論 文 の 内 容 の 要 旨

論文題目　Analysis of the Influence of Contextual Factors on Contractual Conflicts in International Construction Projects: Case of Vietnam
(国際建設プロジェクトにおける契約コンフリクトの文脈的要因分析：ベトナムを事例に)

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International construction market is increasingly being dominated by developing countries. This may be explained by the fact that many developing countries are concurrently carrying out a number of large-scale construction projects in order to accelerate their economic growth. In addition, external sources of funds such as official development assistance (ODA) and foreign direct investments (FDI) have become increasingly available in recent years. For international competitive bid projects, one of standard conditions of contract prepared by Federation Internationale des Ingenieurs-Conseils, popularly known as FIDIC (International Federation of Consulting Engineers) is commonly used. In fact, major multilateral and bilateral development agencies mandate use of the MDB harmonized edition of FIDIC Red Book contract conditions for civil works implemented through their funds.

Despite having gained experiences of implementing international construction projects in recent decade or so, many developing countries are still regularly experiencing construction problems that manifest into schedule delays and cost overruns. Previous studies suggest that those problems are often human and management-related (contractual), instead of technical-related, and various contextual factors are identified as contributing causes. However, previous international construction problem and risk studies have mainly focused on identifying the causes, and limited explanations are provided on how problems are developed.

In addition, previous studies have mainly relied on analysis at individual level, by

utilizing questionnaire or interview surveys, to draw conclusions and make management recommendations. The fact that project level analysis has not been adequately treated appears to be the reason why recommendations in previous studies are either impractical or their effectiveness is not clearly justified. In order to overcome these limitations, the following research question is posed: how do various contextual factors contribute to the development of contractual conflict in international construction projects?

By choosing Vietnam as a case, the research objectives are: 1) to identify recurring contractual conflicts in international construction projects and their perceived causes, 2) to clarify the relationships among contextual factors of contractual conflict, and 3) to validate the proposed causality diagrams for contractual conflict in international construction projects by applying to real project cases.

For primary source of research data, in-depth interview of thirty two construction professionals who have participated in international construction projects in Vietnam are carried out. In addition, nine project cases are concurrently observed during the interview period. For qualitative analysis of the interview data, open coding and axial coding procedures prescribed by Straussian version of grounded theory method are utilized. 123 concepts, 23 sub-categories, and six main categories are identified through the coding procedures. Recurring contractual conflicts in Vietnam are identified as: delay in site handover, price adjustment payment delay, inspection approval delay, interim payment delay, variation approval delay, excessive documentation required by project administrators, and permit/licenses approval delay by public authorities. Also, the causes of contractual conflicts perceived by interview participants are identified to be mostly contextual factors, which is consistent with similar studies conducted previously.

Contextual factors of contractual conflict are extracted from the interview data and they are grouped under following categories: host country, public construction industry, construction profession, project managing organization, administrative individual, and contract utility. Literature review validates that these extracted contextual factors of contractual conflict are generalizable to international construction projects in other developing countries. Subsequently, causality diagrams for contractual conflict are proposed by clarifying causal relationships among contextual factors. Four contextual factors are identified as the roots of

causal relationships, and they are: 1) inadequate contract clarifications performed among parties at precontract period, 2) low level of relational-approach utilized, 3) low level of political support on project, and 4) low level of international project management experience by employer organization.

As a validation process, the proposed causality diagrams for contractual conflict are applied to nine real international construction project cases. The causality diagrams effectively described the development process of either contractual conflict or conflict avoidance measures for all nine cases. Among four possible root causes of contractual conflict, addressing 'inadequate contract clarifications performed at precontract period' was observed to provide management solutions that were not only effective but also promoted transparent practice. Addressing 'low level of relational-approach utilized' as well as 'low level of political support on project' were observed to be effective in motivating project administrators in terms of avoiding approval delays, but these approaches were also prone to lead to practices that lacked transparency. In addition, relying on improvement of 'low level of international project management experience by employer organization' alone was found to be relatively an ineffective solution, agreeing with comments by previous studies that systematic construction project management is an under-developed area in developing countries.

The finding of this research is an incremental step to further the understanding of how various contextual factors influence development of contractual conflict in international construction projects. 19 contextual factors of contractual conflict were validated to be applicable to international construction projects in developing countries. Also, causality diagrams that describe causal relationship of the 19 contextual factors were validated to be an effective tool for describing the development process of either contractual conflicts or conflict avoidance measures.

Policy implication to ODA donor organization is to tie precontract negotiation activities as part of capacity development program, which all the relevant project administrators are encouraged to participate not only to agree on the procedures to be followed but also to learn more about international contract procedures. Also, tips on clarifying FIDIC Red Book-based contract conditions include specifying scope of the engineer's authority as well as roles and limitations, specifying the employer's roles and limitations, specifying consequences of delay caused by local

authorities, adopting Delay and Disruption Protocol as part of the contract, and clarifying and simplifying supporting document required for interim payment.

Limitations of this study is that participating international contractors were either Korean or Japanese contractors, limited number of local employer participated, and generalization of findings are primarily based on cases in Vietnam. Suggestions for future studies include conducting quantitative study based on findings from this research, conducting case studies of projects in other developing countries to further validate the generalizations made in this research, and studying factors that drive different behaviors of the engineer during international construction project periods.