



The Turnkey Contract and the Globalization Era

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Abstract.

Nowadays, Portugal and the rest of the world have begun to see a gradual and prosperous growth of construction companies. Related to this is the internationalization of companies. The need arises for the parties, contractors and 'developer' to know in advance the contractual conditions, namely delivery time, development, location of the project, payment and other conditions associated with the construction. This article intends to underline the importance of Turnkey's contract, considering it an important contracting modality for the execution of large projects, involving not only engineering, but the effective assembly of a complete production unit. This is a multidisciplinary contract where there is the hiring of a single company, whose responsibility ranges from the completion of the project, to the engineering work, equipment purchase, testing and may even cover the respective operation. For the settlement of this contract, it is necessary to know the activity of FIDIC, International Federation of Consulting Engineers. FIDIC, starting from the observation of thousands of construction contracts around the world related to construction, came to the conclusion that there were contractual conditions that were successively repeated in various contractual types. Thus, it created "general conditions" for all international construction contracts, providing standard models to be adopted by interested parties. However, each contract, apart from the general conditions, lacks particular conditions because of its specificities. Depending on the type of construction contract, these are referred to in books of different colors and are universally accepted as the basis for their elaboration. We will make a foray into the discipline of Turnkey's contract, seeking to highlight the importance it takes on currently.

Keywords: construction; International Federation of Consulting Engineers; large work; regulation

1. Introduction

The absence of adequate regulation, whether national or international, has favored the phenomenon of self-regulation of their contractual relations.

It was in the society of international trade operators that habitual uses and practices were consolidated, although by market sector, and that led to the creation of model contracts and general conditions. There was a need to achieve predictable regulation appropriate to the interests at stake.

It was essentially in the construction sector that the need to implement specific rules for certain types of contract was soon felt. The market, due to the grandeur of certain works, imposed a reflection in the discipline of the rights and obligations involved.

The lack of adequacy of national laws to this type of contracts, most of them are international, involving great complexity, both in terms of execution as well as the technology involved, attracted the attention of certain entities, non-governmental organizations and professional associations in the sector. From an early age, it was felt essential to observe the practice followed by the operators of international trade, to give voice to professionals linked to the sector, who are knowledgeable about the peculiarities of the relationships between the protagonists involved and, above all, to perceive which are the common features of these contracts.

In order to elucidate the reader, we will make a foray into the activities of these organizations, highlighting the characteristics of these contracts and what distinguishes them from common works contracts, stressing their specificities.

The focus of our concern will undoubtedly be to demonstrate the state of the art regarding the regulation of this contract, seeking to highlight the instruments capable of disciplining these contractual models and to draw attention to the possibility of articulating the various instruments involved. We are talking about soft law, flexible, non-binding, non-state law, but which, due to its technicality and clarity, persuades all those who operate in this extremely important sector, which is so valuable for the economic, financial and social development of the states.

2. International Overview

It is necessary to make a reference, albeit brief, to the performance of certain international organizations and associations to better understand the problem.

In 1973 the United Nations Economic Commission for Europe (UNECE) published a guide on the drafting of production contracts for industrial units (Guide sur la rédaction de contrats relatifs à réalisation d'ensembles industriels, 1973).

In 1981, the United Nations Industrial Development Organization (UNIDO) published the UNIDO model form of turnkey lump sum contract for the construction of a fertilizer plant and the UNIDO model form of cost reimbursable contract for the construction of a fertilizer plant. These are sectorial model contracts, specific for the construction of fertilizer factories.

In 1988, the United Nations Commission on International Trade Law (UNCITRAL) published the Legal Guide on Drawing up International Contracts for Construction of Industrial Work. It is a guide to international construction contracts, essentially aimed at emerging economies.

These texts did not achieve the desired success due to the absence of adequate technical and legal solutions (Rodrigues, 2014).

The World Bank and European Investment Bank also published guidelines and general conditions, seeking some legal uniformity, (Standart Bidding document Procurement of Plant Desidn, Supply and Installation, 2010, revised in 2015) and (Guide to Procurement for projects financed by the EIB , 2011, replaced by the 2018 version).

At the same time, we cannot fail to emphasize the role of two important professional associations: the Federation International des Ingénieurs Consails (FIDIC) and the Engineering Advancement Association of Japan (ENAA).

The general conditions developed by FIDIC, as well as the forms developed by ENAA, have definitely contributed to overcome the problems of international contracts in the field of construction, giving rise to real sectoral practices.

FIDIC's hiring models contain clauses that are the result of the experience of professionals who participated in the construction of projects in several countries, including an integrated work of engineers, lawyers and other technicians. These models are auxiliary guides for the drafting of construction contracts, and must be adjusted to each type of construction.

ENAA emerged with the aim of promoting and developing the construction industry and engineering services. Japan's participation in international construction projects dictated this. Its activity was centered on the creation of a standard contract to fill the shortcomings of the existing ones, especially regarding the transfer of technology and guarantees of good execution (Process Plant Construction (Turn-key Lump Sum Basis, 1986, undergoing changes in 1992 and 2010).

The Chamber of International Commerce of Paris (CCI) has also contributed to the realization of the uses in this type of contracts, providing contractual models capable of safeguarding the legitimate expectations of the parties involved (ICC Model Turnkey Contract for Major Projects, 2007).

3. Turn-Key concept

As for the concept of Turn-Key, there is no universal definition, thus generating some uncertainty about the concept's delimitation (Rodriguez, 2014).

One of the reasons for the lack of conceptualization is that these contracts were created in commercial practice, according to the needs of the traders themselves and the particularities of the delivery of the work. In addition of the degree of technological development of the contracting parties, the technical characteristics of the industrial sector concerned or even the socio-political conditions of the country where the work was carried out.

We mustn't forget that the term Turn-Key appeared in the USA, in the century. XX, being used in different activities, both in the real estate sector and in the supply of equipment.

However, in order to end the uncertainty surrounding the concept of Turn-Key, doctrinal trends began to emerge, namely the one which considered Turn Key contracts all those in which the contractor is obliged before the client to deliver the finished work to be used (Rodriguez, 2014).

However, we believe that this result obligation is common to all construction contracts. However, the emphasis on the differentiation of this contract regarding the others, in the scope of construction, must be placed in the complete realization of the construction project. The contractor assumes a certain degree of responsibility for the completion of the project.

As mentioned, the Turn-Key Contract has its origin and greater use in the infrastructure / real estate sector, having as a paradigm the construction “ready to be used”.

The Turn-Key Contract is based, on the contractor's side, on the provision of a complete package of solutions, taking into account all phases of the project, which may involve engineering and specialized knowledge, in which the provider obliges to deliver a unit to the client, by industrial hypothesis, ready to labor, with all the physical infrastructure, equipment, etc.

In a more legal sense, we can say that we are dealing with a global contract in which the contracted company, usually a consortium / joint venture, assumes the obligation to carry out the engineering project, performing all civil construction activities, on its own, or using third parties. All of this included the supply of materials and equipment necessary for the execution of the project, as well as the installation, assembly and operation so that the work is completed within a specified period with immediate suitability to function (Enei, 2007).

Therefore, as with all construction contracts, details such as price, liability, delivery time, expected results and technical conditions for the way the work is carried out must be agreed in advance by the parties of the contract, prior to its signature.

The real estate sector was the pioneer in the original use of a Turn-Key contract used to describe the house ready to live, complete in structure, decoration and furniture (Rodriguez, 2014).

International Turn-key construction contracts may also have, as its object, the construction of other types of real estate, e.g. hospitals, hotels, schools, and also the construction of civil engineering works, namely bridges, roads and tunnels. (Rodriguez, 2014)

Currently, it has been increasingly common to use this type of contract in the construction of large works. The aim is, on the one hand, to centralize the entire enterprise around a single company, and on the other hand, the contracted company will have the advantage of better understanding the specific needs of its client, in addition to the relationship of exclusivity and commercial benefits (Bartkevicius , 2013).

We will highlight two of the most relevant works under the Turn-Key regime: the construction of the yellow metro line in the city of São Paulo, Brazil, the construction of the stadium that hosted the opening game of the 2014 FIFA World Cup, in Brazil, and the “El Guapo” dam in Venezuela (Bartkevicius, 2013).

The use of the Turn-Key contract is also based on the fact that only certain companies have the know-how of a certain technology and only offer to supply it on condition that they operate the entire business (Rodriguez, 2014).

4. Features of the Turn-Key contract

It is important to underline that one of the differentiating characteristics of this construction contract compared to the others is that the contractor is responsible for the completion of the whole project.

In this type of contract, the predominant emphasis is on the overall responsibility that the contractor assumes towards the developer. Other obligations characteristic of this contract under the hired / contractor / consortium / joint venture can be listed, namely the supply of materials and machines, their transport, construction work, installation and assembly, tuning and operation (Rodriguez, 2014).

Although international construction contracts, Turn-Key modality, can have many applications, as mentioned above, it is in the field of construction of industrial units that it has been gaining great prominence. Generally, the construction of an industrial unit requires that the construction is adapted to a given manufacturing process, with specific peculiarities and not always from the domain of general knowledge.

Consequently, the requirements of the project will only be available to some companies. In these cases, it will be easy to understand the selection of this type of contracts, capable of accommodating all phases, including the technological training for the operation of the said industry.

In principle, it can be said that the main characteristics that distinguish it are the following: the merger, in a single person, the contractor, from the design and execution of the work; the global obligation assumed by the contractor regarding the customer, the delivery of a fully equipped unit and in perfect operating conditions; and the inalterability of the price previously agreed (Silva, 2011).

In short, for a correct use of the contractual modality, it is necessary to know its main positive and negative factors.

The positives are based on the fact that the contract is unique, covering the delivery of the project and execution, thus avoiding several subcontractors. Therefore, the reduction of risk and legal problems for the contractor is evident, given the transfer of responsibility to the hired party. Even though some countries set certain limits in their national laws to be respected. We talk about labor and environmental issues, as well as providing contractual guarantees, among others. It should be noted that the hired party assumes performance and quality commitments, often including sanctions for failures in complying with the schedule presented and integrated in the contract.

The fact that the contractor, focused on his core activity, will not allow the hired enterprise, who is knowledgeable about that market, to meet the other needs of the business is not enough. Thus, there is no interference by the contractor, who is also designated as the developer.

Regarding to the negative factors, we will have to underline the difficulty of obtaining budget reductions, due to the lack of knowledge of all the areas involved and the particular

risk taking by the contractor. In this context, it becomes difficult to request any changes during the course of the execution of the contract.

5. Legal nature of the Turn-Key contract

Once the conceptualization is over, it is important to check the legal nature of the Turn-key contract. It is an atypical and mixed contract. Atypical because it does not have a provision either in national legislation or international context. We will only find recommendations and general principles. Mixed, because it has connections with other contracts. Case of the contract, the concession, the transfer of technology, among others.

In the world of international contracts, the Turn-key is presented as a bilateral, onerous, commutative, consensual, non-solemn, principal, personal and time-delayed contract. It is true that we will be able to apply the legislation of the country where the contract is held, normally rules that discipline the works contract internally, even though these are not, in most cases, consistent with the specificities and extent of the Turn-Key contract.

However, as already mentioned, it is sought, at the international level, to unify the legislation applicable to Turn-key contracts. For this purpose, there are organizations seeking to supply this need, maximally to FIDIC, which prepared several books with studied conditions, choosing clauses due to the specificity of each activity. This is the case with turn-key contracts.

It should also be noted, in terms of international contracts, the importance of Lex Mercatoria, usages and customs of international trade, by market sector, and the UNIDROIT Principles that aim to standardize the structuring nucleus of any international private contract, with the exception of consumer contracts.

As a kind of soft law, the UNIDROIT Principles translate the global trend towards the uniformization of international trade law as an alternative to hard law, a law elaborated by States, whether domestic or conventional, received by the respective states, and, therefore, becoming becomes an integral part of the law of that state.

The mission of the Principles is to guide and inform (the parties, the arbitrator, the judge and the legislator), without the intention of formally incorporating themselves into state regulations (Gama JR, 2005), (Mimoso et Al., 2019) .

6. Contract risks

It is not feasible to contractually include all possible occurrences during the contract. It is impossible to predict all future setbacks, as human rationality is limited and the market itself has uncontrollable asymmetries.

Given the unpredictability of this type of situation, it is necessary to foresee strategies to rebalance contractual relations. For this reason, we must include in the contract streamlining ways of weighting for non-culpable default (Rodrigues & Giannakos, 2017).

Hardship clauses arose from the practice of long-term international contracts, to be used by the contracting parties in order to minimize unpredictable changes when signing the contract.

These are situations that are not covered by the risks of the contract and that result in an unfair rigor for one of the parties regarding contractual compliance. This clause allows the renegotiation of the contract, in the face of the appearance of a fundamental event, capable of provoking a contractual one.

Hardship is considered to be a substantial change in the balance of the contract caused by factors that are not unrelated to the human hand, regarding to economic, social, financial, legal, technological, political changes, among others, and which cause harmful consequences for any of the parties.

The Hardship clause stems from certain facts that interfere with the balance of the contract, whether by increasing the cost of an obligation or decreasing the value of a consideration.

In the event of Hardship being triggered, the disadvantaged party is entitled to request the renegotiation of the contract, given the essentiality of maintaining its economic balance. The Hardship clause thus obliges the parties to renegotiate the contract whose circumstances have been unbalanced (Cedras, 1985).

Note that this clause is included in the main soft law texts on international contracting, especially in articles 6.2.1. to 6.2.3. UNIDROIT Principles.

In addition to the unpredictable risks covered by the Harship, there are others that must be taken into account when signing the contract and choosing the respective modality.

Therefore, it is necessary to understand the risks involved in the turn-key contracts. Considering that the Turn-key contract constitutes for the contractor the obligation to build a given business reality and, consequently, the transfer to him of responsibility for the entire process, is easily distinguished from other contractual realities. This time, it is necessary to weigh certain contractual clauses before the actual conclusion of the contract.

Once the negotiation phase is over, attention must be paid to the contract execution phase. On the part of the contractor, pay attention to the payment and delay periods; by the hired party, the delay in the execution of the stages and the quality of the deliveries. These are hardly described in the contract, as they are specific and subjective items. As for both parties, it is necessary to take into account the need for changes in the object of the contract, mainly in fortuitous or force majeure cases.

7. International regulation

a. FIDIC

Since the Turn-Key contract is an atypical contract, the need for self-regulation of its regime has arisen on the part of international trade operators. FIDIC, for the purpose of assisting the parties, has published books suggesting standard rules and clauses for various international engineering contracts. Although the realities are different, the precautions are universal.

Books, separated by specialties and identified by colors, are internationally recognized as the basis for drafting contracts, not only within the scope of private contracting, but also for public contracting.

Summarizing: in 1957, the Red book on the contracting of civil construction services was published. It was revised in 1999, after four editions, and now covers construction services in general, including electromechanical assemblies; in 1967 the Yellow book was published, relating to electromechanical engineering services; in 1999 the Orange book was published, being the first to predict, in addition to the construction phase, the design phase. On the same date the Silver book was published, which introduced **the Turnkey model**, a ready-made project "with a turnkey". This book foresaw the engineering, acquisition and construction projects, "delivered ready to operate", as well as the responsibility for design by the contractor. In this, it is clear the total transfer of the activities of "setting up the business" and the transfer, almost total, of their responsibilities to the contact person.

We will say, then, that the Silver Book provides that: i) the Project and Construction are the exclusive responsibility of the hired party and the contractor must provide requirements on the form of specification; ii) the use of equipment and the acquisition of materials is the responsibility of the hired party, as well as the execution of tests to complete the work; iii) the contractual price and the execution term are fixed.

The Silver Book provides detailed suggestions for contractual clauses relating to Turn-key, indicating a checklist for negotiation and drafting of the contract, seeking to safeguard the mandatory provisions of the country where the work was carried out.

b. Unidroit Principles

Finally, not least, a reference to the UNIDROIT Institute (International Institute for the Unification of Private Law) whose activity has focused on the study of the ways and methods for the modernization, harmonization and coordination of private law. (MARQUES, 2006)

The UNIDROIT Principles establish general rules for international commercial contracts. They must be applied in the following situations: if the parties have agreed on their application; if the parties have agreed that the contract is governed by general principles of law, by *Lex Mercatoria*, or another similar formula; if the parties have not chosen a particular law to regulate the contract; to interpret or supplement other instruments of uniform international law; to interpret or complete national law; serve as a model for national and international legislators.

c. State point

Within this scope, we will say that the regulation of these contracts is based mainly on the contractual models and the general conditions provided by the associations of construction professionals, highlighting, due to their importance, the FIDIC clauses. However, these can be articulated with the UNIDROIT Principles, informing the core of any international contract within the scope of international trade relations.

We are thus within the scope of soft law, rules whose normative value is limited and which are not legally mandatory. These rules called "quasi-right" do not create, *a priori*, obligations as in the positive state rights. These are rules with a perceptible language, of a generic and technical nature, allowing their handling in any contract. Therefore, they can be adjusted due

to the specificities of each instrument. Thus they find themselves in opposition to hard law, formed by mandatory rules and whose content leaves little room for negotiation.

In addition to the rules suggested by FIDIC, practical rules and contractual content and the UNIDROIT Principles, it is also necessary to observe the usages and practices of this market sector. We talk about *Lex Mercatoria*. This is currently composed of usages, customs of international trade, currently covering legal models and general principles of law. Legal models emerge from contractual practice and usages and customs have been codified, most of the time, by sector. We will not discuss its scope here, we just leave the caveat that currently, the FIDIC rules are part of it, through their models and the UNIDROIT Principles. (Pinheiro, 2005), (Strenger, 2005). We will only say that *Lex Mercatoria* regulates almost all issues that may arise in the interpretation and execution of international commercial contracts (Strenger, 2005).

8. Conclusion

Turnkey is an atypical contract with wide applicability, mainly in developing countries lacking new technologies, large investments and multidisciplinary knowledge.

Turnkey contracts belong to a category of contracts within the engineering activities, but go far beyond construction, passing through the business design phase, covering the operationally of the business and the most complex issue that is the risk taking by the hired party.

Because it is a contract aimed at large-scale and mostly international works, exhibiting a marked atypicality, involving multidisciplinary activities and technologies that are not widespread, leading to significant risks, it is considered to be a highly complex contract.

In the quest to mitigate contractual risks, international standards were established. In this wake, entities such as FIDIC emerged, being the most emblematic in the construction sector, with greater acceptance and representativeness in the market and even in the doctrine.

Professional institutions are increasingly credible. Although its rules do not have binding force, their technicality and clarity end up persuading all those who move in the sector. They are often used in large-scale works, contributing to the unification of rules and concepts.

In the scope of international commercial relations, with conceptual divergences arising between the laws of the different countries involved and with national disciplines showing little suitability for this type of contracts, the emergence of annual rules, capable of responding and disciplining the relations of the operators of the international trade.

That way, an incursion into some legal bases capable of supporting these international contractual models was imposed and, for this, it was discussed the main soft law instruments in this sector of activity, highlighting the activity of FIDIC and, in general, o UNIDROIT Institution. It should be noted that the rules emerging from these two entities end up contributing to the enrichment of *Lex Mercatoria*, currently seen as the “international trade law” and not just being limited to the uses and customs by market sector.

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