The Interrelationship between Waterfront Development Units and Development Bodies - A Case Study of Commercial Areas Circling Keelung Harbor Waterfront Redevelopment Project

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Abstract - The waterfront development as a global phenomenon has been disclosed by studies at different perspectives. This study inquires the interrelationship between development units and development bodies and therefore stresses that development units with diverse attributes should be developed by different development bodies since the failure of adequate match between the former and the latter results in the underdeveloped development functions and values. This study presents the interrelationship between development units and development bodies through a waterfront development project in Taiwan. The seemingly simple development principle that is overlooked in many waterfront development projects has caused the procrastination or even the failure of development projects.

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GJSFR-E Classification : FOR Code : 049999, 040699
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I. Introduction

The waterfront is the origin of human culture and economy. A lot of creatures depend on water for life. Mankind is no exception. Therefore, the earliest villages were close to water sources. This was not only because of our dependence on water but also due to traffic concerns. The rise and fall of many cities was related to transportation. In the very beginning, villages close to water turned into fishing villages. In the age of navigation, they became the posts of trade. In the industrial age, they became container ports. The old ports then became the new waterfront appearance. Such a process represents the diversity of waterfront use and its importance to human life and commercial activities.

Advancement of navigation in industrial fields led to industrial areas being built next to the seas. To effectively transport the products, traffic networks were built. With larger and larger boats and the information revolution, industry structure changed. A lot of new hi-tech companies were built in suburban areas, instead of the original port areas. After that, there were many idle lands on the waterfront after the industrial revolution period. Such lands caused economic and social problems in urban development. These lands are close to city centers, bringing opportunities to urban development. It is a global issue on re-development of waterfront lands due to industry transformation. Hoyle, B. held that waterfront development is a phenomenon unavoidable in a port city under continuous development from advanced to developing countries, from large cities to small towns (Hoyle et al., 1988). The inner port update experience of Baltimore from the 1960’s became the target to be imitated by other countries after the industrial revolution. The trend then spread to South America, Africa, Australia and East Asia (Malone, 1996; Hoyle, 2001).

Due to the broad involvement in diverse fields, the waterfront development has been inquired at diverse perspectives, e.g. trends of waterfront development (Hoyle 2000), politic operation (Bassett et al., 2002; Gordon, 2005), local and regional economy (Saito, 2003), finance (Gordon, 1997), urban design and landscape architecture (Dovey and Sandercock, 2002), integrated coastal management (Vallega, 2001; Flood and Schechtman, 2014; Chen 2015), environmental impact assessment and social impact assessment (Kolk and Van Der Veen, 2002; Huang et al., 2015), etc. Therein, this study explores the interrelationship between development units and development bodies in waterfront development projects.

II. Waterfront Development Units and Development Bodies

The factors influential to waterfront development are quite complex. The cases worldwide demonstrate that the success of a waterfront development project demands the integrity of elements including development strategy, planning, design, construction, management and administration through deliberation and determination. Any severe fault in said elements may cause the failure thereof. Thus, it is necessary to take the integrity into account as this issue is inquired
(Malone, 1996; Chang et al., 2001). According to the waterfront development experiences around the world, a successful waterfront development project is dependent on resources given by the public sector in the initial phase to create better investment circumstances that induce private investment. However, the public sector need determine which items in which manners. Said issues are resolved by different operating models in different waterfront development projects (Gleave, 1997; Goodwin, 1999; Gospodini, 2001; Desfor and Jørgensen, 2004; Keith, 2004; Huang and Kao, 2014). The experiences of other states demonstrate that it is essential for the public sector to dominate the projects and the private sector to participate in development and construction under the regulations prescribed by the former. There are various development units, e.g. roads, parks, MRT, telecommunication, museums, historic sites, housing and shopping centers. Development units with diverse attributes are fit to be developed by different development bodies. For instance, public organizations are suitable to serve as the development body of roads and parks that advance local life quality with non-profit nature. On the contrary, private enterprises are suitable to serve as the development body of housing and shopping centers with profit-seeking nature. Due to the profound impact of MRT and telecommunication on public life with high profit-seeking nature, public enterprises are adequate to serve as the development body. Equally, public welfare organizations are applicable to serve as the development body of museums and historic sites. Without perfect match between development units and development bodies, the development functions and values will be underdeveloped. For example, private enterprises are likely to restrain the original functions and values of roads and parks upon commercial consideration. On the other hand, public organizations are inclined to run housing and shopping centers unsuccessfully for lack of flexible administration and management. Likewise, monopolistic profit-seeking business run by private enterprises tends to impact domestic economy, and it is essential to unfold the hidden true values of museums and historic sites with the development by public welfare organizations.

There are disputes over values concerning development units in many projects. It is understandable that an identical development unit developed by different development bodies leads to a totally different result. In some traditional projects, the public sector used to dominate the whole project with limited funding. Upon that, the preferential conditions are available to attract private investment, which is frequently seen in waterfront development projects. Moreover, it is frequently seen that the private sector shall be liable for the infrastructure with non-profit nature as the feedback as the public sector unable to invest in such project solely releases development units with profit-seeking nature. In some housing and shopping centers development projects, the public sector may release bulk rate to obtain urban open space instead; nevertheless, the location and function is inadequate since such public space is a collateral condition (Batley, 1996; Cybiwsky, 1999). Besides, historic sites valued by historians and researchers may be valueless to enterprises. There have been cases integrating historic sites and commercial behaviors of which diverse development styles are determined in terms of which one serving as the development body. Basically, with regard to development bodies, public organizations are adequate for public facilities with more external benefits and private enterprises are appropriate for profit-seeking business with more internal benefits. Nonetheless, public enterprises and public welfare organizations play a key role to such projects in terms of subjective and objective circumstantial demands (Brett, 2000; Brusbett, 2003; Graeme, 2005; Korbee and Mol, 2015). The collective collaboration of waterfront development bodies for advanced success rate is challenging future related studies.

In this study, an analysis diagram (Figure.1) is constructed to explain features of respective development bodies. The horizontal axis below represents coercive power, and non-coercive power. Starting from the point of origin, the closer it is to the left, the higher the coercive power will be. On the other hand, the closer it is to the right, the lower the coercive power will be. In terms of the diagonal, the horizontal axis marking central government, local government, public corporation, private corporation and private enterprise shows that the coercive power of the central government exceeds that of local ones. Public corporate bodies with the integrity of coercive power and autonomy as the semi-official organizations are put in the center. The dotted lines represent the needs of different development items. They are given a certain degree of coercive power, and autonomy. On the right are private corporations that do not possess coercive power. On the right are private enterprises that have the highest level of autonomy. The vertical axis represents internal benefits, and external benefits. The closer it is to the upper side, the greater the internal benefits. In other words, the main purpose is to make profits. On the other hand, the closer it is to the lower side, the greater the external benefits. In other words, the main purpose is non-profit. This diagram explains features of four types of development bodies namely: public organization, public enterprise, public welfare organization, and private enterprise. Each development body performs different functions depending on the features they possess. They also perform different functions in waterfront developments. They are analyzed, and explained as follows: (Chu, 2004; Huang et al., 2011).
a) Public organization

A public organization exercises coercive power. This coercive power prioritizes search for external benefits. In other words, the main function of the public organization is to provide mandatory, non-exclusion, and non-rival public facilities. Market interventions may be necessary for social equity, and wealth to be achieved. Development units suitable for this development body include: roads, parks, wharfs, and sea-walls, etc.

b) Public enterprise

A public enterprise exercises coercive power. This coercive power prioritizes search for internal benefits. In order to maximize internal benefits, limitations of the law apply. It exists to provide local services, and avoid market speculations. Through the public sector operations, social justice can be better served. Development units suitable for this development body include: MRT, postal services, telecommunications, and electric power, etc.

c) Public welfare organization

A public welfare organization exercises autonomy. Autonomy prioritizes search for external benefits. It aims to create social benefits, and is non-profit. A public welfare organization is normally non-governmental, and non-profit. Many public organizations are unable to engage in operations that private enterprise is unwilling to do. These operations are therefore handed over to the public welfare sector. As its influence extends, in one way, public welfare lessens government financial burden, in the other, the intellect, and finance from the private sector are used. Development units suitable for this development body include: historic sites, environmental protection, museums, and social welfare, etc.

d) Private enterprise

A private enterprise exercises autonomy. Autonomy prioritizes search for internal benefits. With profit-making as its main goal, private enterprises have relatively higher operation efficiencies. Through private enterprise participations, in one way, public organizations may lessen financial burden and lower risks, in the other, development efficiencies are enhanced. Development units suitable for this type of development body include: residence, shopping centers, office buildings, and warehouse storage, etc.

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Figure 1: Interrelationship diagram of waterfront development units and development bodies
Emphasis here is placed on the relative concept between "development body" and "benefit type." For instance, it is possible for public organizations to produce internal benefits, but search for external benefits should be prioritized. Similarly, it is also possible for public welfare organizations to produce internal benefits, but these benefits will ultimately return to search for external benefits. If not, the organization does not fall under public welfare organization. Public enterprises, and private enterprises may also have external benefits, but these benefits are added benefits rather than the main target of the organization.

Moreover, development bodies suitable for the above development units may also vary as national developments and business ideals differ. For example, the telecommunication industry have transformed from public enterprise into private enterprises in many counties. Museums that fall under public welfare may also be managed by private enterprise through change. The present concept on city management is inclined toward the idea that the public sector release development units to be managed by the private sector. The release steps are generally: central government → local government → public corporation → private corporation → private enterprise (Moss, 1979; Smythe, 2010; Huang et al., 2011). The private sector shares more and more functions and many of these items cannot be resolved by private enterprises. As a matter of fact, a lot of waterfront developments are economic development-based targets. However, as developments progressed, negligence over environmental and social problems resulted to serious consequences (Krausse, 1995; David, 1997; Keith et al. 2002; Moore, 2002). These problems were simply beyond the control of public organizations. Private enterprises were also unwilling to undertake responsibilities. Nevertheless, public welfare interventions managed to arrive at satisfactory results. The preceding statements identify the inevitability of diversified development bodies (Chu, 2004; Wei, 2004; Huang and Kao, 2014). Under traditional city management in earlier times, the public sector were solely in charge of policy setup, fundraising, business opportunity operations, and construction etc. The public sector was considered both dominating institutions, and development bodies. However, this type of operation mode was subject to limitations of the rigid system. Operation efficiencies and benefits were in turn affected. Due to diversified development item requirements, administrative functional developments also took place. As functional authority of the public sector gradually weakened, many states are trying to establish semi-official organizations also know as public corporate bodies to substitute the public sector’s functions. This type of institution performs both dominating, and developing functions. As they are two totally different functions, when combined, there is the advantage of unified development rights, and better control over the overall plan. There is also the disadvantage of vague duties and responsibilities of monitor units, and development units. In fact, the latest model is the segmentation of dominant organizations and development bodies. A dominating institution should only be in charge of monitor works while development bodies are in charge of development related works (Wu, 1994; Huang, 2001; Chiang, 2002; Kojima et al., 2013). In other words, the spirit of diverse developments not only emphasizes on labor division, more importantly, development units ought to find suitable development bodies in order to gain greater development benefits. The larger a development project is, the more valued the diverse development concept will be. This concept analysis will be used to discuss more flexible development collaboration modes, and derive at higher development success rates. Here, this study illustrates the interrelationship between development units and development bodies by a waterfront development project in Taiwan.

III. Commercial Areas Circling Keelung Harbor Waterfront Redevelopment Project

With the development of the waterfront in Keelung Harbor, the resonance will further make further explanation. Keelung City is northeast of Taipei City, the capital of Taiwan. There are currently about 400,000 people. In the 1970’s, Keelung City was still one of the five major cities in Taiwan. Industry development in Keelung used to depend heavily on container import/export. In 1984, operation of Keelung Harbor reached the peak and was the 7th container harbor in the world.

It contributed greatly to economic growth in Taiwan. In the 1990’s, thanks to continuous flourishing of foreign trade and shipping service around the world, Keelung commerce harbor brought more than half of the customs duties of Taiwan and indirectly led to local industry prosperity (Tsai, 1999; Chen, 2007). Keelung Harbor and City used to be the most important harbour city in northern Taiwan. Geographically, Keelung Harbor and downtown Keelung City are closely connected. In recent years, limited by its own geographical conditions of over 95% of the mountainside lands in the city and water depth failing to accommodate large ships, Keelung Harbor has been suffering from stagnant container business. In the development of the 21st century, Keelung City is encountering a lot of problems to be solved. After overall considerations, Taiwanese authorities decided to build the Port of Taipei, about 60 km west of Keelung Harbor (Figure, 2). Container functions of Keelung Harbor will be transferred to the new harbor. This decision has directly affected Keelung Port to be under pressure of city industry transformation (Chen, 2001). Keelung City Government and Taiwan
Railway Administration also attempted to make more efficient use of limited land resources. This brought inner port transformation opportunities and expedited Keelung City waterfront development.

Figure 2: Port of Taipei and Keelung Harbor Areas

IV. Indecisive Development Strategies

Keelung City Government has accomplished the proposal for the Commercial Areas Circling Keelung Harbor Waterfront Redevelopment Project in 2001 for active promotion for Keelung Inner Port waterfront development (Keelung City Government, 2001). The scope covers areas where vital economy, activities, cultural and educational organizations and governmental agencies are centered, i.e. the vital central business area in Keelung City. The area totals 97.08 hectares, including 25.77 hectares of harbor waters.

With regard to land planning, the Project proposed 8 renewal areas as follows: 1. New Marine Landmark Square, 2. New West Coast Business Center, 3. New Transportation Terminal, 4. New Life Space, 5. New MRT Station, 6. New Park Avenue, 7. New Marine Plaza, 8. International East Coast Sightseeing Wharf (Figure 3).

Figure 3: Land Use Ideas of Commercial Areas Circling Keelung Harbor Waterfront Redevelopment Project
Upon the broad scope involved in the Project, Keelung City Government determined to conduct the development in a manner of temporal and spatial division. Taking the overall development status in consideration, Keelung City Government made New Transportation Terminal and New West Coast Business Center as the pivot of R&D and planning, which was accomplished in 2004 (Keelung City Government, 2004). Said project was called Keelung Train Station and Wharves West 2&3 Urban Renewal Project (Train Station Project in short). The scope covers the areas of Keelung Train Station, Bus Terminal and Wharves West 2&3. The area totals 9.09 hectares. The planning scope and renewal area is shown in the Configuration of Development Units and 3D Simulation of Train Station Project (Figure. 4 & 5).

Through renewal planning, there are development units of 40-m access roads, MRT station, Yang Ming Marine Historic Site and waterfront shopping centers and housing. Owing to the insufficient central capital, the public sector expected to entrust the project solely to the private sector; however, the bidding was unsuccessful. Moreover, the intervention of local historians identified the key historic significance of Yang Ming Marine Historic Site that should not be developed at business perspectives. Through negotiations with the public sector, said area was excluded from the bidding. Afterwards, it was developed by Yang Ming Marine Foundation which is a public welfare organization specialized at historic studies. The administration is to run a restaurant in addition to historic site conservation. Such action embodies the historic significance along with income that may serve as the funds for maintenance.

The bidding of said area except the historic area was yet unsuccessful in 2004. The illegal buildings to be removed along the 40-m access road to be built still concerned the private sector. Also, the land obtainment of MRT station remains unsolved, so the private sector were concerned by said issue in need of negotiation.
and coordination in addition to general assumption of land development. Via the collective negotiation between public and private sectors, the former determined to invest in the 40-m access road in the development area in 2009 and decided to entrust MRT station to a public enterprise in 2013. In 2014, the private sector began to pay much attention to waterfront housing and shopping centers in the Project. The Project about 10-year procrastination of the bidding is the fruit of that it failed to entrust respective development units to adequate development bodies in the beginning. Due to the diverse attributes of different development units, it is inaccurate to entrust them to either the public sector or the private sector wishfully and willfully; furthermore, the values assessed by different development bodies differ as well. As a development unit is given to an inadequate development body, the original development value will be underdeveloped. In the beginning, the public sector expected to entrust the whole development area to the private sector to avoid the troubles of fundraising and procedures. However, the involvement of the private sector in the Project aims to gain profits. Therefore, it is out of the question for the private sector to value the historic significance, or pay attention to the nature along the access road that contributes to advanced public life quality with no profits. On the other hand, the administration of MRT with profits has lured the private sector. Still, due to the impact on the public life and the avoidance of monopolistic profits, a public enterprise served as the development body in the end. The Project was expected to be entrusted to a single development body; in the end, the Project was successfully promoted by entrusting different development units to adequate development bodies. The seemingly simple development principle that is overlooked in many waterfront development projects has caused the procrastination or even the failure of development projects.

V. Conclusion

Many large-scale waterfront development projects are characterized by vast capital and long terms. Thus, it is frequently seen that said projects obtain the private capital and skills through the public and private cooperation upon the limited public capital. Given that, the proposals of many waterfront development projects are planned by the public sector where the opinions of respective divisions are submitted. The planner will design an overall proposal by referencing and adopting respective perspectives. Said proposals cover the scope of development area, contents and priority. Meanwhile, to induce the private investment, there will be certain strategies deliberated by the public sector, e.g. tax deduction or low land price. Besides, some items should be built by the public sector first. Only when the infrastructure is complete can development units fit for the private sector induce the private investment.

In the Project, the development in the initial phase was dominated by the public sector and in the final phase the private investment was induced by preferential investment circumstances. Some projects may be entrusted to public corporate bodies. Apparently, development units developed for public welfare or private profits lead to a totally different outcome. Hence, the value determination of development bodies is crucial. Many waterfront development projects are entrusted to single development bodies. As said project is entrusted to a development body aiming at profits, the development benefits of public construction aiming at public welfare to be developed additionally will be discounted since it is unprofitable. Still, upon the actually, the private investment in the first phase is a must to the public sector in need of capital that will strive for some public space or public facilities built by the private sector. Said manner often applies to common urban design development projects. The demerit is that the private sector will prioritize the profits and thus release insufficient public space. Frankly speaking, such cooperative model is defective because the seemingly open space is actually used by the private sector. Also, it is inconvenient for the mass to use such space because of many restraints. Basically, such means is the option under helplessness. In addition, the conflict between historic sites and private benefits occurs often. The monopolistic profit-seeking business is operated and controlled by the private sector for long, leading to the demerits on civil welfare that are disputed in the process of development. Said disputes arise from the value determination.

According to the traditional model, the opinions regarding development may be submitted by different representatives as the initial integration of opinions for diverse development bodies. Still, the executive manner of respective development units entrusted to respective development bodies is questionable as the overall project is determined. Basically, it is doubtful to entrust all to a single development body. The corresponding relationship between development bodies and development units addressed by this study stresses the diversity of such value determination. The seemingly simple idea that respective development units are entrusted to respective development bodies is easy to be overlooked. Thus, it is worthwhile deliberation for the issues as follows. What shall apply to the intervention or collaboration of respective development bodies? Is the labor division applicable to the efficiencies and execution since the development contents of many development units cover diverse development bodies?

Take the Project as the example. As the proposal was determined, there were development
units, e.g. roads, MRT station, Yang Ming Marine Historic Site and waterfront shopping centers and housing in term 1 development area, which are the like of different development bodies (public organization, public enterprise, public welfare organization and private enterprise). In principle, it is accurate to entrust respective development units to adequate development bodies since it is inappropriate to entrust them to a single one. The public sector entrusted all items to the private sector in the first place, which failed to work. First, Yang Ming Marine Museum was segmented and run by Yang Ming Marine Foundation along with a restaurant for the long-term administration. Second, the access road was segmented and prioritized to be handled by the public sector. Then MRT station were taken over by a public enterprise. Last, private enterprises were liable for the development of waterfront housing and shopping centers. The Project was promoted successfully via such labor division.

Accordingly, it is crucial to select adequate development bodies in waterfront development projects. Those adequate to the public sector are unnecessarily fit for the private sector; likewise, public welfare organizations handle those the public sector cannot and the private sector will not do. The domination of public enterprises also prevents monopolistic profit-seeking business. The public and private collaborative model is the accurate development model. Once such logic fails to apply, the overall projects tend to fail in addition to the underdeveloped effect.

References


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