



Effect of contract types on the process of construction in Egypt

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ملخص البحث :-

توصل البحث الي الاستفادة من التقنيات الحديثه المستخدمه في عقود البناء و التشيد و ذلك من خلال استخدام اليات ادارة المشروعات و الباء و التشيد في تنفيذ و تطبيق تلك الاليات لتحقيق الهدف و هو عدم حدوث منازعات و مطالبات بين اطراف العقد ممايوثر علي تنفيذ و انهاء المشروع في الوقت و التكلفة و الجوده المطلوبه .

- 1- اعطاء كامل الصلاحيات لمدير المشروع او مكتب ادارة المشروع لتحقيق اهداف المشروع و كذلك تفسير و توضيح العقد لاطراف المشروع (المالك و المقاول و الاستشاري) و الحكم علي اسباب المطالبات و النزاعات
- 2- يجب ان ينص العقد علي تحديد اليات و خطوات متابعة المشروع من حيث معايير الجوده و الجدول الزمني و التكلفة و تحديد الاختلافات و اسبابها و طرق تلافيها بدون اضرار لاحد اطراف العقد .
- 3- يجب ان تنص الجهات الرقابيه علي المشروع علي وجود اليات لتقليل النزاعات و المطالبات .
- 4- يجب اتباع الاساليب الحديثه في العقود لفض المنازعات و التحكيم علي المستوي العالمي مثل استخدام و تطويع العقود العالميه الفيديك .

Abstract :-

The research has benefited from the modern techniques used in construction and construction contracts through the use of project management mechanisms, construction and construction in the implementation and implementation of these mechanisms to achieve the goal is the absence of disputes and claims between the parties to the contract, which affects the implementation and completion of the project in Time, cost and quality required.

- 1- Giving full powers to the Project Manager or the Project Management Office to achieve the objectives of the project, as well as explaining and clarifying the contract to the parties of the project (owner, contractor and consultant), and judging the causes of the claims and disputes.
- 2- The contract should specify the mechanisms and follow - up steps of the project in terms of quality calibration and schedule and cost and identify the differences and causes and ways to avoid without harm to one of the parties to the contract.
- 3- The supervisory bodies shall provide for the existence of mechanisms to reduce disputes and claims.
- 4- The modern methods should be followed in the contracts for the resolution of disputes and arbitration at the global level, such as the integration and adaptation of global contracts FIDIC.

Introduction :-

The process of construction of the most important elements of the movement of development and investment, followed by the movement linked directly or indirectly and affects the impact by providing employment and development of specialized activities.

One of the most important influences that affect the effect of clarity on the process of construction is the existence of claims and the emergence of disputes between the parties to the contract may lead to the suspension of the contract and change in the value of the price of items and the schedule necessary to carry out the work

1- Definition of contract :-

Is a convention governing the technical, financial and legal relationship between two or more parties to complete a work in exchange for a particular wage provided that such work is not contrary to the law

2- Types of contracts

a. Specific contracts Value- :

- i. Fixed value contracts
 1. Crop contracts
 2. Unit price contracts
- ii. Hold a fixed value with the possibility to specify
- iii. Hold constant value while taking into account the economic variables
- iv. Hold the target cost

b. Compensation contracts:

- i. The cost contract plus the financial incentive
- ii. Contract cost plus fixed fees
- iii. Contract cost plus percentage

1- The pillars of the contract:

Satisfaction - the place of contract - the reason of the contract

2- The parties to the contract:

- a. Owner
- b. The main contractor
- c. Suppliers Contractor subcontractor
- d. The designer engineer.

3- the engineer supervising the implementation.

4- Documents prepared for the contract:

- a. Letter of Invitation to Tender
- b. Instructions for contractors
- c. Bidding Formula
- d. The Convention
- e. Conditions of Contract (General - Special(
- f. Tables attached to the terms of the contract
- g. Specifications
- h. Graphics
- i. Quantities table
- j. Table price unit
- k. Report of AI – Turbo
- l. Additional supplements

5- Put the business- :

(General tender - limited bidding - assign the direct order)

6- Tender progress.

7- Opening envelopes

8- Evaluation of offers.

9- Practice after tender.

10- Notification of tender award.

Reasons for the termination of engineering contracts- :

- i Termination of contract with completion of business.
- II. Termination of contract by agreement.
- III. Termination of the contract by veto.
- IV. Termination of the contract is impossible.
- V. The end of the work by force of majeure

Contract phase and its impact on the implementation of the project

1- feasibility study

- a. Initial cost estimate
- b. Availability of raw materials
- c. The project is surrounded by the surrounding environment
- d. Initial estimate of total cost and duration of implementation
- e. Work-oriented financial flow of project stages
- f. Finance and Guarantees Authority
- g. Studying the material return and the project life span
- h. A report of the owner of the feasibility and different alternatives
- i. Knowledge of legal approvals and building requirements

2- Engineering phase

- a. Design phase
 - i. Design works according to the owner's requirements
 - ii. A working paper is required for the method of implementation and calculation of quantities, cost and time.
 - iii. Study risk.
- b. Contracting phase
- c. Processing tender documents
- d. Contractor Selection
- e. Signing of the contract

3- Construction and implementation:

- a. Receipt of the Site
- b. Review the final schedule
- c. Determine the financial needs of the project associated with the schedule
- d. Supplier commitment to the supply schedule for materials and materials
- e. Good site planning

4- Delivery

- a. Initial delivery
- b. Final delivery

5- Operation and maintenance phase

- a. Design, Bid, Built (D.B.B(.
- b. Design, Build (D.B(.
- c. Design, Build, Operate, Maintain (D.B.O.M(.
- d. Design, Build, Finance (D.B.F.) .
- e. Design, Build, Operate, Transfer (D.B.O.T.) .
- f. Design, Build, Owen, Operate (D.B.O.O.).

Definition of risk management- :

Risk is an important element and has a direct impact on the management of construction and construction contracts. Scientific planning should be undertaken to avoid risks and mechanisms of solutions to counteract the impact of risks on achieving the objectives of the project.

And any event that affects the project's success in terms of quality, cost and time. In an advanced stage, it is necessary to identify the elements that carry risks and assess the capacity of the parties involved in the project.

Identify risks

- i. Atmosphere factors
- ii. Soil conditions
- iii. Contractor's ability to continue and terminate the required work
- iv. Ensure the availability of financial and liquidity period of the project
- v. Price change (increase and decrease 9(
- vi. Type of contract, contractor, employer and management style
- vii. The extent of the technical complexity of the project and methods of construction and materials used
- viii. Place of the project, entrances and exits
- ix. Quality of design and time schedule of the project
- x. Conditions of Cairo - fires - volcanoes - strikes - floods.

Methods of identifying risks:

I. TECHNICAL METHODS FOR ASSOCIATION OF INFORMATION USED IN THE DETERMINATION AND CLASSIFICATION OF RISKS

- i. Brainstorming
- ii. Delphi technology
- iii. Conduct interviews
- iv. Prepared menus and databases are available
- v. Define the cause

II. Risk Management

III. Risk related to the boss

IV. Contractor-related risks

V. Factors of a general nature

VI. Factors related to quality assurance, inspection, receipt and acceptance of works, as well as guarantees and guarantees provided by the Contractor.

VII. Site status

VIII. Factors of peace

IX. Risks related to subcontractors

X. Related risks

Risks from the perspective of the main parties of the project :-

I. Risks from the Contractor's perspective

II. Risks from the perspective of the employer

III. Risks from the perspective of the project manager

IV. Risks from the perspective of the designer engineer

Risk analysis:

I. Qualitative analysis

i. Clarity of priority risks

ii. Assesses the likelihood of their occurrence

iii. Focus on priority risks

iv. Determine the impact of risk on schedule and cost

II. quantitative analysis

i. Quantitative analysis of potential risks and their potential according to project resources

ii. Evaluate the probability of achieving specific objectives in the project

iii. Identify risks that require attention greater than the total value of the project

iv. Setting realistic goals can be achieved in relation to cost, quality and schedule.

Risk management in construction projects- :

I. Assess risk

II. Risk Management

i. Identify potential risks through workshops through value engineering

ii. Determining the importance of the risks, their order, type, extent of occurrence and impact

iii. Develop a risk management plan and appoint an officer and implementation steps

iv. Define a follow - up risk management plan

v. Estimating the actual cost of risk management

Risk management methods:

I. Acceptance of Risk

II. Minimize the effects of risk

III. Participate in risk tolerance and special risk life

IV. Transfer of risk liability to third parties

V. Avoiding risk

VI. The mode of distribution of risk between the contracting parties

VII. Risk Management

VIII. Risk control and control

Comparison of the contract of the unified contract and the contract Fidic 1999- :

- 1- FIDIC 1999 General conditions with the tender appendix and the specifications constitute the conditions for the complete contract of construction and the absence of special conditions that complement the general conditions
- 2- FIDIC 1999 has added a set of definitions that did not exist in the contract book consolidated contract, which made the situation more specific and accurate
- 3- FIDIC 1999 A special chapter was added to the Dispute Settlement Board, while the contract book of the contractor was removed from this Council
- 4- a fundamental amendment to the role of the engineer in FIDIC 1999, where he became one of the employees of the employer and acting on behalf of the employer while in the book contract of the unified contract completely neutral and independent in the performance of his role on the employer and may require this change many amendments In the various contract articles
- 5- FIDIC There are differences in the delivery of the employer and the issuance of certificates and completion tests
- 6- FIDIC has been added important differences in the orders change and the total
- 7- FIDIC Substantial changes have been made in respect of the contractor's claims and the contractor's conditions for claims
- 8- FIDIC has been introduced many changes to the materials related to the preparation of payments and payments and the adjustment of prices and reserves and their response and payment and submitted and refund

FIDIC has been added significant differences on the terms of termination Project Dispute Management is an organizational process to address the risks of conflicts and to avoid any negative impact on the quality, cost and time of the project and to maintain security, community and environment.

1- Definition of conflict:

Is a dispute between two or more parties to achieve their interests or demands or their rights that are often contradictory and contradictory

2- Sources of conflict:

- a. Sources of Private Dispute Management
- b. Sources of conflict for the employer
- c. Disputes of the contractor
- d. Sources of conflict of a general nature
- e. Dispute sources of quality and inspection
- f. Sources of dispute concerning the status of the site
- g. Sources of conflict related to the factors of security and peace
- h. Dispute sources for subcontractors

3- Conflict avoidance- :

The contract should contain a clear approach to dealing with the conflict when it occurs. Steps must be taken to avoid conflict and a good contract should be prepared for the ways of dealing with the dispute

4- Structure of the dispute:

- a. People dispute
- b. The problem is the subject of dispute
- c. Conflict Resolution Method (s)
- d. Conflict-related environment (conflict resolution)

5- Elements of the conflict:

- a. Religious values and beliefs etc
- b. Relationships and History of Relationships
- c. External Factors - Psychological - Functional
- d. Information should be disclosed.
- e. Influential parties in decision-making.
- f. Interests

6- Conflict resolution methods:

- a. Mentoring myself
- b. A withdrawal directive
- c. The indulgence and satisfaction of the other
- d. Intermediate Solutions
- e. Co-operative guidance for building

7- Methods of negotiation:

- a. Negotiation
- b. Intermediary
- c. Neutral Advisor
- d. Council for Conflict Resolution of the Employer
- e. Egyptian courts held
- f. Arbitration (optional - compulsory - judicial - internal – international)

8- Methods of claim in FIDIC contracts:

- a. Submit a claim to the Engineer within 28 days from the date of the event
- b. Submit all claim documents within 42 days from the date of the event
- c. Issuing the Engineer's decision within 42 days from the date of the claim
 - i. Approved Engineer
 - ii. Engineer refused
 - 1. Requested to the Dispute Settlement Committee

9- Committee to resolve the conflicts- :

- a. Issuing the resolution of the Dispute Settlement Committee within 84 days
- b. All parties agreed to the solution
- c. Objection by one party to the solution within 28 days of the decision
 - i. Trying to resolve the dispute amicably within 56 days
 - ii. All parties agreed to the solution
- d. Recourse to arbitration

10- Definition of arbitration:

Is an alternative way to resolve disputes (assigning the two adversaries a ruling between them)

11- Types of Arbitration:

- a. Ruling of the opponents
- b. Partial judgment
- c. Prejudice

12- Condition of arbitral award- :

- a. The judgment shall be issued after deliberation, in which all arbitrators shall participate
- b. The ruling must be passed by a majority of opinions unless the parties agree
- c. The award shall be made in accordance with the rules of law chosen by the parties
- d. The judgment shall be inclusive of all aspects of the dispute without prejudice to any part of the arbitrators
- e. The judgment must be in writing
- f. The judgment must be signed by the arbitrators
- g. Causing the judgment of the arbitrators
- h. The arbitral award shall include all the particulars of the dispute

Conclusion :-

- 1- Contract: An agreement between two parties to carry out acts of worship which is not contrary to the law.
- 2- Claim: - is the right of one of the parties to the contract caused
- 3- Claimants: - Owner, Consultant and Contractor
- 4- Ways to resolve disputes
 - a. Conciliation and mediation
Is a procedure agreed between the parties to the conflict to choose a mediator to reconcile the situation.

Arbitration- :

Is an agreement that is related to arbitration when signing the contract to request one of the parties to the dispute to arbitrate in case of failure

Reaching an agreement (conciliation and mediation)

Judiciary: - In accordance with the provisions of each state (takes long periods)

Results :-

Claims are one of the most important problems of construction contracts that affect the path of the construction worker

The most important results

- 1- The reasons for the claims should be avoided for the owner, the engineer and the contractor in the construction contracts.
- 2- There should be mechanisms to reduce, identify and document all claims for construction contracts.
- 3- There should be rapid mechanisms in the contracts for the construction of dispute resolution and claims, such as contracts FIDIC, which improves the process of construction.

Recommendations :-

- 1- Adding the condition of conciliation and mediation in the contracts of construction (Council Dispute Resolution)
- 2- Add the arbitration clause in the contracts of construction (International Arbitration Council)
- 3- The use of FIDIC contracts is recommended because there are fast and specific mechanisms for claims and disputes between all parties and the steps of resorting to international arbitration.