

UNIVERSITI TEKNOLOGI MARA

**A STRUCTURAL RELATIONSHIP
MODEL OF
GREEN CLEANING FOR
HEALTHCARE FACILITIES
IN MALAYSIA**

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ABSTRACT

The development of green cleaning as a push to accomplish sustainability has prompted the necessity for a new approach to building maintenance and operations, especially in the cleaning aspect. Green cleaning is products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. Proper cleaning can significantly reduce a patient's chance of infection with healthcare-acquired pathogens. However, conventional cleaning presents diverse health and environmental problems that can only be addressed by green cleaning. Hence, healthcare facilities require green cleaning services to render economic, social, and environmental benefits. However, without clear green cleaning components and requirements, the management does not know what cleaning service providers are supposed to provide in their service to ensure the healthcare facility's cleaning is carried out effectively and efficiently. Therefore, this research aims to explore the relationship between green cleaning components for healthcare facilities in Malaysia. The objectives of this research are: 1) To identify the components and requirements of green cleaning for healthcare facilities in Malaysia; 2) To examine the validity of green cleaning for healthcare facilities, and 3) To establish the structural model of green cleaning for healthcare facilities. The research methodology adopted to achieve the aim of the study was conducted in three phases. In the first phase, eight components of green cleaning were identified from the kinds of literature, achieving the first objective. After that, the components gathered were validated by eight panels of experts. The relevance of each green cleaning component was then analysed using importance index calculation, thus completing the second phase of this study. In the third phase, the results from the second phase were then surveyed by the five respondents (maintenance personnel) to establish the structural model of green cleaning components for healthcare facilities. The data was then analysed using the Interpretive Structural Model (ISM), thus completing the third phase. The findings show that all of the eight green cleaning components are relevant and significant to be included in a green cleaning programme for healthcare facilities in Malaysia. Furthermore, the 'Communication' component is found to be the most compelling driving factor to ensure an effective green cleaning programme. The findings that this study provides can act as guidance to propose a framework for green cleaning in a healthcare facility to perform sustainably and to achieve competitive organizational performance.

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