

## **A Study of Korean Company's Ordering Competitiveness in International Construction Markets**

Sun-Woong Min and Jong-Il Lee

Department of Construction Engineering, Tong-Myung University, Busan, South Korea

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**Abstract:** In the industrializing period focusing on export, overseas construction business was enhanced by the government's strong supportive system and the Middle East economic boom of 1970's. It played its role of locomotive in export industry for the economic development of Korea. But after 1997 in which Korea had to experience the IMF crisis, overseas construction business has once taken fundamental restructuring due to the lowered national credit. In the 2000, a tremendous growth was achieved due to the sudden increase of ordering amount for planting in the Middle Asia. Meanwhile, the growth has become shrunk, since, the financial crisis of 2008. Besides, the amount of overseas ordering which focuses on additional value-oriented investment and development, radically decreased because domestic construction companies mainly grew on bulk-based ordering setting the total amount for construction when contracted which is harmful for contractors. For ensuring ordering amount, watching over fast-changing situations of world construction markets it is required to recheck the methodology for improving ordering competitive power based on Korean construction technology and know-how. Therefore, after reviewing current ordering situations and prospects of Korean construction companies in domestic and international construction markets based on various reference materials and literature this research analyzes problems in ordering related to Korean construction companies and finally suggests strategic methods to enhance competitive ordering power of Korean construction companies in overseas markets. It is expected that from now on, based on strategic methods together with extensive Korean company's experience and technology, Korean companies make their way through overseas markets. Furthermore, objective research overcoming conceptual level should be fulfilled for every constructional type in overseas markets.

**Key words:** Overseas construction, world economy, competitive power, overseas construction ordering, ordering strategy, domestic construction

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### **INTRODUCTION**

With the sudden increase in the plant order quantity of central Asia due to the increase in the oil price in the mid 2000, a huge development was made. However, after the financial crisis in 2008, world construction market's development has slowed down. Furthermore, the domestic construction companies have developed on the basis of bulk-based ordering setting the total amount for construction when contracted which is harmful for contractors and that is why the performance of overseas ordering which focuses on additional value-oriented investment and development is very poor (Yang, 2011).

This research is to comprehend the overseas construction market's prospect and trend, Korean construction market's prospect and trend and current ordering condition of the Korean construction companies

and with this data, to analyze the problems proposed for the current Korean construction company's orderings and to propose a tactical method to improve the ordering competitiveness in the overseas construction market with the basis of each data and content of the literature researches (Ryu, 2004).

If the world construction market's advancement with the years of experience of the domestic construction companies and construction technical skill is combined with the tactic for the improvement of the ordering competitiveness in the future, there may be a direction for the Korean construction company to progress in the overseas construction market with the basis of the acquired technical skills and accumulated know-how.

**Overseas construction market's current condition and prospect:** Domestic and overseas economic market's trend and prospect. It is predicted that the rate of American

economic growth will increase until the mid 2% in 2017 after getting out of the temporary stagnation from 2016. However, the rate of economic growth in EU such as Germany and France is expected to decrease and stay around 1%. Especially, England who had the highest economic growth among the EU nations is expected to have business dullness after the brexit becomes more regularized.

The rate of economic growth slowdown of China who led the global economic development will continue in 2017 and the development rates compared to the last year's in Japan and Australia are also expected to go through the slowdown. However, the development rate of Brazil is expected to become positive again due to the recent price increase in the raw materials, the base effect and etc. In China, despite of the slowdown in the development rate, the liquidity in China seems quite stable with the progresses like the bear yuan currency and the restructuring of the weak business. After all it seems that Chinese global potential for crisis is diminishing.

The Southeast Asian countries will continue to go through economic renewal in 2017 which started in 2013. For India, Indonesia, Malaysia, Vietnam and etc., the satisfactory economic growth rate of 4-8% is expected. Along with this, the inflation rate is also expected to be stable as 2-6% resulting the high economic stability. Especially, in Indonesia, the economic scale is rapidly increasing with the large population and around 8% of economic growth rate from 2013 and as the demand for the global raw materials and product increases, the country is becoming more significant for the global economy. Middle East countries went through the slowdown of the economic growth rate and the largely increased economic deficit in 2016, affected by the regularized oil price drop in 2015. However, it is not as bad as the expectation made in the beginning of the year and the reasons for this are estimated to be the government's attentive reduction of the fiscal payments, extension of the private fund and the stabilization of oil price in the second half of the year. The economic growth rate in 2017 is expected to get better as the oil price is getting stabilized and the government investment increases due to the improvement in the government finance. Especially, Kuwait and UAE who have high financial stability are expected to invest more extensively.

**Domestic and overseas construction market's trend and prospect:** As the government control over the real estate is reinforced and the local housing price decrease becomes more intense, the housing market in domestic construction market of 2017 will step into the stabilization stage. Despite of the government's SOC budget deduction, the area of civil engineering will stay stable because of the increase in safety budget such as worn out SOC and orderings of private roads and railways.

On the other hand, the overseas orderings in 2017 are expected to be worth \$45.5 billion which is 39.6% increased from the last year's (Table 1). The oil price in 2017 is expected to have the downward inelasticity from \$50/barrel starting in the second-half of 2016 and this will result the growth of the orderings of oil refineries and power plants that have been delayed for a while.

Especially, the oil refineries of Oman and Bahrain are expected to be ordered mainly by the domestic construction companies. Though Iran's economic system has been cleared, there is no visible ordering performance yet. However, as the Euro payment became available recently and the economic income from the expansion of exporting oil increases, it is expected for the ordering to be possible starting in 2017. The licensees are likely to think that the current situation where the recent raw material price increase and the global inflation are expected is the right time to place orders. Considering this, the reversal of the overseas orderings starting in 2017 is anticipated (Table 2).

**Overseas construction ordering's current situation and prospect:** The domestic construction orders in 2016 (142.2 trillion won) are expected to decrease 10.0% from the last year's but compared with the approximated value (131.1 trillion won) in the beginning of the year, it will still be quite satisfying. This is because the amount of real estate for the new housings increased as the non-expected increase of the housing price around the capital area occurred. Considering that the average construction orders in the period of 2011-2015 are worth 113.8 trillion won, the construction orders in 2016 are considerably favorable.

Table 1: Overseas construction ordering prospects of 2017 based on constructors

Division	2014	2015	2016	2017 (Prospect)
<b>By ordering organizations</b>				
Common	40.7	44.7	39.7	38.2
Increase/decrease rate	12.6	9.8	-11.3	-3.8
Private	66.7	113.3	102.5	94.1
Increase/decrease rate	21.0	69.7	-9.5	-8.2

Table 2: Overseas construction ordering prospects of 2017

Variables	2014	2015	2016	2017 (Prospect)
<b>By work classification</b>				
Civil	32.7	45.5	38.4	36.2
Increase/decrease rate	9.4	39.0	-15.6	-5.7
Construction	74.7	112.5	103.8	96.1
Increase/decrease rate	21.7	50.5	-7.7	-7.4
For housing	41.1	67.7	61.1	56.8
Increase/decrease rate	40.3	64.7	-9.7	-7.0
For non-housing	33.7	44.8	42.7	39.3
Increase/decrease rate	7.8	33.2	-4.7	-8.0

Unit: Trillion Won (%)

**Problem in Korean overseas construction ordering**

**Area preponderance:** In our country, above 80% of the total overseas construction orderings come from Middle East and Asia. Of course, it has gotten relieved since, 2000 where above 90% was occupied by them, however, area concentration phenomenon which is one of our chronic problem for the overseas construction is still there. As the construction economy in Middle East which had been stagnant for a few a years is now recovering, the area preponderance phenomenon will become more serious.

**Backwardness of the main items and technology development level:**

For the overseas construction orderings, the orders were concentrated on the labor-intensive construction and civil fields in the past but now a days, there are more of plant-intensive orderings. The importance by the industrial machine that is technology-intensive and has high additional value or the technical services is very low. This shows that our country has the overseas construction's structural weakness. Due to the dull technology development investment, the service order of the high additional value is experiencing hardship and especially, for turn-key base construction, US, England, France and other nations obtain orders and the Korean companies get the low appraisal.

**Information collection and information provision weakness:**

At the overseas construction bidding time, Korean companies lack the through analysis for the information of the field condition, price, raw materials, manpower supply, etc. (Kim, 2012). For the current information collection standard, it's usual to be understood briefly through visiting the site by the few members who are responsible for construction fee and financial cost. This is from the lacking data directly in the

construction company or the carelessness of the government on the information collection and the information provision.

**Change in world construction market's ordering condition:**

The overseas construction market's ordering form in 2000 is either the provision form of the business plan and operator's finance managed by the operator directly or investment development form where the licensee develops the business directly and raises the finance directly; it's not the standard subcontract form of the ordering organization's finance operated frequently in the past (Fig. 1).

However, although, the overseas construction of our country continue to have been ordered for the worth of 60 million dollars, since, 2010, the investment development business has still not been activated. By classifying the overseas construction ordering amount of our country for the past 5 years, standard subcontract business can be known to 84% but as the domestic business lacks the operation experience, financing ability and drive for the private investment business, the investment development business is known to stay around 3%.

The investment development business ordering amount among the overseas construction orderings of our country at the current time (August, 2016) appears to be around 10 million dollars and does not seem to reach even 1% of the overseas ordering total amount (Table 3).

Table 3: Proportion of Korean company's construction ordering based on overseas investment and development types (Lee, 2015)

Variables	2012	2013	2014	2015	2016 (and of August)
<b>Classification</b>					
Ordering amount	64.644	63.100	64.284	44.753	17.197
weight	96.6	96.8	97.4	97.0	99.4
Ordering amount	237	2.111	1.725	1.391	100.0
weight	0.4	3.2	2.6	3.0	0.6
<b>Total amount</b>	<b>64.881</b>	<b>65.212</b>	<b>66.010</b>	<b>46.144</b>	<b>17.272</b>

Unit: A million dollar (%)

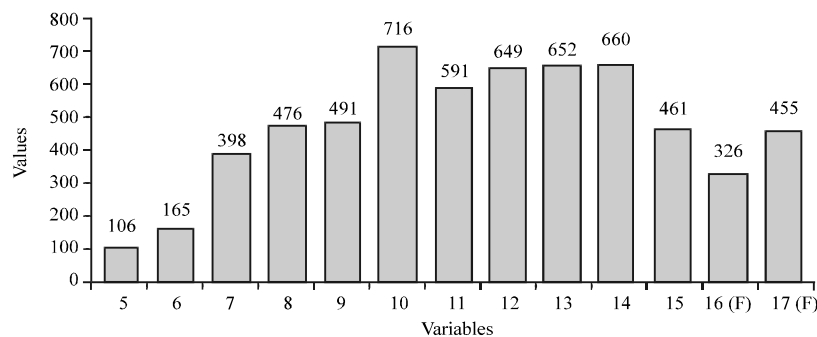


Fig. 1: Overseas construction ordering prospects of 2017 based on construction types; Unit 10 million dollar

in the area where the project ordering amount is expected to increase should be promoted attentively by analyzing the market trend.

Also, keeping the friendly relations with the original cooperating companies and discovering new partner will minimize the risk when the problem occurred with the original cooperating companies. Through constructing man power pool of the prime ordering proxy by the nations and ordering organizations and fully acknowledging the information provided by the domestic personnels, the friendly relations with the prospective project's ordering proxy should be constructed.

**Price competitiveness strategy:** The price for the raw materials should be managed with high concentration after the main raw materials are selected by work classifications. The main subjective raw materials are either DCIP or rebar and their trend by area should be recorded regularly, so that, the estimate subjects are diversified by the nations and the companies. There is also a need to examine the will considering the experience of the person in charge for estimation and the market trend to accumulate the data for objectivity and to measure the reduction rate of the material list price that can be estimated after the order. At the end, the competitive price should be decided by tracing the raw material's price increase or decrease by the period, nation and project and understanding the low price of the raw materials with the estimation reference (Ju, 2016).

For the labor expenses, the construction method targeting the labor intensive construction other than the civil work is optimized to reduce the labor expenses and there is a need to learn about the local experienced worker's wage in Middle East, South East Asia and CIS for the specialized works. The accurate labor expense should be computed through the accurate simulation by the work classifications and the productivity should be maximized by understanding the worker's characteristics by the countries (Yeon, 2007).

**Correspondence strategy for the ordering organization's claims:** To secure the response ability to the ordering organization's requests, the strategies below should be thoroughly examined (Um and Park, 2016). First, as many recent projects stipulate alternative tender in ITT, the declination in competitiveness due to the lacking time for method examination should be prevented by securing the specialized labor force. Secondly, the raw materials price and exchange rate alteration information should be examined thoroughly by frequently examining the internal raw materials price and change in the exchange rates, so, the list of the raw materials is made and if the ordering

organization requests the reduction in the bid, it can be handled quickly. Thirdly, by examining the information of the local people who can be connected with the main labor force of the ordering organization by creating local ordering organization's core labor force information pool you should let the negotiation about the bid with the ordering organization progress smoothly. Fourthly, there should be an effort to secure the specialized labor force who can examine the core element technology and construction method which can result the reduced duration and to create specialized labor force through education under the government.

**Individualized strategy by area for the ordering promotion:** First, in Middle East, the constructions are usually large and the local large-size construction companies are awarded for the most of the cases. Therefore, JV should be structured with the local large-size companies after participating as subcontracts of the large-size construction companies and getting enough experience through the subcontract orderings.

On the other hand, the improvement of the bid competitiveness is the prior task and the abrasive participation to the bid competitor among the Foreign companies should be promoted. For instance, the construction section only participates in the designation competition bid constructions and the civil section only participates in the road, railway and sewage tunnel constructions. And the strategic alliance with the local companies and our country's companies with visible performance should be made.

The ordering of the construction that have public business should be promoted. To realize this, conclusion of the official sponsor contract should be made and cooperation with the local construction companies is expected.

For other countries it is effective to cast the personnels of the underdeveloped countries or the developing countries for the advancement of the new market and for construction, the cooperation with the local influential companies is important. Likewise, for civil section, the cooperation system in connection business should be established.

For the underdeveloped or developing countries, government ordering constructions are ordered with turn-key base usually and most of the cases are progressed by the appoint competitive tender through PO procedure. Therefore, promoting proposing businesses such as BOO or BOT are recommended to be promoted with development business headquarter of the companies in our country (Shin and Jung, 2016).

## RESULTS AND DISCUSSION

This research is to comprehend the overseas construction market's prospect and trend, Korean construction market's prospect and trend and current ordering condition of the Korean construction companies and with this data to analyze the problems proposed for the current Korean construction companies' orderings and to propose a tactical method to improve the ordering competitiveness in the overseas construction market with the basis of each data and content of the literature researches. Through each data and literature researches this research apprehended the overseas construction market's trend and the overseas market advancement reality of the domestic construction companies. It analyzed the Korean overseas construction business's problem into 4 specific ones; area preponderance, backwardness of the main items and technology development level, information collection and information provision weakness and change in world construction market's ordering condition. At the end it also proposed 4 different strategies; business reformation strategy, price competitiveness strategy, correspondence strategy for the ordering organization's claims and individualized strategy by area for the ordering promotion.

It is expected that from now on, based on strategic methods together with extensive Korean companies' experience and technology, Korean companies make their way through overseas markets. Furthermore, objective research overcoming conceptual level should be fulfilled for every constructional type in overseas markets (Eom *et al.*, 2015; Kim and Yun, 2017a, b; Lee *et al.*, 2016; Lee and Um, 2017; Park and Jung, 2017; Yun, 2016).

## CONCLUSION

The environment alteration of the overseas construction market is developing and changing in a very complicate way. For instance, the ordering condition started to stress on the previous technology and the subcontract proportion of the local companies increases. There are lots of cases where for the constructor appointment, the collateral conditions are discussed after the voluntary discussion for the lowest bid or the bidding. And the business activity is converting from the localization to the multi-nation or the public economy system and the advancement of the market is converted to be around the raw materials developing country from the developing countries in the past.

Therefore, to secure the ordering amount by carefully monitoring the world construction market's environment,

there is a need for the proposal of a new strategy for the ordering competitiveness improvement with the basis of our construction know-how.

Through each data and literature researches, this research apprehended the overseas construction market's trend and the overseas market advancement reality of the domestic construction companies. It analyzed the Korean overseas construction business's problem into 4 specific ones; area preponderance, backwardness of the main items and technology development level, information collection and information provision weakness and change in world construction market's ordering condition. At the end, it also proposed 4 different strategies; business reformation strategy, price competitiveness strategy, correspondence strategy for the ordering organization's claims and individualized strategy by area for the ordering promotion.

With the result of the research, if the Korean construction company advances to the world construction market with the domestic construction companies' accumulated experience and construction skill it will competitively better than the Foreign construction companies and will become a front-running man of the world construction market.

## RECOMMENDATIONS

In the future, the research for the realistic discussion is rather needed than the strategy direction of the conceptual level and the detail research by the overseas construction work classifications is expected to come true positively.

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