CONFLICT MITIGATION STRATEGIES IN HOUSING AND SETTLEMENT DEVELOPMENT PROJECTS: A CASE STUDY OF INDONESIA'S NEW NATIONAL CAPITAL CITY (IKN)

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ABSTRACT

This study aims to highlight the conflict, especially those occurring in housing and settlement development projects, and provide relevant solutions to enhance project efficiency in New National Capital City (IKN), Indonesia. Site management involves a series of operations that combine various materials to achieve the final construction result.
Therefore, to improve project productivity, it is essential to identify and implement key management techniques. Critical components of project execution and on-site management include integration management, site planning, resource management, site safety, monitoring, and supervision. Neglecting these components can lead to decreased productivity. Thus, addressing these issues and recognizing these components and tensions is essential.
The study utilizes literature review, on-site observations, and semi structured interviews during the execution of construction projects. These conflicts were analyzed using factor analysis based on the average ranking obtained through questionnaire surveys. Data was collected from 48 respondents, selected based on simple random sampling from construction stakeholders. Feedback from the respondents was analyzed using the frequency for ranking purposes. The results identified seven main conflict factors. This aims to assist in conflict management in upcoming projects.

Keywords: *Construction Project, Factor Analysis, Management Strategy*

INTRODUCTION

A construction project comprises a series of activities aimed at building infrastructure, typically within a short timeframe. These activities transform project resources into a unique structure. The process involves specific methods that convert these resources into the final construction output. Conflict is a condition where there

is a mismatch between the values or goals to be achieved, both within the individual and within the infrastructure of other people. The conditions stated above can affect work efficiency and productivity (Thomas, 1978).

The characteristics of construction projects can be observed in three dimensions: uniqueness, the involvement of numerous resources, and the necessity for organization. The approach to solving problems in such projects hinges on three key aspects: adherence to planned details, time schedules, and budget constraints. These factors are interrelated, contributing to a distinct construction services industry. The methods developed in these activities often involve multiple parties, either directly or indirectly. These relationships can be categorized into functional and work-related interactions. Given the involvement of many parties, the potential for conflict increases, which can lead to project delays. Effective management is required to minimize conflicts and ensure project success. Issues arise if project objectives are not delivered, and unmanaged problems can escalate into conflicts among the involved parties.

Most infrastructure development by the Ministry of Public Works and Housing (PUPR) in the New National Capital City utilize various schemes, including Construction Work and Design and Build Integrated Construction (Design and Build). To meet Security, Safety, Health, and Sustainability (K4) standards, as well as technical requirements and construction contract administration, control is necessary, which is the responsibility of the project owner. The involvement of multiple parties in implementing projects in the New National Capital City poses a significant potential for conflict. Issues may arise during project implementation, and without proper conflict management, ongoing conflicts are likely, especially given the sensitivity of establishing a New National Capital City on undeveloped land. Housing and settlement development is an important aspect in supporting sustainable development, especially in strategic areas such as Indonesia's National Capital City (IKN). In this context, residential area development serves not only as housing provision but also as a vital component of regional governance and the socio-economic integration of society.

However, the execution of housing projects often encounters various challenges, such as conflicts arising during the planning and implementation stages. These conflicts can involve land acquisition, population displacement, design mismatches with community needs, and coordination issues among stakeholders. Addressing these challenges is essential to ensure the sustainability of housing and settlement projects, especially in IKN, which have high social, cultural, and ecological complexities.

On the other hand, many factors can cause conflict, as it claimed by (Marzouk, El-Mesteckawi and El-Said, 2011) in their research states there are four sources of conflict in construction projects, namely contracts and specifications, cultural issues, management and organization elements project, and project conditions. Therefore, there are also problems such as human and natural resources that cause project delays and add additional costs. The success of a development project depends on several variables, one of the key variables is how each development element handles the conflicts faced (Diekmann, Girard and Abdul-Hadi, 1994) To address this research gap, recommendations are needed to better

understand the consequences of conflict management on project implementation in this context.

THEORY / RESEARCH METHODS

Various literatures are studied to get an overview of the factors responsible for conflicts and identification of problems and research objectives as described in the introductory chapter. To be able to identify methods or ways of dealing with conflict, a study of theories and literature is carried out.

According to (Jaffar, Tharim and Shuib, 2011) there are several sources of conflicts by literature survey, there are owner related, contractor related, and consultants. The expected aim of this research is to find out the conflict handling methods that are often used. The analysis used is to look for the frequency value of the respondent's answers. An indicator to find out which method or method of handling conflict is often used if it has the largest frequency value. Based on Sugiyono (2005), the questionnaire is a method of collecting data that is carried out by providing several questions and written statements that are given to respondents to then be answered. This paper used purposive sampling for data collection, as stated by (Sugiyono, 2015) purposive sampling is a data collection technique with certain considerations. Data collection through questionnaires is an inseparable part of research activities which were given online to construction stakeholders. Survey data is evaluated according to percentages and mean ratings. The respondents were asked with the barriers on the Likert scale of 5 = strongly agree, 4 = agree, 3 = fairly agree (average), 2 = disagree, 1 = strongly disagree.

Viewed from a managerial perspective, conflict handling methods include (Soeharto, 2001):

a. Forcing will (forcing)
   Forcing means forcing or looking from one party to another party involved in a conflict. This means that when forcing, there is a party who wins and there is a party who loses. This can happen if one party's position is too strong over another. In addition, usually the losing party has a principled dependence on the winner.
b. Looking for problem solving efforts (problem solving)
   Problem solving is often also called confrontation, because its nature is open discussion and direct dialogue between the parties involved. So in this case, first define what the conflict is, look for and collect information, the causes of the conflict, analyze various alternatives that are considered the best.
c. Make peace or compromise (compromise)
   Compromise means that both parties have considered various alternatives, members and accepts, and sought a solution that is to some extent acceptable to both parties.
d. Cooling the atmosphere (smoothing)
   Cooling the atmosphere is done by emphasizing positive aspects (from the point of view of common interests) of the part of the issue that is the source of

the conflict and prioritizing or temporarily postponing differences of opinion on other parts of the issue. So, we try to keep the atmosphere friendly here.

e. Withdrawal (withdrawal)

This step can be interpreted as avoiding (not being willing to face) the occurrence of incompatibility at a certain time. This could be due to the lack of a clear concept to cool the atmosphere, while thinking about other approaches at better times.

The approach method used to resolve conflicts in construction projects uses six methods in the research questionnaire, namely: force, smoothing, withdrawal, compromise, problem-solving, and collaborating. The previous researcher Bill Ormando (2013) approached conflict methods in construction projects to resolve conflicts in construction projects using six methods as it stated by Blake and Mouton (1964) about conflict management:

a. Withdrawing/Avoiding
b. Smoothing/Accommodating
c. Compromise
d. Forcing
e. Collaborating
f. Confronting/Problem solving

Table 1. The Conflict Identification in Construction Project

No	Types of Conflict	Reason
1	Project Priorities	1. Less intensive supervision of project implementation 2. The number of projects handled is managed together 3. Larger portion of KSO 4. Strategic and profitable project location
2	Conflicts Due to Administrative Procedures	1. Unclear formulation of work, duties and responsibilities 2. The licensing procedures for carrying out work are too complicated 3. Unclear reporting procedures within the project team 4. Multiple interpretations and overlapping regulations
3	Conflict Due to Technical Opinions/Technical Problems	1. Use of new technology 2. Re-work at work 3. Use of inappropriate work methods 4. Lack of quality control of project work 5. Limited workspace in the field 6. Insufficient work guidelines, manuals and standardization 7. Damage or loss of important images, documents or letters 8. Dependency between one party and

No	Types of Conflict	Reason
		another 9. Insufficient planning
4	Conflict Over Resources	1. Placement of human resources that do not match qualifications 2. The number of workers is not under existing work activities 3. Materials and equipment that do not match the quantity and quality 4. Mobilization of material resources and equipment not according to schedule 5. The project location contains rare/protected flora and fauna
5	Conflict Due to Cost	1. Inaccurate calculation of project RAB 2. Cost overruns/excess costs in project implementation
6	Conflicts Due to Schedules	1. Delay in payment of workers' salaries 2. Improper determination of working time duration 3. Setting a project schedule that is too tight 4. Delay in payment by the project owner (owner)
7	Personality Conflict	1. Poor communication between personnel in the project team 2. Differences in skills and each project personnel 3. Differences in work experience of each personnel 4. Poor cooperation between personnel 5. Excessive workload 6. Psychological conditions of people in construction projects 7. Culture shock for project personnel

RESULTS AND DISCUSSION

Based on the results of the method obtained, it can be concluded that the factors causing conflict in construction projects:

a. The factor causing conflict with the lowest value is 2,33 variable X3.6 “Conflict Due to Technical Opinions/Technical Problems” with reason " Damage or loss of important images, documents or letters
b. The factor causing conflict with the highest value is 3,38 variable X4.2 “Conflict Over Resources “with reason “The number of workers is not under existing work activities”

The approach method reduces the causes of conflict through 48 respondents:

a. Conflicts Due to Project Priorities has the highest value “Compromise”.

b. Conflicts Due to Administrative Procedures has the highest value "Compromise".
c. Conflict Due to Technical Opinions/Technical Problems has the highest value "Collaborating".
d. Conflict Over Resources has the highest value "Collaborating".
e. Conflict Due to Cost has the highest value "Compromise".
f. Conflicts Due to Schedules has the highest value "Collaborating".
g. Personality Conflict has the highest value "Collaborating".

CONCLUSIONS

This paper significantly overviews the conflict factors in construction projects in New National Capital City (IKN), Indonesia. In general, this paper grouped the conflict factors into seven main factors which are conflict factors based on the average ranking obtained through questionnaire survey with 48 respondents.

Practically, the result of this paper can be used as a material consideration for construction management, the dominant factor that causes conflict needs to be given more attention, to avoid excessive conflict which is crucial to the implementation of construction projects. The most frequently used approaches to reducing the causes of conflict are "Collaborating" and "Compromise", so it is recommended to use them in resolving conflicts that occur.

Suggestions for other researchers in the future, when collecting field data using questionnaires, it is necessary to compare correspondent sources so that the differences in the data can be seen so that they can be classified according to conditions in the field.

ACKNOWLEDGMENT

The author would like to thank all the respondents who participated in the survey.

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