SPOTLIGHT

Project Financing for Deepwater FPSO Chartering Project for Offshore Oil Fields in Ghana

Supporting Offshore Energy Resource Development Project Participated in by Japanese Companies

Talking with Katsuya Mogaki, Director, Division 1, Marine and Aerospace Finance/Financial Products Department, Industry Finance Group

The same type of FPSO used in this project

JBIC signed in September 2013 a loan agreement totaling up to 508.2 million U.S. dollars (JBIC portion) with T.E.N. Ghana MV25 B.V. (TGMV25) incorporated in the Netherlands in which MODEC, Inc. (MODEC) and other companies have equity stakes. The loan, provided in project financing, will finance a project in which a long-term chartering service of an FPSO system built by MODEC will be offered by TGMV25 to Tullow Ghana Limited of the Tullow Oil Group, which will engage in development of offshore oil fields in Ghana.

FPSO Contributing to Development of Deepwater Oil Fields

There are rich oil resources lying untouched in the geological formations below the seabed in water depth ranging from 1,500 to 1,600 meters and about 60 kilometers offshore of Ghana in West Africa. Previously, it was difficult to develop oil fields below 1,000 meters underwater for technological as well as economic reasons. Yet, since entering 1990s, rapid progress has been made in technologies to develop significant deepwater oil fields. Combined with soaring crude oil prices and dwindling locations suitable for oil development, this has drawn global attention to deepwater oil fields.

Since an oil drilling platform cannot be set up for developing a deepwater oil field, a floating vessel for producing, processing, storing and offloading, or FPSO, is moored by turrets consisting of multiple chains with legs anchored to the seabed. There are only a few companies in the world that can build and moor large-scale deepwater FPSOs with high reliability, and MODEC is one of the two top companies.

This loan will provide necessary funds for a subsidiary of the Tullow Oil Group in Great Britain that will develop T.E.N. (Tweneboa, Enyenra, Ntomme) Oil Field in offshore Ghana in a project where TGMV25 will offer a 10-year long-term FPSO system chartering service (production capacity: 80 thousand barrels of crude oil per day, and 170 million cubic feet of gas per day; oil storage capacity: 1.7 million barrels) built by MODEC, including leasing, operation and maintenance.

For JBIC, this loan is the first project financing for an FPSO project undertaken in Ghana.

Assessing a Newly-Rising Independent Oil Developing Company

In this project, a request for JBIC support came toward the end of 2011 in preparation for the competitive bidding to be held in the spring of 2012.

"In considering our finance, we needed to assess the long-term repayment capacity of the Tullow Oil Group to which the FPSO chartering service will be offered. This Group is not a so-called "oil major" but is growing fast as a newly-rising independent company. In addition, its business model is centered on exploration in such a way that when the company succeeds in exploration at one location, it sells that interest to another company or other companies and moves on to another exploratory activity. Therefore, it is difficult to assess its credit standing with the traditional yardstick, and in the process of assessment, there was a rigorous and conservative argument.

"Naoki Takahashi, who was in charge of this project, faced front and center the rigorous view taken by our Credit Department and conducted steady analysis step by step to converge their mutually different views. Receiving support from the sponsor and co-financing institutions, he collected data and relevant materials by visiting think tanks in Washington, D.C. and financial institutions in London, and after this, he got in-depth explanations from the Tullow Oil Group by obtaining their understanding. After all these efforts, he finally had the Credit Department in agreement with him, enabling JBIC to decide on financial support for TGMV25. At a later date, the director in the Credit Department who was in charge of the assessment and witnessed Takahashi's effort confided, 'He has studied the project to the furthest extent!' to which I totally agreed," said Director Mogaki.

With the financial support of JBIC, TGMV25 won the formal order after more than one year.

Increasing Superiority of Japanese Companies in Ultra Deepwater Exploration Areas

This loan was provided under the JBIC Facility for African Investment and Trade Enhancement (FAITH) and performed a major role in participating in a project by a Japanese company in West Africa, a promising region for offshore oil fields, as well as increasing the international competitiveness of a Japanese company in offshore resource development.

Katsuya Mogaki, Director

"I am thinking of enabling this loan to lead to the provision of timely and well-focused financial support for Japanese companies engaging in strategic operations on their own in the increasingly diverse and complex international ocean resource development business," expressed Director Mogaki about future efforts.

The floating production, storage, and offloading (FPSO) system is a floating vessel for the first stage processing of crude oil produced at the oil well, which separates associated gas and water, and for the storage and offloading of oil.

Deepwater FPSO Chartering Project for T.E.N.

JBIC signed in September 2013 a loan agreement totaling up to 508.2 million U.S. dollars (JBIC portion) with TGMV25, incorporated in the Netherlands, in which MODEC, Mitsui & Co., Ltd., Marubeni Corporation, and Mitsui O.S.K. Lines Ltd., have equity stakes. The loan was provided in project financing.

The loan will provide necessary financing for a project in which a long-term FPSO system chartering service will be offered by TGMV25 to Tullow Ghana Limited, incorporated in Jersey, which is also a subsidiary of Tullow Oil plc in Great Britain, and will engage in the development of T.E.N. (Tweneboa, Enyenra, Ntomme) Oil Field as their operator. The loan is co-financed with domestic and foreign financial institutions, and the total co-financing amount is 847 million U.S. dollars.

Cover: Indonesia, Jakarta (©ROY GARNER/SEBUN PHOTO / amanaimages)

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JBIC Today

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JBIC JAPAN BANK FOR INTERNATIONAL COOPERATION

日本の力を、世界のために。
Supporting Your Global Challenges

Highlights Today *From Recent Initiatives*

The Japan Bank for International Cooperation (JBIC) is a policy-based financial institution wholly owned by the Japanese government. JBIC's mission is to contribute to the sound development of Japan and the international economy and society. Its operations and activities include export and import loans, investment loans, untied loans, guarantees, bridge loans, and equity participation.

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Promoting overseas projects designed to protect the global environment

Infrastructure
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Knowledge Sharing
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For further information:
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Loan for Acquisition of Interests and Development of Oil Field in Italy

In November 2013, JBIC signed a loan agreement totaling up to 830 million U.S. dollars (JBIC portion) with Mitsui E&P Italia A S.r.l. (MEPIT) in Italy, in which MITSUI & CO., LTD. (Mitsui) and Mitsui Oil Exploration Co., Ltd. (MOECO) each have an indirect equity stake. The loan is co-financed with The Bank of Tokyo-Mitsubishi UFJ, Ltd. and Mizuho Bank, Ltd., bringing the overall amount to 1,230 million U.S. dollars.

The loan is intended to finance MEPIT to complete the partial acquisition of the interests in the Tempa Rossa Oil Field and development of the oil field. The Tempa Rossa Oil Field is the largest onshore oil field in Western Europe, and by collaborating with international major oil companies such as Total and Shell, Mitsui and MOECO are expected to acquire knowhow on oil field development and strengthen the cooperative relationships with them in other opportunities.

Tempa Rossa Oil Field Oil Center, conceptual drawing ©Total E&P Italia

Buyer's Credit for State-Owned Saudi Electricity Company

In December 2013, JBIC signed a buyer's credit (export loan) agreement totaling up to 183 million U.S. dollars (JBIC portion) with the state-owned Saudi Electricity Company (SEC). The loan is co-financed with The Bank of Tokyo-Mitsubishi UFJ, Ltd. and Mizuho Bank, Ltd. which brings the overall amount to 366 million U.S. dollars.

The loan is intended to finance SEC for the purchase of a set of machinery and equipment for power generation, including steam turbines and boilers, from Mitsubishi Heavy Industries, Ltd., as it builds a supercritical pressure thermal power station (4×723 MW) at Jeddah, Makkah Province in western Saudi Arabia. This is the first JBIC loan to SEC and for the power sector in Saudi Arabia.

It is foreseen that needs for highly efficient facilities for power generation will continue to increase in order to meet growing demand for electricity in Saudi Arabia, the world's largest oil producer. This is the first Saudi power generation project that adopted a supercritical pressure power generation system. The JBIC loan, in support of the export of highly efficient machinery and equipment for power generation by a Japanese company, will thus increase business opportunities for other Japanese companies having high technological capabilities in this sector.

Signing the loan agreement with Saudi Electricity Company

MOU on Establishing Vehicle to Promote Private Sector Projects in Myanmar

In December 2013, JBIC signed a Memorandum of Understanding (MOU) with the Ministry of National Planning and Economic Development of the Government of Myanmar on proceeding with discussions toward establishing a Project Promoting Vehicle (PPV) to promote potential projects in Myanmar.

This PPV will have the objective of supporting commercially viable projects from their early stages, such as the urban development project in the Greater Yangon area by focusing on resolving such problems as sharply rising land prices and traffic congestion in Myanmar. The establishment of this PPV is in line with the Project List made public at the Japan-Myanmar Summit Meeting held in May 2013.

Recent efforts by the Government of Myanmar toward democratization, economic reforms and reconciliation with ethnic minorities have led the western countries to a phased relaxation or elimination of economic sanctions. In light of these moves, Japanese companies have high expectations for the country's growth potential. Yet investments in Myanmar pose a number of challenges, including undeveloped legal frameworks in addition to inadequate infrastructure.

The establishment of this PPV will meet the intention of the Government of Myanmar to use private sector resources and vitality to the maximum extent in urban and infrastructure development. Materializing this PPV will enable facilitation of private projects and support for the acquisition of permits, among others, and thus serve to promote investments in Myanmar by Japanese and other private sector companies.

JBIC will advance discussions on establishing this PPV and support for formulation of projects in the country from their early stages, thereby contributing to further deepening and development of the economic relations between Myanmar and Japan.

Loan for Expansion of Production of Car Accessories by Japanese Companies in China

In December 2013, JBIC signed a loan agreement amounting up to 34.6 million Japanese yen (JBIC portion) with MIRAREED CORPORATION CO., LTD (MIRAREED; Headquarters: Tokyo). The loan is co-financed with Mizuho Bank Ltd., which brings the total amount to 500 thousand U.S. dollars.

The loan is intended to finance the manufacturing and sales of car accessories such as car sockets and ash trays by NINGBO MIRAREED PLASTIC CO., LTD. (NINGBO MIRAREED), a wholly owned subsidiary of MIRAREED, in Zhejiang, China.

MIRAREED established NINGBAO MIRAREED in 2007 in order to enter the growing Chinese market for car accessories, and its business has expanded steadily. MIRAREED plans to expand the production at NINGBAO MIRAREED to further increase manufacturing and sales in the Chinese market and intends to use this loan to expand its production facilities.

JBIC will continue to support overseas business deployment of Japan's mid-tier and small and medium-sized enterprises with advanced technology by drawing on its various financial facilities and schemes for structuring projects and performing its risk-assuming function.

Main products

News Flash

2013	December 25	Loan to Tokyo Gas for Gorgon LNG Project in Australia
2014	January 10	Buyer's Credit for Ship Export to MUR Shipping Holdings B.V. in Netherlands
	January 16	Buyer's Credit for OJSC PhosAgro-Cherepovets in Russia
	January 27	Buyer's Credit to India's National Thermal Power Company
	February 4	Loan for Manufacturing and Sales of Automobile Seat Parts by Japanese Company in Thailand
	February 17	Loan for Oil Sands Expansion Project in Canada
	March 11	Buyer's Credit for Ship Export to Petroleum Geo-Services ASA in Norway
	March 12	Loan for Jimblebar Iron Ore Mine Development Project in Australia
	March 13	Loan for Manufacturing and Sales of Automobile Parts in Mexico
	March 14	Buyer's Credit for Export of Ships to Leading Shipping Owner Berge Bulk Limited
	March 31	Project Financing and Political Risk Guarantee for Sarulla Geothermal Power Plant Project in Indonesia
	April 1	Equity Participation in MHI Holding Denmark ApS

Brasil2/E+/gettyimages

Special Feature

Global Business Operations of Japanese Manufacturing Companies: Interpreting the Latest Trends

Results of the JBIC FY2013 Survey: Outlook for Japanese Foreign Direct Investment

Since in 1989, JBIC has conducted an annual survey concerning the overseas business operations of Japanese manufacturers, then publishing the results in the *Survey Report on Overseas Business Operations by Japanese Manufacturing Companies*.

The 25th Annual Survey on Japanese Foreign Direct Investment that was implemented in fiscal 2013 incorporates two new topics concerning "infrastructure needs and issues in business operation countries," "business prospects in China," and "global management issues and future strategies," supplementing regular questions on "medium-term business prospects," "evaluations of overseas business performance," and "promising countries or regions for overseas business operations." The responses from 625 companies give a picture of the current overseas business operations and global strategies of Japanese manufacturing companies.

In this issue, we summarize the main findings published in the survey report and highlight key trends.

Survey Overview

Survey targets	Manufacturing companies that have three or more overseas affiliates (including at least one production base)
No. of companies questionnaires were mailed to	992
Responses returned	625 (response rate: 63.0%)
Period of survey	Sent in July 2013 Responses returned from July to September 2013 Face-to-face interviews and phone interviews conducted from August to October 2013
Main survey topics	·Medium-term business prospects ·Promising countries or regions for overseas business operations ·Infrastructure needs & issues in business operation countries ·Evaluations of overseas business performance ·Business prospects in China ·Global management issues and future strategies

Development of Overseas and Domestic Operations

The effective response rate for this survey was 63.0%, which was the second highest response rate ever, surpassed only by the 63.4% response rate of the fiscal 2004 survey.

The overseas production ratio in fiscal 2012 was 32.9%, up 1.6 percentage points from the 31.3% ratio in fiscal 2011. The overseas sales ratio was 35.4%, up 1.2 percentage points year-on-year. In the previous survey, the overseas production ratio inevitably decreased due to factors such as the floods in Thailand in the summer of 2011. In the current survey, the overseas production ratio nearly recovered to the 33.3% mark of the fiscal 2010 survey of two years ago. The medium-term plans of companies call for the overseas production ratio to rise to 38.6% in fiscal 2016.

For the medium-term prospects for overseas operations, 82.5% of responding companies indicated that they would strengthen or expand their overseas operations, as prospects remained high. For domestic operations, 28.0% of companies indicated that they would strengthen or expand their domestic operations over the medium term, increasing for the first time in three years and reflecting economic recovery in Japan.

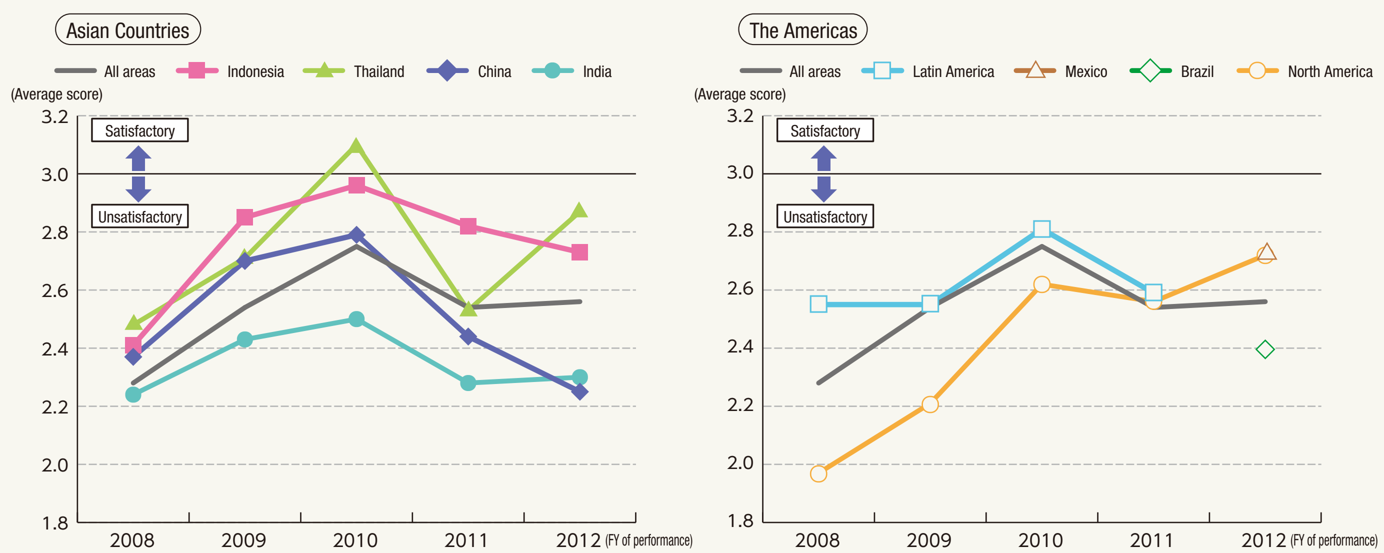
For the mutual relationship between overseas and domestic operations, approximately 90% of companies which answered that they would strengthen or expand their overseas operations also indicated that they would maintain or strengthen/expand their domestic operations. In the current survey, companies were asked about concrete benefits of overseas operations to their domestic operations, and 85% of responding companies reported positive synergies between overseas and domestic businesses. The main reasons given were: *Information, etc. obtained from overseas business will contribute to domestic business development* (38.2%), *Increase in no. of employees with overseas business experience will improve domestic organizational strength* (36.0%), and *Streamlining of domestic business* (33.5%).

In the past, there was an image regarding expanding overseas businesses like companies transferring technology and expertise developed in Japan to their overseas operations, but Japanese manufacturing companies are now starting to realize a positive cycle of deriving benefits to their domestic operations from expanding overseas operations.

Thailand Ranks Highest for Satisfaction with Profits

Companies were asked to rate their satisfaction with profits in fiscal 2012, by the countries and regions where they had business operations. The satisfaction was rated on a five-point scale: *Satisfactory* (5 points), *Somewhat satisfactory* (4 points), *Can't say either way* (3 points), *Somewhat unsatisfactory* (2 points), and *Unsatisfactory* (1 point). The average satisfaction for all industries was 2.56 points, which was basically level with the score of 2.54 points from the previous survey. In the analysis by country and region, the satisfaction with profits in Thailand was 2.87 points, followed by Indonesia at 2.73 points, both higher than the all-industry average and indicating that Thailand had overcome the impact of the 2011 floods. The satisfaction was lowest for China at 2.25 points, reflecting factors such as the impact of Chinese boycotts of Japanese products since summer 2012. Outside of Asia, North America (2.72 points), Mexico (2.72 points), and Russia (2.60 points) scored higher than the all-industry average, as shown in Figure 1.

Figure 1: Satisfaction with Profits (By region)



*Individual aggregation of Mexico and Brazil has been separated from Latin America since FY2012 results.

Ranking of Promising Countries/Regions: Indonesia Tops Ranking for First Time

Responding companies were asked to name five countries or regions that they considered as having promising prospects for business operations over the medium term (next three years or so). Figure 2 shows the tabulated results.

China, which had continued to hold first place since the question was first included in the fiscal 1992 survey, fell to 4th place for the first time. Meanwhile, India registered significantly fewer votes in the current survey despite ranking second. Indonesia rose to first while Thailand ranked third. Indonesia registered only a slight increase in votes, as the top four ranking countries each had around a 40% share of votes. As for reasons, more than 80% of companies that selected Indonesia as a promising country cited *Future growth potential of local market* with its 250 million population.

The number of companies that selected Thailand as a promising country increased to 188 companies from 165 companies in the previous survey, of which approximately 60% of companies cited *Future growth potential of local market* as a reason. Mexico held on to its 7th place ranking but registered an increase in votes from 72 to 84 companies, which comes close to Brazil, which held the 6th-place ranking. Myanmar registered an increase in votes from 51 to 64 companies, moving up from 10th place to 8th place. Myanmar's percentage of companies with concrete business plans rose to approximately 20% and the number of companies expecting Myanmar as concrete business locations has steadily increased. Among countries/regions ranked lower than 10th, the Philippines rose from 15th to 11th place as the nation continued to record strong economic growth, while Laos ranked 20th for the first time which shows that ASEAN countries increased their presence. On the other hand, India ranked first for promising countries over the long term (next 10 years or so) followed by China at second, indicating that Japanese manufacturers continued to look to India and China as their main business countries for overseas operations.

Figure 2: Promising Countries/Regions for Overseas Business over the Medium-term

Ranking 2013	←	Ranking 2012	Country/Region (Total)	No. of Companies 2013 (488)	No. of Companies 2012 (514)	Percentage Share (%) 2013	Percentage Share (%) 2012
1	↑	3	Indonesia	219	215	44.9	41.8
2	–	2	India	213	290	43.6	56.4
3	↑	4	Thailand	188	165	38.5	32.1
4	↓	1	China	183	319	37.5	62.1
5	–	5	Vietnam	148	163	30.3	31.7
6	–	6	Brazil	114	132	23.4	25.7
7	–	7	Mexico	84	72	17.2	14.0
8	↑	10	Myanmar	64	51	13.1	9.9
9	↓	8	Russia	60	64	12.3	12.5
10	↓	9	USA	54	53	11.1	10.3
11	↑	15	Philippines	39	21	8.0	4.1
12	↓	11	Malaysia	37	36	7.6	7.0
13	↓	12	Korea	28	23	5.7	4.5
14	–	14	Taiwan	23	22	4.7	4.3
14	↓	12	Turkey	23	23	4.7	4.5
16	–	16	Singapore	19	16	3.9	3.1
17	–	17	Cambodia	12	13	2.5	2.5
18	↑	20	Germany	10	6	2.0	1.2
18	↑	23	South Africa	10	3	2.0	0.6
20	↑	23	Laos	9	3	1.8	0.6

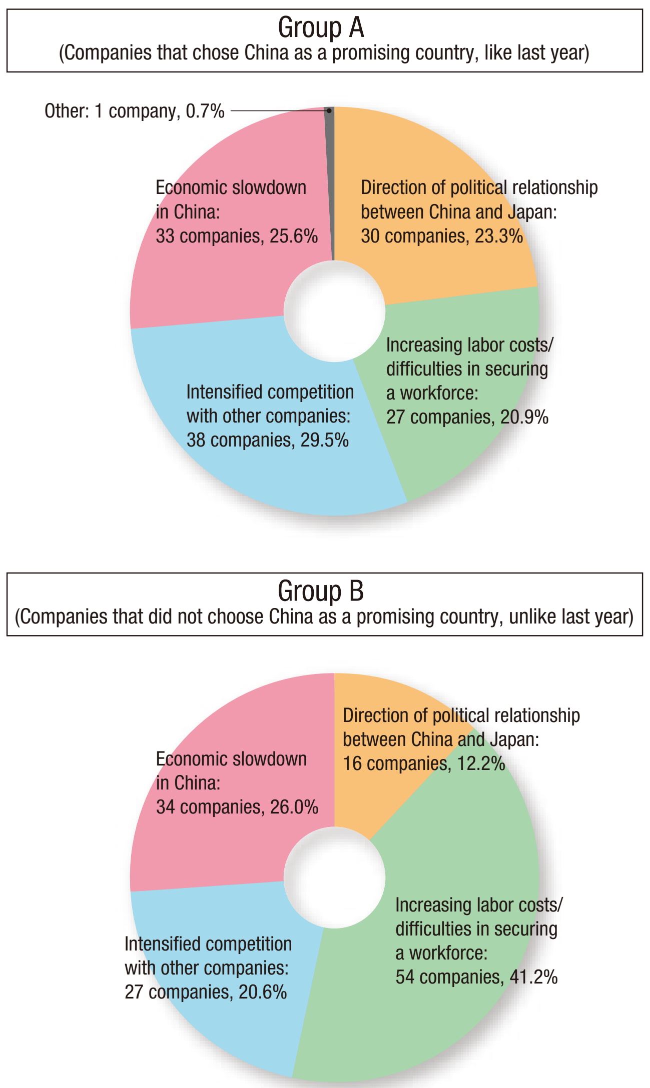
Divided View of China as a Promising Country

China ranked fourth as a promising country over the medium term. In the previous survey, 319 companies selected China as a promising country, with 280 of those companies also responding to the current survey. Of the 280 companies, 139 companies again selected China as a promising country, while the remaining 141 companies did not.

Companies that again selected China as promising were designated as Group A and those that did not were designated as Group B, in order to compare differences in responses to the following "medium-term concerns for business in China": *Direction of political relationship between China and Japan, Increasing labor costs/difficulties in securing a workforce, Intensified competition with other companies, Economic slowdown in China*, and *Other*. The percentage of companies that chose *Increasing labor costs/difficulties in securing a workforce* was 41.2% in Group B compared to 20.9% in Group A, which was a significant difference. The percentage of companies that chose *Direction of political relationship between China and Japan* was 23.3% in Group A compared to 12.2% in Group B, indicating that it was not the greatest concern of companies in both Group A and B.

For the business operation prospects for the medium-term in China (rated *Scale back/withdraw, Maintain present level* or *Strengthen/expand*), 66.2% of companies in Group A selected *Strengthen/expand*, while 43.8% of companies in Group B selected *Strengthen/expand*, which was a significant difference. However, more than half of companies in Group B at 52.7% selected *Maintain present level* while just 3.5% of companies selected *Scale back/withdraw*. For the reasons for choosing China as a promising country, many companies chose the choice relating to "potentiality of the local market." The decrease in the number of votes for China as a promising country was the result of divided views of China as a promising market or a source of inexpensive labor, as shown in Figure 3.

Figure 3: Medium-term Concerns for Business in China



Infrastructure Needs in Business Operation Countries

As a topic in the current survey, companies were asked to evaluate the electricity and industrial water infrastructure in countries and regions in which they have business operations, choosing from the following responses: (1) *Do not consider that there are any particular issues*, (2) *There are issues but there is no great impact on business operations*, and (3) *There are issues and they affect business*. In addition, companies were asked to identify transportation/communications infrastructure that requires the quickest improvements.

For the responses for electricity infrastructure, 68.0% of responding companies chose (1), 28.3% chose (2), and 3.6% chose (3), indicating that approximately 30% of responding companies perceive some kind of issues with electricity infrastructure. For India, 39.9% of companies chose (2) and 17.8% chose (3), indicating that 57.7% of responding companies view India as having electricity infrastructure issues, higher than any other country. For the responses for industrial water infrastructure, 90.4% of responding companies chose (1), 9.2% chose (2), and 0.4% chose (3), indicating that Japanese manufacturers generally do not perceive any issues with industrial water infrastructure.

Companies were also asked to identify transportation/communications infrastructure that requires the quickest improvements, choosing from roads, rail, ports and harbors, airports, and communications networks. Overall, 58.5% of companies identified roads as requiring the quickest improvement. By country, Indonesia (79.6%) and India (75.1%) registered the highest percentage of companies that identified roads as requiring the quickest improvement, and

From the JBIC Representative Office in Beijing — Local Response to the Survey Results

The news that China had fallen to 4th in the ranking of promising countries in the current survey and that satisfaction with profits in China had also declined were met with great interest, although Chinese reactions were divided. The general view in coastal provinces is to regard these results as natural because China's competitiveness is declining as a manufacturing center, and its future is expected to center on market-oriented service industries. Meanwhile, the general view in inland provinces is to underline the continued competitiveness of labor costs in their regions and to ask Japanese companies to consider the country's well-developed infrastructure.

China, with its population of 1.3 billion, has a great degree of regional diversity in terms of development. Export processing-based companies are looking at other countries besides China, due to factors such as the appreciation of the Chinese yuan. However, Japanese companies that are doing business targeting the Chinese market cite local production for local consumption (making products close to where they are consumed) as their basic strategy. In recent visits to areas that are slightly away from major coastal cities, such as Lianyungang and Yancheng in Jiangsu province, Hefei in Anhui province, and Jiujiang in Jiangxi province, we have had upwards of 160 Japanese businesspeople tour these areas as prospective places for doing business.

Many Japanese companies already have local manufacturing subsidiaries in China, and competition between the top four promising countries is normal as a result of the rapid development of the Chinese economy. Moving forward, Japanese companies will need to have a business plan based on an assumption of moderate economic growth, and they will turn their attention to initiatives that are designed to capture multifaceted growth in the massive Chinese market, as the Chinese government implements strategies to foster regional urbanization.

Yo Kikuchi
Chief Representative, Beijing

this result clearly pointed to logistics issues in these countries. After roads, communications networks (24.4%) was followed as second most often selected choice as requiring the quickest improvement.

In order to resolve issues of Japanese manufacturing companies in their overseas business operations such as shown here, JBIC is also supporting infrastructure development in countries where Japanese companies have business operations.

Case Study: Support for Gas-fired Combined Cycle Power Plant Project in Thailand

In December 2013, JBIC signed a loan agreement amounting up to 187 million U.S. dollars (JBIC portion) with Khanom Electricity Generating Co., Ltd. (KEGCO), a Thai company in which Mitsubishi Corporation and Tokyo Electric Power Company, Inc. (TEPCO) have equity stakes indirectly. The loan is co-financed with private financial institutions. The overall co-financed amount is equivalent to 622 million U.S. dollars.

KEGCO will build and operate a 970 MW gas-fired combined cycle power plant in Nakhon Si Thammarat Province in southern Thailand, under a 25-year agreement to supply power to the Electricity Generating Authority of Thailand. Increased demand for electricity in southern

Thailand has created a major dependency on electricity generated in central Thailand or imported from Malaysia. By supporting the construction and operation of the gas-fired combined cycle power plant, JBIC will contribute to the stable supply of electricity in a country that is an important base of overseas business operations for Japanese companies.

Global Management Issues and Future Strategies

As another topic in the current survey, companies were asked about "Global Management Issues and Future Strategies," specifically the following: (1) initiatives in emerging markets, (2) product competitiveness in emerging markets, (3) basis for overseas transfer of headquarters functions, and (4) current status of introduction of global IT systems. The following summarizes the survey results for initiatives in emerging countries.

For initiatives in emerging countries, companies were asked about their major customers in emerging and developed markets, and the results are shown in Figure 4.

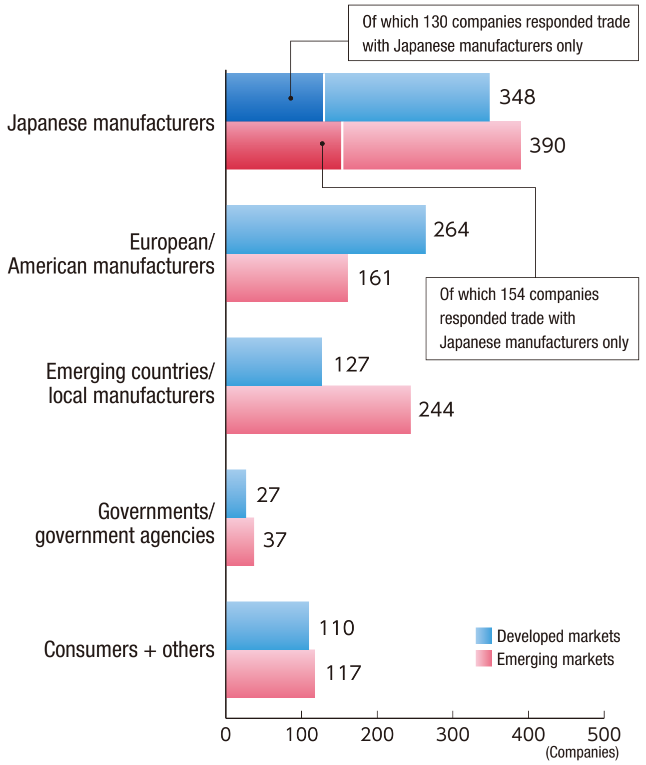
In both developed and emerging markets, responding companies mainly conducted trade with Japanese manufacturers while also doing business with local manufacturers. However, one-fourth of all responding companies also indicated that they conducted trade with Japanese manufacturers only.

Among companies that were considering expanding sales in emerging markets over the medium term, 60.5% of responding companies indicated that they will expand their sales channel to Japanese manufacturers other than existing Japanese customers, while 44.4% to European/North American manufacturers and 43.1% to local manufacturers. This indicates that companies were also considering doing business with non-Japanese manufacturers in addition to Japanese manufacturers.

Of the 570 responding companies, 15.1% (86 companies) were conducting business-to-consumer, or B-to-C, business, while the main form of business of responding companies was business-to-business, or B-to-B. Of the companies conducting B-to-C business, the main business operating countries were

Figure 4: Major Customers in Overseas Markets

(No. of responding companies: 570)



China (69 companies), ASEAN (66 companies), North America (59 companies), and Europe (50 companies), with many companies indicating that they were targeting the high-income to middle-income band in emerging markets. When asked about their current business results, more than half of B-to-C companies indicated that their current business results in emerging markets were better than or roughly the same as originally planned, registering 64% in the ASEAN market and 52% in the Russia/CIS market. However, in some regions the current business results of responding companies were worse than originally planned, indicating that business performance differs by region.

Further Supporting the Business of Japanese Companies

JBIC is providing diverse support for Japanese companies through financing and other measures, in response to issues faced by Japanese companies in their overseas business operations as identified in the current survey report.

For example, JBIC is proposing infrastructure development through policy dialogue with governments of other countries, and strengthening its support to enable Japanese companies to expand their operations. These initiatives include collaborating with regional banks to establish Japan desks for providing information to Japanese companies that are considering expanding into emerging markets, and providing two-step loans through regional banks in order to support the development of local companies that supply Japanese companies with components and materials.

Support to Accelerate Electricity Infrastructure Development through Private Capital

In the current study, Indonesia ranked first as a promising country for overseas business over the medium term, for the first time in the history of the study. At the same time, the survey highlighted inadequate electricity infrastructure as a major issue in ASEAN countries such as Indonesia that continue to record economic growth.

Electricity demand in Indonesia has increased as a result of strong economic growth in the country, and many Japanese companies doing business in Indonesia see the local electricity supply as being an issue. Keidanren (Japan Business Federation) and the Jakarta Japan Club are proposing ways of improving the investment environment to the Indonesian government. The Indonesian government is tackling electricity infrastructure development as a top priority issue, but due to the massive funds that are required, there is a growing need for independent power producer (IPP) projects realized through private capital.

JBIC is broadly supporting IPP projects that either involve Japanese companies or utilize high-efficiency power generation systems from Japan. However, a recent issue for these projects is the Indonesian government's reduced support for electrical utility rates paid to IPP operators by the state-owned Perusahaan Listrik Negara Persoro (PLN) electricity company. Government support is critical to the long-term electricity business, and JBIC is focusing its efforts on establishing mechanisms that will reduce business risks, for instance, by pursuing a framework of financial policy dialogue with the Indonesian government. JBIC is similarly supporting transportation infrastructure development projects.

Yohei Higashida
Deputy Director, Division 1, Power and Water Finance Department, Infrastructure Finance Group

Business Development of Japanese Manufacturers in Foreign Countries

There are many examples of major Japanese manufacturers that have thoroughly investigated developing countries and successfully developed local demand. At the same time, mid-tier enterprises and small and medium-sized enterprises (SMEs) that supply major manufacturers are often asked to establish overseas operations in order to supply the overseas subsidiaries of their existing Japanese customers, to realize low cost and short lead times. This is one pattern by which mid-tier enterprises and SMEs expand into overseas markets.

However, once these enterprises have expanded abroad, there is no guarantee of always securing sufficient orders from existing customers. In order to reduce order risks that stem from dependency on a single customer, these enterprises need to diversify their customer base. Many companies are working to develop sales channels that tap into new Japanese customers, and beyond that European, North American, and local manufacturers. Some of these companies are securing new orders from completely different sectors than they service in Japan, and are successfully generating greater business results from their overseas business operations than their domestic operations.

JBIC supports Japanese manufacturing companies, particularly mid-tier enterprises and SMEs, that are either newly establishing overseas manufacturing operations or expanding their existing overseas operations, so that they can mitigate diverse risks in their overseas business operations. For example, JBIC provides support in the form of local currency-denominated loans and loans covering long-term working capital as well as investments, to support Japanese companies in their efforts to develop new customers. In addition, JBIC has signed business cooperation agreements with seven local financial institutions in five countries as well as with Japanese regional banks, and is implementing initiatives to create greater business opportunities among local client companies of these institutions and Japanese companies.

Toru Aguin
Deputy Director, Finance Division for SMEs of West Japan, West Japan Office

Global Challenges

BENDA KOGYO CO., LTD.
(Kure City, Hiroshima Prefecture, Japan)

Automotive Metal Ring Technologies and Products Lead to an Impressive Global Market Share

Overseas Business Deployment Based on Foresight and a "Quality Is Vital" Policy

Relationship with JBIC

In December 2013, JBIC signed a loan agreement with BENDA (THAILAND) CO., LTD., a subsidiary of BENDA KOGYO CO., LTD., for a loan amounting up to 50 million Thai baht (JBIC portion). The loan is co-financed with a private financial institution.

BENDA KOGYO CO., LTD. (BENDA) provides manufacturers in many countries with ring gears for automotive engines and metal ring-related components for trucks, construction equipment, farm equipment, ships and other uses. In 2009 the company was presented with the Minister of Economy, Trade and Industry's Award at the Monodzukuri Nippon Grand Awards. It launched overseas operations in 1986 through the establishment of a local affiliate in South Korea, and later opened five more bases of operations, in China, India and Thailand. Then in 2013, aiming to expand its business further, it established its seventh overseas base of operations, a new affiliate in Thailand, a country that is now a hub for the automotive industry in Southeast Asia.

From Development of the Groundbreaking "BENDA Method" to Growth in the Automotive Parts Market

BENDA was founded in 1964, the year of the Tokyo Olympics. It took advantage of its cold working techniques for steel materials (normal temperature bending processing) to process tunnel materials and railway rails, thereby contributing to the construction of infrastructure during Japan's high-growth period. In 1975, the company combined its cold working, cutting, welding and heat treatment technologies to develop the groundbreaking "BENDA Method" for manufacturing metal rings from wire rods. This created an opportunity for it to enter the automotive parts business sector.

Kazunari Yashiro, President of BENDA, recalls: "Our business operations were moving forward smoothly, but after the company obtained global patents for the BENDA Method, our founder, my grandfather Kazuyoshi Yashiro, transferred all of the company's large machine tools to technical partners, saying that chasing after two goals would probably result in not achieving either of them. So then we concentrated on automotive parts. He used to say that success only comes through grit and determination."

Kazunari Yashiro, President

Over time, Japan's freeway network expanded and the country's consumers went on a car buying spree, but when the 1973 oil shock hit, the need to save energy and natural resources took first place. The BENDA Method permitted high-quality, high-yield, low-cost production with far less waste of materials, compared with press punching and similar methods of the day, and this made the method superior for the manufacture of automotive ring gears (important parts using the starter's rotations to engage the crankshaft and start the engine). As demand for methods of saving energy and natural resources rose, BENDA also saw rising demand from manufacturers of automobiles and automotive parts. Today, the company enjoys an impressive share of the global market.

Staying Ahead of Business Trends: Overseas Operations since the 1980s

BENDA's establishment of an overseas network also exhibited its foresight. The Plaza Accord of 1985, agreed upon by the finance ministers and central bank governors of five industrialized nations, led to a dramatic appreciation of the yen. When the company established BENDA SUNKWANG INDUSTRIAL CO., LTD. in Inchon, South Korea in 1986, those were still early days for a Japanese company to set up an overseas base. Even for a major corporation it was difficult to get its foreign business operations on track. "For the first five years we didn't make a profit in South Korea," says Yashiro. "But my grandfather Kazuyoshi, the company chairman at the time, was adamant — 'We're not going to leave and return to Japan a failure,' he says. When the yen soared in value, reaching as high as 79 yen to the dollar, our overseas business showed its cost-competitiveness and the business became profitable."

Later, the company established other overseas production bases: in Chonburi, Thailand in 1990, and in India (Delhi) and China (Qingdoa) in 1995. In India, BENDA's technologies and reliability won the praise of Japanese automotive manufacturers located there, and prompted local component makers to choose it as a technical partner.

"But in 1997 the Asian currency crisis caused a worldwide slump in demand for motor vehicles, and on top of this we incurred exchange losses. The result was major damage to our company. But we learned from this experience, and since then have pursued multivendor capabilities and production opportunities in global locations most suitable to our operations. In 2007 we established YANCHENG BENDA GEAR CO., LTD., our second base of operations in China, and in the city of Higashi Hiroshima, Japan, we constructed our Kurose Plant, a state-of-the-art factory that serves as a center for global production and development," says Yashiro.

By 2007 he was pushing forward with production under the banner of reliability, following the management policy, "Quality is vital," as defined by his father, Yasuhiro, who was company president at the time. At the same time he was working proactively to upgrade the company's production system, which had by then developed into a global network. In 2008, while serving as Executive Director, he was appointed company president. Then in 2009 the company won a number of awards: the IT Management Award for Small and Medium Enterprises (First Prize), the IT Coordinators Association Chairman's Award, and the Minister of Economy, Trade and Industry's Award at the Monodzukuri Nippon Grand Awards.

Production at a New Overseas Affiliated Company in Thailand: Global Strategies Take Shape

The financial crisis of 2008 created new difficulties in the business environment, but the company minimized the impact by establishing a production system utilizing global locations offering maximum effectiveness for its operations. It also developed and began producing small-diameter and large-diameter rings as products for new business sectors, and in 2010 expanded its Kurose Plant in Hiroshima Prefecture, in order to extend its business to include construction machinery and ships.

Yashiro explains, "To promote our global strategies for our main products we conducted reviews, hoping to enhance production capacity in Southeast Asia, where further growth potential is promising. In 2013 we established BENDA (THAILAND) CO., LTD. (BTC), in which a portion of the investment capital was financed by JBIC. We had assumed that JBIC only involved itself in large projects, but it agreed to provide a smaller scale loan, and in the local currency, Thai baht, which helped us control currency exchange risk. We are grateful for this, and for the fact that JBIC completed its assessment so rapidly."

BENDA celebrated the launch of its new company in Thailand in February 2014, its 50th anniversary year. With its wealth of experience in overseas operations, the company has an extensive training program and the status of a major player in Thailand. For example, Thai trainees who studied for several years at the company's headquarters in Japan are now providing technical guidance at the new company.

Company Outline

Name	BENDA KOGYO CO., LTD.
Established	1964
Capital	58.5 million yen
President	Kazunari Yashiro
Business lines	Design, manufacture and sale of metal ring-related products (primarily ring gears)
Headquarters	1-16-20 Konigata, Kawajiri-cho, Kure City, Hiroshima Prefecture 737-2604, Japan
Factories in Japan	Headquarters Plant in Kure; Kurose Plant in Higashi Hiroshima City
Location of overseas bases	Inchon and Kyoungkee-do City, South Korea; Qingdao and Yancheng, China; Amata Nakorn Industrial Estate and Amata City Industrial Estate, Thailand; Delhi, India

BENDA (THAILAND) CO., LTD.