ABSTRACT

The Just-In-Time (JIT) philosophy has been widely recognized as a system for boosting productivity and quality in the manufacturing industry. Many studies have also been done in recent years to see how JIT can be applied in the construction industry and these studies have shown that it is possible to apply the JIT principles into the construction setting with some modifications. However, many contractors are still unable to appreciate the benefits of JIT and claim that the philosophy is too complex.

5-S, on the other hand, has also been successfully implemented in the manufacturing and service industries. 5-S stands for five Japanese words: Seiri, Seiton, Seiso, Seiketsu and Shitsuke which, when translated, mean Organization, Neatness, Cleanliness, Standardization and Discipline respectively. They have been termed as five keys to a total quality environment.

Many similarities exist between the JIT and 5-S principles and these should be integrated. This study shows that it is possible to integrate the two together by incorporating the 5-S principles to operationalise the JIT concept. By introducing 5-S activities into the workplace, the JIT system can be achieved without additional resources.

Taking into consideration that efficient site management can be achieved by a good site layout, this study concentrates on applying the integrated JIT and 5-S principles for site layout to improve productivity and quality. By eliminating unnecessary items on site, keeping the site neat and clean and creating and maintaining a workplace with good habits, materials handling will be improved and a smooth work flow can be achieved.