

Impact of corporate strengths/weaknesses on project management competencies

Zeynep Isik^a, David Arditi^{a,*}, Irem Dikmen^b, M. Talat Birgonul^b

^a Dept. of Civil, Architectural and Environmental Engineering, Illinois Institute of Technology, 3201 South Dearborn Street, Chicago, IL 60616, United States

^b Dept. of Civil Engineering, Middle East Technical Univ., 06531 Ankara, Turkey

Received 22 June 2008; received in revised form 27 September 2008; accepted 2 October 2008

Abstract

The project is at the core of the construction business. Project management can be used as a tool to maximize the success of projects and ultimately the success of construction companies. It is therefore worthwhile to explore the factors that can enhance project management competencies. In this study, it was hypothesized that “project management competencies” are influenced by “corporate strengths/weaknesses”. “Corporate strengths/weaknesses” was defined as a second-ordered construct composed of three latent variables including the company’s resources and capabilities, its strategic decisions, and the strength of its relationships with other parties. The data obtained from a questionnaire survey administered to 73 contractors were analyzed using structural equation modeling (SEM). The results of the study verified the hypothesis suggested.

© 2008 Elsevier Ltd and IPMA. All rights reserved.

Keywords: Corporate strengths/weaknesses; Project management competencies; Company resources and capabilities; Strategic decisions; Strength of relationships

1. Introduction

The construction industry is a project oriented industry. Effective project management is key for the successful accomplishment of sophisticated projects [1,2]. Jaselskis and Ashley [3] state that construction projects commonly experience uncertainty because of shortages in resources and the nature of the project. The factors that are conducive to successful project management are abundantly discussed in the literature. For example, Munns and Bjeirmi [4] suggest that the factors of success in project management include commitment to complete the project, appointment of a skilled project manager, adequate definition of the project, correctly planning the activities in the project, adequate information flow, accommodation of frequent changes, rewarding the

employees, and being open to innovations. The environment in which the project takes place was also taken into account by many researchers [5–7]. That the use of the appropriate management techniques contributes to successful project management is also stressed by many researchers e.g., [4,8,9]. The literature appears to emphasize project-related factors at the expense of company-related factors such as a company’s resources and capabilities, its strategic decisions, and the strength of its relationships with other parties.

It should be kept in mind that a company is an organization that supports the many projects undertaken by the company, generally in different geographical locations and administered by quite autonomous project managers but relying heavily on the support of the head office. In that sense, every project is somewhat influenced by the policies and culture of the central company organization. The objective of the study reported in this paper is to explore the impact of corporate strengths/weaknesses on project management performance.

* Corresponding author. Tel.: +1 312 5675751; fax: +1 312 5673519.

E-mail addresses: zisik1@iit.edu (Z. Isik), arditi@iit.edu (D. Arditi), idikmen@metu.edu.tr (I. Dikmen), birgonul@metu.edu.tr (M.T. Birgonul).

Corporate strengths/weaknesses are defined in the study to reflect three dimensions: the company's resources and capabilities relative to finances, technical and human capital, research and development, receptiveness to innovation; its strategic decisions relative to differentiation, market/client/partner selection, investment, organizational and project management; and the strength of its relationships with other parties such as clients, unions, and the government. Project management competencies are defined by the factors set forth by different researchers e.g., [2,4], the *Project Management Body of Knowledge* (PMBok) [10] and the suggestions of construction professionals contacted in a pilot study. All relevant factors are described in detail in the next two sections. A questionnaire survey was administered to a number of construction companies to test the hypothesis that corporate strengths/weaknesses have a significant impact on project management competencies. The hypothesis was tested using structural equation modelling (SEM), a statistical tool described later in the paper.

2. Corporate strengths/weaknesses

Construction companies should be cognizant of their strengths and weaknesses in order to overcome the challenges of increased competition. However, the intangible nature of corporate level characteristics makes it difficult to assign them as strengths/weaknesses [11]. Based on a literature review and the responses of experts in a pilot survey, the corporate strengths/weaknesses were defined in the study by three constructs including a company's resources and capabilities, its strategic decisions, and the strength of its relationships with other parties. These variables are described below.

2.1. Resources and capabilities

In the language of traditional strategic analysis, a company's resources and capabilities are the strengths that companies can use to conceive of and implement their strategies [12,13]. A company's resources and capabilities may be defined as its tangible and intangible assets. They include the company's financial resources, technical competencies, leadership characteristics, experience, and image in the industry, research and development capabilities, and innovation tendencies.

Financial resources indicate a company's credibility and reputation among clients and suppliers as well as its strength in the market in terms of its capacity to carry out projects [14]. Having strong financial resources may enable a company to get into more risky situations which in turn have higher benefits. The financial strength of a company is indicated by profitability and turnover and generally by the ratio of the company's liabilities to equities. The majority of construction projects are funded by the owner who pays the contractor periodically, who in turn pays the subcontractors, the suppliers and other par-

ties of the project for services rendered. The success of this routine depends on the financial strength of the owner as well as of the contractor [15].

Technical competency refers to the physical assets of a company such as machinery and equipment and the extent of technical knowhow available that is necessary to undertake specific projects. According to Shenhar and Dvir's [16] project management theory, fulfilling technological specifications is one of the major factors in the achievement of success in a project [17,18]. According to Warszawski [14], a company's technical competency can be assessed by analyzing the company's preferred construction methods, the experience of its technical staff, the productivity and speed of its construction activities and the quality of the company's output.

Leadership involves developing and communicating mission, vision, and values to the members of an organization. A successful leadership is expected to create an environment for empowerment, innovation, learning, and support [7]. Researchers have examined the links between leadership styles and performance [19,20]. Fiedler [21] has emphasized the effectiveness of a leader as a major determinant in success or failure of a group, organization, or even an entire country. It is argued that the negative effects of external factors in a project environment can be reduced by the training and equipping of leaders with different skills [22–24]. Organizations require leadership for any of their decisions or actions [25].

Experience can be achieved only if the lessons learned from completed projects are kept in the organizational memory and used in future projects [26]. Organizational learning is difficult for companies because of the fragmented and project-based structure of the industry. This difficulty can be altered by knowledge management activities and a continuous organizational learning culture [27].

The image of the company provides an impression of the products, services, strategies, and prospects compared to its competitors [28]. Contractors in the construction industry have to portray an image that addresses the expectation and demand of the clients and users like in all other market oriented industries. A positive image may enable higher profitability by attracting better clients and investors and increasing the value of the product [29].

Research and development capability has a positive impact on competitive advantage in response to the increased requirements of the globalized industry. The dynamic and rapid changing nature of the industry forces construction companies to develop and adopt new technologies in order to survive in a competitive environment.

Innovation capability constitutes the link between the company and the dynamic environment of the industry [30]. The construction industry is not static and introverted any more. Globalization and higher rates of competition between companies force construction companies to change. Innovation capability is an important factor in achieving cost leadership, focus, and differentiation, hence enhancing competitiveness as stated by Porter [31].

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات