

Article

The Possibility of “Bundling” in PPP as a New Business Model for Japanese Civil Engineering Consulting Firms - From a Case Study of a Bundled PPP Project in the Philippines

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Abstract. Many Japanese civil engineering consulting firms have faced a challenging business environment for the last twenty years following the decrease in the public works budget. To counteract this decline, many of them have tried to expand into new businesses; one such business is entering into PPP projects in Asia. However, there have only been a few successful cases. In this study, therefore, a successful PPP project in the Philippines is raised as a case, where one such consulting firm has been involved in. Through this study, two factors for the success were identified; one is that the involvement in the PPP/PFI in Japan, similar to the Asian PPP in the nature of business, can help to some extent, and the other is that starting with small scale projects can work to mitigate risk, while using a method of “Bundling”. The idea of bundling several projects together could overcome such negative aspects arising with the work on small-sized projects, from the viewpoint of private sector’s participation in the projects. Furthermore, using the Bundling could add another revenue source as a “Platformer”. It is thus ensured that this study can contribute to their successful expansion into new business opportunities.

Keywords: Public private partnership, PPP, bundling, platformer, Japanese civil engineering consulting firm, new business development.

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1. Introduction

1.1. Background of this Study

Japanese civil engineering consulting firms (“JCECs”) are mainly engaged in research, planning, design and so on for domestic public works (“JPN-Dom. Public Works”) where the national government, local governments and their related organizations are the ones placing the orders. The JCECs therefore depend on the JPN-Dom. Public Works for most of their sales and profits in nature. However, the budget for the JPN-Dom. Public Works has continuously been in a trend of decline since its peak in the late 1990s, and the budget amount in FY2011 was around half of the peak year’s level. With social security expenditure expected to increase due to Japan’s declining birthrate and aging population, as well as considering the severe financial situation of the country both at national and at local government levels, a drastic increase in the budget for the JPN-Dom. Public Works cannot be expected. Accordingly, for the JCECs that rely heavily on the JPN-Dom. Public Works, establishing new business is an urgent issue.

On the other hand, there are those who claim “the 21st century is the era of Asia”, since infrastructure demand in Asia is huge and continue to grow thanks to population increases and economic growth. Looking outside of Japan, there are many business opportunities for the JCECs to demonstrate their strengths, which have long supported infrastructure development in Japan. Given these circumstances, there are a lot of JCECs aiming to achieve growth in overseas markets, especially through Public Private Partnership (“PPP”) projects in Asia (“Asian PPP Business”), but in practice, there have been only a few successful cases.

Therefore, in this study, a specific PPP project in the Philippines, handled by one of the JCECs, is to be raised as an example. In this case, Chodai Co., Ltd (“Chodai”) has worked on multiple PPP projects in collaboration with local companies, and has proven to be a successful example for the JCECs.

The authors of this study identified that the factors for Chodai’s success in this case are based on proceeding with development while minimizing risks. Specifically, the first factor is that Chodai already had a proven track record of working on Private Finance Initiative (“PFI”) projects in Japan (JPN-PPP/PFI Business), which made it easier for Chodai to transition to Asian PPP Business. Another factor is that, because these PPP projects were implemented on a small-scale by local government bodies, the risks assumed per project could be limited.

On the other hand, there are also demerits to working on small-scale projects, but these can be diminished through a method of “Bundling”, which is simply to bundle multiple projects together. Furthermore, through the Bundling, Chodai not only familiarizes themselves with local laws and regulations, geography etc., and makes connections with relevant agencies, but also builds a good relationship with local partner companies. Accordingly, this could allow Chodai to create additionally new business opportunities as a “Platformer”.

Behind this background above, this study identifies a method, by analyzing this case, that could help the JCECs to succeed at Asian PPP Business.

1.2. Purpose of this Study

The purpose of this study is to clarify the factors of success needed for the JCECs when expanding into Asian PPP Business as a new business, by analyzing Chodai’s case. If any useful suggestions are obtained as to how the JCECs can participate in, and succeed at, Asian PPP Business, this can contribute to the further development of the JCECs’ industry, in accordance with the policy the Japanese government is promoting under the name of “Infrastructure System Export Strategy”.

2. Business Environment around JCECs

2.1. Business Feature of JCECs

The JCECs are a type of company registered to the Ministry of Land, Infrastructure, Transportation and Tourism (“MLIT”) as “Civil Engineering Consultants”. The birth of the JCECs tracks back to the “principle of separation between engineering and construction”, clarified by the declaration issued in January 1959 by the vice minister from the Ministry of Construction (currently MLIT), which formed the basis, and establishment and development, of the JCECs [1]. The JCECs further enhanced their reputations during the

high economic growth era, in conjunction with the rapid increase in the amount of public works for the development of social infrastructure.

Behind this background, the JCECs have relied on the JPN-Dom. Public Works, in terms of revenue and profit, with orders coming from government offices at national or local government level.

2.2. Domestic Business Environment

In FY2010, the budget amount for the JPN-Dom. Public Works decreased to half of a peak year of FY1998 (Fig. 1). Given the huge deficit at national and local government level, an increase in the JPN-Dom. Public Works budget cannot be expected to see. Therefore, for many of the JCECs, it is clear that developing new businesses is an urgent issue that needs to be addressed, and one of these new streams of business is overseas development, especially in developing countries in Asia.

2.3. Overseas Business Environment

Currently, the JCECs' overseas business mainly consists of Official Development Assistance (“ODA”) projects (“ODA Business”), starting with construction for compensation after World War II in South East Asia [App.1]. In fact, the total amount of the orders received by 74 of the JCECs in FY2014 is JPY 93.3 billion, out of which 83.8% (JPY 78.3 billion) comes from the ODA Business [2]. However, with ODA budget at its peak in FY1997, it has begun to decline gradually to half as seen in Fig. 2. As the same can be seen for the budget for the JPN-Dom. Public Works [App.2], it is to be concluded that business expansion in the ODA Business is unrealistic.

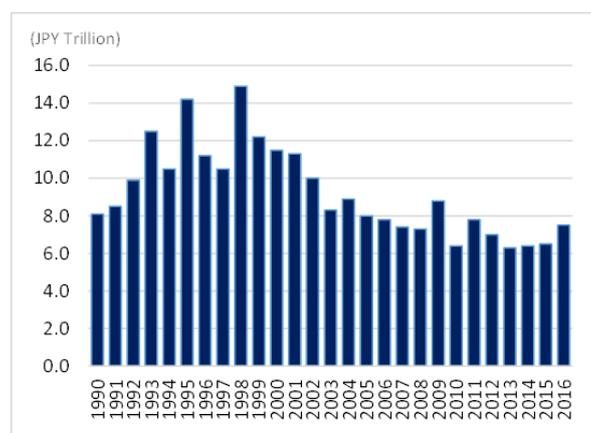
Therefore, it can be said that the market for the JPN-Dom. Public Works and ODA Business, which are pillars of the JCECs' main business domains, have faced a continuous trend of decline, and this is the background behind which the JCECs are pursuing new businesses.

3. Asian PPP Business as New Business for JCECs

Given this competitive business environment both in Japan and abroad, entering into a market of Asian PPP is recognized to be a new business opportunity for the JCECs, based upon the SWOT analysis, a framework for management strategies in business administration (Table 1).

Table 2 compares the JPN-Dom. Public Works and ODA Business, both JCECs' conventional business, and Asian PPP Business. In addition to the difference shown here, other difference in labor costs, culture, language, and laws and regulations etc. also exists between both businesses. These matters force the JCECs to face the challenging situation in Asian PPP business.

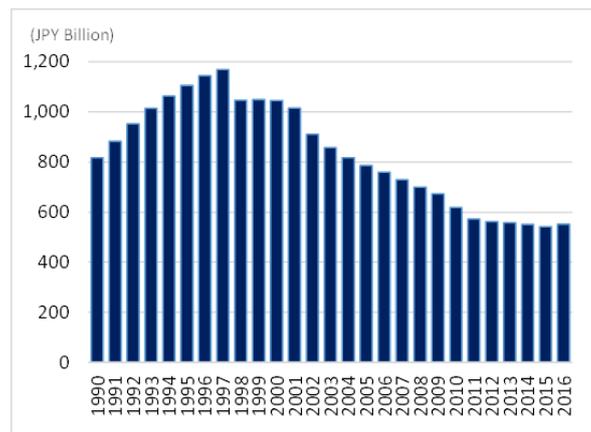
In such challenging circumstances, a case study of Chodai, one of the JCECs, draws great interest from many different angles, as this case in the Philippines is regarded as a success.



Note: The amount includes the supplementary budget.

Source: Adopted from MOF (2017) [3].

Fig. 1. Transition in Domestic Public Works Budget (From 1990 to 2016).



Note: The amount includes the supplementary budget.

Source: Adopted from MOFA (2016) [4].

Fig. 2. Transition in Japan's ODA Budget (From 1990 to 2016).

Table 1. "Strength" and "Opportunity" of JCECs.

Contents	
Strength	Advanced technology, proven track records and human resources (engineers) obtained by getting involved in infrastructure development for many years both in Japan and abroad.
Opportunity	Huge infrastructure demand of approximately 1.7 trillion USD per year (about 190 trillion JPY) in Asia [5]: This strong infrastructure demand cannot be met solely by each country's public works budget or public investments such as ODA, which means bringing in private funds is inevitable. For this reason, the utilization of PPP as a means of bringing in private funds is cited as an important policy in each country, trying to foster an environment where foreign capital is welcomed. Furthermore, there are many countries in Asia which are on friendly terms with Japan and are closely related by geographical proximity and historical significance.

Table 2. Difference between JPN-Dom. Public Works & ODA Business, and Asian PPP Business.

Item	JPN-Dom. Public Works/ ODA Business	Asian PPP Business
Target Asset	Infrastructure, and Public facility	Infrastructure mainly
Target Invest Stage	Green Field mainly	Green Field mainly
Tasks/ Order	Single task/ Specification based	Multiple task/ Performance based
Asset Ownership	Public	Public/Private
Duration/ Term	1 year in many cases	10 to 30 years on average
Private investment	None	Yes
Risk burdened by Private	Minimal, due to commercial risk being burdened by Public	Moderate to High, due to commercial risk burdened by Private

Note: The original is in English and this is the translated one.

Source: Adopted from Kato (2013) [6].

4. A Case of Chodai's PPP Projects in the Philippines

4.1. Overview of Butuan Area

Mindanao (Surface area: 100 km², Population: 22 million), where Chodai has developed new businesses since September 2011, is located in the south of the Philippines, having a wealth of agriculture including rice and banana farming, forestry, fishery and natural resources. Conversely, however, Mindanao is also the least

developed area in the Philippines. This is partly due to security reasons, caused by religious conflict as well as anti-government guerilla activities, leading to limited entry into the region of not only Japanese but other

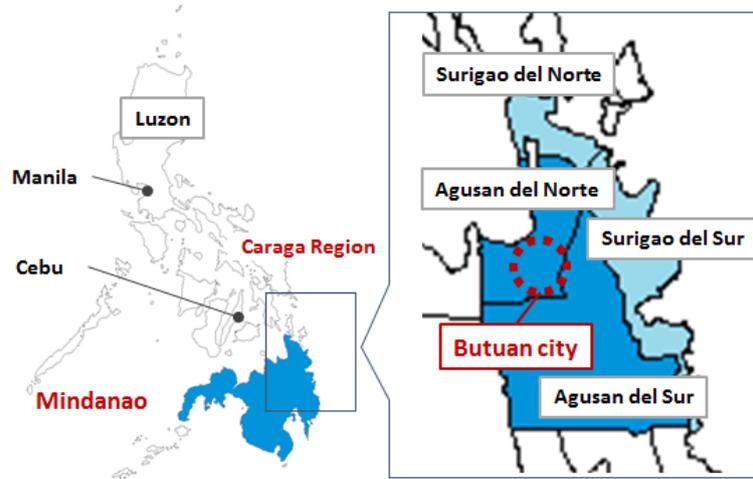


Fig. 3. Location of Butuan City.

foreign companies. Accordingly, Mindanao is positioned far behind the national average in terms of household income. For example, the household income in Caraga Region, where Butuan City is located, is 180 thousand PHP while that of the national average 235 thousand PHP [7]. Also, the poverty rate in Caraga Region is 31.9%, while that of the national average 19.7% [8].

Butuan City (Surface area: 820 km², Population: 350 thousand) is located in the northeast of Mindanao, as a capital city in the Caraga Region, holding five surrounding provinces (Fig. 3). Butuan City is similar to Mindanao in a sense that insufficient infrastructure, such as power and water, as well as an unstable security situation prevents the region from achieving economic development even though it has access to rich natural resources.

4.2. Overview of the Projects

Together with local companies headquartered in Butuan City, Chodai has been conducting several PPP projects, from the early stage of project development such as planning and feasibility study, then financing, construction, to operation, for the purpose of realizing regional development (“Butuan PPP”). All of the projects have been ongoing under the purpose of regional development through the creation of employment, starting with the development of basic infrastructure, through agriculture and fishery businesses, and development and operation of an industrial park.

Chodai entered into a Memorandum of Understanding in May 2015 with two local companies for the purpose of “comprehensive alliance through which all of the parties are to jointly conduct businesses while achieving productivity improvement and high-value adding, on a long term basis, under private sector’s initiative, contributing to regional development and furthering peacebuilding in Mindanao” [9] (“MOU”).

Based upon the MOU, Chodai is supposed to provide engineering consulting services, which is Chodai’s core business, and also involving Chodai in operation and management of the projects though equity investment as well as dispatching directors. Table 3 illustrates the overview of each project in the Butuan PPP.

As a successful case, the Butuan PPP has been widely covered by the media and accepted many visitors who come to view the project sites [App.3]. In addition, The Butuan PPP is designated as one of the 10 worldwide best practices by the United Nations Economic Commission for Europe [10].

The next chapter will then discuss the factors leading to the Butuan PPP’s success in order to elucidate a method for the other JCECs to succeed at this new kind of business.

5. Discussions

5.1. Two Factors and Verification Methods for Chodai's Success

In this study, two factors were assumed for Chodai's success with the Butuan PPP.

The first factor is that, before expanding into a market of the Asian PPP Business, Chodai has been working for a long time on the JPN-PPP/PFI Business, similar to the Asian PPP Business in nature, so their internal resources, such as human resources in particular, were already in place. In other words, Chodai was able to reduce the risks of engaging in the Asian PPP Business to some extent, right from the start. However, Chodai is not the only JCEC that has been engaged in the JPN-PPP/PFI Business, which means that this factor alone is not sufficient to explain why Chodai was uniquely able to succeed with the Butuan PPP.

Then the second factor comes up, which is the fact that Chodai has worked on small-scale projects at the local government level in the Butuan PPP. In general, limited risk would only occur in any small-scale project even if a given project were to fail, because the invested amount is also limited. There are of course disadvantages to small-scale projects, but in Chodai's case, these disadvantages were overcome by utilizing a method of "Bundling" through which multiple projects are taken on simultaneously.

In order to verify these two factors, investigations into prior researches as well as existing documents were adopted and conducted, and also a qualitative survey was carried out by interviewing Chodai.

Table 3. Overview of Each Project in the Butuan PPP.

Project	Project Cost	Overview	Status	Chodai's Role		
				E	D	C
Phase 1: Developing a Basic Infrastructure (Power & Water)						
Hydro (1)	1.2 bil. PHP (2.8 bil. JPY)	Capacity: 8MW	Under Const.	✓	✓	✓
Hydro (2)	0.8 bil. PHP (1.9 bil. JPY)	Capacity: 5MW	Pre-FS Completed	✓	✓	✓
Hydro (3)	4.0 bil. PHP (9.3 bil. JPY)	Capacity: 23MW	FS Completed	✓	✓	✓
Biomass	0.4 bil. PHP (1.0 bil. JPY)	Capacity: 2MW	Pre-FS Completed	✓	✓	✓
Wind	13.6 bil. PHP (31.8 bil. JPY)	Capacity: 150MW (2MW×75)	Pre-FS Completed	✓	✓	✓
Bulk Water	0.6 bil. PHP (1.3 bil. JPY)	Water supply while enhancing water treatment/supply capacity	Under Operation	✓		
Phase 2: Realizing Stable Commodity Supplies						
Agriculture: Rice Farming & Milling	N/A	For productivity improvement & production of Japonica rice	Under Operation	✓		
Aquaculture: Prawn Farming	N/A	Prawn farming while recovering abandoned ponds	Pre-FS Completed	✓		
Aquaculture: Eel Farming & Processing	N/A	Eel farming and processing project	Under Operation	✓		
Phase 3: Developing an Industrial Park (IP) with an Aim to Create Employment						
Development & Operation of IP	3.6 bil PHP (8.3 bil JPY)	Land development area: 140ha	Pre-FS Completed	✓	✓	✓

Note (1): Information and date is as of April 2017, and gathered from public and interviews to Chodai.

Note (2): "Chodai's Role" - E: Equity Investment, D: Director Dispatch, C: Consulting Service

Note (3): The JPY amount is calculated at the FX Rate of 1 PHP = 2.33 JPY [11].

5.2. Factor (1): Expansion into Asian PPP Business by way of JPN-PPP/PFI Business

5.2.1. Track records in JPN-PPP/PFI business

Chodai has been working on the JPN-PPP/PFI Business in Japan since 1999 when Japan's PFI Act (The Act on Promotion of Private Finance Initiative, Act No. 117 of 1999) was enacted. Chodai is therefore one step ahead of the other JCECs in this market, and has been placed at a higher ranking in a league table of PFI advisors every year as seen in Table 4. As such, Chodai is highly competitive in the JPN-PPP/PFI Business, and employs many engineers (human resources) with proven track records, experience, and know-how.

Table 4. Advisor Ranking in PFI Projects (2015).

Rank	Consultant	No. of Projects
1	Pacific Consultants Co., Ltd. *	62
2	Chodai Co., Ltd. *	40
3	Mizuho Research Institute Ltd.	37
4	PricewaterhouseCoopers	35
4	Japan Economic Research Institute Inc.	35
6	The Japan Research Institute, Ltd.	29
7	CTI Engineering Co., Ltd. *	22
7	AXS Satow Inc. *	22
7	Mitsubishi UFJ Research and Consulting Co., Ltd.	22
10	Nomura Research Institute, Ltd.	21
11	Mitsubishi Research Institute, Inc.	18
12	Chiiki Kezai Kenkyusho, Inc.	12
12	Nikken Sekkei Civil Engineering Ltd. *	12
14	NJS Co., Ltd. *	11
14	Yachiyo Engineering Co., Ltd. *	11

Note (1): This table is based on the top 15 companies.

Note (2): Companies with the “*” mark indicate the JCECs.

Source: Adopted from JPPA (2015) [12].

5.2.2. Similarities between JPN-PPP/PFI business and Asian PPP business

The preceding studies have already discussed the similarities, from the viewpoint of the nature of business, between the JPN-PPP/PFI Business and Asian PPP Business (Table 5). Therefore, track records in the JPN-PPP/PFI Business could be an advantage in entering into a market of the Asian PPP Business.

5.2.3. Rational for expansion through JPN-PPP/PFI business

As the JPN-PPP/PFI Business and Asian PPP Business have many similarities, expanding out from the JPN-PPP/PFI to the Asian PPP Business is a reasonable choice, as existing resources can effectively be utilized. In this regard, it was discussed that even in prior researches, accumulating such human resources as are familiar with the JPN-PPP/PFI Business could give the JCECs considerable advantages in expanding into the Asian PPP Business [6].

Furthermore, the fact that “opening up the public sector that has been responsible for the development and operation of domestic infrastructure to the private sector [...] leads to opportunities for private companies to strengthen their international competitiveness and expand the market” [13] and that “increasing the number of track records in PFI projects in Japan and building know-how enables private companies to further their expansion into the international PFI market” [14] has been thoroughly discussed and established in other reports and surveys. It is therefore clear that the business experiences of the JPN-PPP/PFI Business have great value for expanding outwards to the Asian PPP Business.

Meanwhile, as Table 4 demonstrates, the JCECs comprise 7 of the top 15 companies. As such, if the discussion above is correct, it could be assumed that all of these JCECs, not just Chodai, have the potential to expand into the Asian PPP Business and are ready to do so based upon the track records in the JPN-PPP/PFI Business. In reality, however, there have been a few other examples of the kind of success which Chodai has achieved. In other words, this shows that a proven track record in the JPN-PPP/PFI Business may be one of the conditions required to succeed in Asian PPP Business, but it alone is not sufficient to ensure success.

Table 5. Comparison between JPN-PPP/PFI Business and Asian PPP Business.

Item	JPN-PPP/PFI Business	Asian PPP Business
Target Asset	Public facility mainly	Infrastructure mainly
Target Invest Stage	Green Field mainly	Green Field mainly
Tasks/ Order	Multiple task/ Performance based	Multiple task/ Performance based
Asset Ownership	Public/Private	Public/Private
Duration/ Term	15 to 20 years on average	10 to 30 years on average
Private investment	Yes	Yes
Risk burdened by Private	Minimal to Moderate, due to commercial risk burdened by Public	Moderate to High, due to commercial risk burdened by Private

Note (1): The original is in English and this is the translated one.

Note (2): This comparison is as of 2013, and thus it can be said that the feature of Domestic PPP/PFI business has got closer to Asian PPP business because of change in the relevant laws and regulations related to the PFI.

Source: Adopted from Kato (2013) [6].

5.3. Factor (2): Participation from Small-sized Projects and Utilization of Methods for Bundling

For the purpose of verifying this second factor, an interview to Chodai was conducted on 10 August 2016 (“Interview”) [App.4].

5.3.1. Participation from small-sized projects

As shown in Table 3 above, the projects in the Butuan PPP were of a small size worth less than 10 billion JPY, except for the wind power generation project. Considering that the scale of projects at national government level, such as highways, airports and railways, generally tend to be in the range of tens of billions to hundreds of billions JPY [App.5], the size of each Butuan PPP, all at local government level, can be considered as relatively small.

When a PPP project is commercialized, generally, the initial project costs are covered with equity investments and bank loans. As such in the Butuan PPP, according to the Interview, 30% to 50% of the project cost for each project is procured by equity investment.

Since the Butuan PPP are joint projects mainly with two local partners (equity investors), according to the MOU, the ratio of Chodai’s share is in the 5% to 20% range. In other words, considering the financial structure via bank loan, Chodai’s actual investment ratio out of the total project cost ended up ranging from 1.5% to 10%. In addition, according to Chodai, the upper limit of this burden as an absolute amount for a single project is set at one hundred million JPY. If the total project cost is large, the investment ratio is kept low trying to get close to the burden, but if the cost is small, then the investment ratio is increased to maintain a certain level of presence among the shareholders while mitigating the risk.

For the JCECs, entering into Asian PPP Business is different in business nature and risk from JPN-Dom. Public Works and ODA Business in terms of the necessity for equity investment, long term business of not a single year, involvement in operation and so on. Therefore, it is a reasonable administrative choice that the JCECs, which do not have a big balance sheet or strong finances, start to develop small-sized local projects with minimal risk while adjusting their investment ratio and amount.

5.3.2. “Bundling” to overcome challenges caused by small-size projects

On the other hand, there are also disadvantages to participating in small-scale projects. Prior researches have revealed that for promoting, or participating in, a PPP project, large amounts of time and expense, such as proposal preparation costs and external consultant costs, is required, regardless of the project's size [15], even before the operation begins. In other words, the smaller the project's scale, the higher the proportion of such fixed costs consisting of transaction costs, thereby raising up the break-even point. This point makes private sectors' participation in PPP projects difficult. However, the method of the Bundling can help to offset these negative issues.

The Bundling is one of the methods, along with “Broadening”, proposed to further promote PPP/PFI projects in Japan by bundling multiple projects together, thereby initially securing a certain level of absolute amount in sales and profit from the viewpoint of “quantity”, and secondly improving profitability by leveraging economies of scale from the viewpoint of “quality” [16].

It has already been discussed through prior researches that the Bundling would lead to improvements in project profitability, Internal Rate of Return (IRR) and Net Present Value (NPV) for example, from the private sector's point of view.

In addition, through the Interview, it was figured out that common and overhead costs can be shared, and thereby reduced by, for example, working on multiple projects during a single visit (economies of scale and scope). This also would foster mutual understanding and trust among the partners and the relevant parties, which in turn can speed up negotiations and procurement, leading to earlier commercialization (speed optimization). By having multiple projects at once, good projects could be offset with bad ones in economics, and lead to a decrease in overall risk among other benefits (portfolio effect) (Table 6).

In conclusion, in Chodai's case, the risk to be assumed per project is well managed and reduced by working on small-sized projects, and at the same time, the drawbacks that go along with participating in small-scale projects are overcome by bundling together to secure firstly a certain required volume of profit and secondly profitability.

Table 6. Result of the interview.

Result of the Interview
<p>Scale/Scope Economies</p> <ul style="list-style-type: none"> • From a business travel cost savings perspective, being able to engage in multiple projects in a single trip is important for overseas projects.
<p>Speed Optimization</p> <ul style="list-style-type: none"> • Mutually deep understanding and trust between partners, obtained through the course of multiple project collaborations, shortens the time required for initial adjustments and contract negotiations. • The number of consultation hours that need to be billed to attorneys etc. is also reduced, resulting in an according reduction in costs. • Being more familiar with relevant laws and regulations etc. shortens the time required to make decisions.
<p>Portfolio Effects</p> <ul style="list-style-type: none"> • Considering whether or not a bundled projects is meeting the desired revenue criteria from a big picture perspective, the evaluation process will be done, while taking into account the project's origins, overall concept, and partner's concerns. • Since it is extremely unlikely that all projects will turn out poorly, developing multiple projects simultaneously can mitigate any single project's individual risks, making the prospect of project participation more attractive.

Note: Adopted and reconstructed by extracting answer results of Chodai only based upon a group interview of [App.4].

5.4. “Platformer” as a Supplementary Effect brought by Bundling

Through the Bundling by working on multiple projects over the time in the same area with the same partner, Chodai has become familiar with local laws and regulations, built a human resources network, and developed trust among relevant agencies and local business partners. Thus, it can be said that Chodai's current position is achieved because plenty of time and cost have been invested over five years. The result of this time and

money investment means that Chodai can now conduct business in the area much more quickly and smoothly than before, and than the others.

The “Platform” is often defined to be a “place” which would tie various things, including companies, together, and the platform company (“Platformer”) is the one which would provide such services and systems based upon such a “place”. In the IT industry right now, Google, Apple and Amazon.com, for example, are said to be this Platformer, since their business is to provide others with a business platform. As such, Chodai has the potential to be such a Platformer in the Butuan region as a new business model.

For example, Company A, which intends to launch a new project in the Butuan region, would need to be familiar with the region while building a local network including finding partner(s), by investing adequate time and cost as Chodai has actually done. Likewise, local partners would also need to spend time and cost determining whether Company A is trustworthy, to determine whether they can do business together. Accordingly, Company A could not enjoy the same quick and smooth business environment as Chodai can do. However, if Chodai were to act as a middleman between Company A and the local partners, Chodai could then provide a platform as a business foundation to enable Company A to also do business quickly and smoothly. This would in turn reduce both time and money that would normally be invested by, and for the sake of, both Company A and the local partners, which means, Company A especially in this case, could expect a time-purchasing effect normally brought in by M&A (Merger and Acquisition).

The value of the Platformer is very similar to that of “brand” in a sense that it is intangible but offers value to business. Chodai has yet to make any revenue as a Platformer, however, an example of another Japanese company can also be found in Mindanao, which has already monetized itself as a Platformer based upon their business experience in the area over the five years [App.6]. It can therefore be said that the Bundling can likely add new sources of revenue as a Platformer or through the Platform business, which is just a brand new business for the JCECs.

6. Conclusion

According to a Chodai domestic sales manager with more than 10 years’ experience, over 80% of contracts for the JPN-Dom. Public Works in Chodai are for a single fiscal year. Of course, since these projects generally take more than one year to complete, there is always the possibility for Chodai to receive new orders to be able to work continuously on the project into the following fiscal year. However, as each contract expires in a single year, this follow-up work is never guaranteed.

As discussed in this study, the prospect of the JCECs expanding into Asian PPP Business as a new business is not solely to compensate for the decline in their primary JPN-Dom. Public Works. The JPN-Dom. Public Works, on which many of the JCECs’ heavily rely in terms of sales, has been a shrinking market, and furthermore, makes management of the JCECs risky and unstable due to the above single fiscal year contract structure, which does not even carry a guarantee of continued future work.

However, the primary revenue driver of the JCECs for over half a century in the past could not easily be replaced by a new kind of business. It is then expected that JPN-Dom. Public Works will continue to be a main source of revenue for the foreseeable future to the JCECs. In that sense, just like the JPN-PPP/PFI Business which was itself once a new business venture, the Asian PPP Business is likely to be a source of supplementary income as well as a way to diversify revenue structure of the JCECs. Diverse income sources generally create a portfolio effect, which brings the benefit of reducing future uncertainty from an administrative perspective. In other words, given the particulars of the JCECs, the merits of expanding into Asian PPP Business can be summarized with the following 3 points:

1. To increase sales amount by increasing the amount of business volume and also income sources,
2. To diversify and stabilize sales by acquiring new income sources of dividend from investment and the Platformer, in addition to their core business as a consulting service, and
3. To secure long-term sales for multiple years through dividend, and fee from consulting service and the Platformer during business operation stages.

The purpose of this study is to discuss the factors behind successful Asian PPP Business, as a new business opportunity for the JCECs, and then to systematically organize and then verify such factors. Among these, firstly the relationship and its significance between the Asian PPP Business and JPN-PPP/PFI Business, secondly the role and significance of the Bundling, and thirdly the possibility of the Bundling as a means to create all-new business opportunities as the Platformer in particular have been discussed and clarified. These can be said to be significant to some extent, for the purpose of establishing new business for the JCECs. It

cannot be denied, however, that for this study, only a single case was examined, and the discussion does not reach to a further detailed analysis, such as digging deeper into examples other than Chodai or the Philippines. In addition to giving further analysis to the already discussed matters in this paper, these are matters for discussion in a future paper.

Appendix

- [App.1] This is why, looking at Japanese ODA destinations from 1971 to 2014 for example, Asian countries are listed starting with Indonesia, which ranked first, followed by India, China, the Philippines, and Vietnam [17]. Also, looking at the major ODA donor countries to the Philippines, 56% (24.3 Billion USD) of the cumulative amount from 1966 to 2013 was provided from Japan, which ranks in first position [18].
- [App.2] A correlation coefficient between the budget for domestic public works and for the ODA from 1990 to 2016 is 0.864.
- [App.3] In regards to the Butuan PPP, taking the five year period from FY2012 to FY2016 as an example; 33 articles were published in Kensetsu Kogyo newspaper, 13 lectures and seminars were conducted, 25 on-site visits occurred, and 11 support cases (through Feasibility Study, Lending Facility etc.) were provided by Japanese government agencies.
- [App.4] This group interview was conducted, making use of the event “The Philippines Japan Business Conference “Creating Opportunities, Sustaining Friendship” sponsored by Butuan City over the course of three days, from 11th to the 13th of August 2016. It was held for the benefit of the parties from both Japan and the Philippines which were involved in the Butuan PPP including Chodai. The Interview was conducted to two general managers from Chodai.
- [App.5] For example, San Miguel, a major Philippine conglomerate, proposed a plan to the government in 2014 to construct Manila's new airport as a PPP project totaling US \$10 billion [19].
- [App.6] Biomass Japan Inc., a Japanese company, engaged in manufacturing and selling biodiesel plants, entered into Davao City, located in south Mindanao, for a survey supported by JICA five years ago. They have since continued to conduct business there, building a network between the public and private sectors in Davao and its surrounding area. They went on to take advantage of these achievements and strengths by launching a consulting service department that supports overseas development for small and medium companies in Japan, which is unrelated to their main business. This newly set up department supports the advancement of Japanese companies by gathering information on local sites, providing information related to the process of overseas development and introducing local networks [20].

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