

**CENTRE OF STUDIES FOR BUILDING SURVEYING
FACULTY OF ARCHITECTURE, PLANNING AND
SURVEYING
UNIVERSITI TEKNOLOGI MARA**

**THE RELATIONSHIP BETWEEN BUILDING DESIGN
AND MAINTENANCE OPERATION OF STATE MOSQUE**

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**“I hereby declare that this academic project is the result of my own
research
except for the quotation and summary which have been
acknowledged”**

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ABSTRACT

Building Maintenance is an important factor to maintain building performance and quality. Faulty in building design can lead to many maintenance problem in the building and lead to building defects. The aimed for this research is aimed to establish the criteria of faulty building design that affect maintenance operation of state mosque. The methodology used in this study was based on semi-structure interview and fieldwork to determine faulty in building design and identify the factor in faulty building design that affect maintenance operation. . Three (3) case studies at Tuanku Mizan Zainal Abidin Mosque, Putrajaya, Sultan Salahuddin Abdul Aziz Mosque, Selangor and Malacca Straits Mosque, Melaka have been selected to do this research. Each of the respondents at the building has been involved in maintenance operation work which is Facility Manager and Head of Building Management. This research resulted that three main factors of building design that affect maintenance operation which is defect in design, defect in material and defect in maintenance. The factors can lead to increase of maintenance budget in the building hence it can affect the quality and performance of the building. Building maintenance is important for every building and consideration of maintenance operation work in building design need to be emphasizing to prevent and prolong building lifetime and performance.

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THANK YOU

CHAPTER 1

INTRODUCTION

1.1 Introduction

Nowadays, increasing and rapid development in construction industry, building maintenance has an important role and factors to ensure the long life span of the building which are crucial to overall performance of the life cycle of the building (Sivanathan, Jibril, Thanaraju, Dodo & Shika. 2012). Hence, the global construction and real estate industries are facing increasing competitive global markets, shrinking of maintenance budget and rising construction and maintenance cost (Chew & De Silva, 2004).

Issue in building maintenance is a universal and its consideration in the design stage was a great importance in future performance and quality of the building (Arditi & Nawakorawit, 1999). According to Razak and Jaafar (2012), failure of the earlier stages of project development especially in design, would lead to deficiencies after construction and the deficiencies will result in financial burdens to the client.

Quality of buildings that remain long, safe and beautiful without any damage and problem will able to influence if there have good management of building. Maintenance is an activity to preserve, conserve, manage and regulate buildings, facilities, services, equipment and its surrounding buildings to meet current standards, the usefulness and value of defense security and facilities of the building (Nawi, Salleh & Anuar, 2014).

According to Sivanathan et al. (2012), problems in the early construction design such as lack of consideration to accessibility need, choice of material and poor communication among the parties are common problems in most of the building. Hence, inadequate input of maintenance at the design stage lead a lot of building maintenance problems especially during post occupancy stage.

One main factor that should be considered during design stage obviously the importance of maintenance (Chandler & Lewis, 2011). Failure in early design stage of building design will lead to building deficiencies in post construction stage. Errors