SYNOPSIS

RISK MANAGEMENT IN REFURBISHMENT WORKS

An increasing portion of the construction output in Singapore is attributable to refurbishment works. Generally, contractors are aware of the risks present in new build works. However, they are not as familiar with all the risks in refurbishment works. With the increasing importance of the refurbishment sector, it is timely to study the risks in this area of construction works.

The first part of the dissertation looks at the nature and characteristics of refurbishment works and identifies its peculiarities as compared to new build works. Some of these peculiarities include the small work packages, the lower productivity of labour and plant and the higher cost of preliminaries. These peculiarities stem from the fact that the refurbishment site is an existing structure and is usually in occupation.

The first part also involves the identification of the risks that are present in refurbishment works. Each of the risks identified is examined to determine its nature and importance to contractors. For the purposes of the study, the various risks were grouped into seven convenient groups namely; financial, resources, time, occupation related, government, works, and after sale service. The discussion and analysis established that the Occupation related risks were the most significant risks.
The second stage of the study looked into the ways in which these risks should be allocated and how contractors should respond to them. The general principle for risk allocation is that risk should be borne by the party who is best able to control it. Generally, four methods of risks response are available namely; avoidance, reduction, transfer and retention.

The third stage involved a small sample survey. The survey was conducted in order to obtain the perceptions of local contractors with regard to risks in refurbishment and to see if these perceptions coincided with the conclusions drawn earlier in the discussion and analysis of the literature review. The survey established that generally occupation risks, though not the most important group of risks, is still significant in the perception of the contractors. However, the perceptions vary depending on the size of the contractor, the size of the contract and the duration of the contract. The survey also showed that local contractors tend to adopt risk retention as the main response measure to risk.

The fourth stage involved a case study. The case study traced the circumstances leading to and implementation of the retrofitting of the National Development Complex and the lessons learnt from it with respect to risk management.

In conclusion, the study established the key differences between new build and refurbishment works, the significant risks that need to be considered in refurbishment and the appropriate risk response to deal with these risks.