

Risk Management Analysis during Contract Preparation of Co-financed Projects

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Abstract

The main objective of a contract is to establish the rights, duties, obligations and responsibilities of the parties and to allocate risk. The acceptance of an obligation or duty brings with it the acceptance of a commensurate risk, which is the risk of being unable to fulfill the obligation or duty because of one's own inadequacy, incapacity, inadvertence, or error, or because of interference from outside sources or events. For these reasons, risk management was introduced as an important element of a project's contract preparation phase as a system which aims to identify and quantify all risks to which the project is exposed so that a conscious decision can be taken on how to manage risk.

This paper analyses the process of dealing with contractual risks, applied in co-financed projects by specific European Union's Funds. Fit-for-Purpose contractual relations are illustrated, leading to a different contract for each project. Risk apportionment is the overall objective of that process, using both allocation of risk and structure of power analysis. During the contract preparation, the three-stage model of Risk Management is used; identification, analysis and response, having as fundamental issue to allocate the risk through the selected funding method, strictly imposed by the European Directives.

Keywords

Risk Management, Contract Management, European Union

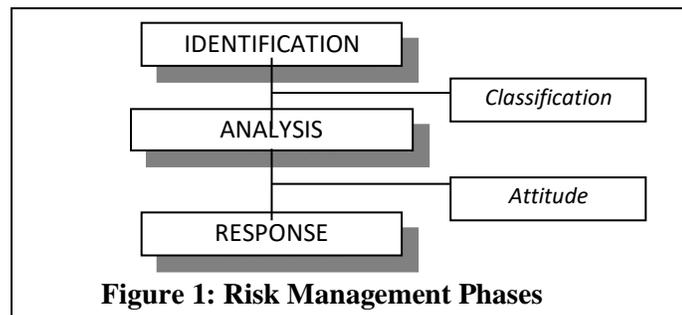
1. Introduction

Construction projects have an abundance of risk, characterising construction as the industry subjected to more risk and uncertainty than any other industry (Flanagan and Norman, 1993). Technological complexity reanges from the familiar, well-known materials and trades to highly complex facilities involving multiple interacting sub-systems. Regardless of its technological complexity, any reasonably sized project involves a high level of organisational complexity. This arise because there are many specialised skills and

professions with a useful contribution to the process. The vagueness of construction industry is compounded by the fact that construction involves a wide range of activity, the industry's external boundaries are unclear and the relationships between the parts are not always clear (Murdoch and Hughes, 1999). The fragmentation of construction into a large number of diverse skills is an inevitable consequence of the economic, technological and sociological environment; there is an extraordinary diversity of professions, specialists and suppliers. It is important, though, to approach construction contract problems in an organised, rational way.

1.1 Risk Management Framework

The generic risk management framework contains essentially three main phases and is applicable in any Risk Management application and at any stage of the project lifecycle, including contract preparation. The phases are: Risk Identification, Risk Analysis and Risk Response (fig. 1), (Bowles and Kelly, 1999).



1.1.1 Risk Identification

In this stage, we identify the source and types of the risk. The sequence used can be seen in the following figure 2.



Figure 2: Risk Identification Sequence

Methods used for risk identification at contract preparation are:

- Historic Data
- Checklists
- Brainstorming

1.1.2 Risk Analysis

Risk analysis could be either quantitative or qualitative. The former are techniques that require numerical data and calculation work. This type of analysis is usually difficult to be used during contract preparation. The latter does not involve any mathematical manipulation but is based on the experience and intuition of the team in order to determine risk impact, usually more adaptable to a contract preparation phase.

1.1.3 Risk Response

Being the final stage of the risk management process, its objective is to develop some method or strategy for dealing with risks, previously identified and analyzed. The possible effects during contract preparation could be: Elimination, Reducing probability, Reducing impact, Transfer (tactic during contract preparation).

2. Risk Analysis in Contract Management of Community Initiative Leader+ projects

A four-level administration and communication model composes the generic framework on which European Community Initiative Leader+ is based on national level (Greece): European Commission, National Authority (National Level-Greek Ministry of Agriculture, Special 3rd CSF Secretariat), Local Action Group (Prefecture Level-Pieriki Anaptixiaki S.A.), Final Receiver (the individual under funding).

The special legal framework of Community Initiative Leader+ regarding the contractual issues between each Local Action Group and the Final Receiver is specified in the Decision No.577/4-3-03 of the Ministry of Agriculture Special Secretariat, under the title of “Special Requirements in the application framework of the Local Leader+ Programmes”. Moreover, Decision No.430/18-2-03 of the Minister of Agriculture under the title of “Application details of the Community Initiative Leader+” provides the general outlines of the contract. In more detail, in Article 8, paragraph 12, it is pointed out that the contract between the Local Action Group and the Final Receiver should include: detailed description of budget (based on a detailed WBS), time plan, funding details, payment stages, approved project characteristics and specifications, Final Receiver’s obligations and own funding. Appendix III of Decision No.577/4-3-03 of the Ministry of Agriculture Special Secretariat, describes the Model Contract between the Local Action Group and the Final Receiver. The model should be adapted at least, as it could be enriched by the Local Action Group, according to any special conditions of each project and the legal framework of the Final Receiver. The required designs, studies and approvals could be either required before the contract sign or at least before the first payment of the funding; for the second option the exact deadline of submission should be stated, along with the option of contract termination if the submission would not be successful.

2.1 Model Contract

Before all articles, full legal coverage is provided (European and Greek law).

2.1.1 Article 1 - Object and duration of the contract

The Title and Funding Category of the project are defined, along with the deadline as a date and the duration of contract effectiveness (3 years).

2.1.2 Article 2 - Project Budget-Funding Percentage-Own Funding

Total budget and selected budget are defined, along with funding percentage and amount and own funding details.

2.1.3 Article 3 - Project phases and payment methods

The most important points of this article are:

Projects phases are described in full detail (percentage of the whole works, exact amount and detailed works description). Payment stages are identified in full accordance to the aforementioned project phases (percentage and amount). If selected budget is less than the total budget, then payment is based on the analogy percentage of selected cost to total cost. Prepayment is always covered by a financial guarantee letter. Moreover, all approvals should be completed. For all rest payments the Final Receiver should submit to the Local Action Group an application along with: List of Supporting Documents, Detailed quantity survey of all works, paid off Receipts.

2.1.4 Article 4 - Implementation of works

Implementation of works is based on the legislation of full transparency. Before contract sign, the Local Action Group is invited by the Final Receiver in order to conduct an on-site control to examine the existing situation and/or the works already implemented. The project should be executed according to the designs and the time and cost details approved by the Local Action Group. In case of budget, work plan and/or time

alterations during materialization, these could be accepted by the Local Action Group under the condition that objectives, character, effectiveness of the project would not be modified, along with the project details used during the evaluation and selection process, and always in full compliance with the general rules implied by the Ministry. Modifications that lead to budget increase are not acceptable. Reduction of the basic indexes (area, volume, capacity) leads to a proportional reduction of the budget under funding, even if the budget is increased. Transfer of constant assets of the project under funding could not be accepted for the period of five years after the project completion.

2.1.5 Article 5 - Project Observation

It refers also to file-accountant registration. According to this article a full file of the project should be kept by the Final Receiver provided for control when requested, until 2012. Moreover, the Final Receiver is obliged to observe the obligations imposed from the in effect tax legislation.

2.1.6 Article 6 - Controls-Forecasted Sanctions-Charge of responsibilities

The Local Action Group is totally responsible for the proper application of the Local Programme, within the time constraints and always in accordance with the national and European legislation, while the Final Receiver is under possible control during the whole duration of the contract according to national and European legislation.

2.1.7 Article 7 - Final Provisions

This article indicates that the contract can be modified or amended only by the Local Action Group.

2.2 Additional provisions

Pieriki Anaptixiaki S.A having the right to amend additional provisions in order to reduce probability and to transfer risk, has added the following points to the model contract:

- An extra article was added: Financial Guarantee Letters. In this, the details of the letter are presented.
- Duration of contract effectiveness – 5 years instead of 3 years.
- Full list of supporting documents is added in article 4.
- List of the required documents to be kept in full file of the project are enriched.
- Article 6 enriched, more detailed description on the external risks.
- Article 7, extra paragraph, risk transfer when required.
- Article 7, extra paragraph, insurance obligation to the Final Receiver.
- Article 7, extra paragraph, extra quality requirements imposed.
- Article 7, extra paragraph, law coverage.
- Contract Technical Appendix added, including: project details, short description, technical description, budget, work places, project stages, Gantt timetable, full and detailed project budget, energy identification and agreement of participation in quality cluster (according to extra requirements imposed), report of existing situation (including photographs).

3. Fit-for-Purpose Approach

The answer to the question of which methodology is the best for a Contract Risk Management Analysis is relatively straight forward: all of them are valid, but each one may be best suited to a particular set of circumstances (Cox and Townsend, 1998). Whichever basic approach is employed, the overall framework for managing risk is largely similar, based on the three steps: identification, analysis, response. It is necessary, therefore, to think through what is fit-for-purpose for each specific application, taking into

consideration that no construction project is similar to another (Kerzner, 1999). Within the construction industry there are two main popular views of risk apportionment; the first suggests that contracts should be drafted with an even balance of risk while the second suggests that risk should be allocated to the party most able to manage it (Cox and Thompson, 1998). Although from the current thinking, notions of “fairness” and “equity” are considered as being better practice for the contract management, it is often argued that this thinking is partially correct; argument that could be adapted to the case study. The co-financed projects analyzed in this paper have two basic characteristics: they are ruled by strict and special legal framework (combination of European and Greek Decisions) and each of them was selected after a long and strict evaluation procedure in which other projects were rejected, for that reason none of each project’s elements, that were part of the evaluation criteria, could be altered. This kind of alterations could lead to serious mismatches between the ex-ante evaluation, on one hand, and the on-going and ex-post evaluations, on the other hand. For this reason, a combined contractual approach is instructed; the Local Action Group is responsible of identifying the possible risks of each different project and, through the contract, to eliminate or, if not possible, to transfer them to the Final Receivers.

4. Conclusions

Contractual relations usually depend on what it is that one is aiming to achieve with risk management, and which of the various approaches would most efficiently deliver the desired outcome. The selection decision should be based on the following factors (Thompson and Perry, 1992): type/size of the project, information available, cost/benefits, experience/expertise of analysts. What is important and was adapted to the analysis of our case study, is the understanding of the basic principles of the contractual mechanism of each project. For our case study, two types of analysis were conducted (Cox and Thompson, 1998):

- Detailed allocation of risk, each contract apportions responsibilities and liability to the parties to a contract for actions and events during the progress of work.
- Definitive structure of power, each contract specifies the control mechanism to which all parties are tied up contractually.

The problems of contracting in co-financed projects are often exacerbated by some of the adapted practices by the Final Receivers. The objective of the Local Action Group is to proceed to the required actions, in order the contract to be administrated successfully and the works to be procured effectively. For this reason, this paper presents possible additional provisions based on the Model Contract framework and the basic points of the specific fir-for-purpose contractual approach.

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