

Verbal Analysis of Risk Elements in Construction Contracts

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Abstract. The paper aims to analyse the construction contracts provided by FIDIC (International Federation of Consulting Engineers) and to determine their usefulness in respect of technical risk management. Contractors of international construction projects are often faced with complicated situations working with design documentation. One of the potential financial risk factor is associated with the frequent changes of documents and improper channels of communication between project partners. One of the major aspects is project financial and technical risk management. Project developers need various models of managing large and complex projects.

1 Introduction

Methods of risk assessment with use of the quantitative tools are very often not sufficient. Authors of this paper present the verbal method of construction contracts types comparison. This method allows estimating the verbal criteria of contracts solutions quality and risk connected with contractual issues.

Errors made high in the managerial chain have a noticeable influence on errors committed by operatives. However, they often remain latent and the direct causes are those related to poor workmanship of an individual worker. Nevertheless in complex processes like running the construction project in its full life cycle the problem relates to all people involved – from designer to operative and from the senior manager to junior trainee [11]. Although a great deal of technical information is already available on the causes of building defects, there is no evidence of any significant reduction in the incidence of defects and failures in recent years. The financial consequences of deficiencies of buildings and building components (or ‘cost of defects’) amount to approximately 3 to 5 % of the yearly costs of construction. About the same percentage

cost is attributable to losses due to defects in the building process, as a result of errors, shortcomings, waste of material, idle time, and the like. The total cost of deficiencies in building thus range from around 6 to 10 % of total industry costs. Of course, this figure will vary from sector to sector within the industry. Nevertheless it is unacceptable, both socially and purely from the economic point of view [7]. Therefore, as failures and defects always mean extra costs (significantly influencing financial risk of construction projects), additional actions that need to be taken and delays in project delivery, the problem of avoiding defects in construction has been given more attention in recent years. It is noticeable in an increasing number of constructions, designing or consulting companies making efforts to implement ISO standards in services they supply. Yet, although implemented it is often not well understood and followed by the companies' key workers.

Efficient project management is about risk management [6]. Technical risk management at the construction stage of the project life cycle influences not only the economic effect of the investment but also future efficient functioning of the building. Lack of proper actions during construction can increase the probability of defects, failures, accidents or even catastrophes occurring.

2 Contract Type as a Tool for Technical Risk Allocation

Risk allocation is one of the construction contract's prime functions. To fulfil this aim construction contracts' provisions define among others:

- rights and obligations of the parties,
- sanctions for non-compliance, or incentives to comply,
- sets of procedures to be followed by the parties,
- how parties will bear the risks of unforeseen events.

Available forms of contracting construction works, and thereby risk allocation, are influenced by the following procurement strategies:

- TGC (Traditional General Contracting) in which design is procured independently of construction; design is provided by independent or in-house designers in direct contract with the client, while a separate contract for the construction of the project is placed with a contractor, who then sublets elements of the work; there is the matter of subcontracting clauses in the contract as the client may request:

- nominated subcontractors/ suppliers - when the client has reserved the final selection and approval of the subcontractor to the contractor; works of such subcontractors are partially the responsibility of the client and the general contractor,
- domestic subcontractors/ suppliers - any person or company to whom the contractor sublets any portion of the works and for whom the contractors remains wholly responsible;

- D&B (Design and Build) in which the design and construction form an integrated package - a single organization undertakes the responsibility and risks for both the design and construction phases; there may be various levels of employer involvement in the design, e.g. in: