

**UNIVERSITI TEKNOLOGI MARA**

**KEY PARTICIPANTS'  
INVOLVEMENT FRAMEWORK FOR  
THE BRIEFING STAGE OF  
BUILDING REFURBISHMENT  
PROJECTS**

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## ABSTRACT

Refurbishment sector is becoming one of the most important sectors in the construction industry. In Malaysia, more than 20 percent of construction output was related to refurbishment works in the past years. However, refurbishment projects are more complex than new-build projects. Affected design information in refurbishment project is one of the main factors, which leads to refurbishment projects performance failure and briefing is one of the most important information sources for designer in refurbishment projects which suffers from various types of complexity. Thus, it is important for the construction industry to identify and address complexity factors and find the appropriate framework of key participants involved in briefing stage of building refurbishment projects to enhance the achievement of required design information for design team. Therefore, the aim of this study is to develop key participants involvement framework to reduce the level of complexities in briefing stage of building refurbishment projects in order to acquire the optimum amount of required information. This aim is achieved through the following four objectives: (1) to identify the complexity factors in briefing stage of building refurbishment projects; (2) to determine the problems associated with complexity factors, which affects acquiring the required design information in the briefing stage of building refurbishment projects.; (3) To develop and validate appropriate framework of key participants involvement initiatives in the briefing stage of the building refurbishment project towards the achievement of required design information; and (4) To recommend improvements on successful participants involvement initiatives in the briefing stage as a mediator in building refurbishment projects to achieve the required design information. In achieving the objectives, the triangulation research method was adopted in the form of a questionnaire survey, in-depth interviews, and expert interviews. The questionnaire survey meant to get the general perception from 139 experienced Architects and Interior Designers involved in building refurbishment projects on the problem statement. Based on the replies, in- depth data collection was conducted in the form of semi-structured interview with 12 architects and 8 interior designers. Finally, the data collected in previous steps underwent validation by four (4) experts which concluded the triangulation approach. At the end of the research, a participants involvement framework for briefing stage of refurbishment project was developed to improve the briefing stage in refurbishment projects. The findings highlight on the main critical complexity factors that need to be more considered by the refurbishment projects practitioners. This research has successfully investigated the current practices in the industry in dealing with complexities in briefing stage of refurbishment and common problems associated with complexity factors, which affects acquiring of required design information at the end of brief. The strategies towards achieving a successful participants involvement have been identified as being comprised of elements that are essential for addressing the effects of existing complexities in briefing stage of refurbishment projects.

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# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Introduction**

This chapter provides the overall introduction of the thesis. The background of the study that documented the relevance and significance of the research are provided. This is followed by the problem statement, which defines the aim and objectives of the research. Subsequently, the research questions and scope of the limitations of the study are discussed. Lastly, the description of the research methods and the outline of the structure of the thesis are presented.

### **1.2 Background of study**

In recent years, there has been an increasing interest in building refurbishment works due to the change in economic conditions and the emphasis on sustainable development (Kohler & Hassler, 2002; Ridzuan et al., 2019; Ryu, 2014). Investment for new construction projects would likely to decrease but the need for building refurbishment works would likely to increase. This is due to the fact that the demand for building refurbishment projects comes from various sources such as obsolescence and deterioration. Building's owners still need to refurbish their property, despite the economic slowdown (Chan & Hon, 2016). Building refurbishment is defined as works that involve renovation, upgrading, retrofit, improvement, and repair of existing and occupied buildings (Ishak et al., 2018; Juan, Kim, Roper, 2009; Lee & Egbu, 2006; Masrom et al., 2017). In Malaysia, building refurbishment is fast becoming an important sector in the construction industry (Ali, 2014). The key factors that contribute to the growth of building refurbishment works in Malaysia are; economic recession, building deterioration, obsolescence and growing demand for green buildings (Masrom et al., 2017; Ridzuan et al., 2019; Zolkafli et al., 2012). Also, the demand for building refurbishment works are likely to increase in the next decade due to the regeneration of inner cities and town, and growing concern about building on greenfield sites. Hence, building refurbishment of existing buildings plays a significant role in achieving