinguished in the paper***." More specifically, the conclusion for the main research question can be drawn by answering the following sub-questions.

1. ***What are the general geographic and industrial features of the YRD and its constituent cities?***

Key economic indicators and statistics are listed in Chapter 3. YRD cities vary significantly in GDP. Shanghai with the highest GDP is over 20 times more than Zhoushan, the city of the lowest GDP. In comparison, the GDP per capita of the YRD cities are comparably close to each other, in which the highest (Hangzhou) is less than two times of the lowest (Taizhou).

YRD cities have different industrial structures in terms of their strong area in industry. The percentage of primary, secondary and tertiary industries measured as GDP and working people for each city illustrates a transparent distribution of the industrial features. Four cities are dominated by tertiary industry, namely Shanghai, Nanjing, Hangzhou and Zhoushan. Those four cities are either entirely developed such as Shanghai or in special conditions like Zhoushan which is an island city with the smallest land area. Other 12 cities are led by secondary industries, and no one is a primary industry dominated city.

Industrial features are closely related to geographic features because geographic features provide advantages and resources for industrial development. Port industry and shipping are the main industry for coastal cities, such as Ningbo and Nantong. Marine industry is one of the main industries in Zhoushan. Cities such as Hangzhou, Suzhou, and Jiaxing who have advantages in tourism resources tend to develop tourism sector. Shipping can also be a major industry in some inland cities including Nanjing, Wuxi, and Huzhou. These cities work as transportation hubs either connect YRD to other provinces or link important cities in YRD. At the same time, geographic features set limits on city's industry development. For example, Zhoushan has a very limited land area which is difficult to develop the secondary industry. Taizhou in Zhejiang province has a long coastline, but it is surrounded by mountains. In this case, it is hard to develop port industry due to transportation problems.

Industrial features are related to their historical evolution and cultural influences. Hangzhou is strong in tertiary industry because it is famous for silk and textile since ancient times. Suzhou is active in new industries as it is significantly affected by the Chinese economic reform and

opening up policy. Culture also has impact on industrial features. Famous for wine culture, Shaoxing's pillar industries include the rice wine industry. Yangzhou's tourism industry still benefits from hundreds of poetries created by ancient poets.

To summarize, International Tertiary industry dominated city is Shanghai; National Tertiary industry dominated cities include Nanjing and Hangzhou; National Secondary industry dominated cities are Ningbo, Wuxi, and Suzhou; Regional Tertiary industry dominated city is Zhoushan; the remaining cities belong to Regional Secondary industry dominated cities.

2. What general city brands do the various cities adopt?

In Chapter 4, city brand identities and general brand positions of the 16 YRD cities are summarized. Each city has a variety of city brands. For example, Shanghai has 19 brands in total, and Nanjing has 18 brands in total. Cities sufficiently express their attention to the environment, city functions, industries, expectations and values. The brands related to the environment includes "eco city", "green city" and so on. The other type of city brands points out cities' characteristics in nature or culture, such as Yangzhou's "national historical and cultural famous city" and Zhoushan's "archipelago garden city." The city value related brands include Hangzhou's "city of life quality" and Nanjing's "a modern international green city of humanity." The brands expressing city position of function include Shanghai's "global city," Wuxi's "regional central city" and so on. The brands describing city's expectation include Jiangnan's "economic strong city" and Shanghai's "four centers". Other brands are related to cities' industrial features, such as Suzhou's "city of high-tech industry" and Ningbo's "port city". The collected general city brands give us a full picture of YRD city branding practices.

Among those general city brands, EM brands is a quite popular category in which "eco city" almost occurs in all the city documents. It indicates that "ecological" is a trend and greatly promoted by the Chinese government in recent years. However, there are some city brands not very popular in China. For example, "sponge city" only appears in those developed cities.

Some cities have already established good city brands which clearly reflect a city's goal, such as Hangzhou's brand of "city of life quality". On the other hand, many cities just imitate brands from other cities without considering their actual situations. This imitation leads to lack of distinguished character in their city brands. The explanation could be that those cities in YRD have similar geographic features and similar historical background, therefore "cultural and historical city" and "Jiangnan water city" are commonly proposed. This phenomenon reflects that city brand strategies in YRD lack innovation and personality. In order to design an extraordinary city brands, city governments should dig into cities' core essence and spirit instead of merely follow up with others. Another issue in branding practices is that some cities such as Taizhou(JS) adopt a variety of brands in many aspects with no focus, which can confuse both its citizen and stakeholders.

3. What city-brands do they adopt related to ecological modernization?

The answer to this question is answered in detail in Chapter 5. EM related city brands adopted include "smart, eco, low-carbon, resilient, tourism, livable, innovation, advanced manufacturing, service city and modern agriculture city". "Eco city, cultural city and innovation city" are the most popular city brands in YRD. It is shown that YRD cities are developing into a more high-tech dependent and green way. "Service city" is a quite popular brand in developed areas in YRD, such as Shanghai, Nanjing, Hangzhou and Ningbo. "Smart city and low carbon city" are only adopted by certain cities, which implies that these brands

require specific economic and developing foundation. “Resilient and modern agriculture city” are the most unpopular city brands, in which “Resilient city” is very rare.

Overall, general city brands do show the desire, characteristics, value and position of a city, while the EM brands show more about a city’s emphasis on EM and industrial transformation. In the quantitative aspect, the appearance frequency of EM brands indicates the popularity of each EM brand of the whole region and the emphasis of one city on different EM brands.

Back to the main research question, we argue that cities react to the needs of EM by filling this needs into their city branding practices. Stage of urban economic development and regional position will affect this repositioning process and will probably lead to five different possibilities of the modes of EM.

7.2 Reflection on the theory, methods and outcomes

As part of a broader research which composed of Yangtze River Delta, Pearl River Delta, and Bohai Economic Rim, this project mainly analyzed city branding practices in YRD. There are many works of literature about city branding, but there are seldom discussions on how the city branding practices are affected by the geographic features and industrial features. The main contribution of this paper is to evaluate the city branding practices in YRD in perspective of EM by analyzing these two factors.

Overall, the results verify the correctness of the pathway method. The accuracy of the model is dependent on the credibility of the city brands. If city governments design unrealistic city brands strategies regardless of or beyond their real industrial and geographic restrains, the prediction results deviate from reality to some extent.

EM brands are popular city brands among the general city brands in YRD cities. Cities are increasingly feeling the urge to use city branding to increase their attractiveness facing the challenges of ecological modernization. From Table 6.3, it seems that most cities are developing on the pathway we expected. Most pathway 2 cities pointed out “advanced manufacturing”, and some of them tend to develop as a combination of pathways 2 and 4. Cities on pathways 4 and 5 stress the importance of “service” and “culture”. Those on pathway 4 pay attention to “innovation” and those on pathway 5 focuses on “global” position.

For the exceptions, almost all of them are on pathway 2. According to prediction, there are twelve cities on pathway 2, which indicates most cities in YRD are manufacturing-dominated in economic. However, these cities are also strong in beautiful sceneries and water resources, and have an abundant history which is common characteristics shared by Chinese cities. For example, Jiaxing is a city with extraordinary landscapes, whereas Nantong and Ningbo benefit a lot from their port resources. Though these cities are manufacturing dominated, at the same time they also have advantages in culture and ecology which come along with other pathways especially pathway 4.

7.3 Recommendations for policy makers

This section makes initial recommendations for the governments based on the outcomes of this paper and lessons learned from relevant reports and marketing plans from cities in the US including Santa Clara, Richmond, and Philadelphia. Please note that detailed procedures to

reduce the gap between our prediction and real branding practices are beyond the scope of this thesis, and all the recommendations provided here should be further examined by consultants.

- Close attention needs to be paid to minimize the gap between city brand and reality.

Proper branding efforts can enhance a city's competitiveness, but the brand should be tailored to suit the specific needs of the city in accordance with existing academic research as well as conversations with stakeholders.

It is problematic for cities to design brands higher than their status, which exaggerate the facts to make false propaganda. By analyzing industrial features and positions within the region, local government could use the brand sets for each pathway given in this paper to restrain their city brands. In short, they need to stay true to their current situation, and design proper and authentic brands which are related to their current status. The stakeholder analysis could also be conducted to include a list of target groups. Governments should make sure the designing process is accessible to as many stakeholders as possible, so that all useful opinions can be involved.

- More researches could help governments find out the real cause of the pollution and solutions to improve their EM brand.

Many cities in YRD claim to be on pathway 4 instead of branding themselves on pathway 2, which might because manufacturing has been blamed as the cause of pollution today. However, there is no clear evidence manufacturing industry is certainly the cause for pollution. To truly become greener and cleaner, especially for those cities such as Jiaxing whose main industries are still manufacturing, they can conduct a SWOT (strengths, weaknesses, opportunities, and threats) analysis to fully understand the current situations of the cities and find out the best choice for them to become greener. Research from the universities could also be introduced. If all the conditions are satisfied, those cities could pursue industrial transformation or advanced manufacturing process.

- Cities should try to make more distinguished city brand identity.

The cities might have dug up enough about their characteristics, but they may have not thought thoroughly how to differentiate themselves from other cities. They tend to flop for green which is a popular trend in current China and ignore promotion of their own personality. "There's something special about every city. City branding isn't about inventing something; it's about discovering what's already there." (North, 2014) They need to cultivate uniqueness to avoid the lack of differentiation in cities. Limited number of YRD cities with similarities is a disadvantage for the results of this paper, but could be a beneficial for collaborative approach among the cities. The collaborations among cities such as thematic workshops, study visits, and peer-reviews provide cities with extra resource, funding and expertise (Rivas, 2015). On the other hand, cities could check whether their own city brand identify are distinguished enough from other cities.

- After proposition of city branding identities, cities need to make more actions on promises.

Almost all YRD cities claim to be "eco city" and "tourism city" in their brand identity, but not all of them actually put enough efforts to brand them into those brand identities. If only using branding as a slogan for example greenwashing in this case, negative effects will be made on the credibility of the city brand and city's image in residents.

An office of a department in charge of implementing the city brand is recommended to be established. It could create a user-friendly website, which could accept the public inspection.

Also, the feedbacks may enforce the government to deliver more on their promises. The website can help citizens and the local government stay informed and involved. Online surveys could be launched to gain feedbacks from city residents as well as those outside the city. Make sure that residents could have a voice during the city branding process. Governments could hold larger industry event and conferences to increase awareness of a city brand, thus enhance its credibility.

7.4 Personal reflection

I am positive about the outcomes, since it gives a clear overview of city branding practices in YRD region in view of ecological modernization. City branding strategy is a comparably new concept and is still under development. There is no universal consensus about the exact components of a city brand. The 16 cities under study have different features and development goals. It is a challenge to build a research framework that is suitable for case study across all cities. Considerable time was spent on finding a reasonable framework and figuring out what city brand sets would correspond to each pathway. And this was quite a valuable experience.

The scope was narrowed down to YRD and the 5-pathway model was introduced with the guidance of my supervisors. Much time was spent on mapping brand identities and positions for the 16 cities only for 12 FYP. The workload would be double when it comes to 13 FYP.

I was convinced that the city branding practices closely relate to the industrial and economic features of a city. The results of this study were duplex. On the one hand, cities on pathways except on pathway 2 conform with the prediction, which indicates the correctness of the model. On the other hand, not all the city brands are credible or designed carefully based on their characteritics. Thus, some city brand strategies were problematic and caused the gap between the model prediction and the reality.

The limitation of the research can be categorized as the following:

- City dimension

  This graduation project studied 16 YRD cities. This limited number of cities results in few or no cities developing along pathways 1, 3 and 5, which is a weak support of the conclusions. Besides, the variation of the city types also introduces limitation to the results. All the cities selected are from YRD region, which is the most developed area in China. Those cities are comparably highly urbanized and industrialized, and thus cannot represent the common situations in China. Also, their common types result in similar brands, which unavoidably narrowed the study scope. More types of cities can be introduced in future.

- Industry dimension

  The economic development stage in data analysis is described by the percentage of primary, secondary and tertiary industries measured as GDP or working people for simplicity. This can reflect industrial features but may not represent the whole picture. The characteristics within the industries are also worth deep research. For example, data about the number of companies in each industry could be gathered and analyzed to conclude the industrial features of the YRD cities.

- Time dimension

  Cities are developing very fast and each five-year period there will be a new Five Year Plan. In this project, the result only work within a certain time period. The time span can be

prolonged to test the reliability of this 5-pathway model. A long-term relation between the variables could be tested to make the test results more robust.

7.5 Future research agenda

- Only 16 cities in YRD were studied due to the time limitation. The first recommendation would be to involve more cities in different provinces of China to verify or falsify the outcomes of this research. Cities from different provinces may hold variant historical background, industrial features and regional positions, all of which are important influencing factors to the outcome of this study. So, the questions are when different types of cities from different provinces and regions are included in this study, will the outcomes be the same? If changed, to what extent? This might be answered in the future research.

- The outcomes of this paper are mainly based on UMP, LUP and 12th FYP. It would be very interesting and meaningful to find the hidden trend in the development of city branding practices. Since the cities are developing very fast, results gained from static variables are difficult to be continued to be used, which is always behind the development. For example, the 13th FYP includes many new data, which is not available in the beginning of this project. But it has just been issued and can be used in the future research. If those new trends are taken into account, the results might be different. A step forward is necessary and the variables should be dynamical. An interesting research is to investigate the cities not only on their city branding practices for now but also on the trends to see how it is going to change as time passing by. The research ahead of its time would contribute to a long-term city branding strategy and thus reduce the cost overall.

- City branding strategies depend on political policies and statements. The new government officials might hold completely different views towards the city branding strategies and might also reject the established concept policy and so the process will start all over. How to ensure the city branding strategies last beyond different elections would be a big challenge and worth further study.

- The outcomes of this study in relation to the city's brand are surprising. We found that there is a certain degree of inconformity between prediction and reality, and made a few initial recommendations. How to minimize the gap between brand behavior and actual behavior can also be a future research question.

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Appendix A

City identities in the YRD cities

	城市总体规划	土地利用总体规划	“十二五”规划
Shanghai 上海	通过建立一座创新之城、生态之城、人文之城，将上海建设成为卓越的**全球城市， 国际经济、金融、贸易、航运、科技创新中心和国际文化大都市(9 页)。**	加快建成上海**国际经济、金融、贸易、航运中心**，进一步增强创新能力和高端服务功能，率先形成以服务经济为主的产业结构，成为具有国际影响力和竞争力的**世界城市**（9 页）。	上海要建成与我国经济实力和国际地位相适应、具有全球资源配置能力的**国际经济、金融、贸易、航运中心**，经济繁荣、社会和谐、环境优美的**社会主义现代化国际大都市**(11 页)。
Nanjing 南京	建立经济发展更具活力、文化特色更加鲜明、人居环境更为优美、社会更加和谐安定的**现代化国际性人文绿都。(7 页)**	把南京市建成经济发展更具活力、文化特色更加鲜明、人居环境更为优美、社会更加和谐安定的**现代化国际性人文绿都**（6 页）	以建设人民幸福城市为根本目标，向建设**现代化国际性人文绿都**的目标迈进(10 页)。
Hangzhou 杭州	以美丽中国先行区为目标，充分发挥历史文化、山水旅游资源优势，发展科教事业，建设高技术产业基地和国际重要的旅游休闲中心、国际电子商务中心、全国文化创意中心、区域性金融服务中心(3 页)。	着力促进杭州市“**生活品质之城**”建设，为杭州市全面实现现代化和发展具有特色鲜明、运行高效的国际化城市提供土地资源保障(7 页)	杭州的城市总体目标是共建共享“**生活品质之城**”(7 页)。
Ningbo 宁波	我国东南沿海重要的**港口城市，长江三角洲南翼经济中心，国家历史文化名城(2 页)**。	宁波未来城市发展定位为**我国东南沿海重要的港口城市、长三角南翼经济中心、长三角城市群的重要城市和国家历史文化名城(7 页)**。	加快打造国际强港，加快构筑现代都市，加快推进产业升级，加快创建智慧城市，加快建设生态文明，加快提升生活品质，为建设**现代化国际港口城市**、打下坚实基础（5 页）。
Zhenjiang 镇江	发展成名符其实的**江南经济强市**，清新秀丽、充满灵气和活力的**江南名城**，社会事业全面发展的**现代文明城市**, 建设长三角区域中心城市，国家历史文化名城和国内外著名的旅游城市，特色显著的山水型生态城市(17 页)。	努力建设产业发达、创新创业、幸福和谐的现代化**山水花园城市**(13 页)。	初步建成产业发达、创新创业、幸福和谐的现代化“**山水花园城市**”(20 页)。
Yangzhou 扬州	扬州的发展目标是成为区域性中心城市, 古今辉映的历史名城, 水绿交融的宜居城市（3 页）。	打造中国一流、世界有影响的**古代文化与现代文明交相辉映的名城** 1 产业发展：大力发展“三新”产业和现代服务业，打造国家级绿色新能源产业基地。2 城市特质：彰显“人文、生态、精致、宜居”的特色城市，塑造一流的宜居生态园林城市。3、区域定位：打造具有国际影响力的文化遗产城市和优秀旅游城市、长江三角洲北翼区域性中心与门户枢纽城市（10 页）。	以建设“创新扬州、精致扬州、幸福扬州”为主题，建成“**古代文化与现代文明交相辉映的名城**”(7 页)。
Wuxi 无锡	城市发展总目标是**国际制造业基地；长江三角洲湖滨特大城市；国内外旅游胜地；全国生态人居名城(5 页)**。	将无锡建设成为全国领先的**生态山水名城、旅游和现代服务名城、高科技产业名城和宜居生活名城（9 页）**	把“推动科学发展率先发展、建设创新无锡幸福无锡”作为主题，把无锡建设成为创新型、服务型、国际化、现代化，具有独特影响力和竞争力的**区域性中心城市**(4 页)
Tàizhōu 泰州	积极打造“**区域中心城市、交通枢纽城市、生态宜居城市、历史文化名城”(3 页)**。	泰州市的发展定位为长三角先进制造业的重要集聚区、江苏跨江联动的重要门户、苏中新型的都市成长示范区、经济文化生态协调发展区（13 页）。	以“推进富民强市、建设美好泰州”为主题，着力推进经济结构调整，着力统筹城乡发展，着力加强文化泰州建设，着力保护生态环境，着力促进社会和谐稳定，努力走出一条具有泰州特色和优

			势的发展新路（10 页）。
Changzhou 常州	发展目标为先进制造业发达、人民生活富裕的**经济强市**；历史文脉彰显、现代科教先进的**文化名市**；连东接西、承南启北的**区域性枢纽城市**；以人为本、人与自然和谐共存的**生态城市(8 页)**。	常州市将努力实现综合实力更加强大、增长方式更加科学、社会发展更加和谐、人民生活更加殷实、城市功能更加完善的目标(16 页)	努力把常州建设成为创新创业城、现代产业城、生态宜居城、和谐幸福城(13 页)。
Shaoxing 绍兴	把绍兴建设成为文化与现代文明融为一体的“**特色产业城市、文化休闲城市、生态宜居城市**”(2 页)。	绍兴市的定位为国家历史文化名城，国内外著名旅游休闲城市、长三角南翼生态宜居城市和以先进制造业为基础的特色产业城市(18 页)。	加快建设特色产业城市、文化休闲城市、生态宜居城市，全面建成惠及全市人民的更高水平小康社会 (7 页)
Nantong 南通	城市发展目标为“**国际港口城市、区域经济中心、历史文化名城、宜居创业城市”(8 页)**。	将南通建设成为江海交汇的**国际港口城市、长三角北翼的经济中心、历史文化名城**和**宜居创业城市(8 页)。**	把南通建成江海交汇的**现代化国际港口城市、长三角北翼经济中心**和国内一流的**宜居创业城市**(3 页)。
Huzhou 湖州	湖州中心城市发展总目标是建设成为南太湖地区最宜人居住和创业的山水园林城市与生态旅游城市（9 页）	以加快建设**现代化生态型滨湖大城市**为目标，促进湖州市经济、社会、环境和谐发展(5 页)	加快建设“富饶、秀美、宜居、乐活”的**现代化生态型滨湖大城市(6 页)**。
Suzhou 苏州	构建以名城保护为基础、以和谐苏州为主题的“**青山清水，新天堂**”（5 页）。	将苏州建设成为：先进制造业与现代服务业集聚的**高端产业区**；聚居与自然生态环境和谐共生的**最佳宜居区**；历史文化与现代文明融合发展的**文化旅游区(8 页)**。	着力建设科学发展的样板区、开放创新的先行区、城乡一体的示范区和以现代经济为特征的高端产业城市、历史文化与现代文明相融的文化旅游城市、生态环境优美的最佳宜居城市(15 页)
Jiaxing 嘉兴	发挥地理位置、便捷的交通条件，围绕水乡特色、突出文化氛围，着眼于建设“**实力嘉兴、人文嘉兴、生态嘉兴、法治嘉兴**”（1 页）。	建设上海大都市圈副中心城市、长三角区域科技创新副中心城市、江南水乡人文生态典范城市，最终完成现代化**网络型田园城市**建设目标(5 页)。	加快建设长三角创新型经济强市、江南水乡生态型文化大市、杭州湾宜居型滨海新市，全力打造**现代化网络型田园城市**(13 页)。
Zhoushan 舟山	逐步建成我国大宗商品储运中转加工交易中心、东部地区重要的海上开放门户、重要的现代海洋产业基地、海洋海岛综合保护开发示范区、陆海统筹发展先行区。实现**国际物流枢纽岛、对外开放门户岛、海洋产业集聚岛、国际生态休闲岛和海上花园城**的建设目标（1 页）。	形成海洋经济强市，建设宜居的**海上花园城市**环境。(17 页)	全面推进大宗商品国际物流基地、现代海洋产业基地、国家级海洋科教基地、独具特色的**群岛型花园城市**建设(11 页)。
Tāizhōu 台州	使台州发展成为繁荣、优美、文明的区域中心城市，适宜创业发展、适宜居住生活的**山水型生态城市(9 页)**。	台州市的战略目标为建设长三角地区产业集群和先进制造业基地、省域经济强市和沿海产业带的中核、东南沿海现代化港口大城市和中国民营经济创新示范区（17 页）。 把台州建设成为长三角地区创新活力足、创业环境佳、民富程度高、社会和谐好的**现代化滨海生态城市（18 页）**	以科学发展为主题，以“主攻沿海、创新转型”为主线，以“山海秀丽，富裕和谐”为目标，争取在海洋经济、循环经济、城市群构建、社会管理等领域取得新突破(5 页)。

Appendix B

General city brand positions

	城市总体规划	土地利用总体规划	“十二五”规划
Shanghai 上海	健康生态之城，能够应对各种风险、韧性的、有恢复力的城市，繁荣创新之城，智慧城市，宜业城市，公交都市，幸福人文之城，全球城市，创新之城、生态之城、人文之城，历史文化名城，国际文化大都市，国际旅游目的地城市	园林城市, 循环经济试点城市, “四个中心”(国际经济、金融、贸易、航运中心), 现代化国际大都市, 世界城市	“四个中心”(国际经济、金融、贸易、航运中心)，社会主义现代化国际大都市, 国际文化大都市，创新型城市，智慧城市，生态宜居的绿色家园，最安全的大都市
Nanjing 南京	滨江生态宜居城市，国家重要创新基地，历史文化名城，著名古都，国家重要的区域中心城市，国家综合交通枢纽，区域现代服务中心，长三角先进制造业基地，现代化国际性人文绿都，公交都市，	历史文化名城，综合交通枢纽，科技创新基地，区域现代服务中心，长三角先进制造业基地，滨江生态宜居城市,国际性人文绿都, 创新型城市	创新型城市, 先进制造业基地, 文化南京, 智慧南京, 综合交通枢纽, 科技创新中心, 中国软件名城, 绿化模范城市, 文明城市, 现代化国际性人文绿都，人民幸福城市
Hangzhou 杭州	生态城市，高技术产业基地，全国文化创意中心，创新中心，历史文化名城，旅游城市，美丽中国建设样本，山水城市，风景旅游城市，现代物流中心和交通枢纽，信息经济中心，重要的旅游休闲中心，美丽中国先行区，国际电子商务中心，区域性金融服务中心	国际风景旅游城市, 历史文化名城, 生活品质之城, 文化旅游城市, 宜居城市, 品质城市, 天堂硅谷, 东方休闲之都, 世界级旅游目的地	生活品质之城，智能杭州，生态型城市，创新型城市，教育强市，人才强市，学习型城市，信用杭州，民营经济强市，杭商品牌，生活品质之城，文化名城，创新型城市
Ningbo 宁波	以“水”为核心的水网城市,历史文化名城，山海宜居名城，港口城市，长江三角洲南翼经济中心，国际贸易物流港，东北亚航运中心深水枢纽港，华东地区重要的先进制造业基地，长江三角洲南翼重要对外贸易口岸，浙江海洋经济发展示范区核心	港口城市,长三角南翼经济中心,历史文化名城, 长三角最佳休闲旅游目的地	国际港口城市,海洋经济强市，智慧城市，创新型城市,文化大市，文明城市，最具幸福感城市，平安宁波
Zhenjiang 镇江	生态城市，历史文化名城，长江三角洲重要的港口、风景旅游城市和区域中心城市，山水城市，江南经济强市，清新秀丽、充满灵气和活力的江南名城，现代文明城市，长三角区域中心城市，山水型生态城市，园林城市	生态城市, 历史文化名城，长江三角洲重要的港口、风景旅游城市和区域中心城市, 山水花园城市	幸福和谐新镇江，山水花园城市，智慧镇江，绿色生态镇江，创新型城市，健康城市，中国创业之城，产业发达、创新创业、
Yangzhou 扬州	风景旅游城市,以人文、生态、精致、宜居为特色的名城，区 域性中心城市，历史名城，宜居城市，先进制造业基地	历史文化名城, 生态人文宜居城市, 卫生城市,环保模范城市,园林城市,国家级绿色新能源产业基地, 宜居生态园林城市, 文化遗产城市旅游城市, 长江三角洲北翼区域性中心, 门户枢纽城市, 人文、生态、精致、宜居”城市,文明城市,森林城市,生态园林城市, 绿杨城郭新扬州	创新扬州,精致扬州,幸福扬州，生态市，森林城市，全国文明城市,世界文化遗产城市, 古代文化与现代文明交相辉映的名城，创新型城市，法治扬州，平安扬州
Wuxi 无锡	国际制造业基地,长江三角洲湖滨特大城市,国内外旅游胜地,全国生态人居名城，生态城市，山水城市，历史文化名城，国际制造业	历史文化名城, 风景旅游城市，生态文明城市，生态山水名城，旅游和现代服务名城，高科技产业名	创新无锡,幸福无锡，低碳城市，宜居城，创新经济领军城市，节水型城市，森林城市，生态市，历史文化名城，建设生态城、高科技产业城、旅游

	基地,长江三角洲湖滨特大城市，风景旅游城市	城，宜居生活名城，绿色无锡	与现代服务城, 区域性中心城市，创新型城市，生态园林城市和全国最佳人居环境城市
Tàizhōu 泰州	生态名城，人文水乡、宜居名城，水乡城市，富有文化内涵的生态宜居城市，生态城市，旅游大市，旅游强市，区域中心城市，生态宜居城市，历史文化名城，区域性交通枢纽城市，和谐交通城市，公交城市	生态市， 中国医药生产基地，长江三角洲北翼中心城市，历史文化名城，滨江生态宜居城市， 休闲度假旅游基地	中国医药城，文化泰州，卫生城市，环保模范城市，园林城市，旅游城市，全国双拥模范城市
Changzhou 常州	生态城市，生态市，现代科教先进的文化名市，历史文化名城，现代化城市，特色城市，经济强市，文化名市，区域性枢纽城市，全国文明城市，国家创新型试点城市，YRD 区域创新中心	资源节约型城市, 生态常州, 创新创业城、先进制造业城、生态宜居城和民生幸福城	创新创业城，现代产业城，生态宜居城，和谐幸福城，“常州模式”，平安常州，法治常州，国家园林城市，国家生态市，科技强市，教育强市，人才强市，创新型城市，建成国家文明城市
Shaoxing 绍兴	生态旅游城市，生态宜居城市，特色产业城市，文化休闲城市，历史文化名城，江南水乡，“实力、文化、诚信”绍兴，长三角重要的交通枢纽，长三角先进的工贸基地	经济强市，文化强市，生态绍兴，和谐绍兴，旅游城市，历史文化名城，旅游休闲城市、生态宜居城市，特色产业城市，重要贸易基地,生态城市，文化生态宜居城市，文化之邦，江南水城，宜居城市，桥乡，酒乡，书法之乡，名士之乡	特色产业城市，文化休闲城市，生态宜居城市，创新型城市，人才强市，经济强市，文化强市，生态绍兴，和谐绍兴，生态市，环保模范城市，历史文化名城，文明城市，生态文明城市，法治绍兴，平安绍兴
Nantong 南通	生态市，国际港口城市、区域经济中心、历史文化名城、 宜居创业城市，山水城市，滨江城市，人文城市，上海北翼的经济中心和门户城市	中国近代第一城，国际港口城市、长三角北翼的经济中心，历史文化名城，宜居创业城市，绿色南通	现代化国际港口城市，长三角北翼经济中心，宜居创业城市，长安南通，诚信南通，绿色南通，文明城市，卫生城市，环保模范城市，园林城市，历史文化名城，文化大市，创新型城市，法制南通，江海特色文化强市，生态市，南通家纺”世界品牌
Huzhou 湖州	生态旅游城市，都市保障型农业基地，最宜人居住和创业的山水园林城市，历史文化名城，长三角工贸、生态旅游城市，长三角地区先进制造业基地，现代服务业基地，都市保障型农业基地，生态城市，物流中心	生态市，长三角最宜居住和创业的现代化生态型滨湖大城市，高端产业区，最佳宜居区，文化旅游区，特色园林旅游胜地，生态宜居城市	生态湖州，森林城市，人才强市，平安湖州，湖州模式，生态市，重要节点城市，特色产业集聚区、统筹城乡先行区、生态文明示范区、幸福民生和谐区，“富饶、秀美、宜居、乐活”的现代化生态型滨湖大城市，创新型城市
Suzhou 苏州	历史文化名城,风景旅游城市，文化名城，宜居城市，江南水乡，人才强市，创新型城市，和谐苏州，国家高新技术产业基地，长三角二级商务商贸物流中心	文化名城、高新基地、宜居城市、江南水乡、山水之都、特色园林城市	人才强市，高端产业城市,文化旅游城市，宜居城市，智慧城市，智慧苏州，诚信苏州，创新型城市，文化强市，健康城市，文明城市，绿化模范城市，园林城市群，科学发展的样板区，开放创新的先行区，城乡一体的示范区
Jiaxing 嘉兴	生态嘉兴，宜居城市，实力嘉兴，人文嘉兴，法制嘉兴，上海南翼的港口新市，江南水乡的文化名城,宜建宜居城市，旅游强市，生态园林城市,历史文化名城，水乡泽国	江南水乡现代田园城市,国内一流城市旅游目的地,长三角区域旅游集散中心,运河国际旅游休闲城市,上海大都市圈副中心城市,长三角区域科技创新副中心城市,江南水乡人文生态典范	长三角创新型经济强市，江南水乡生态型文化大市，杭州湾宜居型滨海新市，现代化网络型田园城市，宜居宜业宜游之城，现代物流枢纽城市，创新型城市，人才强市，学习型城

		城市,现代化网络型田园城市,物流枢纽中心,创新科教中心,田园水乡名城,先进制造基地	市，文明城市，长三角重要的节点城市
Zhoushan 舟山	国际生态休闲岛，海上花园城,中国渔都，国际物流枢纽岛，对外开放门户岛，海洋产业集聚岛，国际群岛型海洋休闲旅游目的地，佛教文化旅游胜地，海洋经济先导区，国际性的港口,海岛旅游城市,自由贸易港，历史文化名城，现代海洋产业基地，大宗商品储运中转加工交易中心	宜居的海上花园城市，国际化港口大市，国家临港型产业基地,海洋开发基地，海洋旅游基地，现代渔业基地，海洋经济强市，海洋文化名城，长三角海洋休闲旅游度假中心，世界著名海洋休闲旅游目的地	大宗商品国际物流基地,现代海洋产业基地,国家级海洋科教基地,群岛型花园城市，新舟山,国际物流岛,创新型城市,绿色智慧城市,美丽海岛,平安舟山,海洋文化名城,现代化教育强市
Tāizhōu 台州	宜居宜创业的山水型生态城市,现代滨海城市，工贸型现代化港口城市,“长三角”南翼的重要节点城市,全国民营经济的创新示范区,现代化制造业基地与商贸中心	长三角南翼的重要节点城市,长三角地区产业集群和先进制造业基地,东南沿海现代化港口大城市,中国民营经济创新示范区,现代化滨海生态城市,山水型生态城市。	生态市，文化大市,临港先进制造业基地、民营经济创新示范区，循环经济发展示范区，长三角南翼节点城市,经济发达、设施完备、功能齐全、生态宜居的环绿心组团式大城市，全国一流的特色装备制造基地，港口城市

Appendix C

City branding descriptions in Chinese from Vision part or titles of FYPs are given in the tables below. For the 13th FYP, only documents that have been already formally printed out to the departments are considered. Documents are from governmental website instead of second resources, and documents that haven't been approved or are still in process of revision such as forms of advice are not included.

EM brand variations in Chinese

Variation / *Category*	Translation in Chinese
'Smart city'	"智慧城市", "智慧南京", "智能杭州", "智慧镇江", "智慧苏州", "绿色智慧城市"
'Eco city'	"生态型城市", "绿色生态镇江", "生态宜居的绿色家园", "人文绿都", "生态市", "生态城", "生态型滨湖大城市", "生态湖州", "绿色智慧城市", "绿色南通", "生态园林城市", "生态宜居城"
'Low-carbon city'	"低碳城市"
'Resilient city'	"长安南通", "平安舟山"
'Knowledge city'	"学习型城市", "科教基地"
'Livable city'	"生活品质之城", "生态宜居的绿色家园", "生态宜居城", "宜居创业城", "全国最佳人居环境城市"
'Innovation city'	"创新型城市", "创新城市", "创新扬州", "创新无锡", "创新创业城",

Appendix D

Sources for 12th Five Year Plan:

Shanghai
http://www.shdrc.gov.cn/jw_admin/upload/myupload_1287.pdf
Nanjing
http://www.njdpc.gov.cn/jcck/ztzl/201110/t20111011_168575.html
Hangzhou
http://www.hzdpc.gov.cn/xxgk/xxgk_xxgkml/xxgk_xxgkml_ghjh/xxgk_xxgkml_ghjh_fzgh/xxgk_xxgkml_ghjh_fzgh_ztjh/201212/t20121212_22551.html
Ningbo
http://www.nbdpc.gov.cn/cat/cat113/index.html
Zhenjiang
http://xxgk.zhenjiang.gov.cn:8088/pub/root87/auto3390/201106/t20110603_510705.htm
Yangzhou
http://www.yangzhou.gov.cn/125zt/125zxgh/201208/54217b1cb19c4e0da66f178fb176532e.shtml
Wuxi
http://www.wuxi.gov.cn/doc/2011/10/12/899234.shtml
Taizhou
http://xxgk.taizhou.gov.cn/xxgk_public/jcms_files/jcms1/web2/site/art/2012/8/13/art_7343_30241.html
Changzhou
http://www.changzhou.gov.cn/gi_news/134260516361268
Shaoxing
http://www.sx.gov.cn/art/2011/10/10/art_668_324252.html
Nantong
http://xxgk.nantong.gov.cn/govdiropen/jcms_files/jcms1/web1/site/art/2015/11/6/art_5400_454241.html
Huzhou
http://www.huzhou.gov.cn/xxgk/jcms_files/jcms1/web2/site/art/2011/4/12/art_2482_4038.html
Suzhou
http://www.suzhou.gov.cn/asite/zt/2012/06/sew/ghgy.html
Jiaxing
http://www.jiaxing.gov.cn/zwxx/szfxx/zcwj_9983/jzf/201104/t20110406_175088.html
Zhoushan
http://www.zhoushan.gov.cn/web/xqlt/xqgh/ztgh/201301/t20130131_224264.shtml
Tāizhōu
http://www.taizhou.com.cn/zhuanti/2013-03/05/content_989386.htm

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Shanghai
http://www.shanghai.gov.cn/nw2/nw2314/nw2319/nw22396/nw39378/u21aw1101146.html
Hangzhou
http://www.hangzhou.gov.cn/art/2016/4/29/art_933538_690374.html
Zhenjiang
http://xxgk.zhenjiang.gov.cn:8088/pub/root87/auto3390/201604/t20160428_1736114.htm
Yangzhou
http://www.yangzhou.gov.cn/xxgkdesc/xxgk_descxxs.jsp?manuscriptid=40dd15cdb636429eaeaeb28aee54d590&zt=
Wuxi
http://www.wuxi.gov.cn/doc/2016/02/04/892303.shtml
Taizhou
http://xxgk.taizhou.gov.cn/xxgk_public/jcms_files/jcms1/web1/site/art/2016/3/25/art_25_86760.html
Changzhou
http://www.changzhou.gov.cn/gi_news/354145456930970
Shaoxing
http://www.sx.gov.cn/art/2016/1/25/art_668_835580.html
Nantong
http://xxgk.nantong.gov.cn/govdiropen/jcms_files/jcms1/web1/site/art/2016/3/2/art_5340_478801.html
Huzhou

http://www.huzhou.gov.cn/xxgk/jcms_files/jcms1/web1/site//art/2016/3/1/art_59_99797.html

Suzhou

http://www.zfxxgk.suzhou.gov.cn/sxqzf/szsrmzf/201603/t20160329_696699.html

Zhoushan

http://www.zhoushan.gov.cn/web/zhzf/zwgk/ghjh/ztgh/201603/t20160322_818881.shtml

Sources for Urban Master Plan

Shanghai

http://2040.shgtj.net/web/

Hangzhou

http://www.hzplanning.gov.cn/index.aspx?tabid=903d39b5-a4d8-41eb-bec0-13b068e0bf54

Ningbo

http://www.nbplan.gov.cn/zhz/news/201504/n64540.html

Yangzhou

http://ghj.yangzhou.gov.cn/ghj/yzszongtgh/201511/61d4a5bb3435431da4846944199d79f2.shtml

Taizhou

http://www.tzghj.gov.cn/new/news_view.php?id=2656

Changzhou

http://www.czghj.gov.cn/info/CZGHJ4732.html

Shaoxing

http://www.sxgh.gov.cn/art/2012/12/28/art_17699_500855.html

Huzhou

http://www.hzplan.gov.cn/show-121.html

Jiaxing

http://www.jiaxing.gov.cn/sjw/ghjh_5880/ghxx_5882/200804/t20080415_100677.html

Zhoushan

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Tāizhōu

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Nanjing

http://www.mlr.gov.cn/tdsc/tdgh/201212/t20121201_1161640.htm

Hangzhou

http://www.hzgtj.gov.cn/fore/portal/infos/view?id=17923825

Ningbo

http://www.mlr.gov.cn/tdsc/tdgh/201305/t20130506_1210753.htm

Zhenjiang

http://www.zjlra.gov.cn/zygl/tdzygl/

Yangzhou

http://gtj.yangzhou.gov.cn/gtj/tdlygh/201212/9d102fc4e0fc4890a32fedcf896b0fe7.shtml

Wuxi

http://gtj.wuxi.gov.cn/doc/2011/08/12/270206.shtml

Taizhou

http://www.tzgt.gov.cn/tdlyztgh/14851.jhtml

Changzhou

http://www.changzhou.gov.cn/gi_news/961138355278980

Shaoxing

http://www.mlr.gov.cn/tdsc/tdgh/201108/t20110808_917932.htm

Nantong

http://www.ntgt.gov.cn/gtzygl/app/tdscnrController/getTdscnrByNrid/zfgk1070

Huzhou

http://www.mlr.gov.cn/tdsc/tdgh/201305/t20130520_1216710.htm

Suzhou

http://www.szgtj.gov.cn/0/600/134320/93415/WebSite/0/7913644/0/ShowTxtContent.shtml

Jiaxing

http://www.jxgtzy.gov.cn/zwgk/ghjh/tdlygh/201510/t20151029_545393.html

Zhoushan

http://www.mlr.gov.cn/tdsc/tdgh/201007/t20100720_155272.htm

Taizhou

http://www.zjtzgtj.gov.cn/zwxx/gtgh/2015-06-16/4120.html