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(REVIEW ARTICLE)



# Engineering contract of construction industry (Subcontract) in Libya

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#### **Abstract**

There is an ever-growing body of literature related to construction contracts, administration, claims and disputes. Much of this is contextualized from the owner-general-contractor relationship perspective. Despite the prevalent engagement of subcontracting, approximately 80% of the work is done by subcontractors; the treatment of distinctively subcontractual issues in such literature is relatively limited. Any special focus on subcontracts is often written with, "us against them" overtones, emphasizing the perspective of either the subcontractor or the general contractor. The hypothesis of this research centered upon Subcontracting being essential and necessary in the construction sector irrespective of building project complexity, and subcontracting is exposed to substantial risks, therefore, it being imperative to understand means and methods of regulation of subcontractor selecting to limit risk. Publications from a variety of research and sources were reviewed concerning the subcontractor's role, procedures, types, and relationships, administration of subcontractors and subcontracting work and risks in selecting subcontractors. Subsequently, what is presented in the findings is the necessity of subcontractor selection and its impact on the cost, duration and quality of construction projects and the associated risks of subcontracting. A comparative aspect is presented evaluating the Libyan Contractual Conditions relative to Subcontracting Work and the shortage in the items that concern the subcontracting work. Furthermore, the research has also sought to identify and provide the main contractor with an effective instrument of selecting his subcontractors.

**Keywords:** Subcontractor; Subcontracting Administration of Work; Construction Industry; Complexity.

#### 1. Introduction

There is an ever-growing body of literature related to construction contracts, administration, claims and disputes. Much of what has been written is in the context of the owner-general contractor relationship. Yet, approximately 80 present of the value of construction work is accomplished through subcontractors. Despite this prominent position in the construction process, treatment of distinctively sub-contractual issues in the literature is relatively limited. General principles and concepts are often discussed with little regard to their specific application to the sub-contractor procedure. On the other hand, where there has been a special focus on subcontracts. As the principal contractor, realized that the subcontracting party's role has a great influence on the cost savings, a big pressure was yielded on the relationship in between. In general, the main contractor performs the basic operations whereas; the subcontractor is responsible for accomplishing the more specialty operations, according to [1] the use of subcontracting increased extensively on the housing construction projects and multi components building projects than any other engineering industrial projects. As an advance step to improve the main contractor's relationship with subcontractors, the major contractors have developed a procurement approach. This approach involves identifying the needs of the major contractor and the subcontractor and what they want from each other. It has also involved process of comparing and benchmark the main contractor business performance against its competitors. The approach of identifying every part needed offers a number of benefits in terms of costs reduction, improved team satisfaction approach and less argument,

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to all of the contract partner (the customer, the major contractor, partnering subcontractors and expertise [2]. It must select subcontractors that have good experience and work effectively with him. Each member working for the company should be involved in the project, for example, much management attention should be given during the bidding phase, while the selection and managing of the subcontractors during the construction phase should be allocated to the construction team [3]. Some of the reasons that always occur are from the contractor and subcontractor and lead to the failure of the project In both cases however, the project cost is going to be increased and delays in schedule time are going to happen. [4] Stated that all of the aforementioned shortcomings and problems that always result from the unclear relationship between contractor and subcontractors have forced many researchers to study these problems and find out the best way to solve them. According to Skitmore et al. [5] that since subcontracting has existed, Subcontracting has become an alternative option for construction firms, and it has enabled those reducing jobs costs and it allows on the other hand, subcontractors to become an instrumental in work organization. The subcontractor has been defined by Bennett and Ferry [6], as a specialist agent that being in charge of executing a specific job such as supplying manpower, materials, equipment, tools or designs. Therefore, the construction process is not continuous and/or repetitive because of not involving identifiable execution steps and its outcome is inherently uncertain. However, like the manufacturing industry, the construction industry employs a large number of employees and suppliers, subcontractors and consultants Sawalhi and Adnan, [7]. The main contractors, on the other hand have directed their attention and efforts towards the project site operation management rather than employing direct labour to undertake construction work. Kumaraswamy and Mathews in their study in [8] had supported this trend and referred it to the increasing needs to sophisticated technology-based output with high degree of design, manufacture, installation and commissioning skills which have not been readily available to the industry clients or main contractor.

According to Arditi and Chotibhongs, [9], these facts had forced Main Contractors (MCs) to focus their efforts on the project site management rather than employing direct labour to undertake the construction work. It must be seen as a set of collaborative processes that place great emphasis on the importance of common goals and great degree of interorganizational trust and mutually beneficial goals starting from improving strategic planning enterprises efficiency, and form working teams with adjacent objectives [10]. According to Naoum, [11] these benefits have made partnership being a known form of practical relation within construction field over the last decade. Naoum, [12] proposed normative development guides to build partnership relationship between contractors and subcontractors. This model provides a generic framework for evolving collaborative relationship. However, there are some problems have arisen and still associated this model.

#### 2. The Subcontracting Work and Subcontractors

A contractor is often hired by a company or individual, involved in a construction project, to undertake the responsibility for and ownership of getting the actual work completed. In turn, however, the contractor most often does not do all of the work, that is a rarity, rather other parties are brought in by the contractor to undertake aspects of the work. With different parties being involved, specific terminology is used to help define their involvement and relationship. The originator of the project is often referred to as the owner. The entity hired to do all the work is designated as the general or prime contractor. Third parties brought in by the general contractor are referred to as Subcontractors. This can get more complex as Subcontractors may bring in other parties and therefore subcontract out aspects of work, they themselves have been subcontracted to perform by the general contractor.

### 2.1. The Subcontractor

A subcontractor is a person (not an employee) or business having a formal agreement (contract) with a general contractor to provide some portion of the work or services on a project which the general contractor has agreed to perform for the owner. The subcontractor quite often will provide some specialized skill or service.

#### 2.2. Subcontracting Work

Subcontracting refers to the agreement the general contractor issues to a Subcontractor when outsourcing certain types of work from the Subcontractor. This is different from general contracting, which, in many cases, is a contract covering a much broader project. Larger contractors may be able to handle all the work without subcontracting. Such companies are rare not only because of the expertise involved, but the desire to focus primarily in one area. If a contractor has too many disciplines, it may be that it is not attending its efforts on quality as effectively in one particular area. What is more established is a general contractor may take care of a number of tasks but look to subcontractors to fulfil certain works. Therefore, a general contractor will be subcontracting out certain types of work a subcontract is an agreement for an aspect of work that is often parts a larger requirement. This agreement essentially allocates a portion of work to be performed by another organization. A subcontract outlines the rights and responsibilities of each party alongside details of the specific works to be performed.

#### 3. The Relationship between the Subcontractor and the Owner

There are many reasons for the owner to contract directly with the subcontractors rather than utilize a general contractor including any or a combination of any of the following. First, owners may hope by eliminating the general contractor it can eliminate anywhere a portion of the costs of the project, which would normally be the general contractor's mark-up for profit. Second, many owners may be convinced by the impression that they can attain the same coordination functions through an agent such as a construction manager or an architect/engineer for no more cost than a general contractor who allegedly is more adversarial than others. Finally, some owners may feel that they are sophisticated and equipped enough to handle the coordination functions themselves rather than pay for outside services. Whatever the reason may be, some owners feel that contracting directly with the trade subcontractors is more efficient. For this reason, the use of such contracting vehicles is being seen with much more frequency in the last decade or so (Gould et al, 2009). To the extent that an owner is fulfilling the function of coordinating the subcontractor bids and undertakes directly the performance of the general contractor's traditional duties under direct subcontracts, many of the issues described in this part relating to general contractors will be equally applicable to owners [13]. The subcontractor's relationship with the owner is affected by the terms and conditions of the project contract between the owner and the contractor or the project manager. In structuring the construction project, the owner has to address the reasons of leaving all the responsibilities for subcontracting to the contractor or construction manager with requesting a specific contract article that help to avoid subcontractor difficulties and expose the owner to a subcontractor's claims. The owner must analyze the particular project to determine the appropriate balance. Trade contracts in a construction management project are the equivalent of subcontracts in a general contractor relationship. In each type of contract, the owner must address six important subcontracting issues as shown in figure (1).

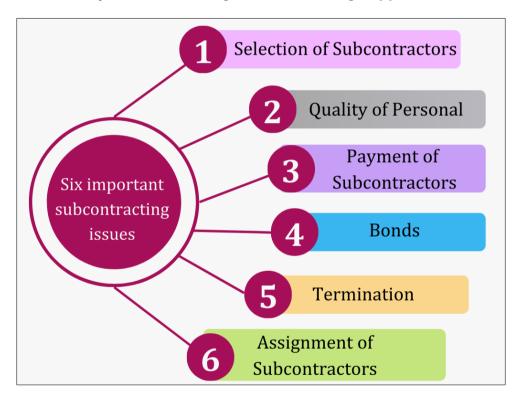


Figure 1 Six important subcontracting issues

# 3.1. Dependency of Project Participants on Subcontractors

Lack of a direct contractual relationship is a formidable defense to owner liability to subcontractors. Various legal theories and conduct on the part of the owner may establish legally enforceable rights and obligations for the benefit of the subcontractor. Beyond the context of legal liability, however, the owner must recognize the importance of the abilities and efforts of subcontractors to the success of a project. An owner may be insulated from a subcontractor's performance failure by the general contractor, its performance bond, and possibly the subcontractor's performance bond, but all the adverse impacts almost never be addressed or remedied. Success in claims and litigation is a poor substitute for the successful and smoothly running project that the owner planned for and anticipated. The fate of each project-and often the fate of all the participants in the project-hinges upon the successful operation of the web of relationships reflected in the modern system of construction subcontracting. This dependence on subcontractors is not

limited to the owner or the general contractor, but extends to all parties that directly or indirectly participate in the construction process. Even a quick review of situations and issues that typically arise in construction illustrate the extent and importance of the interdependency of all project participants on subcontracting and subcontractors. Subcontractors are involved most directly and immediately with general contractors. Through the subcontract, the general contractor reduces its burden of performance by relying on his subcontractor for achieving part of the work. The general contractor's relationship with the owner does not change by virtue of subcontracting. The general contractor remains legally and financially bound to the owner for the full scope of the work, regardless of whether portions of that work have been delegated to subcontractors. Indeed, by involving subcontractors, the general contractor undertakes the additional responsibility of coordinating their efforts-a responsibility it must discharge for the protection of the subcontractors and the owner.

#### 3.2. Administration of Subcontracting Work

Most of the construction projects utilize subcontracting activities making up a considerable spending amount of the total project. Subcontracting is sometimes practised to employ specialty of contractors, optimizing cost and performance scheduling, or to satisfy some other project goals such as local involvement.

#### 4. Conclusions

The approach has been to look at various pieces of research and literature on subcontracting in the construction industry. Particular attention has been given to those works or aspects which expound upon various issues and problems both that have occurred and can potentially arise. Key disciplines related to main contractor and subcontractor engagement have been broadly analyzed to help structure the research and investigation into issues that can and do arise and where possible to conclude these with good practice. The key findings or conclusions of the research are summarized below:

The main contractor is responsible and accountable for all work. This is irrespective of whether subcontractors have been engaged or not. From the Owners perspective and officially, the agreement was between the owner and main contractor. It is under the main contractor's own volition how the fulfilment of requirements is actualized. Irrespective of any subcontracting undertaking all work appears as if it has been done by the main contractor

It follows from the above point that the main contractor is responsible for management of building construction projects. This then also involves management of subcontractors and work undertaken by them whatever the particulars of that may be in terms of specialism. It is therefore essential to have in place strong management and control processes that accordingly facilitate subcontractors.

Selecting subcontractors is often done using the lowest price approach. This is a major issue exposed to various inaccuracies, leading to serious consequences. Rather successful selection of subcontractors necessitates the main contractor pay attention to more than just the cost. This includes track record, project requirements, subcontractor skill sets and abilities, and such.

#### Compliance with ethical standards

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Disclosure of conflict of interest

No conflict of interest to be disclosed.

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