

# Collaborative Business Strategy of PPT Energy Trading Co. Ltd. for LNG form of Coal Bed Methane in B2B Transaction to Japanese Shareholder, Especially to Electricity and Power Supply Companies

Shabrina Pritta Radyanti, Harimukti Wandebori

**Abstract**—A research study was conducted with an objective to propose a collaborative business strategy of an oil and gas trading company, representing PPT Energy Trading Co., Ltd., with its shareholder, especially electricity and power supply companies for LNG Form of Coal Bed Methane in B2B Transaction. Collaborative business strategy is a strategy to collaborate with other organizations due to have future benefits in both parties, or achieve the business objective through the collaboration of business, its strategy and partners. A structured interview was established to collect the required primary data from the company. Not only interview, but also company's business plan and annual report were collected and analyzed for the company's current condition. As the result, this research shows a recommendation to propose a new collaborative strategy with limiting its target market, diversifying product, conducting new business model, and considering other stakeholders.

**Keywords**—Coal bed methane, collaborative business strategy, lng; trading company.

## I. INTRODUCTION

**D**EPLETION of non-renewable resources is being one of the main global issues these days, especially for fossil fuel products, as the result of increased in human population and their needs and technology from year to year.

Fossil fuel products usages are currently for industrial, business, and daily needs consumption, such as cooking and transportation fuel. In Japan, this products, especially liquified natural gas, is mostly used for substitution resources of nuclear in electricity and supply company now, since the earthquake and tsunami disaster in March 2011 impacted the explosion of nuclear reactor of Tokyo Electric Power, one of Japan's electricity and power supply company, which made this company could not supply its area enough. Not only Tokyo Electric Power, other identical companies were also impacted, having result of Japanese inhabitants had to retrench of using electricity. Indonesia, as the main exporter of LNG to Japan, saw this issue as an opportunity to boosting up sales. However, having rapid increase of population in this country made the consumption demand of this resource was increased too. As the result, Indonesia could not take this opportunity and had the export increased a bit [1].

Shabrina Pritta Radyanti is a student in School of Business and Management, Bandung Institute of Technology, Bandung, 40132, Indonesia (phone: +62222500935; e-mail: shabrinaradyanti@gmail.com).

Ir Harimukti Wandebori MBA, a lecture and supervisor in School of Business and Management, Bandung Institute of Technology, Bandung, 40132, Indonesia (phone: +62222500935; e-mail: harimukti@sbm-itb.ac.id).

Meanwhile in Indonesia resource, there was a newly discovered energy in Indonesia, known as coal bed methane, which processed from coal mining. This resource is a natural gas and its supply is quiet plentiful, also can be processed into LNG and CNG (Compressed Natural Gas), but it is currently being explored and predicted to be commercialized in 2015.

Seeing this issue as an opportunity to expand its business and Indonesian exports, PPT Energy Trading Co., Ltd., a merged company from Indonesia's oil and gas state-owned company, PT Pertamina and Japanese automotive, electricity and power supply companies, such as Toyota Motor, Chubu Electric Power, Tokyo Electric Power, Kansai Electric Power, Tokyo Gas, JX Nippon & Energy, Cosmo Oil Co, Idemitsu Kosan, Kashima Oil Co, INPEX, Japex, Nippon Steel Engineering, wants to export the LNG form of coal bed methane as its diversification product through conducting new collaborative business strategy to PT Pertamina, MedcoEnergi, an Indonesian public company in energy sector providing coal bed methane, and limited Japanese shareholder into electricity and power supply companies, to fulfill the needs of LNG.

## II. LITERATURE REVIEW

Collaboration strategy is a strategy to collaborate with other organizations in order to have future benefits in both parties, or achieve the business objective through the collaboration of business, its strategy, and its partner. Forrester also determines collaboration strategy as: Unified electronic platforms that support synchronous and asynchronous communication through a variety of devices and channels.

They are a set of software components and services that enable individuals to find each other and the information they need, and to be able to communicate and work together to achieve common business goals. Collaboration strategy has six stages of life cycle, which consists of evaluating, forming, incubating, operating, transitioning, and retiring.

### A. Evaluating

First step is defining a clear strategic focus by determines the based problem and analyzes its portofolio, then makes the criteria of ideal collaboration partners and potential partners. To choose the right partners, the company should evaluate its ecosystem and evaluate the potential partners, also eliminate the list of potential partners with the criteria until get the matched with most of the criteria. After that, build the business case and stepping into the next stage, forming stage.

### B. Forming

Forming stage means that the company and the partners are ready to negotiate and set the deal. This stage will be executed about outlining the opportunity, planning which assets both company and partners' will be brought and what investments model that will be implemented.

The company has to make a *shared strategic map* very detail, which consists of these steps: determining the partnership value proposition, having funds and sponsorship guaranteed, completing the agreements and negotiations, consulting with the experts, and announcing the collaboration to both of companies. The function of shared strategic map is revealed the strength, weakness, opportunity, and threat of this collaboration.

According to Steve Steinhilbert, after making a shared strategic map, both company and the partners should implement that. In making agreement, each company should hire a lawyer to help legalize the collaboration and prevent the business risk. The considerations of a collaboration agreement are limitation of liability, indemnification, warranty disclaimers, and others, which have already negotiated. A collaboration agreement should takes in these factors: the agreement itself (all interests, terms, scopes, and governments are included), joint manufacturing (determines which manufactures model will be used), global purchase and supply (determines the product or service selling terms), joint development agreement, and joint marketing agreement (determine the fundamental for roles and commitment).

### C. Incubating

There are five steps of incubating stages: arranging collaboration governance, determine operation model, make a communication plan, elaborate model for partner engagement, and finalize the collaboration marketing plan. These steps are arranged into a framework that consists of three major components: collaboration management, a decision-making and escalation process, and launching the collaboration to public.

To manage the collaboration, both company have to build a special team, who are responsible to check and control the partnership are run as smooth as the plan. The team usually consists of people from marketing department and other departments that have important roles in partnership itself. The team has to have an agreement of which structure will be used in making decisions for run this partnership. This agreement supports the partnership and as base for building trust in team's staffs.

After that, make a plan in launching collaboration and implement it. The key roles behind the good launching are having a clear objective for the launch and preparing it well, because if all are not prepared well, there will be a confusion and bad reputation from both company, customers, financial analysts, supplier, competitor, and their industries.

### D. Operating

There are five steps of operating stages: determines executive committees and boards, makes a plan for joint operation, determines collaboration solvents and inventiveness, launches the scope of engagement and marketing scope, and creates metrics and performance report.

To start those steps, the company should determine focused objectives that consist of short-term and long-term objectives and consistent to fulfill both objectives. Due to have those objectives fulfilled, both company should make a joint product or service which has three level phases: *concept commit*, *execute commit*, and *launch commit*.

In concept commit, both company should have done establishing and evaluating the opportunities which include the discovery process of customer value, market environment, market risks, barriers to entry and the solvents. After that, stepping to execute commit phase which makes plan about sales, engineering, testing, support, training, and field engagement. In launch commit phase, both companies have to finalize and review the marketing plans, legal agreements, and the organizational model, so the partnership can be started to market and implement the business plan.

The last step of operating stages is creating metrics and performance report in order to evaluate its effectiveness. Metrics include a shared board that shows both companies perspective about the operational progress documentation, both quantitative and qualitative, also help both companies understand each other and manage their relationship.

### E. Transitioning and Retiring

After operation phase had done implemented, both companies might be change, such as setting a new goal, changing in management, etc. This changing situation might affect the partnership too. To round off the partnership, both companies can start from change the partnership's business strategy or an acquisition. There are two alternatives to of this stage of partnership: focusing the relationship on more limited area (transitioning) and ripping off the partnership (retiring).

If both companies choose to transitioning alternative, they have to review and evaluate the strategy, value proposition, value curves, and market trends. After that, they have to update and adapt their strategy goals, also confirm the new partnership commitment and determine their partnership investments.

If both companies choose to retiring alternative, they have to lead the management discussion and find out the exit strategy, also plan it. Then, both companies have to determine and evaluate their activities and timelines. After that, makes an announcement to public and maintain their relationship.

## III. METHODOLOGY

Having research of collaborative strategy in PPT Energy Trading Co., Ltd. for LNG form of coal bed methane to Japanese electricity and power supply company as its shareholders, a structured interview was conducted due to collect the primary data from the company. Not only PPT Energy Trading Co., Ltd. was interviewed, but also a company holding 50% shares of this company, PT Pertamina and potential business partner, MedcoEnergi, for several times in order to accessed accurate and reliable data.

In determining collaborative strategy, there are six stages, which consists of evaluating, forming, incubating, operating, transitioning, and retiring stages.

First is evaluating, which determines the problem and choosing potential business partners. After that, stepping to forming stage, starting to negotiate and set the deal with chosen potential business partner.

Third stage is incubating stage that determines collaboration team to be responsible and operated this partnership, conducts a business plan and launches the partnership. Next step is operating, which is setting short-term and long-term goals, implementing business plan, creating metrics and performances. After operating stage, there might be a change in collaboration and there are two potential situations having each stage to take: transitioning and retiring stages.

Transitioning stage is taken, if the collaborate companies evaluate and update the business through setting new goals and focusing relationship in limited area, while retiring stage is taken for the collaborate companies choose to end the collaboration between them.

#### IV. CURRENT CONDITION

Implementing collaborative strategy in existing business, PPT Energy Trading had been passed three stages of collaborative strategy: evaluating, forming and incubating, which are determining problem and choosing potential business partner, negotiating, setting the deal, determining collaboration team, launching the collaboration, and now this company is staged in operating stages and last phase of this step, creating metrics and performance, since this company had been operating for 47 years.

Having 16 shareholders that consisted of Indonesian and Japanese companies, PPT Energy Trading has to maintain the existing of those shareholders through operate according the business plan, sustains a profitable financial, develops charter of LNG vessel and spot trading LNG, becomes a bridge between Indonesia and Japan in energy sector, and improve its performances in four sectors: operation, customer relation management, finance, and human resource. In operation, this company tries to improve through on time payment and delivery.

Meanwhile in customer relation management, this company builds and maintains networking to its stakeholder, both internal and external. In financial sector, PPT Energy Trading Co., Ltd. tries to increase sales and invests in several projects. Last is about human resource, PPT Energy Trading Co., Ltd., implements training and joining oil and gas international seminars, employee incentive through incentive performance bonus, and makes Indonesian people, who permanently live in Japan, as local staffs and interpreters.

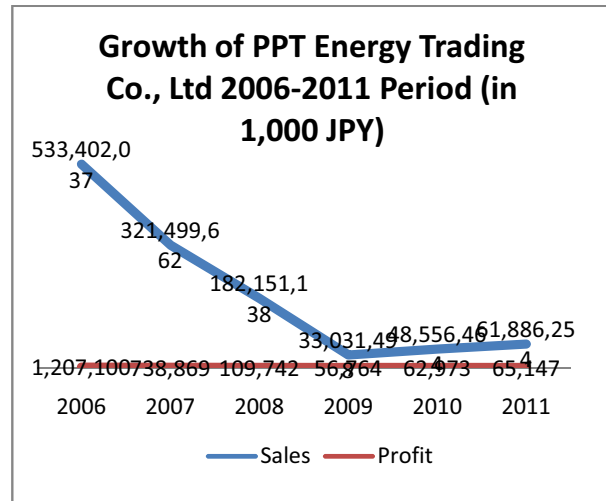


Fig. 1 Growth of PPT Energy Trading Co., Ltd. 2006-2011 Period Line Graph

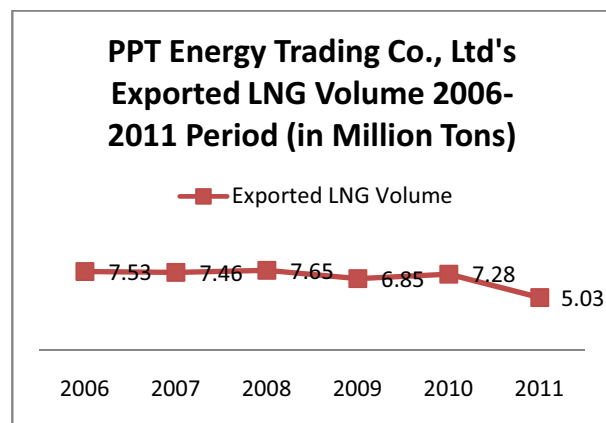


Fig. 2 PPT Energy Trading Co., Ltd's Exported LNG Volume 2006-2011 Period Line Graph

Showing the graph that illustrates about the growth of PPT Energy Trading Co., Ltd.'s sales, profit, and exported LNG volume from 2006 until 2011, which strikingly fluctuative.

The highest number of sales was gained in 2006 as much as 533,402,037 thousand yen, similarly to net profit as much as 1,207,100 thousand yen and exported LNG volume as much as 7.53 million tonnes, yet the lowest number of sales was gained in 2009 as much as 33,031,498 thousand yen. Similarly to sales in that year, PPT Energy Trading Co., Ltd.'s net profit has the lowest number gaining 56,864 thousand yen. Different with sales and net profit, this company's lowest exported LNG volume was in 2011, which sold only 5.03 million tonnes.

In year 2006, PPT Energy Trading Co., Ltd.'s sales was as much as 533,402,037 thousand yen and its net profit as much as 1,207,100 thousand yen, having situation where Japanese economics showed there were some corporate scandals fearing a decline in stock price and it is much affected by fearing of cold waves and heavy snowfalls.

This situation also affected by slowdown of China's economic expansion, which made Japan's exports and consumer spending got decreased.

This year's petroleum situation, oil's price hit a new high (78 US\$ per barrel), as the result as Middle East and world politic problems: Iran's nuclear sensitive issue, unstable politic issue in Iraq, and Nigeria's political unrest, while Indonesian domestic demand increased after high waves and earthquake disaster then tend to decreased the amount of oil exports, which exported 7.53 million tonnes of LNG.

In the next year, PPT Energy Trading Co., Ltd.'s sales decreased as much as 36.7% to 321,499,662 thousand yen and having both net profit and exported LNG volume decreased too, as much as 38.79% and 0.93% into 738,869 thousand yen and 7.46 million tonnes, due to slowing down of Japanese economic and focusing on housing investment, also rising of domestic demand in Indonesia as the after effect of high waves and earthquake disaster. Yet, subprime mortgage breakdown in United States and increasing resource price caused Japanese currency went higher against US Dollar in descending stock prices and sharp increase in oil prices until 99.29 US\$ per barrel as the demand of crude oil in China and other Asian regions did increase too.

In the year of 2008, this company's sales significantly decreased for 43.34%, which only obtained 182,151,138 thousand yen and its net profit decreased for 85.15% into 109,742 thousand yen, which impacted by major change in PT Pertamina's crude oil and petroleum products procurement method, and Japanese economics having a crisis as the affects of global financial meltdown, due to subprime mortgage issue and collapse of Lehman Brothers in the United States.

Regard to oil situation, at the middle of this year, oil prices sharply rose up until 147.27 US\$ per barrel and then jumped off significantly into 30 US\$, as the result of global recession. Furthermore, the number of shareholders was decreasing from 19 to 18 and its exported LNG volume slightly down-warded too which exporting only 7.65 million tonnes. Nevertheless, this year marked as 50th anniversary of the establishment of the diplomatic relations between Japan and Indonesia.

One year after, PPT Energy Trading Co., Ltd.'s sales sharply jumped off as much as 81.87%, which gained 33,031,498 thousand yen and so did net profit, for 48.28% gaining 56,764 thousand yen due to 2008's global recession and followed by collapse of Lehman Brother. However, in the beginning of spring, Japanese economics began to recovery through increasing exports to Asian countries, an imposition of less tax on eco-cars, and providing subsidies to car purchasers.

Meanwhile in oil and gas, oil price had risen up into 50 US\$ per barrel then kept increasing until the price went to 80 US\$ per barrel. Furthermore, oil in Japan did an extra effort to bolster international competitiveness by strengthening its capital base and expanded into non-petroleum business sector due to find different forms of alternative energy, also in Indonesia was in stable political regime under President Susilo Bambang Yudhoyono's second term, showing economic recovery through increasing exports yet the LNG export capacity remained decreasing, which only exported 6.85 million tonnes. In this year also PPT Energy Trading Co., Ltd. did reducing cost and foreign currency deposits, which might affect by exchange market later on.

In addition, this company also took over to handle import business through acquisition of Nusantara Gas Services Company, one of PT Pertamina's subsidiaries locating in Japan that related to Indonesian LNG unloading operations at Japanese ports of entry, yet the number of stockholders decreased into 17.

In 2010, PPT Energy Trading Co., Ltd.'s net profit rose up for 9.86% until 62,973 thousand yen and its sales increased too, as much as 47%, which gained 48,556,464 thousand yen, also so did exported LNG volume, about 7.28 million tonnes, due to stabilize of Japanese economic path. However, in the middle of the year, Greece and other European financial condition went down and affected globally, such as decreasing in Japanese exports and fluctuation of oil prices, which significantly rose up into 80 US\$ per barrel then steadily declined into 64 US\$ per barrel, and finally increased into 90 US\$ per barrel.

Meanwhile in Indonesian economy, it was still stable under political regime of President Susilo Bambang Yudhoyono, showed the increasing of exports and expanding domestic demand, also upward tendency of direct investment, yet in PPT Energy Trading CO., Ltd. itself had a depression indicating of number of shareholder decreased into 16.

In the latest year, 2011, PPT Energy Trading Co., Ltd. had gained 61,886,254 thousand yen for sales increasing as much as 27.45%, 65,147 thousand yen for its net profit increasing as much as 3.33%, but decreased in exported LNG volume into 5.03 million tonnes, having a new contract with Tokyo Electric Power Co., Inc. (TEPCO) due to supply the recovery of massive earthquake and tsunami in Tohoku region that affected power supply and implemented a planned blackout and voluntary power-saving in the metropolitan area, as the result of brokedown of several TEPCO's nuclear reactor. Furthermore, those disasters affected Japanese economy through downward in its activity, yet restored much speedily.

Frankly, in oil and gas products, oil prices had significantly increased into 110 US\$ per barrel then declined into 70 US\$ per barrel due to Middle Eastern and North African political issues, worsening of European financial crisis, and slowdown in Chinese economic.

## V. RESULTS AND DISCUSSIONS

The result of this research is determining a collaborative strategy of PPT Energy Trading Co., Ltd. with its shareholder, Japanese electric and power supply companies, for LNG form of coal bed methane, through four of six steps of collaborative strategy, thus having the collaboration is going to be starts and last two steps, transitioning and retiring, are for aged collaboration. The four steps are evaluating, forming, incubating, and forming.

Initially, in the evaluating stage, PPT Energy Trading Co., Ltd. has to determine the based problem: high demand of Japanese shareholders for energy sources whereas Indonesia has also high demand of it and lack of energy sources to be exported. As coal bed methane has currently being discovered, PT Pertamina decides to export it through PPT Energy Trading Co., Ltd. to Japan, especially Japanese power plant shareholders, but PT Pertamina has to fulfill Indonesian high demand of fuel through converting coal bed methane into fuel

and supply them. According to Indonesian law of domestic, PT Pertamina has to give 25% of production to domestic industry.

After that, as a parent company, PT Pertamina has to determine criteria, using Indonesia state-owned company criteria for partnership, and potential business partner to choose the right partners for PPT Energy Trading Co.: MedcoEnergi. After that, PT Pertamina, PPT Energy Trading, MedcoEnergi, Chubu Electric Power, Kansai Electric Power, Kyushu Electric Power, and Tokyo Electric Power have to discuss about its business case and make a determination to continue the collaboration.

Next stage is forming, having PT Pertamina, PPT Energy Trading Co., Ltd, Chubu Electric Power, Kansai Electric Power, Tokyo Electric Power, Kyushu Electric Power, and MedcoEnergi prepare to negotiate and set the deal, opportunities, assets planning, and determining investment model. Having BOT (Build-Operate-Transfer) system of this partnership, PT Pertamina and MedcoEnergi are not just increasing export of coal bed methane, but also have the technology of coal bed methane processing itself from customers later on, after they build it in Indonesia and own for several years. In addition, each company has to invest, due to sustainability of this project. After that, those companies have to design a shared strategic map by determining strength, weakness, opportunities and threat of this collaboration.

The strengths of this collaboration are giving benefits to both origin countries, Indonesia and Japan, of having the technology, investments, the product itself, and even tight up the relationship between those countries. Second, having big bargaining power to its customers, Japanese electricity and power supply companies, which have invested in this project. Third strength is providing clean energy, which aligned with Japan's regulation of using energy: it has to be zero emission and impact positively to the environment.

However, it has weaknesses, which are lack of experience in coal bed methane, as the result of only exploring from 2008 until now, it might be can be commercialized in 2015.

In opportunities, this collaboration has fixed and narrow customer, Japanese shareholder of PPT Energy Trading Co., Ltd. sector in electricity and power supply and high demand of LNG for Japan.

Nevertheless, it has threats, such as distrust of customers, since Indonesia has a lack experience in coal bed methane and insecure for customer, as the result of unstable of coal bed methane reservations.

Then, these companies have established its collaboration agreement, which consists of the agreement between them; having each needs of expanding and fulfilling its needs of resource and technology, joint manufacturing especially between PT Pertamina and MedcoEnergi and its agreement, global purchase and supply of coal bed methane, and joint marketing agreement consisting the roles and commitment of involved companies.

Third stage is incubating stage, where PPT Energy Trading Co., Ltd has to set the collaboration management, by adding staffs and building a team, from marketing and operation department, to responsible and monitor this collaboration. After that, PPT Energy Trading Co.Ltd, PT Pertamina, MedcoEnergi, Chubu Electric Power, Kansai Electric Power,

Kyushu Electric Power, and Tokyo Electric Power have to conduct collaboration-launching plan and implement it to public.

First step in this stage is determining short-term and long-term goal of the collaboration. Short-term goals are increasing sales and cost efficiency, whereas long-term goals are expanding target market, building and maintaining network with customers and other shareholders.

Last stage, Operating stage, has three main steps: determining short term and long-term goals, establishes the commit level phase, and create metrics and performance. First step in this stage is determining short-term and long-term goal of the collaboration. Short-term goals are increasing sales and cost efficiency, whereas long-term goals are expanding target market, building and maintaining network with customers and other shareholders.

Then, this collaboration product has to determine the level phases: concept commit, execute commit, and launch commit. In concept commit, these companies have to established and evaluated the opportunities of this collaboration, which are having fixed and narrow customer, Japanese shareholder of PPT Energy Trading Co., Ltd. sector in electricity and power supply and high demand of LNG for Japan. After that, these companies have to plan the whole business plan and implement it.

The last step, these companies have to create metrics and performance report in order to evaluate the effectiveness of this collaboration and then improve them through documenting operational progress, both qualitative and quantitative.

## VI. CONCLUSION

As coal bed methane is being discovered and having much reserves, this resource has a potential to be exported after processed into LNG form. PPT Energy Trading Co., Ltd. sees this an opportunity to expand its business through selling LNG transformation from coal bed methane as its diversification product. Admittedly, to take this opportunity, PPT Energy Trading Co., Ltd. has to conduct a collaborative strategy with PT Pertamina, Japanese shareholder in electricity and power supply sector for its customer, and a company providing coal bed methane in Indonesia, which is MedcoEnergi.

- 1) to be challenged by reviewers if the results are not supported by adequate data and critical details.
- 2) Papers that describe ongoing work or announce the latest technical achievement, which are suitable for presentation at a professional conference, may not be appropriate for publication in WASET.

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