



Green practices in the Kuwait building industry: drivers and barriers

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Abstract

The aim of this research paper is to outline the current state of green construction practices in Kuwait. The areas investigated relate to clarifying the current status of green construction, level of knowledge and the driving and obstructing factors for green practices in the Kuwait construction industry. Subsequent to conducting a thorough literature review, the primary data for this research was collated through employing a questionnaire survey aimed at the local construction stakeholders of Kuwait. The results of the survey reveal that there is a distinct lack of awareness toward the concepts of green construction in Kuwait. This coupled with the higher cost of green building and lack of government support are all factors that act as barriers to the uptake of green construction among Kuwait's construction stakeholders. The study also reveals that education/training initiatives seem to be the driving force behind the rapid expansion of green building. Better insights in to the perception of local construction industry stakeholders would assist industry practitioners to better recognise their shortcomings and develop new strategies to remedy them, ultimately improving the performance of the green building industry. Although the future of green construction sector in Kuwait is promising, there remain ever-present challenges in the forms of technologies relating to green design, manufacturing and production as well as in the "soft" skills relating to regulations, stimulation and management.

Keywords: Kuwait; construction industry; building specifications; green building; construction; green construction.

1 Introduction

It has been established that the construction industry is one of the biggest contributors to the emission of greenhouse gases in to the atmosphere, in addition to other practises that have a detrimental impact on the environment [1]. This sector plays a vital role in meeting the needs of society and improving the quality of life. However, the responsibility for ensuring construction activities and products consistent with environmental policies needs to be defined and good environmental practices through reduction of wastes need to be promoted [2]. Certainly, this sector have an enormous and unceasingly increasing negative effect on the environment, using nearly 40% of natural resources [2], consuming about 70% of electricity and 12% of potable water [3], and producing

among 45% and 65% of the waste disposed in landfills [4].

These negative impacts of the construction industry on the environment and the population are both serious and alarming. In order to overcome this situation and mitigate these effects, the new concept of "green buildings" has arisen. Hence in light of this increased global awareness, green/sustainable construction is currently an area that is receiving a lot of attention from researchers [5]. Green building (also known as green construction or sustainable building) is the practice of creating and using healthier and more resource-efficient models of construction, renovation, operation, maintenance and demolition [6-7] The "green building" construction process also provides the same standards of economy, comfort, stability and values of design and construction as classically