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The nature and management of crises in construction projects: Projects-as-practice observations

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Abstract

The uniqueness of projects introduces aspects of management associated with disruptions that threaten progress and crises that affect the organisations that conduct them. The purpose of this paper thus is to review the nature of crises and their remedies that have interfered with project progress of an international construction company. Fifteen crises were studied in a ''projects-as-practice'' approach. Characterisation was made of both the nature of these crises and how they were managed.

Keywords: Managing projects; Processes and procedures; Life cycle; Management structure

1. Introduction

Management of projects carries a certain allure for individuals who shun routine, work-a-day life styles. The uncertainty associated with producing unique outputs implies that each day can bring new experiences. In this regard, Pavlak [1], for instance, discussed the fire fighting aspects of management associated with disruptions that threaten projects and crises that affect organisations. Recently, Hällgren and Wilson [2] reported on project deviations, i.e., any incident that effectively delayed project tasks, their nature and remedy.

Although the classical treatment of projects suggests that they can be well-planned in advance cf. [3], there is plenty of room for unanticipated events to interfere with plans. In some cases, these events seem not to matter and thus are tolerated. The Sydney opera house comes to mind; it came in 10 years late and about 1500 percent over budget cf. [4], but is considered an architectural achievement and perhaps a wonder of the modern world. On the other hand, projects are frequently bid on a fixed-time, fixed-cost basis. Thus, unanticipated events may quickly rise to the level of crises if they happen to lie on the critical path that determines the time for completion. Someone pays for overruns – either it is absorbed by the contractor, or is paid by the funding organisation as an overrun. To put things in perspective, the cost of infrastructural projects can be of the order of one billion euros, conducted over a three-year time span. Thus, a one-day delay represents a cost to someone of one million euros. To paraphrase a former US senator, ''a million here, a million there and pretty soon you are talking real money''.[1]

As suggested by Mallak and Kurstedt [5], crises seem inevitable in projects. Consequently, companies that deal in projects on an ongoing basis thus must learn to deal with crises on a regular basis. It is these crises that are the concern of this paper. Its specific purpose therefore is to review the nature of critical interruptions that have interfered with project progress of an international construction company and reflect upon their remedies. It is thought that this exposure will add to the projects-as-practice material for academics and

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[1] The essence of this quotation is attributed to Everett Dirksen, former senator from Illinois (en.wikipedia.org/wiki/Everett_Dirksen. Downloaded 26 January 2007).

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the normative literature that assists managers in dealing with crises, especially within construction organisations. The construction industry was selected for study because of its exposure. That is, virtually everyone can identify with its outputs and its tenure; basic, state construction historically dates to the pyramids cf. [3,6]. Its understanding is thus fundamental to understanding crises in projects.

2. Background

2.1. Crises

Because they occur across industries, much of the information on crises and their responses tend to be general cf. [5,7–9,11]. Regardless of the approach, however, there are certain things that appear common to industrial crises conceptualisation. They include an assumption of primarily singular events that have the propensity to impart significant injury to the company. Fundamentally, the observation is made that complex organisations somewhere along the line will experience unimaginable events that destabilise the organisation cf. [8]. There is also agreement that tightly coupled systems appear to be particularly susceptible to a cascade of failures, e.g., crises [9–11]. For instance, Hensgen et al. [12] use the operational definition of a crisis "those internal and/or external events that cause stress on organisational resources and pose the greatest threats on any organisation's security and vitality". Reid [13], largely in agreement, has surveyed the literature from a practitioner/consultant's viewpoint and developed the following concept of a crisis – as any incident that can focus negative attention on a company and have an adverse effect on its overall financial condition, its relationships with its audiences, or its reputation in the marketplace (p. 2).

It should be noted from these definitions – one from an academic standpoint, the other more practice oriented, crises are associated with consequences. Nothing is said about magnitude as a criterion. That is, it does not take a tsunami, an earthquake, a fire, or a death on site to precipitate a crisis. They may be associated with disasters, but not necessarily so. They are any event or incident that poses a threat to an organisation's security or has an adverse effect on financial conditions, relationships, or reputation in the marketplace. Further, Hwang and Lichtenthal [7] have indicated crises do not necessarily have to be associated with a specific event. They identify two types of crises – abrupt crises that strike suddenly and catch management off-guard versus cumulative crises (their words) that accumulate stressors and eventually erupt. Likewise, Roux-Dufort [14] allows for a type of crisis that is a process of accumulation of deficiencies and weaknesses rather than as a sudden and extraordinary irruption.

2.2. Crises in construction projects

There are enumerable incidents that can interrupt progress in construction projects. Hällgren and Wilson [2], for instance, made a study of deviations (their term) in construction projects. Not all deviations, however, are crises. Deviations along the non-critical path for example are handled by using some of the slack available that makes the task non-critical. It is only when the deviation occurs along the critical path, or when it extends the timing of a non-critical task to make it critical, does a crisis occur. It would appear that a relatively high incidence of these crises is possible in the industry. Although firms in the industry have been described as loosely coupled systems [15], which would suggest resistance to the "cascades of failures" [9] associated with tightly coupled systems, crises still occur – the consequence of planning introduces tight coupling in activities.

Loosemore [16–18] has conducted case studies that focused on behaviour during the crisis period. Within these case studies, he observed both sudden and creeping crises (his terms), which could be expected from the above [7]. Essentially he found that response was shaped by the nature of the crisis, and emotions commonly ran the gamut from initial feelings of helplessness to final feelings of cooperation and confidence – one case, however, generated just the opposite feelings. He thus was reluctant to propose one generic theory of management because such an approach would oversimplify the process. It was ironic that at a time when effective communication was important, it was found less likely and at a time when responsibility and teamwork were important, they were also less likely.

Reid [13] approached crises in the industry from a more normative standpoint and suggested two lessons might be learned: first, because of the human element involved, no one is immune to the inevitable. Second, crises do not discriminate – small companies or large, specialised or general, each will see their potential demise at some point. By being prepared, however, at least there is a support system for employees even though there is no one size-fits-all protocol (p. xiv). That is, crises came from a variety of sources. In the US, on-site accidents were the most common source of crisis in the industry. Surprisingly, fatalities were down the list at number 5; sexual harassment and work stoppages rounded out the list. In dealing with the rhetorical question, "Can one prevent crises"? The author was of the opinion that "in the large majority of cases, the answer is an unqualified yes merely by applying an increased awareness. The only exception might be a natural disaster... In man-made crises, a warning bell typically is sounded, but it usually falls upon deaf ears" [13, p. 8].

2.3. Dealing with crises

Basically, the literature suggests there are two viable options in dealing with crises. The first and preferred, of course, is to prevent them. Reid [13] and others suggest prevention in part is possible [1]. Lagadec [8], on the other hand, defined crises as being unimaginable, and thus one would think impossible to prevent; it has been suggested in fact that crises in projects are inevitable [5]. Regardless