

**A STUDY ON FIRE READINESS OF SHOPPING
COMPLEXES IN SRI LANKA**

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ABSTRACT

Fire protection is a study and practice of mitigating the unwanted effects of potentially destructive fires; the study and practice of fire protection aim to reduce the negative impacts of potentially destructive fires. Especially, fire incidents are the most hazardous situation of shopping complexes and evacuation strategies are complicated. The poor conduct of people in shopping complexes during the evacuation process is still a significant issue. However, very limited reported studies have been listed to evaluate the fire readiness of occupants in shopping complexes in Sri Lanka. So, the purpose of this study was to assess fire readiness and make recommendations to improve the fire readiness of shopping complexes in Sri Lanka. The goal of this study was to evaluate Sri Lankan shopping complexes' fire readiness and provide recommendations for improvement.

As an initial step, a comprehensive literature survey was carried out to review the fire readiness of shopping complexes in Sri Lanka. As a next step, the data collection process of the research was carried out fewer than two main steps. The convenient sampling method was used. The active and passive safety systems installed in two significant shopping complexes around Colombo city are selected. The results confirmed that physical structure of the building and the behaviors of the occupant's management process influenced by the function of the building. Furthermore, fire protection systems were identified as sprinkler systems, fire alarm systems, fire extinguisher systems, hydraulic hose reel systems, total flooding systems, fire doors and walls, fire dampers, penetration seals, and emergency staircases. The factors related to the fire readiness were explored related to the fire readiness of both the building and the occupants. The findings of this study can be used to create future fire safety rules, programs, and health initiatives for commercial buildings, particularly for shopping complexes.

Keywords: Fire readiness, Evacuation, Shopping Complex, Fire Prevention

DECLARATION OF THE CANDIDATE & SUPERVISOR

I declare that this is my own work and this thesis does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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The above candidate has carried out research for the Masters of Occupational Safety and Health Management under my supervision.

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LIST OF ABBREVIATIONS

APF	-	Active fire protection
BCA	-	Building and Construction Authority
UK	-	United Kingdom
US	-	United States
VDU	-	Visual Display Unit
RII	-	Relative Importance Index