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## Identification of Soft Cost Elements in Green Projects: Exploring experts' experience

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### Abstract

The most commonly cited green building barrier is the high development costs of construction. Many developers share the common perception that green building construction incurs expensive additional costs. A preliminary study was conducted with four industry experts via semi-structured interviews to investigate the soft cost elements (SCEs) in the project. Eighteen SCEs were identified and categorized into three groups namely Professionals, Procedures, and Legal Requirements. Three of the SCEs were found to be unique to green building and contributed a financial concern. The study rendered that these SCEs may influence a developer's decision to invest in green building development.

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### 1. Introduction

The topic of green buildings has often been a heated discussion in both academia and industry. According to Isa et al. (2013), investors are attracted to invest in green office buildings due to higher investment returns and benefits expected. These include higher occupancy rate and market value, lower risks, higher cost savings from improved energy and water efficiency, and social and environmental benefits such as improved health and work productivity. Unfortunately, these benefits can only be realized over an extended period and need to be communicated to property investors (Choi, 2009). While some

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researchers have supported findings that green building can be cost-neutral or cost-saving, others have refuted this testimony. A study from New Zealand reported that the issue of cost prevents the incorporation of sustainable features in developments (Bond & Perrett, 2012). Proven statistically, high development cost of green building has been largely cited as the biggest barrier in green building construction (Zhang et al., 2011; Sood & Peng, 2011; ZainulAbidin, 2010; Shari, et al., 2009). Since developers are essentially profit driven, the idea of investing higher development costs for green building project with risk of long term profit return often serve as disfavour (Bandy, et al., 2007; Shafii et al., 2006). Generally, investing a higher capital for a green building does not appeal to developers when a cheaper alternative remains available. This scenario ultimately inhibits the progress towards sustainability. Hoffman & Henn (2008) suggested that the growth in green building movement shall continue to stall unless the significant social and psychological barriers are overcome as political incentives are not significant enough to change the behaviour of developers.

Thus, despite the various efforts of the Government to drive forward the sustainability agenda by introducing incentives and policies, green building development in Malaysia remains slow (Zainul Abidin, 2010; Esa et al., 2011). Similar to other countries, cost is also viewed as the main hurdle in attracting wider desirability for green buildings in Malaysia. Cost for construction projects can be divided into three categories: land, hard and soft cost. Land cost will not vary regardless it is a conventional or green project; however, hard and soft cost are believed to be influenced by the choice to be green. Hard cost has been given much attention by scholars, but soft cost, which is also known as 'hidden' cost remain elusive in its contribution to green building cost increment. As such, this paper discusses the non-technical aspects of project cost and their influence on the overall development from the developers' perspective.

## 2. Literature Review

As previously stated, project cost can be divided into land cost, hard costs and soft costs (Emerging Professional's Companion, 2013; ZahirahM.A.&ZainulAbidin, 2012; Kubba, 2012; Zhang et al., 2011; Yudelson, 2009). Land costs or site costs cover those expenses for land acquisition and development of the project, which usually includes costs such as land purchase, title transfer, site clearance and others. Hard costs refer to direct physical construction costs and soft costs refer to other various costs incurred to move the project forward. The 2C – Construction Costs report by Emerging Professional's Companion (2013) defined, "Soft Costs include a variety of costs incurred by the owner to move the project forward. Design fees, management fees, legal fees, taxes, insurance, owner's administration costs, and a variety of financing costs fall into this category. Moving costs and other tenant-related costs may be placed in the soft cost category" (p. 162). The Transportation Research Board (2010) referred soft costs as the expenses incurred on professional services for completing the project under the Soft Cost Categories (SCCs). According to the TCRP Report 138: Estimating Soft Costs for Major Public Transportation Fixed Guideway Projects, "soft costs are the expenditures necessary to plan, design, and manage the project, while hard costs are the expenditures required for construction." (p. 8).

In most studies of green building cost, focus has been given to hard cost, particularly costs to include sustainability features in the building. Many scholars have discussed how green building project cost may or may not inflate when sustainability features are added to meet green building requirements (Kubba, 2012; Zhang et al., 2011; T.I.Lam & Chan, 2011; Tatari & Kucukvar, 2011). However, Yudelson (2009) reported that the bulk of additional cost in green building does not come from the hard cost, but instead come from soft cost. Most of these costs are incurred in administration processes involved in the project development. Hence, it is important to investigate the elements of soft cost that contribute to this addition.

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