

Comparative Study of Japanese and Korean Construction Industries' Overseas Market Strategy

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Abstract

In recent years, there has been progressive opening of the construction market along with globalization. The need for market analysis and strategic initiatives associated with Japan's and Korea's intensifying competitiveness in the overseas construction market has received much attention not only at the level of construction companies but also at the national policy level. As part of the development process of Japan's and Korea's construction industry, expansion into overseas construction markets has been promoted on the basis of the industry's own experience. In order to clarify Japan's and Korea's strategies for expansion into overseas construction markets, this paper analyze consecutively the behaviour of construction companies and their strategies and the support policies of both countries. To do so, this paper examines the change in the expansion into the overseas construction market and the meaning of such expansion in the light of the current state of the construction industry of both countries. The analysis reveals that in Korea, the orders focus on plant construction, the improvement of the external environment of construction companies, and the globalization of the domestic construction industry, a strategy that enables the diversification of work classification and engineering fields. However, in Japan, the maintenance of the external and internal environment of construction companies to ensure stable orders in countries where Japanese companies are already established and the international expansion of Japan-style building construction systems are being carried out on the basis of their superior technology.

Keywords: Overseas market, Support system, Strategy, Globalization, Construction industry

1. Introduction

1.1 Background of research

In recent years, the construction market in Japan has been shrinking, and the competition for orders has intensified. Expansion into overseas construction markets has been considered a suitable countermeasure for meeting the current challenges; on the other hand, the debate over the cause of the failure of past overseas construction projects has received attention socially. Hence, Japan's Minister of Land, Infrastructure and Transport (MLIT) has promoted overseas expansion through an organization called the Construction Industry Strategy Committee. However, focusing only on the improvement of the current construction-related legislation as the way to support expansion into the overseas construction market has its limitations. In order to advance into the overseas construction market, Japan should also identify the main causes of past failures as well as success factors, and comprehensively analyze the strengths and weaknesses in the strategies of competing countries. Against this background, the main goal of the present paper is to develop practical and concrete strategies to ensure Japan's success in the overseas construction market. To achieve this objective, this paper performs comparative studies on construction-related legislation, overseas support systems, association-related activities, and the countermeasures of construction companies in Japan and Korea. The latter country is chosen in the analysis since it is Japan's biggest competitor and has expanded aggressively into the construction markets in the Middle East and Southeast Asian countries.

1.2 Research method and purpose

On the basis of the research background, the research method and purpose are presented as follows: (1) Benchmarking studies on the strategies for the overseas construction market by using data and literature published in Korea. (2) Clarifying the support structures and the institutional differences for the overseas construction market by considering the information and legal systems of the related organizations and the differences between Japan and South Korea in terms of their history and motivation for entering the overseas construction market. (3) Clarifying the strategies and behaviour of construction companies that pursue expansion into the overseas construction market, on the basis of previous studies and surveys.

1.3 Research method and purpose

In Korea, studies on trends and prospects in the overseas construction market (Choi et al., 2003) and medium and long-term strategy (MLTM, 2007) were carried out first. In Japan, several studies have been carried out by The Japan Research Institute, Ltd. (JRI, 2004) and the MLIT (2006). However, it is difficult to understand the motivation and reasoning behind the strategies for entering the overseas construction market because these studies deal with the countries' urgent problems in the face of the current status of competing countries. This paper considers the meaning of and the change in the

expansion into the overseas construction market in the light of the current state of the construction industry in both countries. Furthermore, the behaviour of construction companies, their strategies, and the support policy of both countries are analysed consecutively.

2. Overview of the construction industry in both countries

2.1 Construction investment and economy

Both Japan's and Korea's construction industry played a role in rebuilding their countries after the Second World War, and have grown into a main industry whose impact is felt on other industries. Table 1 shows the comparison of the key indicators of the construction industry in both countries. The ratios of GDP and construction investment of both countries are about 1:5 and 1:3, respectively. While most of the key indicators of Japan are a little larger than those of Korea, its ratio of construction investment to GDP is smaller than that of Korea. This may be due to the reduced construction investment in Japan after the collapse of Japan's bubble economy, the small-business sector intensifying competition for orders in the domestic construction market, and the severe burden of high wages.

Table 1 Key indicators of construction industry in Japan and Korea (2010)

	Korea(MLTM, 2011)	Japan(JFCC, 2011)
GDP (Billion dollars)	1,029.8	5,400.9
Over last year (%)	10.1	0.4
Total population (Thousands)	50,515	127,510
GDP/Total population (Dollars)	20,384	42,354
Construction investment (Billion dollars)	137.9	466.9
Over last year (%)	-1.4	-3.0
Construction investment / GDP (%)	13.4	8.6
Land area (km ²)	100,212	377,947
Construction investment density (Thousand dollars/km ²)	1,375.6	1,235.1
Number of companies (Company)	101,525	498,806
Construction investment/Number of companies (Thousand dollars)	1,357.8	935.9
Number of employees (Persons)	1,753,000	4,980,000
(Construction industry/All industries)(%)	7.4	8.0
Construction investment / Number of employees (Thousand dollars)	78.6	93.8
Number of employees / Number of companies (Person/Company)	17.27	9.98

Note: average rate of 2010 (1 Dollar = 1138.9 Won = 88.09Yen)

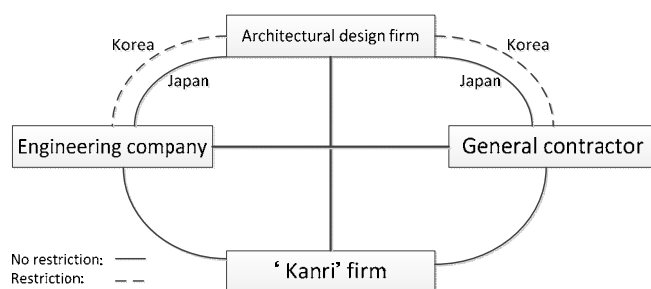
2.2 Construction-related legislation and construction organization systems

(1) System of construction-related legislations:

There are no differences in the kind and basic content of the construction-related legislations established by Japan in the late 1940s and Korea in the late 1960s. The following characteristics are included in each country's own construction-related legislations, which are established and changed based on their commercial practice, construction environment, and social system; i) Provision-centred construction-related legislations in Korea: Unlike the traditional building construction system, the construction-related legislations in Korea have been subdivided into detailed sections so as to promote the stability of the construction industry in the post-war reconstruction work. This fact can be seen from the following examples: the depth of detail about construction techniques in each item, the Overseas Construction Promotion Act (1975) for securing the quality and safety of construction works, and the Construction Technology Management Act for the promotion of the overseas construction industry. The construction-related legislations have become the standard of judgment in both private and public sector construction works. Those announced by the Korean government, but not the clauses based on social agreement, are the ones used in creating contracts and orders. Furthermore, in recent years, basic laws on construction have been enacted to adjust the role and regulations of the construction-related legislation; ii) Purpose-oriented construction-related legislations in Japan: The modernized building construction systems of Japan, which are based on the traditional production system, have been used as a minimum standard in the guidelines and provisions of the private sector. Although Japan's legislation is considered to be relatively flexible compared to that of Korea, the construction-related legislation and the building construction system, were recently made more rigid because of several construction-related accidents.

(2) Difference of construction organization system

Although the classification of the construction industry in Japan is the same as that in Korea, there are differences in terms of construction organizational relationship, especially in the restrictions placed on the construction companies. For instance, in Japan, there is no restriction on construction companies, including architectural design firms, but in Korea, architectural design firms are restricted with regard to the work they do in fields outside of their particular specialty by the Certified Architect Act.



※ 「'Kanri' firm」 in Japan, Korea and China, plays a similar role for supervision or inspection in the USA, and it acts the clerk of works in the UK. 'Kanri' is referred in Chinese characters: 「監理」 in Japan, Korea and China, but strictly speaking those detailed work scopes are different from those in the USA and UK.

Figure 1: Restrictions on construction companies in Japan and Korea

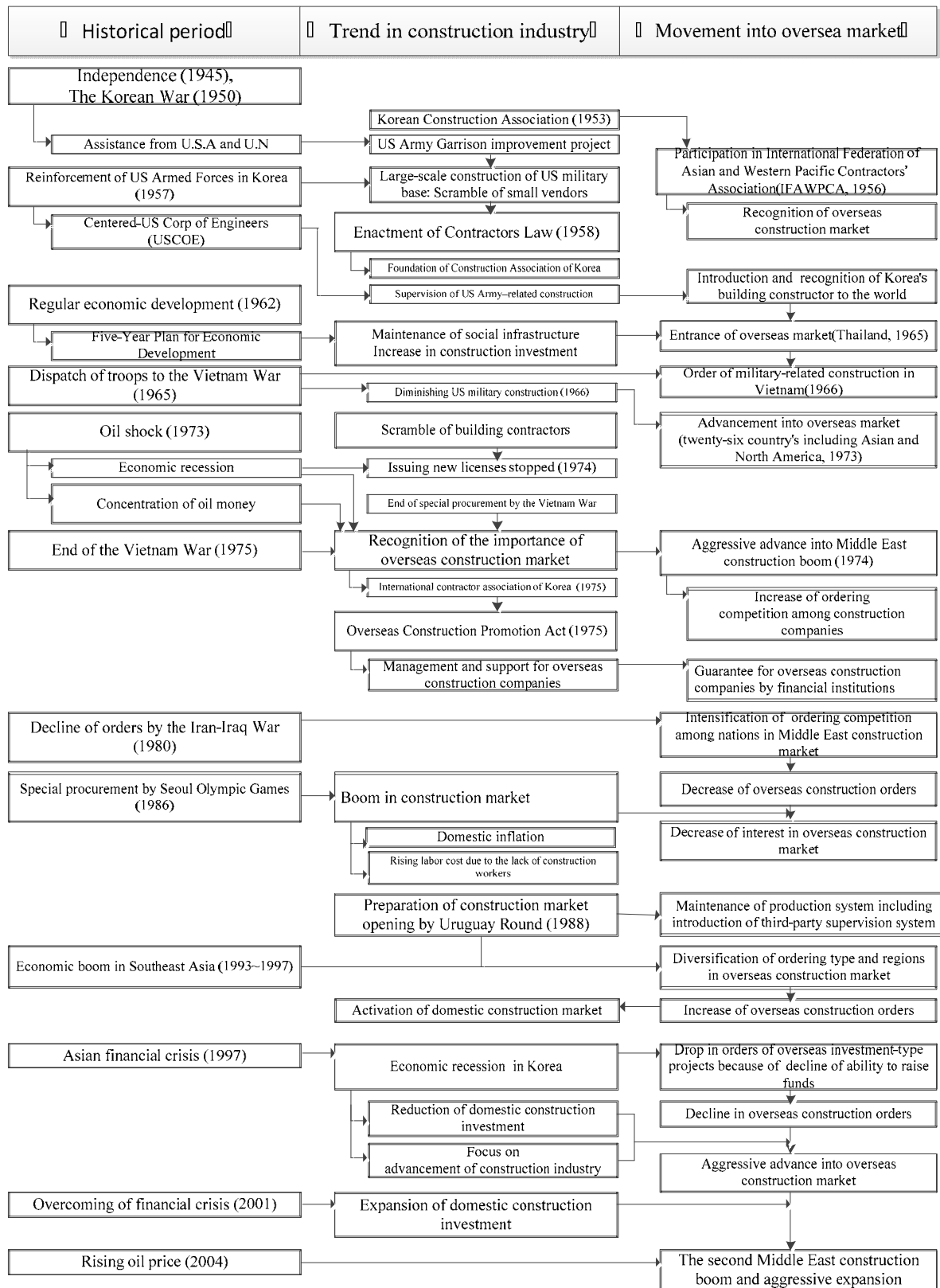


Figure 2: History of overseas construction market in Korea classified by historical period, trend of construction industry, and movement into overseas construction market (KIA, 2011 & Choi, 2006)

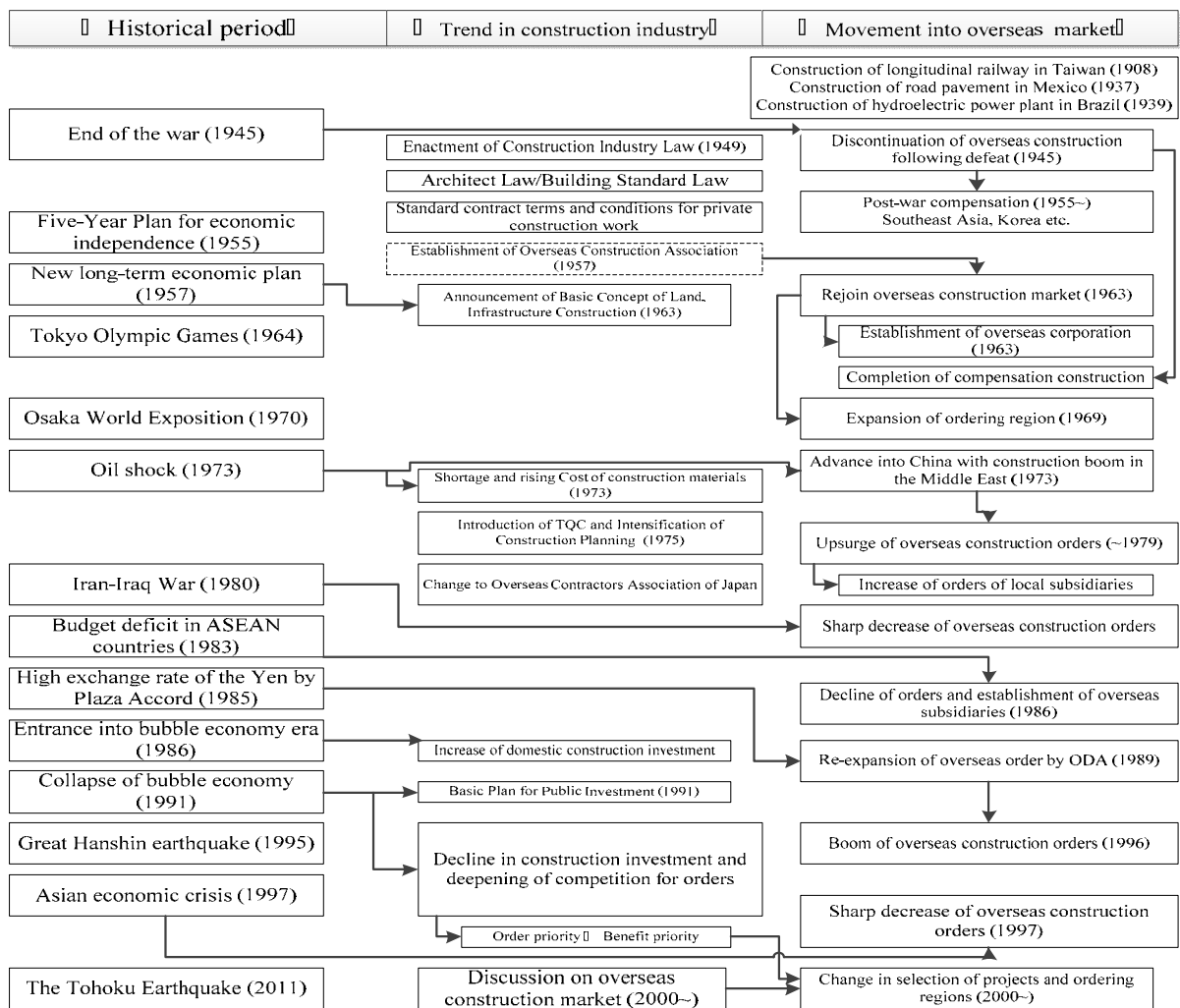


Figure 3: History of the overseas construction market in Japan classified by historical period, trend of construction industry, and movement into overseas construction market (MLIT, 2005)

3. State of affairs regarding expansion into overseas construction market

3.1 Change in the expansion into overseas construction market

(1) Expansion from domestic construction market into overseas construction market in Korea

Figure 2 presents the history of the overseas construction market classified by historical period, the trend of the construction industry, and the movement into the overseas construction market, respectively, in Korea. The history of the expansion into the overseas construction market in Korea began with the expansion into South Asia, following the experience with the construction of U.S. military bases after the Korean War. Subsequently, the Korean government took an interest in the overseas construction market with the orders for military-related facilities during the Vietnam War

and with the increase of construction investment due to domestic infrastructure. Moreover, in the 1970s, such orders grew exponentially with the Middle East construction boom. However, orders in the Middle East did not last due to a decrease in order quantity with the outbreak of the Iran-Iraq War (1980s) and intensifying competition for orders. This decreased the interest in the overseas construction market. Subsequently, the construction industry in Korea engaged, in earnest, in overseas construction marketing while preparing for the opening of the domestic construction market and piggybacking on the second construction boom in the Middle East and the economic development in Southeast Asia.

(2) Separation of domestic and overseas construction market in Japan

Figure 3 presents the history of the overseas construction market classified by historical period, the trend of the construction industry, and the movement into the overseas construction market, in Japan. While Korea has advanced into the overseas construction market due to its small domestic construction market, Japan has focused on its huge domestic construction market while piggybacking on ODA (Official Development Assistance) and the construction boom in the Middle East. In recent years, in Japan, discussions on stabilizing orders in the overseas construction market have been ongoing because of intense competition for orders in the domestic construction market caused by the fall-off in construction investment after the collapse of Japan’s bubble economy.

3.2 State of affairs of overseas construction orders

(1) Analysis of contract amount by region

Figures 4 and 5 indicate the contract amount in Korea and Japan, respectively, by region. Although over 90 percent of the countries in which Korea’s construction works are in progress are in Asia and the Middle East, the number of countries where orders are being gained has also increased along with the overall increase in the number of orders since 2007. This has been a result of companies’ efforts to diversify the countries from which orders are sought, to prevent sole dependence on orders from the Middle East. On the other hand, Japan is focused on the Middle East, Asia, and North America, perhaps owing to its strictly screening projects for benefits since the mid-2000s.

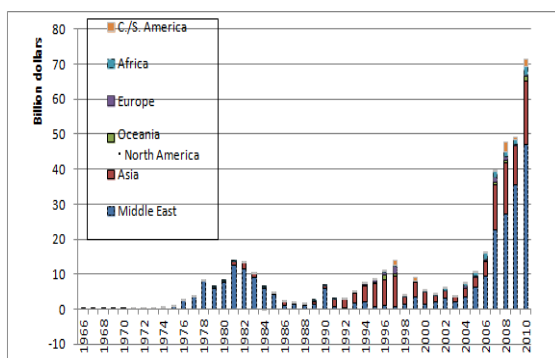


Figure 4: Contract amount by region in Korea (ICAK, 2011)

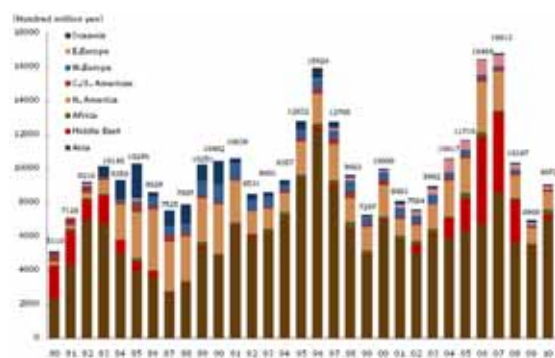


Figure 5: Contract amount by region in Japan(OCAJI, 2010)

(2) Analysis of order by work type

The orders by work type in Japan have been diversified into construction and civil engineering, including plant construction. However, Korea has focused on plant construction since the late 1990s. This focus may be due to the change from the skilled worker dispatch-centred overseas construction projects to the technician-centred projects, which make use of techniques related to heavy industry.

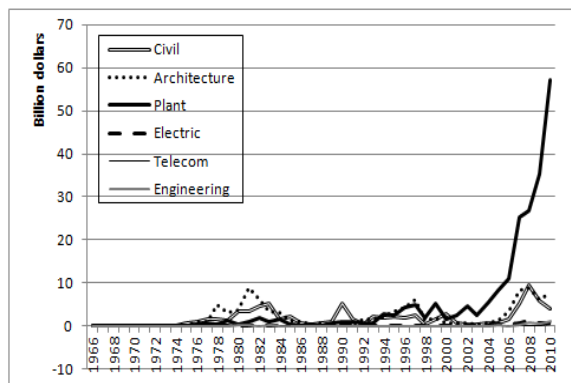


Figure 6: Orders by work type in Korea (ICAK, 2011)

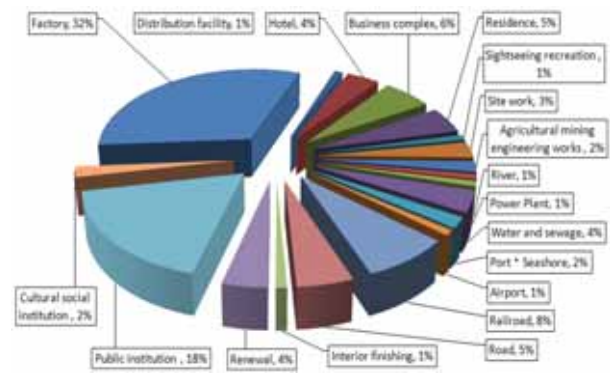


Figure 7: Orders by work type in Japan (OCAJI internal data, 2010)

4. Support structure for expansion into overseas construction markets

Since the 1970s, the Korean government has implemented policies to support domestic construction companies' expansion into the overseas construction market. It has encouraged the overseas expansion of the construction industry through the enactment of the Overseas Construction Promotion Act (1975) as a means of securing foreign currency. The following are examples of supportive policies by the Korean government: (i) providing information on overseas construction orders, (ii) education and training, (iii) reporting the state of construction and construction orders, and (iv) recommending collaboration between domestic companies. In addition, the International Contractors Association of Korea (ICAK), established on the basis of the Overseas Construction Promotion Act (1975), is responsible for substantial activity. As of February 2012, the Overseas Construction Association of Korea has a membership of 695 companies and has opened a database including information related to individual orders, materials, human resources, and risk to its member companies. The International Contractors Association of Korea not only provides such information but also carries out a broad range of other activities, such as international negotiations for orders in the private sector, education and training of human resources, assistance in covering the cost of overseas market research, and dispatching independent research groups. Moreover, it grants extra points, as support and incentive for overseas construction orders, to private construction companies that have a track record in filling overseas construction orders, during the PQ (Pre-qualification) process for domestic public projects.

Compared to Korea, where the central government provides support, Japan has few institutional supports for the expansion of construction companies into the overseas construction market. Japan's

construction industry has advanced into the overseas market on the basis of the superior technology of private construction companies. Despite notable achievement in building a fiduciary relationship between customers and companies over long periods in some areas, the national support structure has in recent years come under discussion following defeats in the bidding process in the overseas market. Moreover, though the Overseas Contractors Association of Japan was founded in 1957 as a competent authority, it has not played a central role in Japan. Only 48 member companies registered in the Overseas Contractors Association of Japan have advanced into the overseas construction market and the exchange of information and education is carried out by the staffs of the member companies.

5. Expansion strategies for overseas construction markets and behaviour of construction companies

5.1 Expansion strategies for overseas construction markets as a nation policy

In Korea, the Construction Technology Development Action Plan (2005), the Comprehensive Countermeasures for Overseas Construction Support (2008), and the State of Overseas Construction and Activation Methods (2010) were published by the Ministry of Land, Transport and Maritime of Korea, and those documents' contents are under discussion and review in many symposiums. Those contents and strategies are summarized as follows.

i) Development of new markets and new products: The diversification of the overseas construction markets should be promoted by proposing development and investment-oriented businesses and package-deal type businesses in Central Asia and Africa, as well as increasing efforts to generate orders in the existing markets. For its implementation, however, construction companies should have architectural design and engineering capabilities, and EC (Engineering Contractor) or EPC (Engineering, Procurement, Construction) should be carried out, as illustrated in Figure 1.

ii) Intensification of support measures for construction orders: The implementation of new support measures should be simplified and unified by the establishment of overseas construction-related institutions of the government and the intensification of existing support systems for educating and maintaining human resources.

iii) Improvement of ratio of foreign exchange reserves: The benefits obtained from projects should be increased through registering domestic materials to foreign vendors; the profitability and the order information should be analysed and examined by ICAK and other experts before bidding commences.

In Japan, the report on the environmental arrangement of the overseas construction market (2002) and the report on the overseas development strategies of the domestic construction industry (2006) were published by MLIT. These reports were based on the necessity for expansion into the overseas construction market in response to the decreased domestic construction investment. In the private

sector, national support systems are mainly discussed. Those contents and strategies are summarized as follows.

i) Intensification of risk measures: As a result of the Japanese-style building construction system, which is based on a fiduciary relationship between manufacturers on overseas construction projects, there needs to be a correspondence between the exchange rate risk and the country risk, in the light of the decreased benefit in recent years. For its implementation, the burden on the private sector should be reduced by improving the construction risk-sharing scheme and the trade insurance system.

ii) Selection and concentration: Competitiveness in the overseas market should be secured by focusing on orders or region-centred projects in which the superior technology and know-how of Japanese construction companies will be of practical advantage.

iii) Fostering human resources and knowledge succession: Knowledgeable people with experience in overseas construction should succeed in ensuring communication, thus, fostering human resources that would be helpful in the overseas construction projects.

5.2 Behaviour of construction companies

In order to clarify the behaviour of construction companies with regard to the expansion into the overseas construction market, the business activities and support items implemented and/or demanded by the construction companies in Japan and Korea that have advanced into overseas market are organized in order of priority on the basis of a survey and reference 2. The survey on the expansion strategy of the Japanese construction industry into the overseas construction market was conducted by the authors in Japan from December 2011 to January 2012. Table 2 shows the intensification of the bidding competition by the construction companies, which information is compiled on the basis of the results of our survey. The Korean government intensified their national support measures, recognizing that the systemic improvement of the financial sector was the most important task. In the case of other work types except plant construction, maintaining the external environment of construction companies is necessary because their technical competitiveness is weak. Japan, on the other hand, promotes stable settlement in the existing overseas market, rather than developing new markets, using ODA as a basic policy. For this reason, Japan tries to maintain the external environment of construction companies, and the internal environment of construction companies such as their core business based on superior technology.

Table 2 Response and request of companies to intensification of bidding competition

<i>Korea(MLTM, 2007)</i>	<i>Order of priority</i>	<i>Japan (Questionnaire results)**</i>
<i>Expansion and improvement of public finance such as the EDCF(Economic Development Cooperation Fund)</i>	<i>1</i>	<i>Expansion and active utilization of ODA(Official Development Assistance)</i>
<i>Intensification of bidding competition of Export-Import bank</i>	<i>2</i>	<i>Intensification of negotiation and collaboration between governments for risk-sharing</i>

<i>Improvement of bidding competition of small business in engineering fields</i>	3	<i>Fostering and securing of human resources</i>
<i>Intensification of incentives for expansion of overseas construction</i>	4	<i>Support for managing trade terms and spread of trade insurance</i>
<i>Standardization and globalization of domestic construction industry</i>	5	<i>Building of local network</i>
<i>Intensification of support of government-funded institutions</i>	6	<i>Careful selection of advanced countries, regions, and work types</i>
<i>Support for expansion of market development funds</i>	7	<i>Intensification of top sales by government</i>
<i>Education and training of professionals</i>	8	<i>Support for formulation of projects and consortiums</i>
<i>Expansion of overseas construction information network</i>	9	<i>Securement of communication ability</i>
<i>Establishment of overseas construction bond investment</i>	10	<i>Development of finance (Use of JBIC(Japan Bank for international Cooperation))</i>
<i>Building of risk management system</i>	11	<i>Maintenance of risk management for overseas market</i>
<i>Support of overseas construction by mutual aid associations</i>	12	<i>Intensification of information gathering and provision</i>
<i>Intensification of diplomatic missions construction</i>	13	<i>Support of small and medium businesses for overseas expansion</i>
<i>Improvement of competitiveness in plant area</i>	14	<i>Analysis of merits and demerits of competitors</i>
<i>Intensification of safety management for overseas construction</i>	15	<i>Core business considering advanced markets</i>

※ Questionnaire data performed by authors.

6. Summary

This paper analyses in sequence construction-related legislations and support structures for the expansion of the overseas construction market, the activities of associations related to overseas construction, and the response of construction companies. It clarified that the globalization of the domestic construction industry and the maintenance of the external environment of construction companies are continuing in Korea, on the basis of the plant-centred diversification of advanced countries, regions, and work types. However, this paper shows that in Japan, the expansion of this industry is based on the country's superior technology, international deployment of Japanese-style building construction systems, and the internal and external environment of construction companies, which continue to be used to stabilize orders in the developed markets. Future research should discuss the mechanism of problems and/or organization in the implementation phase of overseas construction projects.

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