ABSTRACT

The level of R&D in Singapore construction industry is low as compared to the developed countries like Japan. There is no proper collection and dissemination of research results and often there is duplication of R&D effort.

Several well-known research centres have shown examples in raising the level of R&D efforts in their countries. The Centre for Total Building Performance (CTBP) is a joint research centre of the Building and Construction Authority of Singapore (BCA) and the National University of Singapore (NUS). It does research on total building performance pertaining to the tropics.

The study will investigate if local contractors can develop their specialized niches through CTBP and provide an insight as to how R&D efforts can be increased among the local contractors and become more effective. Furthermore, the idea of a collaborative effort among the government, academic institution and the industry is being investigated.

Surveys are conducted with the contractors to understand their perceptions on R&D and CTBP. A case study on HDB’s Prefabricated Technology Centre (PTC) is done as it has assisted to raise the overall competitiveness and standards of the construction industry.

The analysis shows that the lack of funds is the main factor impeding R&D. Furthermore, most R&D activities are ad-hoc as contractors fail to recognize cumulative knowledge as an asset to develop their competitive edge. There is no negative view on collaborative R&D
among the contractors. Given the limited resources, CTBP is a good solution to promote and coordinate R&D efforts in the local construction industry.

Keywords: R&D, collaborative R&D, research centres, CTBP and HDB’s Prefabricated Technology Centre.