

Port Recentralization as a Balance of Interest

Abstract

Technical-rational model is prevalent in the port integration literature, while important issues, such as context, legitimacy, power and interest, are largely being ignored as it stands. By taking the “diversified implementations” in Chinese port industry recentralization (2015-2018) as an illustrative case, this paper aims to address the research questions of ‘why do diversified implementations arise’ and ‘why are actual implementations various among different regions’. As a preliminary study on diversified implementations in port industry, we develop a theoretical framework to interpret different implementations of port integration carried out by regional governments, who are embedded in the social-economic environment. Our study shows that market structure and power distribution, as two variables, can be used to explain the variation among different actual implementations of port integration. The findings are further validated with the port merge case in San Pedro Bay area. Based on the findings, managerial implications are drawn.

Keywords: *Port recentralization, Diversified implementations, Institutional theory, Market Structure, Power distribution*

1. Introduction

Centralization or decentralization is one of the core issues that has been widely discussed in the port governance literature. While this topic attracts much attention from the academia (Brooks and Cullinane, 2007), most empirical research view ‘[de]-centralization’ as an effective ‘mean or tool’ to achieve various benefits on a technical-rational basis, such as port efficiency level, port service demand (Zheng and Negenborn, 2014) and social welfare (Guo et al., 2018). The substantial lack of engagement into other components in ‘policy cycle’ (Howlett and Cashore, 2009), such as policy formation and policy implementation, might undermine the utility of this stream of research because of the distance between it and the realities on the ground. Inspired by the idea of investigating deeply into the process of policy implementation (Marsden and Reardon, 2017), our study focuses on various actual implementation in port industry recentralization at regional level, so as to answer the research questions as ‘Why do diversified

implementations arise' and 'What drives them differentiate from each other'. More importantly, issues such as context, legitimacy and power will be incorporated in our theoretical analysis, which are largely being ignored as it stands in the technical-rational literatures.

Empirically, we develop a theoretical framework to interpret different implementations carried out by Chinese provincial governments who are embedded in the social-economic environment. Two main explanatory variables are identified and introduced into our framework, namely, 1) market structure that refers to the numbers of equivalent port-controllers, in terms of throughput, who are involved in the integration, affecting the difficulties of integration as well as the extent to which the interests and agendas of potential different actors can be integrated; and 2) power distribution that indicates the throughput distribution among the ports, which is (or expected to be) involved in the integration, led to various difficulty in triggering institutional bandwagon pressure to facilitate intended implementation. The theoretical framework is further validated with the port merge case in San Pedro Bay area.

Theoretically, our research echoes Marsden and Reardon's (2017) call for "rethinking the study of transport policy" and engages into the real-world policy from "the ground level". It also has important enlightenment to policymaker in the context of recentralization in port industry worldwide.

Focusing on policy implementation stage, the rest part of our paper will be organized as follows: a systematic review of literature on this port [de]-centralization is made in section 2. Chinese port industry recentralization (2015-2018) as the background of our case study will be introduced in section 3, followed by the methodology and data explanation in section 4, which will clarify how we design our case study, collect and process data. Results will be exhibited in section 5 while a comprehensive discussion of 'why do diversified implementation arise?' and 'why are actual implementations various among different regions?' will be presented in section 6. Section 6 also summarizes a theoretical framework which is validated with the port merge case in San Pedro Bay area. Finally, theoretical contribution and implication for the industry practitioners are provided in the section 7. This paradigm is highly consistent with classical research that includes case studies in general management (Eisenhardt 1989; Bingham and Eisenhardt 2011).

2. Literature Review

Although [de]-centralization is one of the main topics in port governance theory (Brooks and Cullinane, 2007; Zhang et al., 2018), scholars haven't reached a consensus yet. Several studies confirmed the positive effect of port decentralization. For example, Estache et al. (2002) evaluated the effect of decentralization reform on port efficiency, suggesting that total factor

productivity in Mexican ports rose by an average of 4.1% per year during 1996–1999. In their empirical research based on Port of Shanghai, Zheng and Negeborn (2014) asserted that the tariff, port efficiency level, port service demand and social welfare are higher under the decentralization mode, while the impact to port capacity and port operator's profit with different port regulation modes is uncertain. Meanwhile, some scholars supported the idea that deregulation has a negative impact on efficiency in the short term, as there are costs incurred ingoing from a regulated environment (Brooks and Cullinane, 2007), which has been testified in other industry, such as banking (Mukherjee, Ray and Miller, 2001), electric power utilities (Delmas and Tokat, 2005). Even in the long run, negative effect of decentralization also has been identified by the fact that it results in the serious problem of duplication of similar port projects (Wu and Yang, 2018). Due to the mixed finding in the come out, Brooks and Cullinane (2007) developed a matching framework from contingency theory arguing that port performance is a function of 'match (or fit)' among the characteristics of the organization's external operating (or task) environment, strategies and structure. This theory has been partially proved by Wilmsmeier, Tovar, & Sanchez (2013), they evaluated the impact and repercussion of the financial crisis on terminal productivity and efficiency.

When the academia is struggling with [de]-centralization, we would like to highlight the facts that most of these literatures on decision making and policy evaluating share an assumption that policies (centralization or decentralization) can be fully and strictly enforced, without any deviation from the intended plan. This might be problematic because port operators and local governments, who actually undertake the policy at the ground level, are self-interested actors highly embedded in the social-economic environment. It is widely accepted in strategic response literature that despite the existence of regulative constraint and monitoring, these actors may still have managerial discretion over their strategic responses because of institutional flexibility, enabling the adoption of tailored practices (Greenwood et al., 2011) such as "made to fit" (Ansari et al., 2010), "decoupling" (Fiss and Zajac, 2006; Tilcsik, 2010) and "window dressing" (Helland and Sykuta, 2004) practices. Therefore, deeply investigating into the motivations by which actors endow behaviors with certain meanings is of great importance for the policy-makers in formulating, implementing and evaluating stages of policy circle (Howlett and Cashore, 2009).

3. Port recentralization: China as an illustrative case

After a centralized period (1949-1984) in Chinese port industry featured by the Ministry of Transportation (MOT) controlling and managing all main seaports and river ports nationwide, the central government decided to empower the local governments and port authorities for the

drawbacks associated with the highly bureaucratic system in terms of the insufficient infrastructure financing and lack of incentives in managing and operating. The decentralization was very successful that Chinese port industry had be reshaped into a system characterized by ‘On city, One port and One administration’ (Xu and Chin, 2012), which referred to transport bureau municipal functioned government agent while leaving port operation and management to business entities (Jiang et al., 2017). According to the official data disclosed by the Ministry of MOT, in the newly established system, Chinese port industry thrived throughout the decades since 1984. As the statistics showed, by the end of 2011, China retained 31,968 berths, among which 1,762 berths can serve 10,000 dwt (Dead Weight Ton) ship or above. More surprisingly, Chinese port industry attracted RMB 100.7 billion investment in 2011, 20% higher than that of the previous year. As Wu and Yang (2018) commented in their latest paper, ‘...port governance system in China has produced the outstanding pattern of one port – one city, which raises the port-cities enthusiasm in developing their local ports but leads to the serious problem of duplication of similar port projects meanwhile. Consequently, an internecine situation where ports compete with each other fiercely to scramble for more cargoes in the same hinterland is quite common in China’.

‘The trend towards oversupply is already evident’, as articulated by an anonymous interviewee holding a managerial position in a major port corporation in southern China by the end of 2013. Furthermore, this trend was later intensified by the nation’s economic transformation and eliminating less inefficiency capacities in smelting industry and mining industry which could generate a huge amount of transport demand (Notteboom and Yang, 2016). In the consideration of avoiding risks resulting from overcapacity in the nation’s port industry, on Dec 30th 2014, the MOT triggered the port industry recentralization reform by issuing an official document clarifying its ambition to optimize the utilization of port resources through port integration. It should be noted that, although the intentions of the signal were quite clear, the MOT provided neither a guideline nor a best practice model as a reference. Thus, the MOT created sufficient institutional flexibility for the local governments to enable adoptions of tailored practices that favored their own interests.

By the end of 2018, all of 11 coastal provinces in Mainland China (Hong Kong and Macau excluded) made either substantial response or symbolical response to the central government’s signal. Table 1 shows the throughputs of the major ports in 2013 in these provinces and their responses until 2018. Substantial response we refer to those implementations involving equity changes among major ports in the province, including Zhejiang, Jiangsu, Guangdong, Guangxi, Fujian, Shandong and Liaoning (marked blue in Figure 1a). Symbolic response refers to those

‘window-dressing’ actions, such as leaders’ public speech, vague initiatives from port entities etc., made by some provinces. But they made no actual changes in the equity of the major ports. (Marked red in Figure 1a).

Table1 – Coastal provinces and their responses to port recentralization in China (2013)

No.	Province	Substantial Response/ Symbolic Response	Major Ports	Throughput in 2013(mt)
1	Jiangsu	Substantial Response	Lianyungang, Nanjin, Suzhou	214,000
2	Guangdong	Substantial Response	Guangzhou, Shenzhen	155,000
3	Zhejiang	Substantial Response	Ningbo, Zhoushan	138,050
4	Shandong	Substantial Response	Qingdao, Rizhao	118,138
5	Liaoning	Substantial Response	Dalian, Yinkou, Jinzhou	98,400
6	Hebei	Symbolic Response	Qinghuangdao	88,983
7	Shanghai	Symbolic Response	Shanghai	77,575
8	Tianjin	Symbolic Response	Xingang	50,063
9	Fujian	Substantial Response	Xiameng, Fuzhou	45,475
10	Guangxi	Substantial Response	Fangcheng, Qingzhou, Beihai	18,674
11	Hainan	Symbolic Response	Haikou	12,839

Source: Chinese Port Yearbook 2013

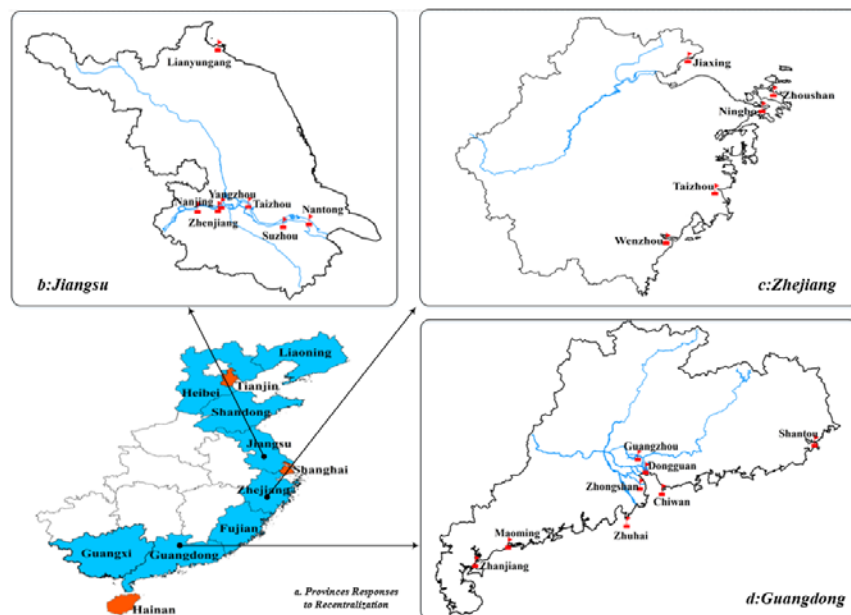


Figure 1 –The geographical distribution of provinces and major ports in China port recentralization

4. Sample Selection and Data Collection

In this section, we employ the grounded-theory approach (Strauss and Corbin, 1998) to conduct our case study. The grounded-theory is suitable for theory building in an insufficiently explored field, such as transportation policy implementation in our research (Marsden and Reardon, 2017).

4.1. Cases Selection

We follow stratified sampling principle provided by Eisenhardt (1989) in our cases selection. First, we select coastal provinces that substantively responded, which we referred to as diversified implementations tailored to fit their own interests, to MOT's signal in Dec 30th, 2014. Although all of eleven coastal provinces in Mainland China responded to MOT's signal, only 7 of them made substantive responses while the rest adopted a wait-and-see attitude. Second, more specifically, we select three provinces of Jiangsu (Figure 1b), Zhejiang (Figure 1c) and Guangdong (Figure 1d) out of seven to conduct our case study. Jiangsu, Zhejiang and Guangdong rank top 3 in China in terms of throughput by the end of 2013, which made our case study more convincing. Table 2 summaries the case we select for this study. More importantly, these three provinces have different market structure and power distribution in port industry, which are the main explanatory variables in our research (refer to Table 2). To be concrete, we identify the market structure as the numbers of equivalent port-controllers who are involved in the process of integration. Ports in Zhejiang and Jiangsu are mainly under administration of the province/local government (monopoly), while ports in Guangdong have two major stakeholders, who are province government and China Merchant Group who are under control of Central government (duopoly). In term of power structure, which we refer to the throughput distribution among the ports that are (or expected to be) involved in the integration, Zhejiang has a concentrated power structure while that of Jiangsu and Guangdong are relatively dispersed.

Table 2 – Cases Selection

Regions	Market Structure	Power Distribution
Zhejiang Province	Monopoly	Concentrated
Jiangsu Province	Monopoly	Dispersed
Guangdong Province	Duopoly	Dispersed

Source: Authors' composition.

4.2 Data Collection

Interview data and secondary data from multiple sources are used in our case study. We conducted our first interview on May 5th of 2017 in Ningbo focusing on the integration implementation details in Zhejiang Province. For the following one and half years, we closely monitored policy implementations in Zhejiang, Jiangsu and Guangdong province, to see

whether it is qualified for our research. We ended our data collection on 30th Dec 2018 when two major ports in Jiangsu completed their equity transfer, which convinced us that conditions for our research have been met. Therefore, our observing period covers from Dec 30th 2014, when MOT triggered the Chinese port recentralization, to 30th Dec 2018, when all of 3 provinces been selected in our case study communicated with stakeholders about their implantations in detail. The data we used in our research includes interviews data, government documents, and annual reports of listed companies, reports in authoritative media as well as statistics data from Chinese Port Yearbook.

5. Result: Diversified Implementations to Port Recentralization Policy

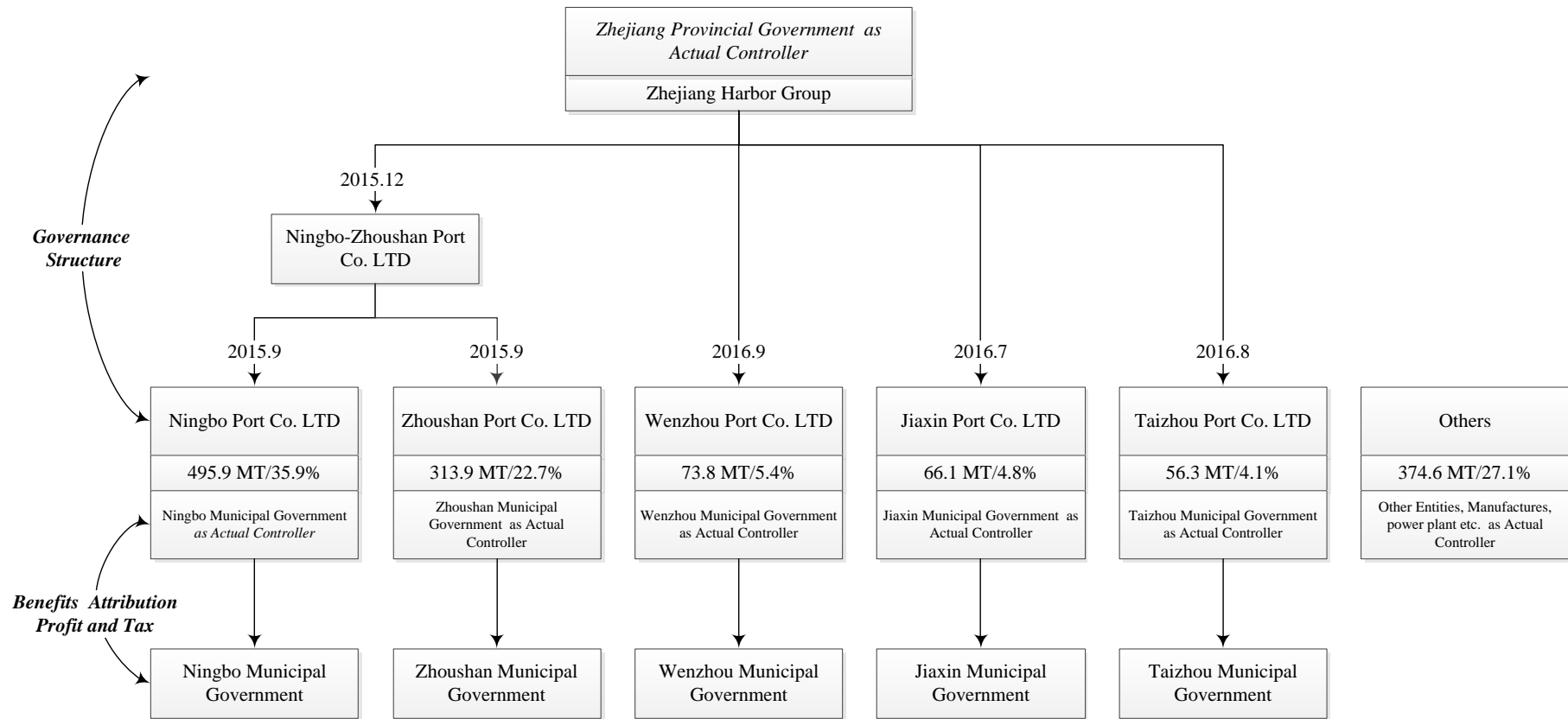
To address our research question, we firstly illustrate the details of provincial governments' strategic responses to the port recentralization policy.

Zhejiang Province (refer to Figure 1c)

There are five major ports in Zhejiang Province, including Ningbo, Zhoushan, Wenzhou, Jiaxing and Taizhou, all of which were managed by the local governments. According to the Chinese Port Yearbook, by the end of 2013, these five ports accounted for 72.9% total throughput of Zhejiang province. Among the five ports, Ningbo and Zhoushan took a proportion of 35.9% and 22.7% respectively, which highlight the high level of traffic concentration in port industry in the province at that time. Zhejiang Province substantively started its port recentralization in Sep 2015 by integrating Ningbo Port group and Zhoushan Port group into Ningbo-Zhoushan Port Co. Ltd, which was later acquired by Zhejiang Harbor Group in Dec 2015. It is interesting to note that although Ningbo Municipal Government and Zhoushan Municipal Government jointly controlled over 84% of the shares, Zhejiang Provincial Government who controlled only 15.67% of the shares got the final say in the new company. With the successfully acquisition of Wenzhou Port Co.Ltd, Jiaxing Port Co.Ltd and Taizhou (Zhejiang) Port Co.Ltd in 2016, Zhejiang completed its port recentralization by establishing provincial harbor group which eventually consolidated five major state-owned port companies within the province.

As appreciated by the MOT, the Zhejiang Model is successful in terms of maintaining the enthusiasm of local government to develop port industry by retaining the capital gains and right to tax to the municipal governments, while restraining the investments to port infrastructure by retrieving the decision-making power to the provincial government. Figure 2 shows the port integration process in Zhejiang Province.

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Figure 2 – Port Integration in Zhejiang Province

Jiangsu Province (refer to Figure 1b)

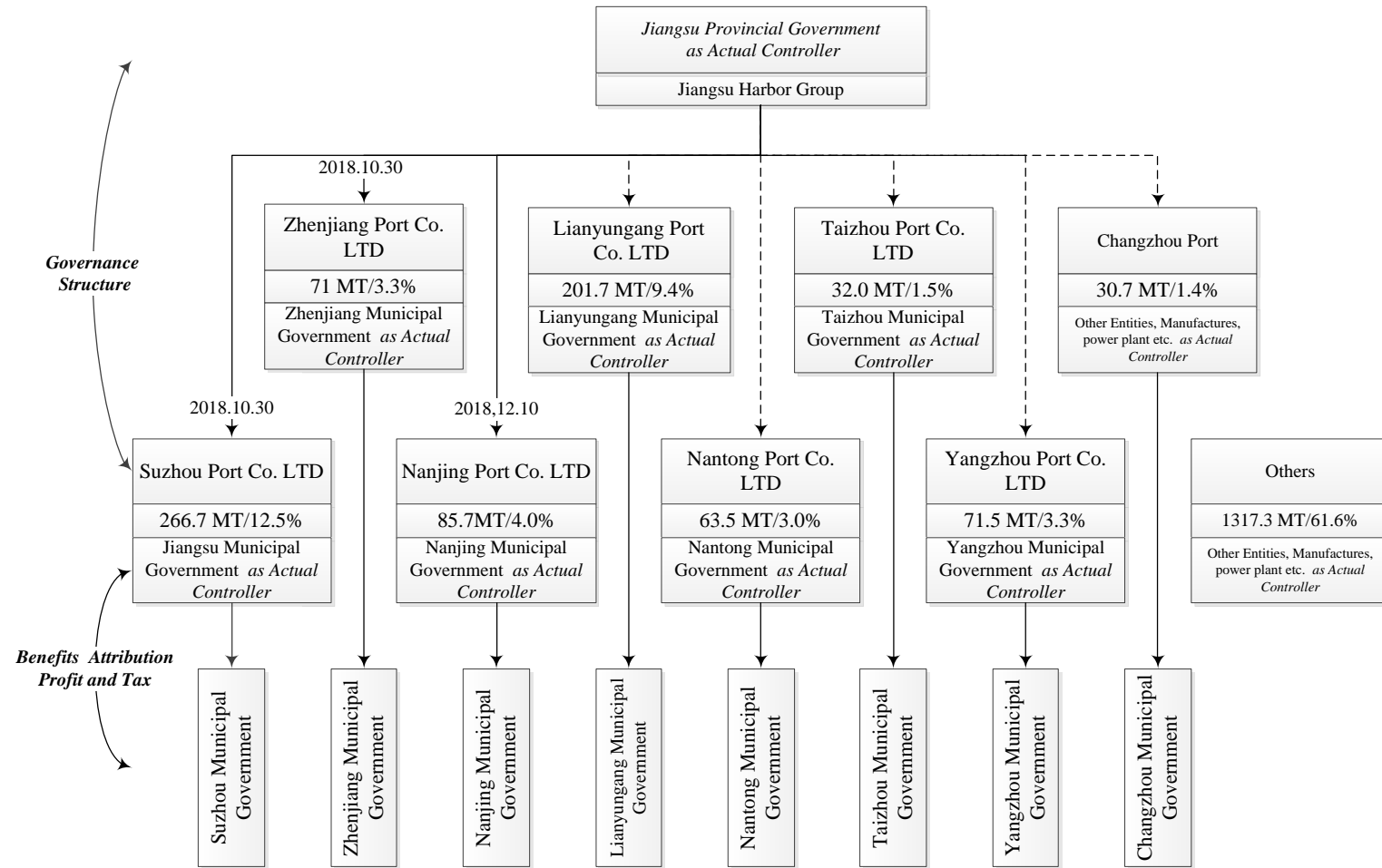
Jiangsu was in a quite different situation. According to the Chinese Port Yearbook, the major state-owned port companies accounted for over 70% of total throughput of Zhejiang province, while 8 state-owned ports companies in Jiangsu controlled less than 40% of total throughput, leaving the rest under the control of other entities such as manufactures, power plants etc. Jiangsu Province disclosed its port integration roadmap on May, 22th 2017 which claimed that the newly established company, Jiangsu Harbor Group, would integrate 8 major state-owned port companies, including Suzhou, Zhenjiang, Nanjing, Lianyungang, Nantong, Taizhou (Jiangsu) and Yangzhou. Substantive acquisition began at Oct 30th 2018 when Suzhou and Zhenjiang transferred parts of shares to Jiangsu Harbor Group, which is owned by Jiangsu Provincial Government. One month later, on Dec 10th 2018, Nanjing Port Group discoursed a transaction of 55% of its shares to Jiangsu Harbor Group. By the end of 2018, inspired from the Zhejiang Mode recommended by MOT, Jiangsu Harbor Group had taken over decision-making power from 3 port companies, while leaving the capital gains and right to tax to their municipal governments who was the actual controllers before the reform. According to sources, the remaining five ports will be incorporated into the Group as planned. Figure 3 shows the port integration process in Jiangsu Province.

Guangdong Province (refer to Figure 1d)

The case of Guangdong Province is much more complicated. Two big players¹ dominated port industry in Guangdong province, which are Guangzhou Port Group owned by Guangdong Provincial Government and China Merchant Group, which owned by the central government. Although substantive integrating action in Guangdong can be traced back to Jan 2016 when Guangzhou set up a strategic alliance with Zhuhai by establishing a joint venter, the port integration advances quite slowly. So far, it is generally accepted that two independent strategic alliances have been formed in Guangdong Province. By the end of 2018, the strategic group dominated by Guangzhou Port Co. LTD ultimately controlled by Guangdong Province not only allied with Maoming, Gongguan and Zhuhai but also officially announced its took over 52.51% shares of Zhongshan Port Co, Ltd. It is noticed, geographically, Guangzhou Port Co. LTD focused on integrating ports located on the west coast of Zhujiang River, China Merchant Group, who is the largest shareholder of Shekou, Chiwan, Shantou and Zhanjiang, on the other hand,

¹ We do not include the Hutchison port corporation who holds the major stocks of the Yantian International container port for the following two reasons: first, the port recentralization is initiated by the Chinese central government and dominated by provincial government and SOEs. Therefore, including the Hutchison port corporation, which is a listed company whose major stakeholder is outside mainland China, into our study might deviate from our key issues in a limited length of article; Second, and more importantly, according to our information, we haven't found enough evidence from the public source to support the idea that the Hutchison port corporation has substantively involved in the port integration

integrated the port resources within the east coast and accounts for 23.52% of total throughput of Guangdong province. The benefit attribution in Guangdong is, not surprisingly, based on share ratio and the municipal government retained the right to tax as always. Figure 4 shows the port integration process in Guangdong Province.



Note: The solid line represents implemented transactions, and the date shown on the solid line is the day when the transaction took place. The dotted line indicates that the intended transaction has been officially announced but has not been implemented yet.

Figure 3 – Port Integration in Jiangsu Province

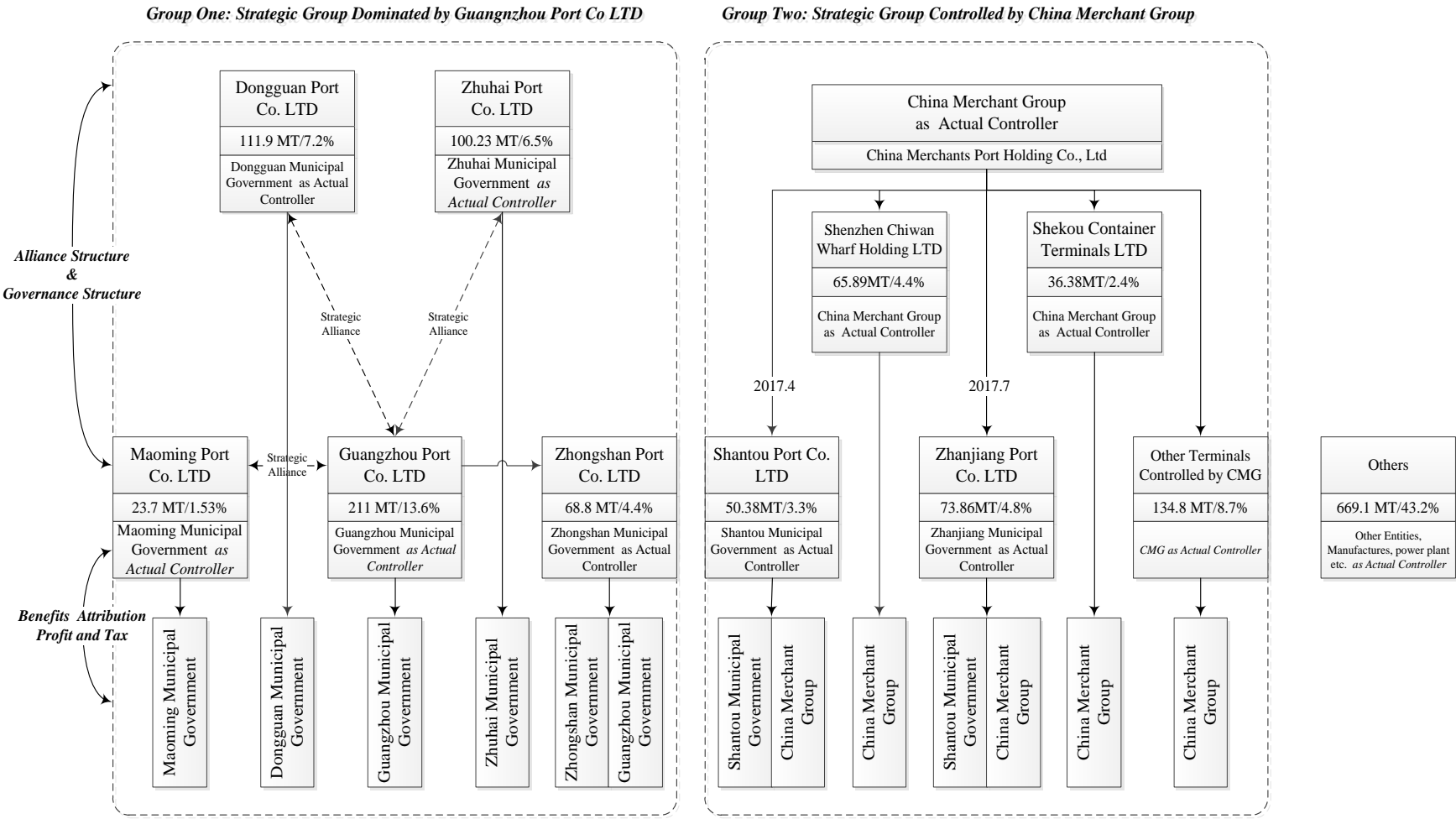


Figure 4 – Port Integration in Guangdong Province

6. Discussion

In this section, in term of the port recentralization results of Chinese ports we observed, we will initiate discussion regarding the research questions we proposed in the beginning of this paper.

6.1. Why do diversified implementations arise?

Our discussion starts with the actor's motivation to adopt specific strategic responses. We develop a framework to understand various actors' interest, motivation, power/legitimacy foundation and strategy as shown in table 3. Different from the technical-rational based view, institutional scholars argue that actors are socially embedded and shaped by their environment. Legitimacy, in the context that "institutions constrain and regularize behavior" (Scott, 1995), affects the behavior of actors by altering benefit/cost calculations. Strong and well-enforced external regulations increase the 'decoupling risk' (Marquis and Qian, 2014) and produce substantive adoption (Stiglitz, 2003). Specifically, comprehensive regulation in association with greater monitoring shapes an organization's response to the adoption of a new practice. In contrast, from a rational and self-interested actor's perspective, without a substantive change in the rewards and penalties calculation, no matter how comprehensive the regulation, the actor is still motivated to adopt tailored practice due to the existence of managerial discretion.

Table 3 – Interest, motivation, power and strategy of different actors involved in port recentralization in China

Actors	Interest	Motivation	Power/ Foundation of Legitimacy	Strategy
Central Government	Sustainable Development	Reducing vicious competition	Bureaucratic System	Policy Signalling
Provincial Government	Provincial Development	Legitimacy Pressure	Bureaucratic System	Diversified Implementations
Local Government	Local Development	Legitimacy Pressure	Governance Structure	Lobby
Port Operator	Profit/Thought-put	Competitive Advantage	Governance Structure	Lobby

In our case, the central government that dominates the bureaucratic system would like to achieve sustainable development at national level by reducing vicious competition, thus a 'trial and error' model was employed as an initialing strategy. Chinese central government has started this strategy since the Opening Reform in 1978, when profound discrepancy exists in social and economic development among different provinces, which rendered developing a fit-for-all policy extremely difficult at early stage. For the same reason, MOT signaled its intention by issuing an official document clarifying its ambition to optimize the utilization of port resources through port integration on Dec 30th, 2014 without providing either a guideline or a best practice model as a reference. By doing this, MOT also created sufficient institutional flexibility for the provincial and local governments to enable the adoption of tailored practices, which favored their own interests. Motivated by the legitimacy pressure from the central government, the

provincial governments are allowed to localize practice accordance with their own situation while profess their loyalty to the central government. It also should be noted that in the previous round of port decentralization, most authorities related to port industry were allocated to the local governments while port operators are entitled with operational and business control of port, therefore it was quite difficult for the central or provincial government to reduce vicious competition among various entities. This arrangement is blamed for exacerbating overinvestment in port industry, which triggers the recentralization. As one of interviewer, a consultant of port industry, commented:

In the hope of promoting local economic development through port investment, enthusiastic local government and port operators are encouraged to launch new projects (e.g. terminals construction at any cost). And most of the government's administrative attempts and regulatory means at provincial level seem to be too weak in the port industry to inhibiting this tendency.

The above statement also leads to another important issue, externality, which has been seldom addressed in the port integration literature. Port economists generally accept the idea that port has a positive externality on the regional development. For example, Yang et al., (2014) empirically reviewed the development of Chinese port over 1952 to 2009, found that the increase in the ports' throughput has enabled an increase in domestic demand and then regional economic development. By adopting structural equation modeling (SEM) approach, Deng et al., (2013) further ascertained that five coastal port clusters in China have positive effect on the regional development in terms of GDP, urban population scale, average annual wage income for urban workers and add value of the tertiary industry. Yudhistira and Sofiyandi (2017) confirmed Deng's conclusion through conducting a case study of Indonesia port industry. As the reason referred above, local governments in China who are responsible for the local development are enthusiastic about port infrastructure construction, and this intention has been aggravated by the fact that local government in China, in most cases, also own the port operators, who have a direct influence on the decision-making of infrastructure investment. Therefore, in order to maintain their competitive advantage, local governments and port operators who benefit most from the decentralized system tends to lobby the provincial government to resist a perfect adoption or come up with tailored implementations in the favor of themselves. As an interviewer, a manager from strategic department of port corporation, commented that:

In the very beginning, Ningbo Port Group would like to dominate the newly established provincial harbor group while Zhoushan Port Group prefer to share decision-making power with Ningbo in the afraid of carrying out unfavorable strategy against Zhoushan ...and finally, Zhejiang Provincial government, who are believed as a neutral actor with no conflict of interest with both parties, got the finally say regard less of its shares in the new group.

In summary, despite of the legitimacy pressure from the central government, provincial governments are still motivated to adopt diversified implementations as a balancing strategy among various actors with different interests.

6.2. Why are actual implementations various among different regions?

Another interesting phenomenon we notice in the process of port recentralization is that although Zhejiang Model is appreciated by MOT, actual implementations among provinces are still various. To understand this, we resort to strategic response theory which mainly focused on ‘the prediction of strategic responses to institutional processes’... ‘that vary in active organizational resistance from passive conformity to proactive manipulation’ (Oliver, 1991). Ansari et al., (2010) further developed Oliver’s idea by identifying various ascendants that can trigger different patterns of adaptation, including political fit that refers to the degree to which the implicit or explicit normative characteristics of a diffusing practice are compatible with the interests and agendas of potential adopters.

These theories can be used to explain the proposed case. Although MOT did not provide guideline for the recentralization, the purpose of the reform has been clearly stated as, in order to reduce the vicious competition between ports, the port investment right should be returned to the provincial government, while the operation and the revenues should be left to the local government to ensure their active participation (MOT 22nd Aug 2017). Therefore, the political fit tension arises due to the redistribution of decision-making power among provincial government and various local actors, especially for those major ports who benefit the most in the decentralized system. In order to investigate into the variations of actual implementation among different provinces, we would like to introduce two concepts, which are *Market Structure* and *Power Distribution*, into our theoretical framework.

6.2.1. Market Structure

Market structure indicates the numbers of equivalent port-controllers, in terms of throughput, who are involved in the integration of port industry. The market structure can vary, including monopoly, duopoly/oligopoly, and free market which is not always the case in port industry. Market structure is relevant to the difficulties of integration as well as the extent to which the interests and agendas of potential different actors can be integrated. For example, monopoly structure can facilitate the intended integration while duopoly/ oligopoly structure is most likely to make it to deviate from the intended implementation due to their incompatible interests. Reflecting on the adoption of three provinces selected in our case study, we notice that although provincial governments are motivated to recentralize port industry by the legitimacy pressure from the central government, their influence on port operators is largely based on the governance structure. Moreover, the integration can also be related to the administrative power of local government over port, the more the government has influence on the throughput within the province, the easier the actual implementations can be carried out according to the intended implementation, vice versa. These can be evidenced by the following facts from our cases. Table 4 shows the market structure of three provinces we investigate.

Table 4 – Market Structure in Zhejiang, Jiangsu and Guangdong Province (throughput distribution)

Regions	Actor I	Actor II	Actor III
Zhejiang Province	Local Government 72.90%	Other entities 27.10%	--
Jiangsu Province	Local Government 38.40%	Other entities 61.60%	--
Guangdong Province	Group One (Guangzhou) 33.28%	Group Two (China Merchant) 23.52%	Other entities 43.20%

Source: Chinese Port Yearbook 2013

Zhejiang Province - High-level of integration

Government in Zhejiang province controlled 72% of throughput by direct or indirectly holding of shares in port companies. Therefore, despite a few resistances from actors who benefit the most from the decentralized system, the provincial government can still coordinate various actors, including local government and major port companies, to achieve the integration as much as possible. As one of interviewer remarked:

The integration in Zhejiang started with Ningbo and Zhoushan, the two largest ports in the province, by strict administrative order to the local government who the actual controller of the local port group. And the rest of port integration is quite smooth and efficient.

Although the rest 27.1% of throughput was controlled by other entities, including manufactures, power plants etc., it could not undermine the high-level of port integration in Zhejiang for their limited proposition of throughput.

Jiangsu Province - Low-level of integration

The market structure in Jingsu Province is featured by the highly dispersed throughput among medium and small ports which is under control of various entities which account for 61.6% of the total throughput. Own to the dispersed nature of market structure, we don't observe any collective impediment to the government dominated port integration. As its happened to Zhejiang Province, the port integration in Jiangsu also started with major local-government owned port, such as Suzhou (announced its integration on 2018.10.30), Zhenjiang (announced its integration on 2018.10.30) and Nanjing (announced its integration on 2018.12.10), while Liangyungang, Thaihzou (Jiangsu), Yangzhou, Changzhou and Nantong are expected to be integrated into the newly established Suzhou Harbor Group in the near future. Due to its limited influence on those ports owned by the entities other than the government, Jiangsu Province limited its scope of integration merely to eight local government-owned ports which only controlled 38.4% of the total throughput. Therefore, compared with Zhejiang Province, Jiangsu achieved a low-level of integration in port industry.

Guangdong Province -Strategic Alliances

It is quite difficult to promote port integration in Guangdong Province because of the existence of two equivalent players, including Guangzhou Port Group (accounted for 13.6% of

throughout of Guangdong Province) and China Merchant Group (accounted for 15.5% of throughput of Guangdong Province). Due to the fact that China Merchant Group is owned by the State-owned Assets Supervision and Administration Commission of the State Council, Guangdong provincial government can hardly exert any influence on their decision-making process. Moreover, neither of the two groups are willing to cooperate with the other at the cost of relinquishing control right for the stake of strategic concerns, which give birth to the failure in the localization of Zhejiang Model in Guangdong Province. Instead of integration as within a holistic governance structure, two major players actively mobilized various resources and means to establish their own strategic group. For example, Guangzhou port group not only set up strategic partnership with Dongguan (announced its strategic partnership in 2017.12), Maoming (announced its strategic partnership in 2017.12) and Zhuhai (announced its strategic partnership in 2018.7), but also acquired 52.51% shares of Zhongshan Port Co LTD. Similarly, by controlling Zhanjiang, Shouke, Yantian and Shenzhen, China Merchant Group now totally accounts for 23.5% of the throughput of Guangdong Province, making it enough to stand up to Guangzhou Port Group and its alliance who accounts for 33.28% of the total throughput. So far, the port integration in Guangdong Province is, somehow, stuck in the middle, which is commonly described as integrated into two major port groups.

6.2.2. Power Distribution

Power distribution indicates the throughput distribution among the ports that are (or expected to be) involved in the integration. We develop this concept from the notion of ‘institutional bandwagon pressures’, also known as normative legitimacy (Soctt 1995; Krell et al., 2016), which may occur simply because non-adopters fear appearing different from many adopters. Despite of the ambiguity, in terms of goals and mean-ends, in a new practice diffusion process, institutional scholars propose that once the critical number has been reached in a population, the actors decision-making would be largely based on legitimacy concerns instead of fully on economic calculation (Abrahamson and Rosenkopf, 1991). Therefore, the easier the port integration reaches the threshold in term of throughput, the more likely it ends up in a perfect implementation, vice versa. The follows are the evidences from proposed case study.

Zhejiang Province

Zhejiang Province has a higher level of concentration in power distribution due to the fact that Ningbo Port Group and Zhoushan Port Group account for 35.9% and 22.7% of the total throughput respectively. Therefore, the institutional bandwagon pressures can be easily triggered by integration of the two largest ports in the province. In fact, the idea of reducing vicious competition by integrating Ningbo and Zhoushan Port can be traced back to 2000. In 2005, Ningbo-Zhoushan Port Management Committee was established to coordinate the relationship of the two ports.

‘The integration is far more complicated’, as one of interviewers marked, ‘and it took more than ten years to achieve the grand plan’.

On the contrary, as soon as Ningbo and Zhoushan were integrated, it took less than one year for the rest 3 ports, including Wenzhou, Jiaxin and Taihzou (Zhejiang), to be integrated into the newly established Harbor Group, which echoed the institutional bandwagon pressures proposition (Abrahamson and Rosenkopf, 1991).

Jiangsu Province/Guangdong Province

Compared with that of Zhejiang Province, the power distribution is quite dispersed in Jiangsu and Guangdong Province. The largest two ports in Jiangsu Province only account for 21.9% of the total throughput while that of Guangdong Province is less than 21%, which makes the institutional bandwagon pressures quite difficult to be triggered. This argument can also be testified by the practice of port integration in these provinces. For example, Guangdong Province has not formed a dominated harbor group, therefore, institutional bandwagon pressures have yet been triggered. The relationship between two major players and a number of neutral ports are quite dedicated and complex: On 11th Sep 2017, China Merchant Group announced the acquisition of 51% of Zhongshan Port in the cost of RMB 485 million. But no substantial acquisition took place thereafter. One year later, on 13th Nov 2018, Guangzhou Port Group, the other major player in Guangdong Province, officially proposed to purchase 52.51% shares of Zhongshan Port with RMB 540 million. As of 31st Dec 2018, it remains to be seen who will speak for Zhongshan Port Co Ltd. This case highlights the complexity of port integration in a chaotic situation without an entity that is widely accepted as a legitimate leading actor to accomplish the reform.

6.3. Theoretical framework of “Diversified Implementations” and validation

Instead of assuming accurately implementation dominated by a mighty government, our case study demonstrates the details of diversified implementations as well as how these implementations unfolded. Diversified implementations are rooted in the institutional flexibility in the industrial policy with which self-interested actors can adopt tailored practice through managerial discretion. In the consideration of the universality of incompleteness of contract (Hart, 1995), diversified implementations are inevitable in the real world. In our case study, we further identify two variables, market structure and power distribution, to explain the variation among different actual implementations. Market structure, originated from the notion of ‘political fit’ in institutional theory, highlights the interests and strategic tension among different participants. Monopoly seems to be the most favorable structure to port recentralization in Chinese port recentralization, for the powerful local government can leverage resource together with administrative orders to promote the intended implementation. In contrast, the existence of equivalent actors, duopoly for instance, might hinder the implementation for their incompatible interests and strategic concerns. Different power distribution, on the other side, will result in various in the difficulty of forming a legitimate leading actor who will trigger the institutional bandwagon pressure for the rest actors. Therefore, the more concentrated power distribution, the more likely to create legitimacy pressure proceeding to an intended implementation. Drawing up on the above discussion, we proposed

our theoretical framework as shown in Figure 5.

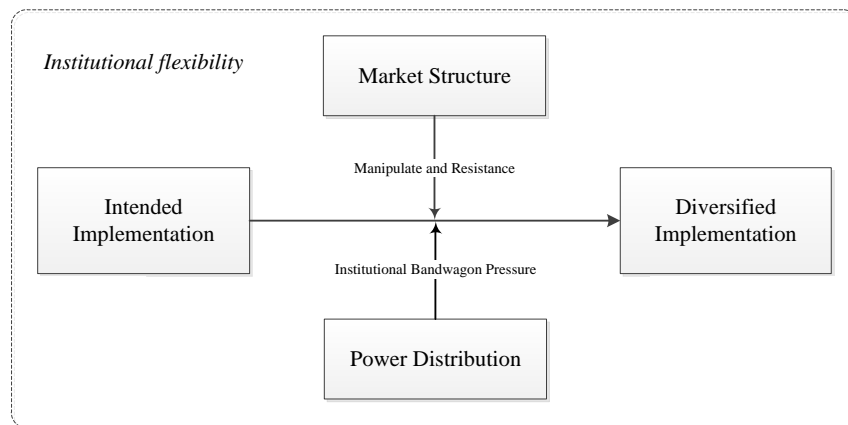


Figure 5 – Theoretical framework of “Diversified Implementations”

Although our theoretical framework is rooted in Chinese context, it can also be validated with case in other countries. In the rest of this section, we will analysis the port merge case in San Pedro Bay area in our framework proposed in Figure 5, and explain why the attempts to merger Port of Los Angeles and Port of Long Beach are all ended up in failure. The theoretical framework is further validated with the port merge case in San Pedro Bay area. By reviewing extant literature on the topic of port integration, we find the San Pedro Bay area case lasts for a long time with multiple attempts to integrate but finally still failed, it is the most relevant case to our study in terms of the key issues we proposed in our analysis. Therefore, we choose it as the case to validate our analysis.

There are two major ports in San Pedro Bay area, Port of Los Angeles and Port of Long Beach, which located adjacent to each other, sharing the same water and transportation system. The attempts to merge the ports can be traced back to 1925 with the purpose of acquiring an investment from the U.S. Army Corps of Engineers to advance ports development. The proposal was failed due to limited support from the leadership of both cities. From then on, at least 11 merge proposals were proposed and all of them were rejected. It should be noted that all of these proposals were initiated by external stakeholders, including U.S. army, assemblyman, and federal government agencies, none of them can enforce the ports to carry out the intended implementations. Compared with the recentralization case in port industry in China, where the provincial government were required to take substantial or symbolic responses to illustrate their loyalty to the central government, Port of Los Angeles and Port of Long Beach were provided with even more institutional flexibility, due to the non-compulsory nature of the proposals. In fact, in most cases the ports just simply reject or ignore the deliberated drafted proposals. For example, Long Beach Mayor criticized the 2020 Commission's report as superficial and self-serving, which suggests the ports establish a 50-50 joint powers authority. Another important issue contributes to the failure of the merge is that Port of Los Angeles and Port of Long Beach are equivalent in market share. Although their market shares switched back and from during 1980 to 2017, the ports shared market equally. In 2017, Port of Los Angeles accounted for 55%

while Port of Long Beach took up the rest 45% in this region. The existence of two equivalent players made it extremely difficult to reach an integration scheme satisfied both parties. For example, in the late 1920's, most of the merge proposals were recommended by the Los Angeles officials with the intention of using oil revenues in Long Beach to support port development in Los Angeles, with limited favor from Long Beach side (Erie, 2004). Just as Knatz (2018) concluded, "those proposing mergers of Los Angeles and Long Beach have failed to articulate how a merger would benefit each city." At present, the two major ports in San Pedro Bay area are still operated separately.

7. Theoretical Contribution and Implication

While most of extant researches on [de]-centralization are on technical-rational bases, assuming the policy can be strictly enforced according to the intended implementation, our exploratory study tried to figure out the implementation detail in the real-world context. By taking the 'diversified implementations' in Chinese port industry recentralization (2015-2018) as an illustrative case, we come up with a theoretical framework to explain 'why do diversified implementations arise' and 'why are actual implementations various among different regions'. Two main explanatory variables, market structure and power distribution, we introduce into our framework are rooted in institutional theory which highlights the importance of context, legitimacy, power and interest to properly interpret behaviors and choices of actors who are embedded in the social-economic environment. This framework is further validated with port merge case in the US. As a pilot study to open the black box of policy implementation, we are highly appreciated if future studies can empirically test our conclusion with proper databases.

In the context of recentralization in port industry worldwide (Zhang et al., 2018), our research also has important enlightenment to policymaker as follows, first, given that institutional flexibility and managerial discretion are inevitable in the policy circle, proper incentives and the monitoring mechanism according to the market structure and power distribution should be developed; Second, if the diversified implementations are inevitable in the real world, the transport policy should be taken as a circle consisting agenda setting, policy formulation, decision making, policy implementation and policy evaluation rather than a one-off action.

As a pilot study incorporating context, legitimacy, power and interest into port integration, we provide a theoretical framework to understand diversified implementations in port integration. For future research we would like to propose two promising directions. First, empirically testing our proposed theory with quantitative data; Second, empirically evaluating the impact of different port integration implementations on port performance.

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