

CURRENT TRENDS IN BUSINESS MANAGEMENT-WORKING ON PROJECTS: CHALLENGES AND ISSUES

Gabriela OPREA

Petroleum – Gas University from Ploiești, Romania, management_gabi@yahoo.com

ABSTRACT

Old massive organizations, with many hierarchical levels, with much bureaucracy tend to become history, especially in the area of international affairs from the field of construction of refineries but not only, in which most aspects are modular. This work by project is preferred due to the possibility of subcontracting to smaller projects, so that they return in the task and responsibility of third parties - with advantages and disadvantages. Compared to classical management applied in large organisations, in the management of these projects is no longer needed by many people but it need key people, a project manager who has a solid team of professionals which he will coordinate it.

KEYWORDS: *project management, performance, price, international affairs.*

JEL CLASSIFICATION: *M11, M16, O22, O29*

1. INTRODUCTION

This paper-work is inspired from the practical aspects of real construction of several projects in the field of oil and gas, international, conducted between 2010 - 2016 in countries such as Serbia, Greece, France, and Belgium. The success of a project phase begins with estimating costs followed the tendering phase, respectively negotiation. Any serious manufacturer must have their own calculations on actual project costs and after that, to bid. It is obvious that too high price from the coverings manufacturer costs will scare the customer and a very low price will generate losses for manufacturer.

2. TRENDS IN PROJECT MANAGEMENT: ADVANTAGES AND PROSPECTS

In certain fields of activity, including that of construction generally, namely the construction of refineries in particular, there is a natural tendency of activity on structuring projects, focusing on the development of realistic plans, allocation of personnel, monitoring costs, the comparing actual achievements with the programmed levels.

The organizations which working on projects have a certain structure, very flexible in order to adapt a wide series of projects. In choosing the projects in that the firm will involve, the company must consider the impact of their business strategy, taking into account the key competencies required, how it will be able to integrate new projects with the developing scope of work (project management for multiple projects) and to determine the resources required for the smooth progress of projects.

2.1 Defining the project

The most problems that occur during the life cycle of the project seems to have originated in its definition phase. Defining the project constitutes the best way to prevent future problems.

Definition of the project includes the delimitation of its purpose, the analysis of the stakeholders of the tangible elements, description to be generated during the project, establishing the criteria for evaluating project success, risk analysis, etc.

In many cases, projects in half made it is found that the supplier and the client have different visions about what the project should contain or do not contain, as well as the criteria for assessing the realization of project specifications. At this it adds multiple unforeseen changes and additions to the content of the projects, it becomes clear that a more detailed defining of the project can avoid the appearance of serious (and costly) in the later stages of the project. Risk analysis allows the evaluation of the probability of occurrence of events that may affect the project and its impact, allowing to the management team and to the project manager to provide shares to reduce, eliminate or share risks still in the early stages of its development, when stakeholders are more receptive (because there was still no loss).

2.2 Project organization

Another factor that can have a major influence on the success of the project is the choice of the team that will carry out the project and its manager. It is also important to create an organizational structure that ensures timely resources without losing sight of the role of these resources in project execution and project alignment of the activities within the project to company goals.

2.3 Project planning

In the planning stage, the project is divided into work packages that are assigned to contractors, based on the matrices of responsibilities, it determines the sequence of activities, the times, the reserves for costs on this basis their priority, it is realized and analyzed the graph network of project activities, it allocate resources and leveled their use and, finally, it will made programs for each activity. For these operations, there are many software products available to managers (Primavera, Microsoft Project). The latest novelty in the field consisted of simultaneous processing of restrictions of previous activities with those related to the availability of resources. This analysis enables the incorporation of reserves in planning for the critical points of the project, corresponding to some critical activities (located on the critical path), and others being linked to certain resources which, in certain moments, become narrow places for the project.

2.4 Control of the project

If the project had been properly planned, its execution can be monitored and controlled effectively, taking the necessary measures to correct irregularities. The elements are monitored compliance with the deadlines, costs and quality. For this, there is a multitude of ways, such as charts, Gantt charts.

2.5 Closing of the project

The ending of the project is the least spectacular stage of the project lifecycle. But at this stage can be drawn the most useful conclusions for improving project management. It is useful to have ways of archiving documents and final project evaluation sessions. In some cases, where project completion is delayed indefinitely, it must be provided some procedures for the earlier project ending.

Organizations such as ISO or Project Management Institute, the Chartered Institute of Building, have tried to create standards for project management process. ISO 10006 provides a guideline for quality assurance of project management process, but it is criticized severely by the Project Management Institute.

The effectiveness of project management within a company is evaluated based on the success of implementation and of the results. Recently, it was created some valuation models which try to define, to measure and to propose ways to improve the future ability to lead projects. Most are variations of CMM (Capability Maturity Model), which describe the way from inefficiency to performance in five steps, in project management. These steps are:

- a. At the moment (Ad-hoc), when the process of project management is disorganized or chaotic, without any systematization and where the success of the project depends on the individual effort of participants, where exists deadlines and budget overruns chronic.
- b. Defined, when was created procedures for monitoring the costs, the reserves of time and the progress, but they are not always applied and the project success is unpredictable, and deadlines and budget overruns are the rule.
- c. Organized, when procedures are formalized (documented), standardized and integrated into the normal operating mode of the company, success is predictable and deadlines and budget overruns are controlled.
- d. Managed, when the effectiveness of project management has been defined and the process is well understood and monitored, deadlines and costs beingare kept under control.
- e. Optimized, when procedures are based on feedback obtained and lead to the improvement of terms for execution and cost reductions.

It is expected that the next step in the evolution of project management will be its certification process within companies by specialised bodies.

3. POSSIBLE PROBLEMS AND SOLUTIONS ACTIVITY OBSERVED IN PRACTICE, ON INTERNATIONAL SITES

The biggest works are divided into other projects, at the largest scale or small scale, even if we speak about the manufacturing or about the services sector. A successful project starts with the bidding phase. When the contracts for projects is poorly negotiated, not at the real value of achievement only to be won, the project has a good chance to be compromised, either in terms of workmanship, either in terms of its final realization.

There is the possibility that the beneficiary is negotiating good terms for ensure good works. For example, on the real site it can appear hidden works, which were not included in the original tender, and if is not exist a clause for them, the contractor can get to work at a loss. Of course, here it can overdo it and it could include the non-existing costs, for which the beneficiary must provide a realistic margin in this respect.

For the projects which have made the object of this study case, the refinery parts built have their uniqueness and, for this reason, it is advisable that each distinct unit to have its price. The construction contract price includes the cost of the project, including the costs of the supervision on the ground, plus amounts for general overhead costs and profit of the contractor. Thus, the most common types of tariff systems can be described broadly, to illustrate the basic principles. Many public owners have been the victims of their own schemes, not only because of the usual requirement in letting contracts of public works through competitive bidding to avoid favoritism, but at times because of the sheer weight of entrenched bureaucracy. Some contractors steer away from public works altogether; others submit bids at higher prices to compensate for the restrictive provisions of contract terms. As a result, some public authorities find that either there are few responsible contractors responding to their invitations to submit bids or the bid prices far exceed their engineers' estimates. Those public owners who have adopted the federal government's risk sharing/risk assignment contract concepts have found that while initial bid prices may have decreased somewhat, claims and disputes on contracts are

more frequent than before, and notably more so than in privately funded construction. Some of these claims and disputes can no doubt be avoided by improving the contract provisions.

3.1 Bidding

The fundamental structure of the bidding process is to formulate detailed plans and specifications for the plant of the refinery, based on the objectives and requirements of the owner and qualified contractors invited to tender for the right to execute the project. The decision for choice for a qualified contractor requests usually minimal evidence of previous experience and financial stability. In the private sector, the owner has considerable freedom in selecting bidders, from open competition to restrict bidders from several contractors favorite. In the public sector, the rules are carefully delineated to place all contractors qualified to the same level on the playing field of competition. This principle is strictly applied to prevent the conflicts between contractors, unethical or illegal actions by public officials.

For the construction projects from the area of oil-gas, the plans and the detailed specifications are usually prepared by a engineering firm which is supervising the bidding process on behalf of the owner. There is a possibility of signing the contract at a fixed value, and all the work to be covered by this amount or it can sign the contract to units consumed (hours worked, equipment used, the people involved) multiplied by unit prices. Both options have advantages and disadvantages. A bid sum represents the total price for which a contractor is offering to complete a plant in accordance with the detailed plans and the specifications. The bidding for unit price is used in projects for that amount of materials or the amount of work involved in certain key tasks is particularly uncertain. In such cases, the contractor shall submit a list of unit prices for these tasks, and the final price used for determine the lowest bidder is based on final price calculated by multiplying the unit price quoted for each task specified by the corresponding to the estimated amount. However, the total payment of the winning contractor will be based on the real final quantities multiplied by the respective unit prices quoted.

3.2 The negotiated contracts

For construction contracts, the private owners are choosing, most often, direct attribution, with one or more contractors selected because this type of pricing has a good flexibility, particularly for large projects and high complexity or for projects that continue other projects, eventually which was started and unfinished. A homeowner can appreciate the expertise and integrity of a specific contractor who has a good reputation or that worked successfully in the past When it establishes the final price of the contract, it can use one of the following formulas: cost plus fixed fee, cost plus percentage fixed, cost plus fee variable, estimation of final cost, maximum guaranteed price or target cost.

3.3 Contractual damages

It is extremely useful to be stipulated in the contract all items that might occur during the contract and that could change the profits obtained by the business partners, whether they are called clients or beneficiaries, generally speaking. Therefore, it is preferable to share the risks (assuming responsibility for them) since the signing of the contract, to be very clear. If in terms of force majeure, things are clear or acceptable, when it comes to any damages the things can complicate them. Why? Because the new elements may occur during the project, that were not stipulated in the contract and that no one wants them to bear the financial effort, the time effort or any kind of effort. It may intervene the unpredictable works, with associated risks, which generates additional costs. The absence from the contract of a right words will lead to a conflict with financial implications. For example, the situation on the ground is not always consistent with the documentation of achievement. The compensation should be provided for any delays

and extensions of time, damages (payments for all defects facility with payment amounts agreed in advance) due to costs derived (payments for costs real damages assessed upon impact defects installation) for safety and health, for permits, licenses, laws and regulations. Also, in the contract must be specified conditions for ending the work for non-payment or work suspension.

3.4 The guarantees

The language used to specify the sharing of risk in a project (the contractual clauses) must be in according with legal requirements and previous interpretations, which may be different in time or space. Without using legal language standard, the contractual provisions may be impractically. Unfortunately, the standard legal language for this purpose, can be difficult to understand. For this reason, the project managers often have difficulty interpreting for their specific responsibilities and they ask for a competent legal counsel which must to advise the various parties to an agreement on their responsibilities

3.5 Dividing the project with subcontractors

The development of construction projects in the oil and gas industry requires that a common practice, and most of the time, as a necessity, the subcontracting part of the project by the contractor of the project overall. This practice, seen as a solution for solving difficulties in development projects, have certain risks which, under certain conditions, may have a negative impact in decreasing over the quality of the project, maybe even more important than that of the initial problem to which it wanted a solution. In essence, the participation as a subcontractor in a project requires, at the practical level, the synchronizing it with the procedures and operational systems of contractor, the compliance with the graphic works and project deadlines, and the integration at the level of executive contractor compartments. Indeed, the complexity of these elements can lead to become a risk for the contractor if we look it in the light of the responsibility of the project (syncopation, interruptions in the fluency of the works).

Another important element is the specific inertia of development of construction projects from the oil industry. In the context of graphs works increasingly closer, specific business environment dynamics, this becomes an element that crashes amplifies the substantial risks which have become defining elements when discussing subcontracting.

Usually, the works package redefinition cannot be done in an optimal manner forced by circumstances. This lead to the necessity of tackling atypically it, in connection with implementation of the project, both from a procedural point of view, being affected by the usual procedures of the subcontractor, and in terms of interference with other subcontractors who carry out work in that area

Also, considering the reason of the "scoping" - linked to the inability of a subcontractor to keep contractual deadlines, related works of the new graph package usually becomes very tight, making the new subcontractor takes over the terms of the existing implementation, which should take into account the times of time related to the preparation of the draft. In addition, these works are unplanned, in the context of annual planned works by subcontractor, which can easily lead to difficulties in finding the resources necessary for the execution of the project.

4. CONCLUSIONS

All the owners want construction quality, at a reasonable cost, but not all are willing to share the risks and to provide incentives to increase the quality of the construction. In recent years, several owners admit that they do not obtain the highest quality of their construction by reducing the price offered for the execution of the project to the contractor, so that the contractor can't obtain the wanted profit margin. One of the most controversial provisions of the

contractual covers payment orders. The owner must request the contractor to submit price offer for the requested amendment within a certain period of time after the issuance of an order of change. Otherwise, it is difficult to negotiate payments for change orders for the payment of damages.

REFERENCES

- C.D. Sutliff and J.G. Zack, Jr. "Contract Provisions that Ensure Complete Cost Disclosures", *Cost Engineering*, Vol. 29, No. 10, October 1987, pp. 10-14.
- OPREA Gabriela - A challenge for project management in the oil and gas industry - "DE-SCOPING OF WORK" construction projects - SYMPOSIUM INTERDISCIPLINARY BUSINESS MANAGEMENT IN the OIL and GAS INDUSTRY included in the event ExpoEnergiE 2015-International trade fair for renewable energy, conventional energy, equipment and technologies for the oil and natural gas of ROMEXPO Bucharest, 14-17 October 2015.
- Oprea Gabriela, Oprea Daniel - Risk of the subcontracting in the management of construction projects on oil industry SYMPOSIUM INTERDISCIPLINARY BUSINESS MANAGEMENT IN the OIL and GAS INDUSTRY included in the event ExpoEnergiE 2015-International trade fair for renewable energy, conventional energy, equipment and technologies for the oil and natural gas of ROMEXPO Bucharest, 14-17 October 2015
- Tom Peters, "The circle of innovation", New York, 1997.
- D. Vinck, "Du laboratoire aux reseaux. Le travail scientifique en mutation", Commission des Communautés Europeenes, Luxembourg, 1992.
- Chris Hendrickson, *Project Management for Construction, Fundamental Concepts for Owners, Engineers, Architects and Builders* Carnegie Mellon University, Pittsburgh, Prentice Hall, ISBN 0-13-731266-0, <http://pmbook.ce.cmu.edu/> - accessed 12 august 2016.
- <http://control.aut.utcluj.ro/doc/lib/exe/fetch.php?media=notecurs.pdf> – accessed 31 July 2016.