

**UNIVERSITI TEKNOLOGI MARA**

**A PROTOTYPE OF HIGH-RISE  
RESIDENTIAL MANAGEMENT  
SYSTEM: A CASE STUDY FOR  
SEROJA APARTMENT**

**NURHAZIANI BINTI HAZEMI**

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## ABSTRACT

Residential high-rises are unique properties that differ from landed properties such as bungalows or terrace houses. They are unique insofar as, after the properties have been occupied, facilities must be jointly managed by residents. The continuous growth of high-rise residential buildings specifies that there is a need for an effective ownership and property management system to instil a valuable living experience among high-rise residents in this country. An effective and efficient property management system will increase the property values and contributes to a quality living environment. Additionally, a successful property management is a demanding activity which requires relevant understanding, ability and appropriate technical and organisational skills as well as resources to successfully maintain and improve property value through to its obsolescence. However, in most of the cases, the residential management office still practices the conventional approaches of communication. The day-to-day tasks were handled manually, and all the work decided in meetings, maintenance bills, and contact number of members were written on the papers. Later, this information was stored through manual filing methods. This method thus causes a problem with maintaining and managing their customers and their own records. The aim of this study to develop mobile app that supports streamline information with assistive features to improve communication and information sharing for high-rise residential management in Malaysia. Additionally, the immense growth in the mobile technology usage specifically consumer-facing property technology exposed that smartphone has become a universal communication device that offers access to efficacious computational software. This aim is achieved by answering three research objectives, including identifying user requirements, design and develop the artefact and evaluate the artefact. The study was conducted together with LT Sdn Bhd, the property management company responsible in managing and maintaining property related matters of Seroja Apartment. The study is employed Design Thinking as a research methodology. Artefact evaluation was conducted using Think Aloud Protocol Testing with ten (10) participants, divided into two (2) target group namely committee and resident. We proposed an adopted conceptual framework for property management based on the sustainable indicator dimensions for property management and applicable features from existing mobile apps to develop the artefact. The conceptual framework was proposed based on literature review and nature of work observed on site. Lastly, the study successfully validated the proposed adopted framework against the artefact.

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It is my wish that this research can contribute to our education institution and act as a guide for future reference and also contribute toward future advancement for research in Malaysia.

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# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Introduction**

The aim of the study is to discover the use of a mobile application to streamline the communication and information sharing for high-rise residential management. Thus, this chapter provides the background and rationale for the study. It covers the research background, research objectives, and research questions. It also accounts for the significant issues and problems together with the scope, limitations as well as research significance that were encountered during this research.

### **1.2 Research Background**

Housing is a basic human needs. This is because housing is the convenient place to live. Apart from being a connection medium with neighbours, it also can be an investment medium in income generation. Hence, housing is a vital necessity of life. Moreover, this topic continuously discussed in newspapers and digital media mentioned that yearly demand for constructing high-rise buildings is higher in urban areas than in rural areas due to an increase in population growth rate (Noorsidi dan Eves, 2011). This situation has led to the introduction of a multi-storey building or better known as a stratified residential building (Tiun, 2006). The high demand for housing in urban areas has significantly boosted the construction of housing units by the developer. People are more likely to choose a multi-level residential area than terraced housing.

Consequently, the housing price in Kuala Lumpur and Selangor was dramatically increased according to the news (Kosmo Newspaper, 2012; Rashidah et al., 2016). For example, a 2000 square feet condominium in Bangsar was sold at RM 2.4 million per unit. The scenario in which high-rise buildings are demanded in urban areas influence the outskirts areas of Klang Valley, including Kajang, Bangi, Sungai Buloh, Klang, and Rawang, for the past few years. The same scenario also happened in other countries, including Australia (27.5%), Singapore (84%), and Hong Kong (95%), and has influenced the demand of high-rise residential buildings in these countries (Daniel et al., 2013).