



International Conference on Sustainable Design, Engineering and Construction

## Environmental Practices in Construction Firms

Nor'Aini Yusof<sup>a,b,\*</sup>, Nazirah Zainul Abidin<sup>b</sup>, Mohammad Iranmanesh<sup>c</sup>

<sup>a</sup>Department of Architecture, College of Architecture and Design, Effat University, P.O Box 34689, Jeddah 21478, Saudi Arabia.

<sup>b</sup>School of Housing, Building and Planning, Universiti Sains Malaysia, 11800 Penang, Malaysia

<sup>c</sup>Faculty of Business and Accountancy, University of Malaya, 50603 UM, Kuala-Lumpur.

### Abstract

The increased demand by stakeholders for a cleaner environment has put pressure on construction firms to implement environmental practices (EP) within their own organizations. Past studies have shown that both organizational and external factors may influence firms' EP. However, to guarantee the success of EP, such practices must be compatible with construction firms. **This study investigates the potential impact of compatibility on implementation of EP besides organizational and external factors.** The PLS-SEM using Smart-PLS is used on 210 construction firms to test the hypotheses. The results indicate that organizational support, customer pressure, and regulatory pressure have a positive impact on the implementation of EP. The impact of **quality of human resources, government support, and compatibility on implementation of EP were not supported.** This information may improve the decision-making in the construction industry to facilitate the implementation of EP.

© 2016 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of the organizing committee of ICSDEC 2016

**Keywords:** Environmental Practices; Compatibility Factor; Organizational Factors; Practices Factors; Constructions firms

### 1. Introduction

The increased demand by stakeholders for a cleaner environment has put pressure on construction firms to implement environmental practices (EP) within their own organization. The EP of a firm can be classified into three major activities: energy efficiency, waste management, and involvement in EP efforts [1,2]. Although both organizational and external factors may influence firms' EP [refer to 3, 4], the main challenge for the wider implementation of EP in the construction sector lies in how to encourage the various firms with different operations and systems to be responsible to the environment.

\*Corresponding author. Tel.: +966530495267; fax: +966126377447  
E-mail address: [noyusof@effatuniversity.edu.sa](mailto:noyusof@effatuniversity.edu.sa)

Scholars have suggested that to guarantee the success of EP, such practices must be compatible with construction firms [5]. **Compatibility means that EP are compatible with the firm's existing operations and consistent with the firm's values; it also means that they can easily integrate with the firm's existing system [6,7].** Despite its importance, minimal research exists that concerns **the potential effect of compatibility on firms' EP.** It is important to remember that most construction activities that harm the environment are the results of actions by a project team from a construction firm; members of a project team include project owners, architects, engineers and contractors [8,9]. Therefore, to ensure a widespread implementation of EP in the construction sector, EP at the project level need to be compatible and to be able to integrated with the construction firms' values and system and vice-versa. This study's objective is to investigate the effect of organizational factors, external factors, **and compatibility** on the implementation of EP. This study hopes to provide primary guideline for policy makers and construction firm managers to implement EP in the construction sector. Theoretically, in addition to extending [3,4] work on the factors that influence EP in construction firms, the investigation of the role of compatibility may refine our conceptual understanding of **the determinants of EP implementation.**

## 2. Conceptual Research Framework and Hypotheses Development

This research analyses the influences of the organizational factors (organizational support and quality of human resources), external factors (customer pressure, regulatory pressure and government support), and **compatibility** incorporated in the implementation of EP in a construction firm. Little research on environmental sustainability **has considered the influence of compatibility on the firms' EP.** The relation between independent variables and the dependent variable is illustrated in Fig. 1.

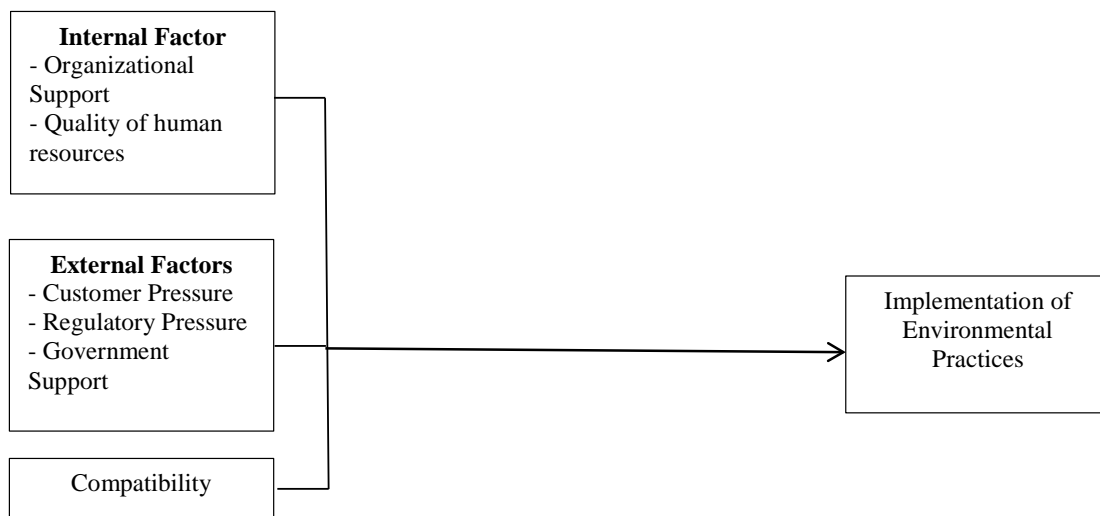


Fig. 1. Conceptual Research Framework

### 2.1 Organizational Support

The commitment to initiating EP by top management is a major factor in the adoption of green construction practices [10]. [11] explained that firms are expected to employ EP if their executives place a high premium on environmental friendliness and protection. The environment-related concerns of managers are positively associated with the extent and pace of their firms' reactions to issues concerning the environment [12]. Therefore, the following hypothesis is developed:

H1: Organizational support has a positive influence on EP implementation.

Download English Version:

<https://daneshyari.com/en/article/853673>

Download Persian Version:

<https://daneshyari.com/article/853673>

[Daneshyari.com](https://daneshyari.com)