SUMMARY

Almost 87% of the population live in the Housing and Development Board (HDB) flats. With the purchasers’ ever changing needs and expectations, the HDB has to find ways to improve the quality and performance of the flats or other properties, like commercial or industrial development. By doing so, the construction cost may increase. Between 1987 to 1998, the construction cost increased by 17.4%.

To overcome this, one of the solutions is to apply value engineering methodology in the organisation. Value engineering is an organised and creative technique that analyses the functions of a product, a service or a system with the objective of reducing the production cost while maintaining or even improving the value, quality and performance. This methodology has been proven to be effective and successful in its application in the construction industry of many industrialised countries, like North America, Europe, Australia and Japan.

The objective of this study is to investigate whether the value engineering approach adopted by the HDB is able to “design to cost” without adversely affecting the standards of performance. Two case studies were used to illustrate how “design to cost” can be achieved through the use of value engineering.

The results from the case studies revealed that the application of value engineering resulted in cost savings. Cost savings in relation to the original cost estimates for Case Study One was about 7% while Case Study Two was about
13%. Thus it was found that cost savings were possible through the application of value engineering. When applied early in the design stage, value engineering enables "design to cost" in the development of HDB properties.

It is concluded that the application of value engineering in the HDB will ensure that purchasers of HDB properties benefit with better quality, better design and will obtain value for money. This will work towards meeting the purchasers' expectations and changing preferences for HDB properties at affordable prices.