Abstract

The construction industry has a substantial impact on the environment, especially new constructions, which consume immense quantities of non-renewable resources. Green procurement is currently a subject of global interest, being capable of providing solutions to a variety of concerns around environmental degradation. There is a need to apply green procurement (GP) at the design stage of construction projects; to improve a building's sustainability performance since the chances of project optimisation is greater if such concerns are incorporated early. The study investigated the extent of green procurement practice by designers, in particular engineers and architects, at the design stage of construction projects within the public sector. The study adopted a deductive, quantitative approach, with a literature review preceding data collection. The literature review enabled a broad exploration of current thinking on green procurement at the design phase of projects and laid a good foundation for crafting of the research problem and research question. This exploratory study embraced a mono method quantitative approach for data collection using a questionnaire, and corresponding quantitative analytical procedure for data analysis. Non-probability sampling was applied to select the right participants as representatives for the entire population. From the responses received, it was clear that green procurement legislation, regulations and policies exist and are acknowledged by the Department of Public Works, and are sometimes practised during the design stage of construction projects. However, compliance with the legislation and policies is generally low; whereas the literature upholds legislation, regulations and policies as drivers of green procurement, the findings in this study are that decisions in this regard lie with the individual client. There is a general disregard for green procurement criteria during the tender or quotation stages when sourcing external consultants, and a lack of knowledge amongst key stakeholders that may result in a gradual or poor implementation, and resultant environmental degradation. More capacity building and awareness is needed, amongst both the client and the designers, so that green procurement projects may be fully implemented by the Department, for the benefit of the natural environment.

Keywords: Green procurement, green supply chain management, design stage of projects, sustainable design of projects and green government procurement.