

# Chapter 20

## The Impact of Project Management Maturity Levels on Project Success in the Construction and Engineering Industry in Bahrain

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### ABSTRACT

*Project management is a complex undertaking with many stages and processes. It should follow the full business life cycle from definition and justification of the project through to delivering demonstrable benefits for the company. Nowadays, more and more organizations adjust their organizational culture towards project orientation. There is a big challenge, for each organization, to continually improve its project management processes to increase quality of outputs and satisfaction of customers. Measuring project management implementation maturity can assist in this effort by providing a valuable framework for performance improvement. The construction and engineering industry in Bahrain has witnessed many technological advances recently that require competent project management.*

### INTRODUCTION

Project management is a complex undertaking, with many stages and processes. It should follow the full business life cycle from definition and justification of the project through to delivering demonstrable benefits for the company (Labuschagne and Steyn, 2010). In the age of fast-paced industries and the abundance of digital technologies and industrial automation, knowledge and project management is the key to achieving a successful outcome. The hyper-customization that is taking over the industrial

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world and leading the kingdom's supply chains into the era of Industry 4.0, require some of the best engineering management. Moreover, in the construction industry engineering projects are managed in an environment often characterized by turbulence and complexity and vital need for flexibility and high-quality information. The success and failure of these projects depends on decisions made during their life cycle. The burden of a bad decision in the engineering sector in particular where business is generally run through projects, is becoming very overwhelming and these companies are urged to change the way they take decisions. They have to base their decisions more and more on high quality information effective knowledge management and also competitive intelligence tools (Alami, bouksour, and Beidouri, 2015). Nowadays, more and more organizations adjust their organizational culture towards project orientation. The issues, this research will be investigating, are the existence of maturity levels, and the awareness of the impact the maturity levels have on the public construction sector in Bahrain. Most project managers simply follow previously carried out processes and procedures aimlessly, not conscious of the consequences that a failed project delivery would have on the public construction sector due to lack of knowledge. Are high maturity levels important to avoid project failure? Are the nine knowledge areas of project management crucial to define the maturity level of the organization? Will awareness of the nine knowledge areas of project management effect project success?

The aim of this study is to investigate and measure the awareness of project managers, in the Bahraini public sector, of the nine knowledge areas of project management, and their effect on project success. It will also aim to measure the effect of project management maturity levels on project success. And finally, this study will measure the overall project management maturity level of the Bahraini public construction sector.

## **LITERATURE REVIEW**

Oxford Advanced Learner's Dictionary (2001 6<sup>th</sup> ed) expresses maturity as "the state of being fully grown or developed". When the latter definition is applied to a project it could imply a particular situation where an organization has procedures in a place that will help it in achieving its given objectives. It can be that some organizations are considered mature if that organization is in a situation to deal impeccably with the given projects (Pretorius et al, 2011).

The nature of work is changing and along with it the demand for project managers is swelling. The practice of project management has been demonstrated in the traditional project-based industries, such as aerospace and information technology (IT), and the demand is growing in the energy and constructions (Hodgson & Cicmil, 2006; Project Management Institute [PMI], 2014, n.d.). Over the last decade, (Gan & Chin, 2019) argued, PM education and project management professional (PMP) certification has increased tremendously. It is projected that between the years of 2010 and 2020, 15.7 million new project management roles will be added around the world across seven project demanding industries which are Manufacturing, Business Services, Finance & Insurance, Oil & Gas, Information Services, Constructions, and lastly, Utilities" (PMI, 2013, p. 2).

Capability is the ability to demonstrate one's skill to carry out a given responsibility in a given environment with the given resources in the required period to achieve the required outcome (Gan & Chin, 2019). As discussed by (Pinto and Kharbanda, 1995), project managers occupy a risky situation in which that they possess little authority and operate outside of the traditional hierarchy. In a traditional career path a project manager acquires skills and knowledge to manage projects through a blend of skills and

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