



**UNIVERSITI TEKNOLOGI MARA**

**A STUDY ON FIRE SAFETY MANAGEMENT  
SYSTEMS AT COMMERCIAL BUILDING :  
PASIR PUTEH SUPERMARKET**

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## **ABSTRACT**

The purpose of this case study was to identify the use of fire safety systems at supermarket buildings. In general, building should be designed in such a way that occupant may easily escape in a safe environments and easy way. This paper also consists of a literature review that focuses on the types of fire safety at a Commercial building which is at a Supermarket and also the act and regulations that involved in the fire safety system. This research also will identify the user satisfaction with the fire safety management system at the Supermarket. The objective is to identify of fire safety management system at Supermarket in order to identify the fire safety management system at Supermarket. In addition, this objective will also discuss the fire safety equipment that applied at Supermarket based on user satisfaction. Then, this research will do the discussion of the research findings that are focusing on the management of supermarket and the users satisfaction. The questionnaire was given to all users that always when to supermarket in order to know their satisfaction of fire safety at every supermarket and this questionnaire also has been distributed to the management team to the both supermarket to identify the management system of fire safety that provide at their supermarket. Hence, by studying these fire safety system it can improve the satisfaction level to occupants and safety to all people.

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# CHAPTER ONE

## INTRODUCTION

### 1.1 RESEARCH BACKGROUND

Fire is indeed the rapid oxidation of a substance. It is an exothermic process that produces heat, light and variety products. Based on that statement above, fire helps us with many useful purposes, but it brings a great deal of harm to life when it out of the control. (Kalaiarasi et al., 2018). According to M. Kalaiarasi and S. Satheesh Kumar, 2018, it is important to control or extinguish any of the components in the fire triangle fire by removing one of them them.

Generally fire is a common disaster caused by nature and man. Fire can cause loss of life and even loss of material. In addition, fires can also affect the environment, public facilities, facilities and infrastructure and next can cause chaos in community life. (Ayu et al., 2018)

Furthermore it can be said that fire can occur at any time in the building and its come from many sources. From moment of ignition, there is the potential for a huge or massive tragedy and it is only a matter of time before it casusing death.(Rahim et al., 2014)

According to Venkatesh Kodur and Puneet Kumar , 2018 fire safety is defined as colletion or also as set of procedures for preventing fires as well as managing the fire growth and effects of accidental or purposely flames while reducing losses to can acceptable level. Curently , fire safety in buildings is ensured by adhering to the recommendations of building codes practice. Although requirements and method vary from one code of practise to another to ensure fire safety in buildings, the majority of them are based on a prescriptive approach and are derived from same fire safety concepts. (Kodur et al., 2019)

In prescriptive-based approaches, buildings are protected against fire by a combination of active and passive fire protection system. Active fire protection systems such as fire extigusisher , sprinklers, heat and smoke detector are required to detect monitor or extigush fire in the early stages and more significant from a life safety