

# Implementation of Vertical Green System in Commercial Buildings in Malaysia

Prepared by: Liew Chiew Yee

## ABSTRACT

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This research is to investigate the major challenges of implementing vertical green systems (VGS) in the commercial buildings in Malaysia. Due to rapid urbanization, it caused in loss of greenery and created a host of environmental issues. To achieve more sustainable patterns of life, greening systems are frequently used as an aesthetical feature in buildings and make part of a sustainable strategy for urban canyon. Hence, VGS become a growing trend to replace greenery back to buildings with the integration of greenery on the surfaces or walls of a building.

First, with the information obtained in the reviewed literature some key aspects are clarified, such as the classification systems, the plant species, benefits and difficulties when working with VGS. In addition, qualitative research methodology has been used to investigate the perspective and difficulties of implementing such system from the perception of professionals in Malaysia. It is important to understand the main matter in development of VGS in current market.

The result reveals 4 out of 5 interviewees agree that VGS is suitable being implemented in Malaysia. Through combination with a proper design and new technologies in this era, VGS is worth to be used as passive tool for energy saving in buildings. However, the main difficulty that restricts the implementation of this system is the cost effectiveness. Clients must have the willingness and commitment to look after the planting and pay for the services as it requires a high maintenance budget. Moreover, it is better to have manufacturer for the VGS components in Malaysia as most of the modular are imported overseas.

Hence, there is a need to further studied and examined some aspects in depth, such as which species are the most suitable for each system, life span of plants, effects on energy saving of the facade orientation and maintenance issue for VGS in Malaysia.