

ESTABLISHMENT OF DECISION MAKING FRAMEWORK FOR SUPPORTING COOPERATION AMONG STAKEHOLDERS IN MEGA PROJECT

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ABSTRACT: Performing ‘Mega Project’ in which various stakeholders are involved is difficult to control due to the respective conflicting objectives. Urban regeneration which is being challenged issue in various ways can be defined as the mega project. Since the mega project like urban regeneration a long-continued project and includes a lot of participants whose benefits conflict, cooperation among stakeholders is essential. Moreover, as the project goes, diverse decision making situations which require collaboration happen, and if proper decision making cannot be given at that time, the whole project would have critical effects. Also, since each activity concerns numerous stakeholders, prompt decision making is difficult in the mega project. Therefore, the objective of this study is to support stakeholder’s cooperative decision making in order for conducting successful project. For the purpose of the paper, the concept of *cooperation* in mega project is redefined and a cooperative decision making framework is suggested. Also, the term of *governance*, which means cooperative mechanism based on the mutual trust, information sharing and partnership, is applied to the newly defined *cooperation*. The suggested cooperative decision making framework contains the structure of stakeholders in urban regeneration project which enables participants to understand the relationship among bodies and checklists for supporting decision making appropriately. The application of the framework proposed in this research is expected to contribute subjects’ suitable decision making by providing proper information in a timely manner.

Keywords: cooperation, decision making framework, mega project

1. INTRODUCTION

1.1 Background of Study

The Korean Government released ‘the Korean New Deal Policy 2009’, which involves urban regeneration, as part of getting over the global economic crisis. Urban regeneration in which various stakeholders are involved can be defined as the ‘Mega Project’. However, most of mega projects like urban regeneration are facing with difficulties due to the complicated business process.

The majority of the problems are caused by interests among participants because the urban regeneration project is conducted by the public in combination with the private. Thus it seems inevitable to be confronted with difficulties in urban regeneration project. However, it means performing a successful project could be achieved if the factors which cause troubles can be controlled.

Therefore, the objective of this study is to support stakeholder’s cooperation for a successful project. For the purpose of supporting cooperation in mega project like urban regeneration, defining the role and responsibility for project participants and establishing the structure of stakeholders for optimum decision making are carried out in this research. Moreover, a typical form of decision making checklists is suggested in order to minimize the inequality of information, which is likely to occur in

mega project due to the various participants. From the checklists every participant could timely obtain useful information, and through the information mutual controlling will be realized. Also, it is expected to prevent the project from obstacles to success by taking advantage of the checklists.

1.2 The Scope and Method of Study

Management in the initial stage is essential especially in mega project like urban regeneration. Furthermore, urban regeneration project which has many owners is likely to be delayed if various owners (and participants) could not take counsel together.

Therefore, this study is conducted to establish a decision making model for supporting cooperation among stakeholders in urban regeneration project especially in the early stage. Furthermore, the concept of ‘cooperation’ is newly defined through adding the concept of ‘governance’. Accordingly, the definition of ‘cooperation’ in this paper is a combination of the original meaning plus the concept of governance.

This research focuses on the first initiative phases because the initial stage includes a lot of conflicts and difficulties of decision making. The initial phase defined in the paper is the stage prior to the ‘authorization of project initiation’.

Decision making factors derived from related laws and regulations, decision making data on conflicting situations from related articles and web-site are applied for this study.

The urban regeneration project treated in this study follows the 'Urban and Residential Environment Improvement Act' which was established for performing urban regeneration project.

The process of this study is as follows.

First, the direction of this study is set up from a related literature review and study.

Second, the concept of 'cooperation' is redefined by considering of 'governance'.

Third, the primary factors of cooperative decision making in urban regeneration project are deduced from the basis of related rules and regulations.

Forth, the decision making framework for cooperation among stakeholders is organized based on the previous studies.

Fifth, the limit and future studies of the decision making model suggested in the paper are presented.

2. PRELIMINARY STUDY

2.1 Literature Review

The mega project like urban regeneration contains a large number of management factors owing to the complicated project structure. As the demands of control in urban regeneration project increase, many issues about management of urban regeneration are being performed. In this study the issue of cooperation in urban regeneration is focused.

Rhodes(2007) [1] examines the process and participants in urban regeneration with a view to identifying the nature of collaborative decision making in a particular policy arena. In that paper a complex adaptive systems(CAS) was applied which comprised of agents, rules, outcomes, decision factors, and process within the public policy arena for the purpose of exploring collaborative decision making in the public domain.

Kyvelou(2006)[2] presents how public-private cooperation schemes can successfully assist in the implementation of contemporary urban development policies. However, the study focused on just presenting current trends and perspectives of PPPs(Public-Private Partnership) implementation in urban development projects initiated by local governments.

Carley(2000) [3] explores the 'foundations' of partnership in urban regeneration based on 27 case studies. The research provides in-depth study and what makes regeneration partnerships effective and highlights the key factors behind successful partnerships.

Also, Seo(2008) [4] suggests the introduction of governance system in urban regeneration in which residents participate based on the case study. That insists on the change from one-side government to a new paradigm, governance which means cooperative communication. Considering the fact that urban regeneration project is conducted by both public and

private the introduction of governance concept appears to be essential.

From the preliminary study it is found that the approach of new paradigm like governance is required. However, most of the studies just focus only on understanding of the conditions or proposals, so systematic research which support substantial cooperative situation should be accomplished.

Therefore, this paper redefines the *cooperation* for supporting cooperative decision making in urban regeneration project and aims for developing a concrete supporting methodology.

Table 1. Literature Review

Author	Contents
Carley (2000)	- research on the foundation of partnership in urban regeneration - deduction of key factors for successful partnerships in the project
Park (2001)	- analysis of business process of urban development project - proposal of introduction of owners' decision making system
Bosmeer (2005)	- research on Public-Private Partnership in Urban Regeneration based on the comparison of Dutch and Spanish PPPs(Public-Private Partnership)
Kyvelou (2006)	- presentation of current trends and perspective of PPPs implementation on urban development projects initiated by local governments
Rhodes (2007)	- research on collaboration process in urban regeneration as seen through the lens of a Complex Adaptive Systems(CAS) framework
Seo (2008)	- set a governance model on various levels including policy network and public/private partnership
Chun (2008)	- analysis of a way to activate urban regeneration based on the community regeneration and governance

2.2 A Definition of Cooperation in Urban Regeneration

As mentioned above cooperation is indispensable in urban regeneration project as it has various stakeholders whose interests clash. Thus it is necessary to approach the issue of cooperation in urban regeneration project by analyzing the concept of 'governance'.

The general meaning of *cooperation* is defined 'continuous common act among participants for achieving a common goal'. In case of urban regeneration project, however, it is necessary to redefine the meaning of cooperation considering the fact that information inequality and conflicts caused by benefit contradictions among stakeholders arise frequently.

Accordingly based on the previous study, redefinition of cooperation would be derived and finally the decision making model will be presented.

First of all, conceptual study of governance should be performed. The term *governance* implies many meanings. Stoker (1998) defines it simply, as a 'complex set of institutions and actors that are drawn from but also beyond government'. The term *local governance* denotes that local government in Britain has been transformed from the dominant public institution to being one body among many which participates in a complex framework of governing (John,1997). For Rhodes, however, governance is accorded a more specific meaning, referring to 'self-organizing, inter-organizational networks' (Rhodes,1996) [5]

Therefore, this paper defines a concept of governance in urban regeneration as a cooperative mechanism which contains continuous interaction such as information sharing based on the mutual respect and partnership, recognition of mutual interests and finally coming to an agreement.

2.3 A Definition of Decision Making in Urban Regeneration

Mega project like urban regeneration is executed as provided by the law due to its complex process of the project. The urban regeneration could be considered as urban development, and it is carried out on the following process, 'planning stage – execution stage 1 – execution stage 2 – completion'. [6] Thus while performing a project, decision making situation is occurred at all times.

Therefore, the paper's direction would be decided by defining of *decision making situation* in urban regeneration. Thus the decision making situation identified in the paper is not procedural but for preventing problems in advance.

3. THE DERIVATION OF COOPERATIVE DECISION MAKING CONCEPT IN URBAN REGENERATION

From the related laws, regulations and guides to performing a project, the stakeholders in urban regeneration are classified and the features of mega project like urban regeneration are discovered. Moreover, the cooperative decision making factors are derived from the previous study.

3.1 The Stakeholders in Urban Regeneration

Since urban regeneration is not a newly-developed project but a re-improvement project, various stakeholders whose interest conflict exist. [7] The one who is related to the project either directly or indirectly could be a stakeholder. In general, stakeholders in urban regeneration project are classified into residents, experts, NGO(Nongovernmental Organization), the central government and the local government. [8]

In other words, the stakeholders in urban regeneration project could be divided into three groups such as the residents, the government, and business entities. Also,

residents can be classified into two groups that agree and disagree to the project. The group of business entities are divided into two as well, the construction company which takes charge of construction and the CM(construction management) company which provides project owners with consulting. There exists a gap of understanding among participants because even in one group stakeholder's interests are contradictory.

The classified stakeholder groups in the initial step are summarized in table 2.

Table 2. The Stakeholders in the initial stage of Urban Regeneration

Stakeholder	Traits
Landowners	- Pursuit of maximizing benefits from development
Association (Committee)	- The representative of residents - Pursuit of maximizing benefits from development
Consulting Company (CMr)	- The consulting firm in charge of project management - Pursuit of business profit
Construction Company	- Conducting construction - Pursuit of business profit
Government	- Pursuit of improvement in residential environment and stability of society

Accordingly, the relationships among participants should be structured based on the classified stakeholder groups in order for parties to recognize one's role and responsibility. Finally the cooperative decision making framework will be established.

3.2 The Features of Decision Making in Urban Regeneration

Most mega projects like urban regeneration are performed more than 10years. Thus as years goes by diverse decision making situations happen, and if proper decision making cannot be given timely and properly, the whole project would have crucial effects. Besides, several approval and permissions from the government are required for performing urban regeneration project. Also, prompt decision making is difficult in the project because even in one activity numerous stakeholders are related.

Moreover, the decision making when conflicts occur is different from the typical procedural decision making. It is not standardized and is difficult to achieve accurate decision making since the available information and criteria is not clear and hard to gain. Also even in one situation it is likely to have opposite points of view among participants due to the respective interest.

Therefore, from an organized and standardized framework in the paper, decision makers could gain information timely and correctly.

3.3 The Conceptual Diagram of Cooperative Decision Making in Urban Regeneration

For a cooperative decision making framework, the circumstance of continuous information sharing and interaction should be provided. Moreover, participants should understand others' responsibilities and available information as well as their own in order to monitor and cooperate.

Mintzberg(1976) suggested incremental decision process model which is divided into three phases. [9] The model is structured for the case when a number of participants exist and the decision making situation lasts for a long time. According to the suggested model, the decision making process is divided into three; identification phase which occurs problem recognition, development phase which forms alternatives for solving the recognized problem, selection phase which selects solutions. [10]

In terms of the fact that urban regeneration project is long-lasting and has a lot of stakeholders whose benefit conflicts, Mintzberg's model would be applicable. The concept of decision solving process enables a performer to recognize what should be done quickly and exactly. Finally a dominant position could be realized through the predominance of understanding holding.

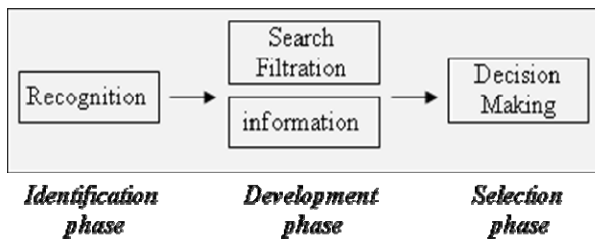


Figure 1. Cooperative Decision-Making Model (Mintzberg, 1976)

4. THE COOPERATIVE DECISION MAKING FRAMEWORK IN URBAN REGENERATION

Based on the previous conceptual diagram, required elements and information in every phase will be drawn, through which the cooperative decision making framework would be established in this chapter.

The role assignment and communication is important for cooperative decision making based on governance. If the previous conceptual diagram is applied to the urban regeneration, each actor's role and checklist for decision making should be provided in a timely manner. Accordingly in order to establish a cooperative decision making framework, the structure of stakeholders and checklists classified by subjects and activities have been examined.

4.1 The Composition of the Stakeholders

The players who appear in the beginning phase of the urban regeneration project are already classified in chapter 3.1. Thus, the structure of the stakeholders in urban regeneration, especially in the beginning step, is

established based on the laws and regulations concerned in this chapter.

As shown in figure 2 the composition of the stakeholders in the initial phase is presented. From the structure the central operating actor in that stage seems to be housing associations(provisional association)¹ because the associations(provisional association) has relationship with all the bodies.

From the point of view of the associations relations with other parties, associations obtain agreement for the project's progress from landowners and acquires right to initiate the project. Also, associations get permission from the administrative body. In that case, most of the decision making is conducted under the regulations, so almost every decision making is standardized.

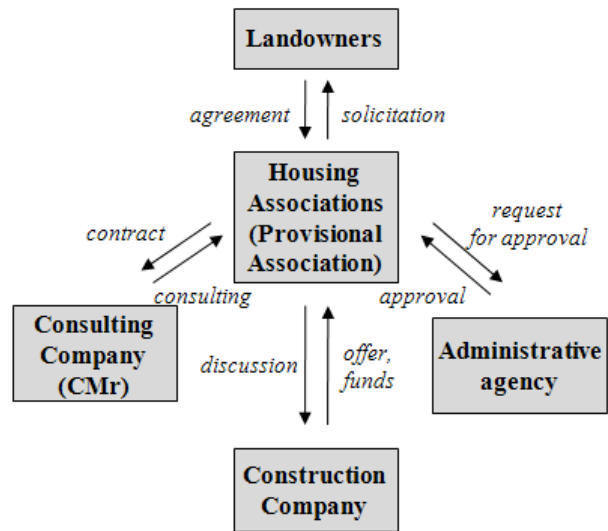


Figure 2. The Composition of the Stakeholders (in the Initial Stage)

The housing associations(provisional association) and residents that have no experience in urban regeneration project hire a consulting company(CMr) for a successful project. Some risks concerning the contract time and method are hidden within the relations due to the fund and authority. Thus the cautious decision making is required at that moment.

Like the relations between housing associations(provisional association) and consulting company(CMr), the relations between provisional association and the construction company is formed by contract. However, previous contact, which is illegal, arises before organizing associations which is still in the provisional association phase. Those cause many conflict situations between residents and associations, and sometimes develop into internal conflicts. According to the above structure of stakeholders, the construction company offers funds for initiating project for the purpose of contracting. Because raising funds is very hard

¹ Before obtaining an authorization of organizing associations, provisional associations replace associations.

to gain for the provisional association, the black money circulates.

Understanding relationships among bodies and gaining useful information which could prevent from the difficulties are realized by using the structure of the stakeholders. Moreover, the participants can understand who is related to and which activities are conducted from the structure.

4.2 Decision Making Checklists

In the chapter 4.1, the stakeholders' structure is presented and general understanding of relationships is accomplished through the structure. A checklists form of decision making is suggested for providing more specific and substantial required information based on the previous findings.

The concept of decision-making checklists is presented in figure 3. Through understanding of the stakeholders' structure, the individual party recognizes which participant is related to and what activity should be done in the process.

As shown in figure 3, the party 'A' is related to all the parties B, C, D, and E. Also 'A' is assigned 2, 5, 6, and 7 activities in the process and the decision-making checklists classified by activities, which are included in the *checklists pool of 'A'*, are provided. In case of 'B', it is related to A, C, D and performs 1, 4, and 6 activities. Like the case of 'A', 'B' is provided with the decision-making checklists classified by activities and those are implicated in the *checklists pool of 'B'*. Also, the checklist of activity '6' which is involved in the checklists of 'A' and 'B' simultaneously could be contained in the *checklists pool of '6'* as well. Therefore it is accomplished to gain the checklists not only by parties but also by activities.

By applying the checklists, the decision maker understands the decision making activities by parties and the decision making parties by activities. Consequently it is realized to provide customized information timely and properly.

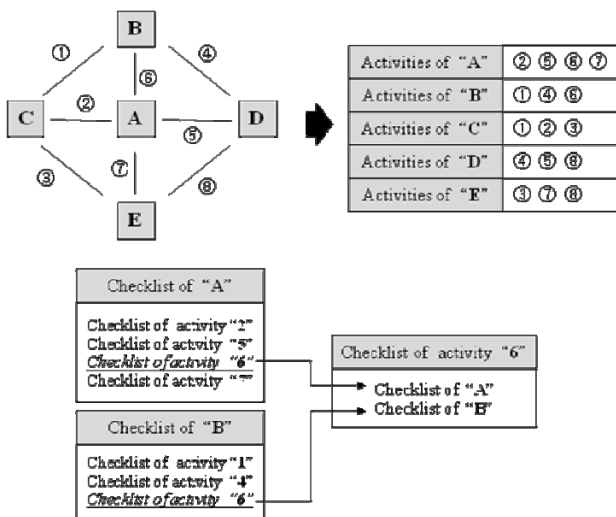


Figure 3. The Conceptual Diagram of Decision-Making Checklists

4.3 The Cooperative Decision-Making Framework in Urban Regeneration

A framework of cooperative decision-making in urban regeneration is developed from the Minzberg's model, which is presented in figure 1. Figure 4 shows the framework in which the cooperative decision making process realized. The process of the framework is as follows.

(1) When a decision making situation occurs, the decision maker recognizes that some action is require(Identification phase). (2) In the development phase, he could realize how many stakeholders exist in the process and who the main body is from the composition of stakeholders. After general understanding of relationships the decision maker could attain substantial information by reviewing the checklists which is classified into parties and activities(Development phase). (3) Eventually, the final selection is conducted in the last phase(Selection phase). If the selection was not appropriate, the party goes back to the beginning or the development phase.

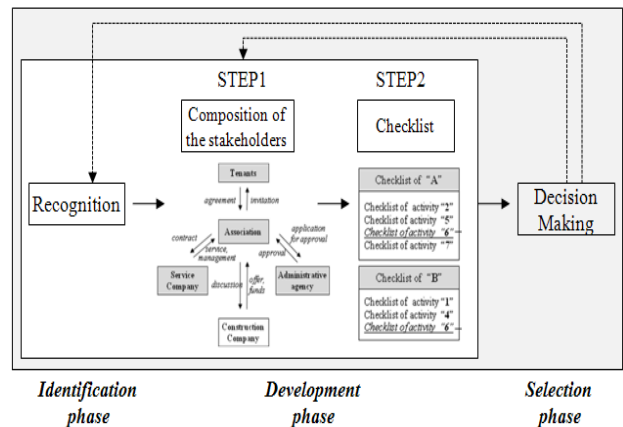


Figure 4. Decision-Making Framework in Urban Regeneration

Accordingly, all the participants could acquire useful information which supports making proper decisions. Furthermore, mutual monitoring and collaborating could be actualized from the decision-making framework in urban regeneration.

5. CONCLUSIONS

The paper has explored the cooperative decision-making framework in urban regeneration project. In the preliminary study, it was referred that governance management should be applied in the project. As mentioned above, mega project like urban regeneration involves various stakeholders whose interest conflicts. Thus it is difficult to make decisions even about trivial tasks because it is related to respective benefit. Therefore, it is required to manage and support decision making in terms of cooperation.

The results of the study are as follows.

First, in order to support cooperation among stakeholders, the study of cooperation was performed. The newly defined cooperation in this study is based on the concept of governance.

Second, the conceptual diagram of cooperative decision-making is formed from the analysis of stakeholders and features of decision making in urban regeneration.

Third, the cooperative decision-making framework which is consisted of the compositions of the stakeholders and the checklists by parties, activities is developed based on the findings presented.

This study was begun to support cooperative decision-making in mega project. However, it has limitation of focusing on the initiative phase. Thus, based on the presented framework in this paper future study should be continued as well. Furthermore, if the framework and decision-making process are supported systematically, more prompt and appropriate decision making could be expected.

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