

**UNIVERSITI TEKNOLOGI MARA**

**PERCEPTIONS OF INTELLIGENT BUILDING  
IN MALAYSIA:  
CASE STUDY OF KUALA LUMPUR**

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Thesis submitted in fulfillment of the requirements  
for the degree of  
**Doctor of Philosophy**

**Faculty of Architecture, Planning & Surveying**

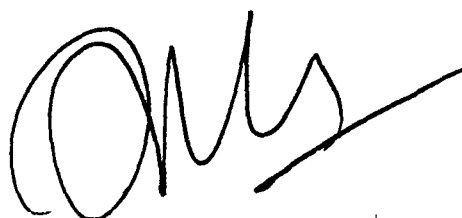
**January 2011**

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I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledge as referenced work. This topic has not been submitted to any other academic institution or non-academic institution for any other degree or qualification.

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## ABSTRACT

Intelligent Building (IB) is the term used to describe new office buildings in Kuala Lumpur, Malaysia. While the government is introducing the Multimedia Super Corridor through the governments' 2020 Vision, the perceptions of IB are fully exploited to promote the ICT and technological development as well as the economic regeneration of the country. Eventually, without a comprehensive understanding on IB, various interpretations in technological idioms are generating throughout the progress of the development of the new office buildings in Kuala Lumpur as the majority of the people are overwhelmed with the high technological concept of IB and the popularity achievements of the government on technological uptakes at local and international level.

This research analysed the perceptions of IB in Malaysia by investigating different interpretations on IB among the people in Kuala Lumpur in the attempt to explore how the various perceptions influenced the development of IB. In addition to that, a better understanding on IB is acquired from the experts' point of view and government document are critically analysed to investigate the local and federal government agenda on IB development. The existing model of IB is validated by exploring the perceptions of people working in the office buildings that have been referred as IB by the majority of the people in Kuala Lumpur. The research also analysed how do the perceptions regarding IB compared across the stakeholders before outlining recommendations to strengthen the definition of IB, the assessment criteria and practical practices to further assist on the development of IB in Kuala Lumpur. Questionnaire survey, content analysis and non structured interview are employed as the methodology of the research.

The research found that the people in the city of Kuala Lumpur have various interpretations on IB that inclined toward the technological aspirations which directly affected the understandings of IB. Full support from the local and federal government is strongly needed to strengthen the existing definitions, guideline and assessment criteria to control IB. The research revealed that the focus of IB is perceived by the stakeholders in distinct interests. Since the government fully exploited ICT developments to market the office buildings in Kuala Lumpur to stimulate the economic growth of Malaysia, the building users are influenced with the technological driven features of IB and the understanding of IB is further developed within these interpretations. The definitions and concepts of IB are growing along the various interpretations of technology and thus influenced the understandings of IB. The government must instantly differentiate IB from the MSC and ICT projects.

The research outlined practical recommendations for practice and further research regarding the IB in Malaysia. In all, the utilisation of technology must be reviewed in a more holistic approach not only to provide the convenience, comfort and cost effective environments to the user, organisations and business, but also to sustain the quality of the external environment and the distinct cultural values. The integration of the technology driven and user orientated approach will foster a better design approach toward the comprehension on the understanding of IB but the cultural and climatic variables defined IB more appropriately into its local contexts. The future direction of IB in Malaysia is influenced by the attitudes of the people in the city and those attitudes lies within the abilities of the people to make changes where necessary, in the development mechanisms and various interpretations of IB that will continue to progress along with the rapid development of technology of the country.

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