



ASSESSMENT OF PRAYER ROOM FACILITIES IN KLANG VALLEY SHOPPING CENTERS THROUGH POST-OCCUPANCY EVALUATION

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Abstract— This study assesses the performance of prayer room facilities in Malaysian shopping centers to enhance their effectiveness and user experience. Shopping centers serve as vital urban hubs, mixing commercial and cultural activities. In Malaysia's diverse context, prayer rooms are essential for accommodating Muslim visitors' religious practices, emphasizing daily prayers. Despite their importance, many prayer rooms face challenges like ventilation, space constraints, poorly designed ablution areas, and accessibility

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Evaluation, Prayer Rooms, Shopping Centers, User Experience	issues. Thus, this research aims to enhance prayer room functionality and user experience by assessing user satisfaction. This research performs a post-occupancy evaluation (POE) of prayer room facilities in five shopping centers within the Klang Valley, particularly in Shah Alam, Putrajaya and Petaling Jaya. By utilizing questionnaires, the study highlighted the strengths and pinpointed areas for improvement in each center. While some excelled in certain aspects, others showed deficiencies, which struggled with ablution facilities, seating arrangements, and signage clarity. This research provides valuable guidance for enhancing the design and management of prayer rooms in commercial settings. Its findings can assist local authorities in approving building plans, architects in designing, and facility managers in maintaining shopping center prayer spaces.
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I. Introduction

Shopping centers serve as vital urban hubs, integrating retail, social, and cultural activities while accommodating diverse religious practices, particularly Islam in Malaysia. Prayer rooms are essential for fulfilling spiritual obligations, as emphasized in Surah Al-Baqarah, verse 238, enabling

visitors to combine worship with shopping under the "one-stop shopping" concept [1].

However, many prayer rooms fail to meet criteria for comfort, safety, and accessibility. Common issues include inadequate ventilation, insufficient space for group prayers, poorly designed ablution areas posing safety

risks, and limited facilities for elderly and disabled users, compromising inclusivity and user satisfaction [2, 3].

This research evaluates prayer rooms through a post-occupancy evaluation (POE) to identify user satisfaction and recommend improvements for enhancing functionality and inclusivity.

A. Adaptation of Prayer Rooms in Shopping Centers

Shopping centers, comprising retail and commercial establishments managed as single properties, provide safe and convenient environments and are popular leisure destinations in Malaysia, attracting 20% of the urban population on weekends [4, 5]. For Muslims, prayer rooms are vital due to the obligation to pray, fostering calm and comfort during visits. The Quran (Surah An-Nisa, 4:103) emphasizes this duty: "Indeed, performing prayers is a duty on the believers at the appointed times."

As urban areas evolve, prayer spaces in shopping centers serve as sacred sanctuaries amidst

commercial activities, enabling visitors to fulfill spiritual obligations [6, 7].

B. Existing Issues with Prayer Rooms in Shopping Centers

Studies have identified shortcomings in the functionality, comfort, and accessibility of prayer rooms in shopping centers [2]. These issues can be categorized into three main areas: Functionality and Practicality, Comfort and Atmosphere, and Accessibility and Safety, highlighting the need for improvements in these key aspects.

Functional and Practicality

Inadequate ablution facilities often force users to use toilets, while poor maintenance results in slippery floors, unclean areas, and infrequent washing of *telekung*, the traditional female praying attire commonly worn in many Asian countries, raising hygiene concerns [8-12].

Insufficient storage for personal items and prayer essentials, particularly for disabled users, highlights the

need for lockers and dedicated spaces [1, 12, 13].

Poor spatial planning further causes congestion and discomfort, underscoring the importance of well-designed layouts and orientation markers for efficient use [1, 8, 9].

Comfort and Atmosphere

Insufficient ventilation and cramped prayer rooms, often accompanied by odors from adjacent toilets, highlight the need for better separation between storage and prayer areas [1, 8]. Limited space for group prayers and lack of high-quality materials diminish the experience, while poor cleanliness risks negative perceptions of Islam, emphasizing the need for regular maintenance to meet user expectations [8, 9, 11].

Accessibility and Safety

Inappropriately positioned ablution facilities create accessibility challenges for the elderly and disabled, while inadequate separation between male and female areas compromises visual privacy,

particularly for women [1, 8, 13, 14]. Poorly located prayer rooms, such as in basements or corners, and insufficient signage hinder accessibility, highlighting the need for thorough evaluations to improve prayer room facilities in shopping centers [2, 8, 14].

II. Methodology

This study employs a quantitative approach using post-occupancy evaluation (POE) to assess prayer room facilities in five shopping centers across Klang Valley: Central i-City, Shah Alam (SC 1), Alamanda Shopping Centre, Putrajaya (SC 2), Kompleks PKNS, Shah Alam (SC 3), Sunway Pyramid, Petaling Jaya (SC 4), and AEON Mall, Shah Alam (SC 5).

A Likert scale measures user satisfaction and preferences, with data analyzed to identify strengths and areas for improvement in these facilities.

A. Participants Selection

A purposive sampling method selects participants who have used the prayer rooms in the chosen shopping centers,

ensuring relevant feedback. The study targets at least 40 participants per center, aged 18 and older, to capture diverse perspectives and experiences.

III. Results and Discussions

This section presents the findings from the structured questionnaires, which aimed to gather feedback on different aspects of prayer room facilities, such as ease of access, user comfort, cleanliness, safety measures, and overall satisfaction.

A. Functionality and Practicality Evaluation in Prayer Rooms

The evaluation of ablution facilities showed high ratings across shopping centers, except for SC 4, which scored the lowest due to the absence of non-slip measures on ceramic tiles, increasing accident risks on wet floors. SC 4 also received the lowest scores for prayer area maintenance, storage space, seating, shoe rack capacity, and availability of prayer essentials like *telekung* and mats. Backward-positioned cupboards (Figure 1) reduce usability,

insufficient shoe rack capacity causes clutter (Figure 2), and a lack of prayer essentials inconveniences users. These findings highlight the need for targeted improvements to enhance functionality and user satisfaction [8, 9, 11].

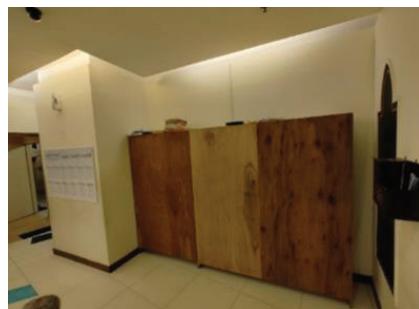


Figure 1: Cupboard Placed Backwards in SC 4



Figure 2: Entrance of Female Prayer Room in SC 4

SC 5 earned the highest mean score for prayer essentials, particularly *telekung*, due to daily rotations confirmed by its maintenance technician, aligning with [12]'s

recommendations for regular maintenance to ensure hygiene and accessibility.

SC 4 scored lowest for design and layout, with the qibla direction facing the entrance (Figure 3), causing disruptions and congestion, particularly during peak prayer times, as individuals entering after ablution face those already praying. Additionally, SC 4 used floor tile alignment for qibla markers instead of prominent signage, which presented mixed user reactions (Figure 3). These issues emphasize the need for design improvements to enhance usability and comfort.



Figure 3: Layout of Male Prayer Room in SC 4

While some respondents appreciated the tile alignment, others preferred the clarity of

explicit qibla signage, leading to mixed feedback.

B. Comfort and Atmosphere Evaluation in Prayer Rooms

Most shopping centers performed well in ventilation, with SC 2 excelling due to natural ventilation from its rooftop location, creating a fresh and hygienic environment. Conversely, SC 4 scored lowest due to persistently wet floors, which hinder air circulation and cleanliness, emphasizing the need for improvement. Cleanliness received high ratings across centers, reflecting effective cleaning protocols. However, SC 2 scored lower on restroom proximity, as its toilets are located on a different floor, causing inconvenience for users.

SC 4 received the lowest scores for odors, particularly from female respondents, highlighting the need for improved odor management. SC 3 excelled in group prayer space and modern finishes, featuring full carpeting that enhanced aesthetics and comfort (Figure 4). These findings highlight the

critical role of design, ventilation, and hygiene in improving user satisfaction.



Figure 4: Prayer Area in SC 3

SC 3 enhances user comfort with full carpeting, creating a warm and welcoming prayer environment, unlike the tile flooring used in other centers. Lighting evaluations across all centers showed satisfactory performance, with adequate illumination meeting user needs effectively.

C. Accessibility and Safety Evaluation in Prayer Rooms

The placement of ablution facilities was rated positively across shopping centers, with barriers ensuring cleanliness. However, SC 4 scored lowest due to layout issues, including the qibla direction facing the entrance, disrupting

accessibility for elderly and disabled users [1, 13]. SC 4's design, despite seating provisions, hinders navigation, highlighting the need for better layout planning. Privacy was well-managed overall, but SC 3 posed challenges, as male worshippers pass near female prayer and ablution areas, potentially causing discomfort. Adjustments could enhance privacy and user comfort.

SC 5 excelled in prayer room placement, offering three conveniently located rooms on different floors. In contrast, SC 2's rooftop carpark location and SC 4's secluded walkway (Figure 6) received lower scores due to accessibility challenges, reflecting issues noted in [8].

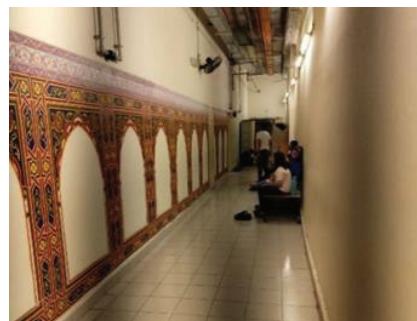


Figure 6: Walkway Towards Male Prayer Room in SC 4

SC 1 featured an unusual layout, with male and female

prayer rooms on separate floors, differing from the typical side-by-side arrangement. These findings underscore the importance of strategic placement and thoughtful design in enhancing user satisfaction.

SC 5 scored highest for clear, visible signage, with well-marked paths ensuring easy navigation to prayer rooms. In contrast, SC 1, SC 2, SC 3, and SC 4 had less effective signage, with SC 1 lacking gender-specific indicators, potentially causing confusion. Improving clarity and visibility of signage is recommended.

Pathway lighting was excellent in SC 1, SC 5, and SC 2, enhancing safety with well-lit pathways. However, SC 4 scored lowest due to dimly lit and isolated pathways, impacting user comfort and security. Adequate lighting is crucial for safe prayer room access.

All centers implemented effective security measures, with SC 1 and SC 3 employing visible security personnel and regular patrols. Other centers relied on CCTV surveillance, ensuring a

secure environment for worshippers.

IV. Recommendations

To improve prayer room facilities in Klang Valley shopping centers, several key recommendations are proposed.

Prayer rooms should be centrally located with multiple facilities across different floors, ensuring easy access for all users. Accessibility features such as handrails, ramps, and wider doorways should be incorporated to accommodate the elderly and disabled, fostering inclusivity.

Enhancing user comfort can be achieved through climate control, such as air conditioning, and the use of air fresheners to maintain a pleasant environment. Modern and soothing decor should also be considered to create a welcoming and spiritually conducive atmosphere.

Additionally, prayer rooms must be equipped with essential amenities, including shoe racks, storage spaces, prayer mats, and *telekung*, with regular maintenance and replacements

to ensure user satisfaction. Clear, visible, and gender-specific signage is crucial for guiding visitors effectively, while well-marked and safe pathways reduce confusion and improve accessibility.

Safety and cleanliness are equally important; ablution areas should be equipped with non-slip mats and secure layouts to prevent accidents, complemented by CCTV and security patrols for added safety. Regular cleaning and timely repairs of facilities are vital to maintain hygiene standards and provide a positive user experience. These measures collectively ensure that prayer rooms meet the diverse needs of visitors and enhance their overall functionality and appeal.

V. Conclusion

This study on prayer room facilities in Klang Valley shopping centers emphasizes their role in enhancing visitor experiences. Significant quality and functionality differences were identified. By following the recommendations, management can create

inclusive and accessible prayer spaces, fostering community and spiritual fulfilment. Future research could explore a wider range of centers and conduct in-depth studies to assess user satisfaction.

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