
CHANGING ECONOMIC DRIVING FORCE OF CITIES COMPETITIVENESS: THE DEVELOPING CAPACITY OF SECONDARY CITIES IN TAIWAN

Ting-Yuan Chang^{*1}, Shiann-Far Kung², Ding-Bang Luh³

^{*1}Corresponding author: Ting-Yuan Chang, Institute of Creative Industry Design, National Cheng Kung University, No.1 University Rd., Tainan City, 701, Taiwan. E-mail: tychang88@gmail.com

²Associate Professor, ICID, National Cheng Kung University

³Associate Professor, ICID, National Cheng Kung University

ABSTRACT

The greater cities can get more political resource, the better reputation they had from mass media. The secondary cities usually hold less population, economic market scale and job opportunities providing than the largest one. They generally aggressively find the driving force of economic growth and attract foreign investment in order to catch up the top largest cities achievement. This study adopts economics, social, and environmental factors, which follow the primary criteria of global urban competitiveness comparison, to analyze economic driving force within the secondary cities in Taiwan. The capacity of secondary cities appears decaying trend, as Kaohsiung City, lack of strong economic driving force. FDI effectiveness has been reduced since 2003 year in those secondary cities of Taiwan. In recent years, Taiwanese government also offered much incentive to attract foreign enterprises' direct investment. But when incentive disappeared, then foreign firms or enterprises mostly chose leaving to other south-eastern countries for cost down. Globalization trend makes secondary cities should re-consider self-competitiveness. Continuous relying on central or local governmental resource is hard to survive for secondary cities. According to the Taiwanese secondary cities cases, the study found five municipal divisions, mentioned as New Taipei, Taichung, Tainan, and Kaohsiung, being unnecessary to be divided into five parts. Integrating nearby cities could make good effect on economic growth.

Keywords: *Competitiveness, Secondary Cities, Catch-up Cities, Driving Force, FDI*

1. INTRODUCTION

Diversity is currently topical in policy circles, driven by a combination of the social inclusion and competitiveness agendas and fuelled by the writings of Richard Florida, in the context of wider globalization debates. Diversity-competitiveness linkages may be explored at the micro (individual enterprise) and/or the macro (e.g. city/region) level (ODPM, 2004b). Kaohsiung City is the second largest cities in Taiwan. There are more and more population immigration and quite a lot of infrastructure proceeding during these decades. Culture Industries are gradually embedding in citizens living and industries development. The changing industries structure makes Kaohsiung City have multiple business style. In 2009, Kaohsiung City held the World Games, provide the unique setting for thousands of athletes from different sports and countries to join. In 2011, city government took place 'International Marathon MIZUNO Cup' sports and international food show. Its purpose is to develop city tourism and travelling industries. To increase immigration in city, Kaohsiung City government is developing culture creative industry in recent years.

Kaohsiung City is the second largest city in Taiwan. Its population number is less than the largest city-Taipei, but is the largest one on the southern part of Taiwan Island. The research tries to figure out the city future developing capacity from economic, social and environmental perspectives.

The global manufacturer, China, has occurred huge impact. The global forces and regional restructuring have caused a relative economic decline in some historically powerful cities, and have also brought about the

emergence of new economic centers. In response to these forces, many Chinese cities have been driven into adopting a series of new competitive strategies, which seek to, win back and build up their leading positions and competitiveness (Xu & Yeh, 2005). The Kaohsiung City has to face the future increasing pressure from those cities in China. No matter in Taipei of Taiwan or those cities located in Asia Area, city ought to find self-competitive advantage in order to promote their competitiveness.

2. LITERATURE REVIEW

Many measurements are utilized on city competitive comparison. Urban competitiveness defined as a measure of a city's ability of creating wealth. The 'Global Urban Competitiveness Report' measures the comprehensive competitiveness of 500 cities around the world in terms of 9 indexes, namely GDP, per capita GDP, GDP per unit area, labor productivity, number of multi-national enterprises settled in the city, number of patent applications, price advantage, economic growth rate and employment rate. (Ni & Kresl, 2010) Chorinopoulos recognized competitiveness appears as a new element in the specific dynamics of the Mediterranean city. Competitiveness is the process at the local level, and the implications of the re-orientation of spatial planning priorities (Chorianopoulos, Pagonis, Koukoulas, & Drymoniti, 2010) Greene. et al. adopted statistical correlations analysis between different dimensions of competitiveness of cities and city-regions. This research shows that regional disparities in terms of wealth and living standards are well known; simply recasting the spatial scale to the city or the city-region does not change the underlying fundamentals of regional performance. (Greene, Tracey, & Cowling, 2007)

European Spatial Development Perspective (Abbreviated by ESDP) emphasis on promoting city/region competitiveness through 'management', with particular attention to spatial, social, economic and political processes at work in city-regions (Atterton, 2007). The 'City Matters' book is encased broadly to adhere to the "role of policy, government and governance in relation to competitiveness and cohesion" (Martin Boddy, 2004). Indeed, the first theme of "competitiveness" also known as competitive success – is one whose centrality to discourses about contemporary city discourses can hardly be contested. At a period when urban processes of geographical restructuring of cities are having major socioeconomic effects, induced for the most part by the information and communications technologies-powered "knowledge economy", the factors that shape and regulate a city's competitiveness still portend direct implications for growth or decline of the city. Obviously, governmental intervention will induce or reduce city competitiveness.

In the European Union, the issue of competitiveness has taken on particular significance in relation to its Lisbon 'growth strategy', with its highly ambitious aim to close the 'competitiveness gap' with the USA and become the world's most dynamic and competitive knowledge-base economy by 2010 (Kitson, Martin, & Tyler, 2004). Simply speaking, city competitiveness might be defined as the success with which cities compete with one another in some way. It might be over attracting capital or workers. Some researcher defined as the ability of an urban economy to attract and maintain firms with stable or rising market shares in an activity while maintaining or increasing standards of living for those who participate in it (Michael, 1997). The ability of urban economy is also a kind of performance indicator for city competitiveness.

UK ODPM had ever emphasized regional/urban competitiveness policy research. ODPM listed those drivers power of urban competitiveness include of innovation, human capital, economic diversity and specialization, connectivity, strategic decision-making, and quality of life factors (ODPM, 2003, 2004a). There is in fact an increasing tendency to explain regional/ city growth and development in terms of 'soft' externalities. In particular, considerable emphasis is that in a globalized economy, the key resources for regional/ urban competitiveness depend on localized processes of knowledge creation, in which people and firms learn about new technology, learn to trust each other, and share and exchange information (Morgan K, 2004). Moreover, Florida's urban competitiveness also list index that ranks cities as 'creativity index', a proxy for an area's openness to different kinds of people and ideas (Florida, 2002).

3. STUDY FRAMEWORK

3.1 The study Purpose

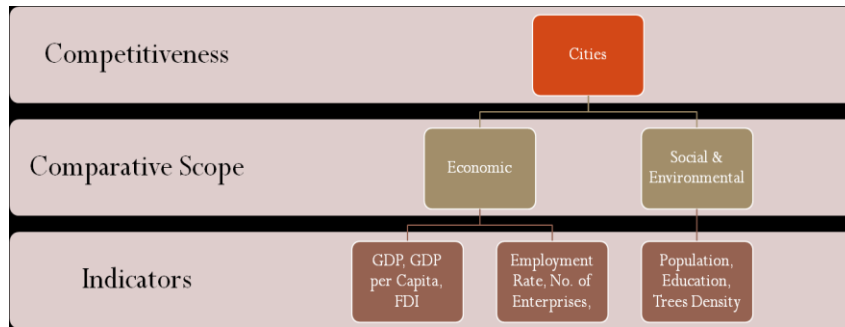
According to the above literature review, urban competitiveness could be 'soft' and 'hard' comparison, or 'Macro' and 'Micro', or 'policy' and 'resource' economic comparison. In Asia area, including of China, South Korea, Singapore, and Taiwan, mostly emphasizes Economic competitiveness. This research focused on Economic aspects discussion in order to find cities growth capacities. By the relative comparison for Kaohsiung city and other Taiwanese cities, try to find the driving force of economic growth to provide future city economic development strategy.

3.2 The Comparative Level

There are 3 levels discussing for this study. Only economic, and social & Environmental scope will be included to compare with each other. The first step to find their competitiveness should focused on economic aspects. Local government policy, intervention, resource support will be excluded.

3.3 The Study Purpose

Figure 1: Competitiveness Comparison Level



The study will make good use of economic aspect indicators to analyze these cities economic developing capacity. Final analyzed output result will be commented with ‘better and better’, or ‘worse and worse’ time tendency. This is kind of performance analysis, not a predictable model.

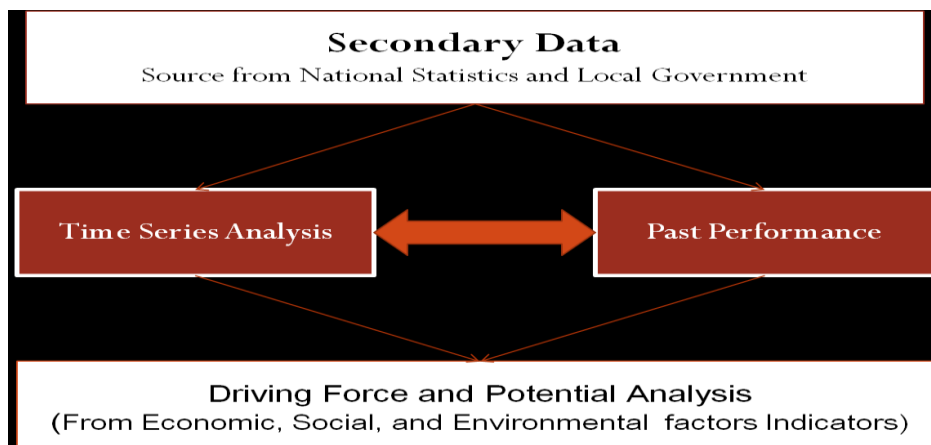
Figure 2: Study Process



All study data search from The National Statistic and local government. For example, the secondary data of Kaohsiung City is retrieved from the database of the Department of Budget, Accounting, and Statistics in Kaohsiung City Government. Then, the study integrates these data as many comparable tables, figures and bar charts. Data analysis will adopt time series process to figure out the economic developing trend. Secondly, the future capacity of cities estimates by mapping the cities’ past performance and historical physical advantage. This study method is proceeding by the following steps (see figure 3).

3.4 The Study Method

Figure 3: Data searching and analysis method



4. INDICATOR SYSTEM

4.1 Economic, social, and environmental aspects are critical indicators

The concept of “competitiveness” was originally used in the industrial and business sectors because it is a common phenomenon for firms to compete with each other. However, when we apply the concept of competitiveness to different entities such as cities, competitiveness cannot be considered in the same way as it is when applied to a business company. The reason is that a city is not only an economic unit but also a social–ecological system. There were many studies about the Urban Sustainable Competitiveness, for examples, (Smallbone, Kitching, & Athayde, 2010) ,Begg (1999), as well as Lever and Turok (1999, p. 792) have highlighted the importance of quality of life. In this report, we will hypothesize that economic, social, and environmental dimensions are interrelated and contribute to a city’s comprehensive competitiveness.

Index (Level 1)	Component (Level 2)	Subgroup (Level 3)	Indicators (Level 4)
Urban Competitiveness	Economic Competitiveness	Economic Performance	GDP; GDP per capita
		Economic Capacity	Number of Registered Enterprises;
		Marketization and openness	Foreign Direct Investment Amount; Number of FDI enterprises
	Social Competitiveness	Human Resources	Population Growth Rate; Population Density Unemployment Rate
		Education	Number of Universities
		Social Safety	Crime Rate
	Environmental Competitiveness	Quality of Environment	Area of Urban parks per capita.

In this approach, there is no doubt that economic competitiveness is basic to meeting material needs and improving the material quality of life. Besides, Social competitiveness is another essential dimension of territorial competitiveness. Social problems such as social exclusion are not only devastating to the lives of individuals, but also huge costs on the economy and society at large. In addition, the environmental problem is a great challenge to the country to ensure that its cities are livable, attractive, and competitive in the future. The aspects considered in this dimension include urban parks.

4.2 Sub-indicators explanation

We have constructed a four-level hierarchical system of indicators, shown in Table 1

Table1: Indicator system description for city competitiveness.

4.3 Economic Competitiveness Dimension

The dimension of economic competitiveness has three subgroups: Economic Performance, Economic Capacity, and Marketization and Openness. In this study, we only mention the important indicators which affect significantly to subgroups.

4.4 Subgroup: Economic Performance

4.4.1 Gross Domestic Product (GDP)

Gross domestic product (GDP) refers to the market value of all final goods and services produced within a country or city in a given period.

4.4.2 GDP per capita

GDP per capita is the embodiment of a city’s development level and production efficiency

It is a generally acknowledged key index in the competitiveness study of a country and a region

4.4.3 Number of Registered Enterprises

Number of registered enterprises is the main indicator that shows the scale, dynamic extent of an economy. If number of enterprises’ is growing, economic monopoly extent will be reduced and economic competitiveness will be improved.

4.5 Subgroup: Marketization and openness

4.5.1 Foreign Direct Investment (FDI) Amount

FDI provides an inflow of foreign capital and funds, in addition to an increase in the transfer of skills, technology, and job opportunities. This is a good indicator to demonstrate the open extent and marketization of an economy in term of quality.

4.5.2 Number of FDI enterprises

This is an indicator to show the extent of attraction the foreign investors to those cities in term of quantity.

4.6 Social Competitiveness Dimension

4.6.1 Subgroup: Human Resources

4.6.1.1 Population growth rate, population density: these two indicators are the important indicators to show the size of cities. From these indicators, we can see many related aspects such as labor resources, the demographic specification of cities, etc.

4.6.1.2 Unemployment Rate: An economy with high unemployment is not using all of the resources, specifically labor, available to it. Low unemployment can encourage xenophobia and protectionism as workers fear that foreigners are stealing their jobs. High unemployment can also cause social problems such as crime (Steininger, M. and Rotte, R. (2009).)

4.6.2 Subgroup: Education means number of university. It's an indicator illustrates the ability of a city to offer higher education facilities to citizens.

4.6.3 Subgroup: Social Safety as crime rate: it is the percentage of crimes number to the whole own country.

5. ANALYSIS

Diversity-competitiveness linkages may be explored at the micro (individual enterprise) and/or the macro (e.g. city/region) level (Smallbone, et al., 2010). This study will focus on macro-level analysis this time for city, and not for national or regional level. The whole content will emphasize on economic, social and environmental aspects.

5.1 City background introduction:

Kaohsiung City merged from the previous Kaohsiung City and Kaohsiung County. It located in southwestern Taiwan (show as Figure 4 and Table 2), facing the Taiwan Strait on the west. There are 38 districts. The city is one of five special municipalities of Taiwan. On December 25, 2010, it merged with Kaohsiung County to form a larger municipality – Kaohsiung City. In past, city industry structure covered many types as manufacturing, refining, shipbuilding, and other light and heavy industries. It is also a major port of Taiwan, through which pass most of Taiwan's marine imports and exports. Kaohsiung city was well-known about the host city of the 2009 World Games, a multisport event primarily composed of sports not featured in the Olympic Games; Meanwhile, it twins with many cities as Hachioji city in Japan, Honolulu city, Mobile city, Miami city in US.....and so on.

Figure 4: Kaohsiung City Location in Taiwan, R.O.C

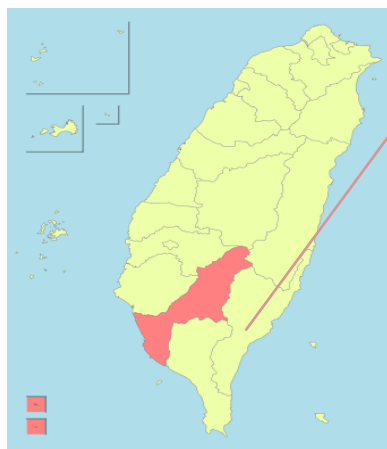


Table 2. Population Growth Trend in Kaohsiung City

2000	2,725,267	64.30%
2001	2,731,415	22.56%
2002	2,742,905	42.07%
2003	2,746,819	14.27%
2004	2,751,602	17.41%
2005	2,753,486	6.85%
2006	2,760,180	24.31%
2007	2,764,868	16.98%
2008	2,769,054	15.14%
2009	2,770,887	6.62%
2010	2,773,483	9.37%
2011	2,772,834	-2.34%

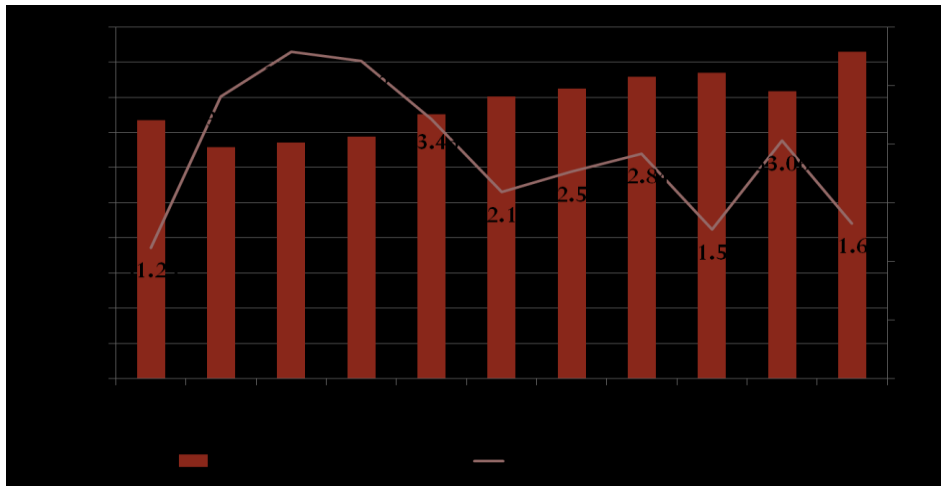
Resource: Data Integrated from Directorate General of Budget, Accounting, and Statistics, Executive Yuan in Taiwan

5.2 Kaohsiung City Economic Performance

Kaohsiung City has 2946.27 Km² land acre. There are 1,025,181 households and 11.97% proportion of persons among whole Taiwan. Population density of Kaohsiung City is 940.81 persons per km², is less than 9,713.40 persons per km² of Taipei City. Economic performance is worse than the greatest city- Taipei City.

As the following table (Figure 5.1) shows that GDP per capita in Taiwan is 16,353 USD in 2009. And the Kaohsiung City government explores that local GDP per capita is 10,065 USD in same year. Kaohsiung City faced two crises. One is local residents declined, and the other is that local job opportunities become less and less. Geographic location is disadvantage to Kaohsiung City.

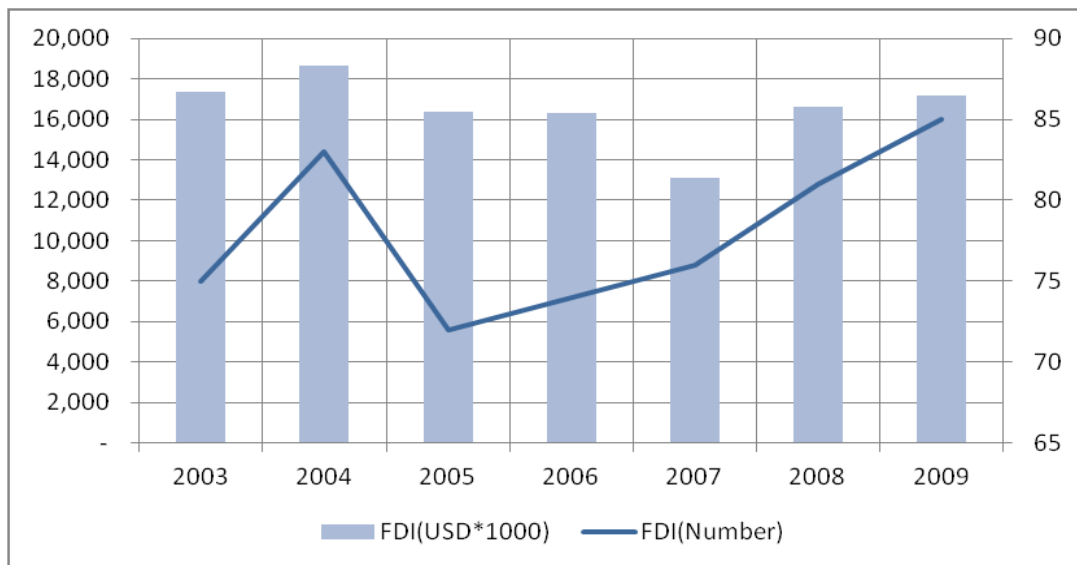
Figure 5.1 GDP per capita in Taiwan



Resource: Data Integrated from Directorate General of Budget, Accounting, and Statistic, Executive Yuan in Taiwan

According to figure 5.2, the FDI data disclosure the number of registered foreign enterprises in Kaohsiung City is inclined, and there are 85 units at least in 2009. Industrial depression wasn't solved during 2005 and 2008 years, even if number of foreign enterprise was gradually growing up. On the other hand, the FDI investment volume seems facing bottleneck. The annual amount of FDI is hard to exceed 16.95 million of USD) since 2005 year (see as figure 5.2).

Figure 5.2 Foreign Direct Investment (FDI*1000 USD) and FDI Number of Registered Enterprise in Kaohsiung City from 2003 to 2009.



5.3 The Catch-up speed in Secondary City as Kaohsiung City

Except the top city Taipei City, other primary cities as Kaohsiung, Taichung, Tainan, and New Taipei in Taiwan, are secondary cities. Even though local governments urgently attracted FDI to invest and to develop industries environment, declined number of population is inevitable in some cities. Obviously, FDI has been unable to provide enough job opportunities for local residents. The unemployment rate is getting high, the speed of population immigration to other cities become rapid (see table 3). The local government, Kaohsiung City, has to discover critical driving force to push up local economic power. In 2009, the World Games didn't make better performance on economic performance issues. In 2011, the negative population growth rate needs more attention from local government.

Table3. Unemployment Rate Trend since 2000

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Unemployment Rate in Kaohsiung City	3.9	5.0	5.5	5.3	4.6	4.2	4.1	4.1	4.3	5.9	5.2
Unemployment Rate in Taiwan	3.0	3.6	5.2	5.0	4.4	4.1	3.9	3.9	4.1	5.9	5.2

Resource: Data Integrated from Directorate General of Budget, Accounting, and Statistic, Executive Yuan in Taiwan

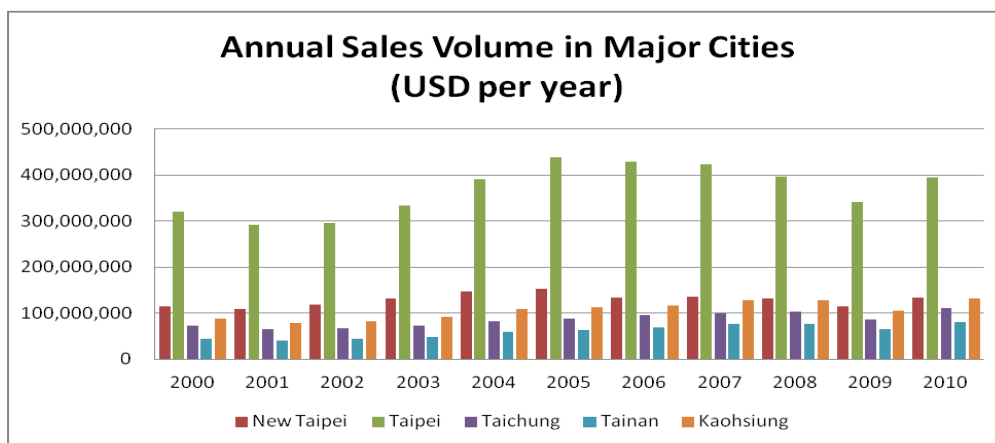
5.4 Social & Environmental Aspect Performance

The number of population in Kaohsiung city explores increased trend. There is 1.5% growth rate since 2001 year. Top amount of population was 2,773,483 persons in 2010, but getting declined to 2,772,834 persons in 2011. High unemployment rate will cause high crime rate. Kaohsiung City ranked on the worst status of unsafe city in Taiwan.

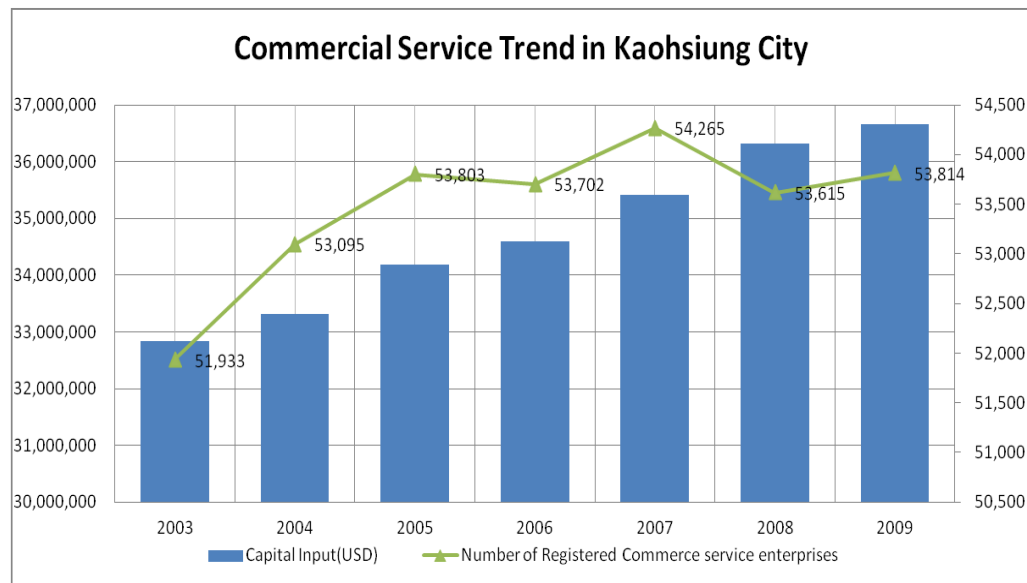
5.5 Weak Economic Driving Power in Secondary Cities

As figure 5.3 disclosure, the top one city- Taipei City holds apparently scaled market. The commercial service contributed majority of productivities. The population density was inclined in Taipei City, has 9,724.57 persons per Km², which concentrated population toward the northern part of Taiwan. The population density of Taipei City has reached ten times to Kaohsiung City. The secondary cities initially depends on central government subsidy must search for new driving force of economic capacity. It becomes critical successful factor how to create new service industries to enrich secondary cities competitiveness. Searching for new driving force of economic growth power in secondary cities naturally turned toward tourism industry and creative industry. The method of neglecting manufacturing industries and increasing service industries is popularly adopted by local government. Besides new industries developing, creative talents continuous incubation policy is also emphasized on annual white paper of Kaohsiung City government in decades.

Figure 5.3 Annual Sales Volumes in Five Major Cities of Taiwan



Resource: Data Integrated from Directorate General of Budget, Accounting, and Statistic, Executive Yuan in Taiwan

Figure 5.4 The Number of Registered Enterprises in Commerce Service industry of Kaohsiung City since 2003

Resource: Data Integrated from Directorate General of Budget, Accounting, and Statistic, Executive Yuan in Taiwan

As figure 5.4 show that annual investment amount of enterprises in commercial service is increased by years, even though the number of registered enterprises is decreased. The capacity of secondary cities, considered through by economic, social and environmental aspects, disclosure decaying trend, as Kaohsiung City, lack of strong economic driving force. In past time, secondary cities depended on FDI and local governmental subsidization to keep competitiveness. Apparently, original advantage of the secondary cities become less and less, and must face the hard challenge from global cities competition.

6. CONCLUSION

FDI effectiveness has been decreased since 2003 year in those secondary cities of Taiwan. In recent years, Taiwanese government also offered much incentive to attract foreign enterprises' inbound investment. But when incentive disappeared, then foreign firms or enterprises mostly chose leaving to other south-eastern countries for cost down. Globalization trend makes secondary cities should reconsider self-competitiveness. Sustainably relying on central or local governmental resource is hard to survive. City competition will emphasize and stress some well-known commercial or industrial center. Regional cities cooperation becomes more important than it used to be. According to the Taiwanese secondary cities cases, the study found five municipal divisions, mentioned as New Taipei, Taichung, Tainan, and Kaohsiung cities, being unnecessary to be divided as five parts for economic growth purpose.

The changing economic driving force of cities should not only think GDP, FDI, job opportunities and governmental facilities supporting, but strategic collaboration from regional necessity. Kaohsiung City located in the southern island far from the North Taiwan disadvantage to connect with Taipei or New Taipei. Taichung City located in the middle Taiwan Island has two choices. One is to connect with the north cities, the other can link with the south Taiwan Island. In term of space development away from distance, Kaohsiung City lacks of integration of the land, sea, air shipping efficiency. Except social and environmental aspects factors can maintain minimum capacity, economic factors needs being covered much more.

7. SUGGESTION

7.1 Budget Supporting

In 2010, Kaohsiung City government decided to encourage culture creative talents living in this city. Each talents moved in this city can grant governmental subsidy to incubate creative thought and works. No matter in culture or art activities, Kaohsiung City produced quite a lot of representative districts to accomplish cultural creative industries possibility. By this way, job opportunities are actually created and population immigration rate is growing up. In past, Kaohsiung City government, mostly, budgets invested in infrastructure building

make temporarily resolve unemployment crisis, but without help to create sustainable economic development environment. Programming cultural creative districts to incubate creative talents is a good idea, but shortcoming is the disposable income of residents in Kaohsiung is lower than the ones in Taipei city. Even city government creates an environment to provide creative talents to develop, but creative service or goods can't make profit. As example, many culture performance or activities continuously held, but residents are less and less participation.

Kaohsiung City needs to construct regional innovative system to enforce self-economic capacity. At the beginning, central governmental supporting is necessary for lasting driving force of economic capacity. No matter in population and unemployment rate show that crisis of developing capacity decay. FDI is necessary factor but not must-be factor. This is a critical issue for Kaohsiung City to think how to maintain sustainable competitiveness on global secondary cities.

7.2 Fill in Competitiveness Gap

Promoting economic conditions are ordinary method for most countries or cities than other social and environmental change. Obviously, Kaohsiung city original owned heavy industrial development environment and job chances, but gave up industrial manufacturing- "Free chimney industry " for chasing environmental protection. The sustainable target is necessary, but regrettable that economic driving force hasn't occurred since manufacture industry gradually disappeared, the seriously unemployment problems happened.

The service industry was supposed to follow the manufacture industry tightly occurred as many developed countries. None of city can absolutely give up manufacture industry and uniquely keep service industry. The secondary city needs, as Kaohsiung city, first of all, resolve the employment problems. The city is able to provide job, labor will stay and population number increase.

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