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TROUBLED PROJECTS IN CONSTRUCTIONS DUE TO INADEQUATE RISK MANAGEMENT

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Trouble, Risk Management, Process, Project, Evaluation.

ABSTRACT

This Paper will focus on troubled projects in construction due to inadequate and insufficient Risk Management. The author has chosen this topic because his vision is one day to work on troubled turnaround projects" sector in a company. The main objective of the present document is not to propose a radically renewed risk management process, but to attempt a composition of already known processes, at such way that it can be applied by the modern enterprises that deal with the undertaking or/and implementation of constructional work. This Paper will try to reveal the main sources for the failure of a construction project due to the lack of risk management in projects, aiming that from now on the risk management matters will be considered more serious and professional. The benefits of risk management are not confined to large or risky projects. The process may be formalized in these circumstances, but it is applicable for all scales of project and procurement activity. It can be applied at all stages in the project cycle, from the earliest assessments of strategy to the supply, operation, maintenance and disposal of individual items, facilities or assets. It has many applications, ranging from the evaluation of alternative activities for budgets and business plans, to the management of cost overruns and delays in projects and programs. Risk management will also provide benefits in better accountability and justification of decisions, by providing a consistent and robust process.

1. INTRODUCTION

Nature of the Study

The management of construction projects requires knowledge of modern management as well as understanding of the design and the construction process. Construction projects have a specific set of objectives and constraints such as a required time frame for completion. Also they are a costly undertaking so many people, in an effort to reduce the cost, become penny wise and pound-foolish. Change is inherent in construction work. The majority of the projects fail to meet deadlines, cost and quality targets. This is not too surprising considering that there are not known perfect engineers, any more than there are perfect designs or that the forces of nature behave in a perfectly predictable way. Change cannot be eliminated, but by applying the principles of risk management, engineers are able to improve the effective management of this change. In construction projects, each of the three primary targets of Cost, Time and Performance are likely to be subject to risk and uncertainty. Many people, in order to make change in the project with minimum cost, get the project into trouble. The lack of risk management, even an insufficient risk analysis, can put construction projects in jeopardy.

Needs Assessment

In this Paper, stakeholders include main contractors, sub-contractors, suppliers, and Project Managers who undertake construction projects. This Paper will provide Stakeholders with:

- Identification of problems due to insufficient and inadequate risk management.
- Understanding how inadequate risk management can cause problems in construction projects.
- How we can prevent these problems
- A tool or a set of recommendations to recover from this failure.

Purpose of the Study

The purpose of this research is to reveal why the construction projects, and generally all projects, fail due to inadequate risk management and what are the best practices for the recovery. In addition, the author's goal is to define pre-signals for the failure of a project, because of insufficient risk management and the lack of recovery planning. Projects, by their nature, are unique and many of the more interesting ones are complex. They frequently take place over an extended period of time and demand the engagement of a wide range of resources, including people, finance, facilities, materials and intellectual property. In most circumstances, projects have defined objectives or an end-state that provides those involved in them with a clear vision and specification of their goals.

2. LITERATURE REVIEW

[1]. definition for the risk: "Project risk is an uncertain event or condition that, if it occurs, has a positive or a negative effect on at least one project objective, such as time, cost, quality". Kaplan (1997, p.410) expressed risk "as a mathematical combination of an accident's event probability of occurrence and the consequence of that event, should it occur". Having defined the meaning of risk, the next step is to determine the meaning of Risk Management process. Risk Management process is a formal process, via which we can achieve identification, analysis and response to risks, throughout the lifecycle of a project, in order to obtain the optimum degree of risk elimination, mitigation and control (Wang and Dulaimi, 2004). Thus, risk management is in direct relation to the success completion of a project. There is a detailed and widely expressed literature about accepted risk management process. A simple, common and systematic approach to risk management, suggested by Turnbaugh (Turnbaugh, 2005), has three basic stages:

- i. Risk Identification – determining the types of risks, identify, and assess the potential risks in the project.
- ii. Risk Quantification – the probabilistic characteristics and the degree of the impacts for their impacts.
- iii. Risk Response and Development Control – defining opportunities for managing changes in risk during the project life cycle.

[2]. According to Pitz and Wallsten (2000, p. 26) "the knowledge of experts cannot be expected to reduce random uncertainty although their knowledge may be useful in quantifying the uncertainty."

[3]. An epistemic risk or uncertainty is due to lack of knowledge about the behavior of the system. The epistemic uncertainty can, in principle, be eliminated by sufficient study and, therefore, expert judgments may be useful in its reduction (Oakley and O' Hagan, 2003, p.123). An epistemic uncertainty is thus an "unknown event from an unknown set of possible outcomes" (Hillson, 2003, p.88). Another and perhaps less complex explanation can be found in the philosophical view of decision theory (Hansson, 1994), which mentions that risk is somewhat calculable, since it has to do with probabilities; whereas uncertainty has no previous history relate to probabilities.

[4]. Risks and uncertainties are handled everyday on a construction project. A dynamic risk is a risk where there is a possibility to gain something in the end, whereas a static risk has only losses in the outcomes. (Flanagan and Norman, 1993).

[5]. It is generally known that those within the construction industry are continuously faced with a variety of unknown, unexpected, frequently undesirable and often unpredictable factors (Fong, 1987). Ashley, Kangari and Riggs (Ashley, 1977), (Kangari and Riggs, 1989) have all agreed that these situations are not limited only to the construction industry, but in any commercial organization's profit structure and it is a basic feature of a free enterprise system.

[6]. As we have already mentioned, risk management is a procedure to handle the risks in a project and try to mitigate their effects. (Toakley, 1989). According to Dr. Kerzner (Kerzner, 2003) “a risk management strategy must be established early in a project and that risk is continually addressed throughout the project life cycle”. The identification of risks at the conceptual phase of a project is very important, not only because it enables project constraints and appropriate costs to be calculated, but also to focus project management attention on how to control and allocate them.

3. RESULT AND DISCUSSION

Guidelines how to recover a project.

Many people have a theory that there are no obstacles in a project, only opportunities. Perhaps the most valuable merit in a troubled project is the chance to learn from it. Unfortunately, people who have been involved in a disaster, prefer to forget it the sooner. This is a terrible waste of experience, because the lessons you’ll take can help you to improve your knowledge and can easily help you avoid the next disaster. Any organization who has been involved in a disaster should take a list of lessons learned in the end, including the following parts:

- The causes.
- What was done well?
- What was done badly?
- What could have been done to prevent the disaster?
- What could have been done to improve the results?
- How can it be avoided next time?

It is very important to jog our memory that if we want to learn from a disaster, we must avoid having blame culture inside the organization; otherwise the identification of root causes for the problem will not be attainable. The defensive behavior will not help to discover the truth for the problem. There are four main guidelines in order to recover a project. These are; do nothing, start the project from the beginning, declare crush, assess and carry on. Of course, there is always the alternative of getting it exact in the right place. It

is important to mention that all these four strategies are not supported by all projects. In some cases, we must use other methods to approach the phases of the project. We should keep in mind that just because the project is in trouble does not mean that everything in it goes wrong. A common point which applies to all these strategies is to keep away from getting lawyers implicated as a means of resolving a disaster unless if they are considered necessary. As in divorce, once lawyers are actively involved in a dispute, it is implausible to come across a harmonious and victorious ending.

❖ Do nothing

Although it is difficult to work, it seems to have been tested in many projects. It generally happens when people believe that the trouble is not happening or because they are too bemused to think of anything. If the project disaster is due to an external event, such as weather conditions, then the most probable is that we cannot do anything.

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