

## OPTIMISING THE FUNCTIONALITY OF THE BASEMENT PRAYER ROOM AT LAWU PLAZA MADIUN MALL: A REVIEW OF VISITOR SATISFACTION USING A DESIGN THINKING APPROACH

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### Abstract

*This study investigated visitor satisfaction and design difficulties at the Basement Prayer Room of Mall Lawu Plaza, Madiun City. A Prayer Room on the mall's ground floor signifies incorporating religious components into the corporate environment, showcasing the mall's capacity to blend traditional religious activities with a contemporary setting. This project intends to make substantial theoretical and practical advancements by thoroughly examining visitor requirements in unconventional prayer environments. This research method is a form of Design thinking research, which is the primary approach. The study's findings indicated that observations and interviews identified several obstacles impacting the visitor experience, such as spatial limitations, privacy concerns, insufficient illumination, and ventilation issues. The proposed remedies, rooted in Design Thinking principles, consist of recommendations for artificial ventilation, alteration of wall materials, enlargement of prayer spaces, extra storage, and potential relocation of the mall. The solutions focus on enhancing the prayer space's comfort, inclusivity, and functionality by following human-centred design principles. This study highlights the requirement to incorporate human requirements and experiences into the Design of places of worship in modern metropolitan settings.*

**Keywords:** Design Thinking, Mall, Prayer Room, Visitor Satisfaction.

### INTRODUCTION

The rising intricacy of the business environment and the expansion of shopping centres in Indonesia substantially influence people's lifestyles, particularly in the fusion of business and religion (Anwar, 2019). Islam is a crucial aspect of Indonesian society, highlighting the significance of observing the five daily prayers. In this context, a Prayer Room is a central facility that enables the execution of prayer sessions. In this location, Muslims can communicate with the Creator and enhance the spiritual connections of visitors (Darwindo, 2019).

Prayer rooms serve as a place of worship and a source of support for Muslims in a society that is becoming more intertwined with shopping malls. Although smaller than

mosques, the cost of the Prayer Room significantly helps Muslims complete their prayer needs without disrupting their daily activities. The distinction between a Prayer Room and a mosque extends beyond physical attributes to highlight a difference in emphasis, with Prayer Room prioritising affordability and accessibility for everyday prayer (Marzulinda, 2021).

In urban settings, particularly in commercial centres like malls, the Prayer Room plays a crucial role in facilitating the daily routines of Muslims. Prayer Rooms are essential factors in determining visitor happiness, with their impact being as significant as or surpassing other facilities like meeting rooms, cafes, parking lots, or breastfeeding rooms for nursing moms. The prayer Room serves a dual purpose by meeting spiritual needs and influencing visitors' experiences based on the prayer equipment's location, comfort, and cleanliness.

Madiun City in East Java is undergoing a notable urbanisation process, with commercial centres, particularly malls, playing a crucial role in the evolving cityscape. Lawu Plaza Mall is one of the city's top five largest malls, serving as a hub for commercial transactions and moments of spiritual reflection. The bottom level features a prayer area that showcases an intelligent adaptation by incorporating and blending religious components into the modern business setting, demonstrating the mall's capacity to merge old religious practices with a contemporary atmosphere (Al-Omari et al., 2020). Harmonising these components poses intricate obstacles, particularly in guaranteeing visitor happiness, notably in the comfort of mall visitors utilising worship space amenities (Tri & Joko, 2020).

The researcher's initial observation indicates that Lawu Plaza Mall of Madiun City only partially satisfies the standards required for a place of worship due to insufficient amenities and comfort, which can be enhanced. Therefore, meticulous planning is essential to select the appropriate location for consumers and tourists, allowing them to prolong their visits to the mall and potentially increase earnings for the mall manager. Thorough planning is crucial for establishing a place of worship that aligns with standards and balances the practical requirements of visitors with religious principles (Chattark & Kundu, 2024). By utilising a Design Thinking approach, basement prayer spaces can be enhanced by incorporating facilities that cater to the expectations and requirements of Muslims, thus achieving a balance between practical and spiritual components within contemporary shopping centres (Sanny et al., 2020).

Lawu Plaza Mall could enhance the visitor experience by applying Design Thinking concepts to organise facilities in a way that seamlessly integrates with the worship needs of guests. This endeavour aims to provide facilities that integrate utilitarian pragmatism with religious beliefs rather than solely focusing on establishing a place of worship (Ainun et al., 2023). The success of Lawu Plaza Mall lies in its ability to provide facilities that cater to practicality and religious values, which will enhance visitor satisfaction and meet practical and spiritual needs in modern shopping centres.

The study by Hartanto & Yuuono (2021) titled “Enhancing Prayer Room Facilities in Shopping Centres to Boost Surakarta City Tourism” emphasises the importance of enhancing Prayer Room facilities based on Sharia principles and visitor needs to improve their comfort. The investigation findings verified that numerous Prayer Room sites lack strategic positioning, adequate space, and air conditioning and are exposed to noise due to their proximity to the parking lot. Markhamah's (2016) study, “The Effect of Worship Facilities on Mall Visitor Satisfaction: A Case Study at Grand City Surabaya Executive Prayer Room,” highlights the importance of comprehending consumer behaviour in mall business marketing. Meeting consumer expectations, including offering facilities, is a crucial technique for enhancing visitor happiness (Classen, 2023). The study demonstrated that worship facilities have a favourable and significant impact on the happiness of Muslim visitors at Grand City Surabaya. Having an error rate of 0.5 or 5% and a positive correlation coefficient of 0.658, it is confirmed that worship facilities significantly enhance visitor pleasure and foster loyalty among them. Research conducted by Dewi (2012) titled “Worship Facilities in Shopping Centres.” The primary objective is to analyse prayer room facilities in shopping centres, focusing on physical components, adaptations to critical criteria, and the Design and utilisation of space (Panwar & Khan, 2021). The study explains how prayer room facilities can be modified to fulfil visitors' basic demands by considering physical and ergonomic factors. This research offers a substantial foundation for enhancing the Design and functionality of prayer spaces in shopping malls, resulting in comprehensive improvements and a deeper comprehension of the dynamics of prayer spaces within bustling shopping environments.

Previous research in this study should thoroughly investigate the size of Basement prayer spaces, highlighting a gap in the existing literature. This study is different since it concentrates on visitor satisfaction, specifically highlighting design and comfort issues at the Basement Prayer Room at Lawu Plaza Mall of Madiun City. The study seeks to provide valuable theoretical and practical insights by recognising and resolving these knowledge deficiencies, focusing on thoroughly comprehending visitor requirements in unconventional prayer locations (Ilyas et al., 2020). The study's conclusions are anticipated to significantly contribute to scholarly discussions on the Design of mall prayer spaces and offer practical recommendations for designers and stakeholders in comparable initiatives.

## **RESEARCH METHOD**

This study employs a qualitative approach using observation and interviews; the sample is selected purposefully according to particular criteria (Soewardikoen, 2019). This study utilises Design Thinking research as its principal approach. Design thinking research is a strategic innovation approach utilised in the design process. It engages

individuals by employing empathy and utilising methods such as defining, ideating, prototyping, and testing (Soedewi et al., 2022).

The data is collected using in-depth interviews and observation techniques. Sample selection is conducted through random sampling, involving nine individuals who regularly utilise the prayer room for worship. This study centres on the Basement Prayer Room at Lawu Plaza Mall as the primary subject of investigation. Data analysis in Design Thinking focuses on the “empathy” stage, which aims to thoroughly comprehend consumers' perspectives, requirements, and obstacles to understand their experiences (Nuraini & Rachmawati, 2023).

Commencing with empathy to uncover visitors requires comprehending beliefs, values, motivations, behaviours, restrictions, advantages, and problems. The research involves the stages of defining, ideating, prototyping, testing, and further evaluation and iteration at a certain point of customisation, which still needs to be completed in this study. The analysis phase consolidates the data gathered from participatory observation and in-depth interviews. The interactive analysis paradigm involved data gathering, reduction, presentation, and conclusions, as outlined by (Nuraini & Rachmawati, 2023).

## **RESULT AND DISCUSSION**

### **Adapting Worship Spaces in a Business Environment**

Malls are contemporary retail complexes that have evolved into social hubs where individuals participate in various activities, including religious practices. The mall's initiative includes offering prayer rooms or places of worship for Muslims. Integrating traditional religious rites into a modern setting in a Prayer Room in a mall environment is challenging.

One issue is preserving the sanctity and reverence of the place of worship amid the busy and noisy mall environment. Malls are frequently bustling and cacophonous, particularly during weekends or holidays. This can disrupt the comfort and focus of worshippers seeking to worship in the prayer room. Efforts should be made to establish a serene and welcoming ambience in the prayer room to facilitate the congregation's solemn worship.

Furthermore, incorporating conventional religious practices into contemporary settings encounters difficulties related to spatial constraints and architectural layout. Prayer areas at malls are typically small and must be adjusted to accommodate numerous people (Hidayat et al., 2021). The prayer room's interior design should blend traditional religious components with a modern aesthetic, which aligns with the mall's idea (Private, 2023). One must carefully select materials, colours, and decorations to establish a peaceful and cohesive ambience in the prayer room.

Ensure that the prayer room has sufficient amenities and equipment available. Facilities include a hygienic and comfortable area for washing, adequate room for

prayer, and appropriate temperature and lighting, which are necessary for the congregation's comfort. Furthermore, the prayer room should provide good equipment such as prayer mats, Qur'ans, and other worship items to ensure a seamless worship experience for the congregation.

Malls can assist in accommodating and promoting Muslim religious traditions despite the difficulties of merging ancient rituals with contemporary worship spaces. Malls can offer convenient access for Muslims to practise their faith. Having a Prayer Room inside the mall eliminates the need for Muslims to search for a distant place of worship that disrupts their everyday routines. This facilitates the convenience of worship for anyone residing or working near the mall.

Malls can facilitate and coordinate community religious activities. Malls can host lectures, recitations, and various social and religious activities for community engagement. This can serve as a method for educating and fostering spiritual growth among individuals near the mall.

Cooperation and communication between mall management, authorities, and the religious community are crucial when incorporating traditional religious activities into a worship area in a modern mall setting (Wiwesa, 2021). Effective collaboration can help address issues in incorporating traditional religious practices while maximising the mall's capacity to accommodate religious practices.

### **Development of an Innovative Concept in the Basement Prayer Room at Lawu Plaza Mall, Madiun City**

#### **Spatial Boundaries**

The research commenced on December 23, 2023, from 11:30 to 15:30 WIB with a thorough examination of the Basement Prayer Room at Lawu Plaza Mall of Madiun City. The observation step was conducted methodically, from the Prayer Room to the interior. Random interviews were performed with people to gather diverse comments regarding their experiences using the Basement Prayer Room worship facilities. The observational findings are displayed in the subsequent figure:



**Figure 1.** Condition of the prayer room from outside and from inside

The Prayer Room Basement of Lawu Plaza Mall of Madiun City is constrained by limited space, impacting visitor comfort and functionality. The challenges include restricted room dimensions, insufficient space for movement, and inadequate facilities (Private Santoso et al., 2019).

Basement prayer areas are situated on the lower levels of a building. These chambers are typically more compact than prayer rooms located on higher levels. Space constraints might provide an issue for visitors, particularly in busy prayer areas.

The room's restricted dimensions may impact visitor comfort. When the prayer room is crowded with worshippers, the confined space might cause people to feel cramped and uncomfortable. Some individuals may struggle to engage in solemn worship due to spatial constraints. The restricted area can also impact the functionality of the prayer room. The basement prayer room may require more facilities, such as ablution stations, toilets, and prayer rooms. This could hinder visitors from worshipping comfortably and peacefully.

The compact layout positions the ablution area and prayer space nearby. The closeness results in water entering the prayer space, wetting the floor and possibly creating a hazardous situation. This situation poses a threat to hygiene and causes inconvenience for attendees, particularly during busy prayer times.

Feedback from participants regarding the spatial conditions in the prayer room supported the issues identified in the initial evaluation. Visitors commonly concurred that the prayer rooms' crowded and confined layout and restricted spatial dimensions led to a sense of general discomfort. Respondents reported feeling confined and

detected foul odours, possibly from car exhaust fumes. An important issue was the absence of segregation between male and female worshippers, underscoring the necessity for a meticulous design strategy to establish a prayer area that is more secluded and private. The findings underscore the necessity for design modifications and strategic planning to create more comfortable prayer areas that adhere to religious standards.

### **Privacy Issues**

Basement prayer rooms at retail centres generally require better room design to ensure privacy and sufficient personal space for guests who want to pray. This is a crucial issue since the Basement Prayer Room is a sacred space where guests feel at ease and can worship peacefully.

As indicated by the findings, the basement prayer room at Lawu Plaza Mall of Madiun City is a dynamic place with issues that substantially impact the visitor experience. The constrained area is the primary issue, leading to a claustrophobic and uninspiring atmosphere. The limited space also necessitates increased privacy between male and female worshippers, creating significant issues for inclusivity and comfort in Worship areas.

Furthermore, the ablution room needed to be more sufficient, offering only two taps without differentiating between the male and female parts. The absence of differentiation causes possible unease for worshippers seeking a secluded and well-structured area for ablution. Using a perforated signboard as a wall covering can compromise the cleanliness and tranquillity in the prayer area by allowing external components like dust from passing automobiles to enter.

The researcher's interviews with nine participants provided valuable insights into their perspectives of the Basement Prayer location at Lawu Plaza Mall, emphasising the variables influencing their choice of prayer location and discomfort. Despite inconveniences, respondents frequently mentioned the problem of distance to other prayer sites when discussing their preference to worship in the prayer space. Due to the scarcity of other prayer areas, individuals choose the Basement Prayer Room at Lawu Plaza Mall despite being aware of its limitations. This highlights how accessibility and closeness play a crucial role in people's decision-making when choosing places of worship. It highlights the need for strategic positioning and comprehensive amenities to enhance visitor happiness and ensure the seamless execution of worship activities.

Inadequate storage facilities in the prayer room led to scattered mushaf on the floor, causing disorganisation that hinders sanitation and highlights the necessity for a more efficient organisational method for handling worshippers' items. Organisations need more organisations to establish more systematic storage policies and procedures to maintain order and cleanliness in places of worship (Mustajib & Kurniawati, 2023). Creating adequate storage facilities will maintain the organised arrangement and

sacredness of worship areas, aligning with sustainability and visitor well-being (Dosi et al., 2018).

Integrating traditional religious activities into modern contexts can be challenging, as prayer areas in malls might help accommodate Muslim religious traditions. Malls can offer convenient access for Muslims to practise their faith. Muslims can now conveniently access prayer rooms in malls, eliminating the need to search for distant places of worship or interrupt their everyday routines. This facilitates the ability of individuals residing or working near the mall to engage in their religious practices more conveniently.

Malls can facilitate community involvement in religious events. Malls can host lectures, recitations, and other social and religious activities for community participation. This can serve as a method of educating and fostering spiritual growth for anyone near the mall.

Effective collaboration and communication among mall management, authorities, and the religious community are crucial when incorporating traditional religious rituals into a worship area in a mall setting (Gero & Milovanovic, 2020). Effective collaboration can help address obstacles in incorporating traditional religious practices while maximising the mall's capacity to accommodate religious activities (Kesuma Bhakti et al., 2022).

### **Inadequate Lighting**

Adequate illumination in basement prayer rooms at malls might positively impact guests seeking to worship. Inadequate natural light, low lighting, or improper positioning may disrupt the comfort and focus of visitors.

The researcher's conversations with respondents about lighting revealed a consistent discontent among consumers. Respondents described the prayer rooms as having lighting issues caused mainly by the absence of natural light and insufficient intensity of artificial illumination. The absence of windows and inadequate lighting from the current downlights cause a dual difficulty, negatively impacting the prayer area's atmosphere and disrupting visitors' concentration during prayers. The results underscore the importance of proper lighting and effective lighting design in fostering a spiritual environment, underscoring the necessity for improving lighting systems in places of worship.

Inadequate illumination in the basement of the Prayer Room at Lawu Plaza Mall of Madiun City may pose a safety hazard for those wishing to pray. Here are some potential consequences that may occur. Firstly, the necessity for comfort. Inadequate lighting can cause discomfort for visitors in the basement prayer area. Inadequate lighting can lead to a dreary ambience and hinder focus. Inadequate illumination can disrupt guests' focus during worship. Insufficient lighting hinders people from seeing, reading the Quran, or engaging in devotional activities with proper concentration. Thirdly, there needs to be more security. Inadequate lighting can diminish security in the



basement prayer space. Insufficient lighting might hinder visitors' ability to perceive their environment, heightening the likelihood of accidents or criminal incidents.

### **Ventilation**

The main difficulties are noise, environmental hygiene, and visitor discontent with the current state of the prayer room. External sounds, particularly vehicle noise, are the main disruptions that worry visitors. This aligns with their view that the area is less calm, which goes against the ideal quiet environment for prayer. Furthermore, emphasis was placed on cleanliness, particularly concerning dust and odours entering the prayer space from passing automobiles, raising worries about hygiene levels.

The compact layout positions the ablution area and prayer space nearby. The close distance results in water entering the prayer area, making the floor wet and maybe creating dangers. This situation undermines hygiene and causes inconvenience for worshippers, particularly during busy prayer times.

Another issue is the absence of mechanical Ventilation in the prayer area, which depends only on minimal natural air circulation. Poor Ventilation and lack of natural air movement lead to high humidity in the prayer area. The high humidity in these conditions creates essential concerns about the comfort of the prayer space, notably establishing a suitable setting for spiritual contemplation and worship.



**Figure 2.** Condition of the Basement Mall Lawu Plaza Prayer Room, Madiun City

The proximity of the prayer room to the entrance and vehicle parking area worsens the situation, as vehicle exhaust fumes immediately affect the prayer room. Additionally, the absence of natural lighting exacerbates the issue, increasing reliance

on artificial lighting throughout the day. The lack of natural light affects the atmosphere of the prayer room and presents issues about energy efficiency and sustainability.

The Basement Prayer Room at Lawu Plaza Mall encounters obstacles such as space constraints, privacy issues, hygiene concerns, inadequate lighting, lack of organisation, and insufficient Ventilation, highlighting the multifaceted issues impacting the overall visitor experience. These problems impact the worship space's practical functionality, aesthetics, and overall visitor happiness. Therefore, deliberate intervention and comprehensive redesign are necessary to enhance the prayer area, improve its aesthetic appeal, and assure maximum visitor happiness. The solution will enhance the prayer space and help create inclusive and comfortable places of worship in a modern urban setting, thereby boosting the quality of prayer spaces in the area.

Comparative Objects of the Basement Prayer Room at Lawu Plaza Mall, Madiun City and Basement Prayer Room at Samudera Mall, Madiun City

The Basement Samudera Mall Madiun City prayer room and the Lawu Plaza prayer room are two different places of worship with several differences.

**Table 1.** Comparison of Prayer Room Basement Mall Lawu Plaza Madiun City with Prayer Room Basement Mall Samudera Madiun City

Comparison	The basement prayer room at Lawu Plaza Mall Madiun City	Prayer Room Basement Samudera Mall Madiun City
Spacious and Clean	Has a wider and cleaner place	It has a clean place, but the prayer space is narrow
Ablution Area	Has two separate ablution areas for females and men	It has one narrow ablution area and is used jointly by males and females
Toilet	Equipped with Toilet	Does not have a Toilet
Ventilation	It has ventilation in the form of a fan to circulate air in the room so it doesn't get hot	Has no ventilation
Goods Storage	Equipped with storage for storing items such as mukenas, sarongs and prayer mats so they don't get messy	Do not have a cupboard or storage for these items.
Signage	Has signage that is used for notifications in the prayer room	No mention of having signage

The table above highlights various disparities in Prayer Room amenities offered by malls in Madiun City. The prayer Room Basement at Samudera Mall in Madiun City is more spacious and cleaner than the Prayer Room at Lawu Plaza, which is tidy but has a limited prayer area. This distinction offers multiple advantages for worshippers attending the worship service.



**Figure 3.** Space in the prayer room at the Basement Samudera Mall prayer room

The Samudera Mall, Basement prayer room offers a spacious place as its primary benefit. Expanding the prayer room will allow for a more significant number of worshippers to be accommodated. This offers comfort and convenience for individuals who wish to worship at that location. Furthermore, the large area offers versatility in seating configurations, allowing worshippers to select the most comfortable spot for themselves. Furthermore, the cleanliness of the prayer area in the basement of Samudera Mall is another benefit. Having a more prominent space facilitates the maintenance of cleanliness in this prayer room. The caretaker can enhance their cleaning efficiency by thoroughly cleaning all areas of the space, such as the floor, walls, and worship equipment. Maintaining cleanliness creates a feeling of comfort and tranquillity for worshippers during prayer. The Lawu Plaza prayer room excels in terms of hygiene. Despite its narrowness, the prayer space is maintained in a tidy condition. The manager of Lawu Plaza Prayer Room is dedicated to ensuring cleanliness and comfort for the worshippers. This is evident by the cleanliness and good condition of the floors, walls, and worship equipment. Despite its limited space, Prayer Room Lawu Plaza endeavours to comfort the worshippers. The management of Prayer Room Lawu Plaza guarantees that each congregation receives a suitable spot for worship despite limited seats. This might offer a feeling of reassurance and seriousness during religious ceremonies.



**Figure 4.** Wudhu facilities for males and females are separate at the Basement Samudera Mall prayer room

Prayer Room Basement Samudera Mall Madiun City is a prayer room within Samudera Mall Madiun City. This Prayer Room features distinct ablution facilities for both females and males. Lawu Plaza's Prayer Room contains only one small ablution area. Prayer Room Basement Samudera Mall Madiun City prioritises the comfort and demands of its worshippers, as evidenced by this distinction. The advantages of having two distinct ablution facilities for females and males at Prayer Room Basement Samudera Mall Madiun City are:

- **Maintained privacy:** Two distinct ablution areas ensure privateness, allowing male and female worshippers to remain private during the ablution process. This is crucial, particularly for individuals who want privacy while performing wudhu.
- **A more balanced presence:** It is crucial to have an equal representation of both male and female worshippers in places of worship. Basement Prayer Room of Samudera Mall Madiun City has two distinct ablution areas, ensuring that females and males can worship comfortably without disruptions.
- **More comfort:** Prayer Room Basement at Samudera Mall in Madiun City offers two distinct ablution areas, providing both male and female worshippers with a spacious and comfortable environment. Worshippers should feel unrestricted while completing ablutions to enhance their focus on worship.
- **Ease of access:** Accessibility is crucial in a place of worship to ensure all worshippers can quickly and conveniently enter. Prayer Room Basement Samudera Mall Kota Madiun has two distinct ablution areas to allow male and female worshippers to access the facilities without waiting in queue or feeling crowded by others.

The Prayer Room in the basement of Samudera Mall in Madiun City offers decent restroom amenities. The Lawu Plaza Prayer Room does not provide these facilities. This

distinction offers substantial advantages for tourists and worshippers attending religious services.



**Figure 5.** Toilet Facilities Basement Samudera Mall Madiun City Prayer Room

A toilet in the Samudera Mall Basement Prayer Room offers additional convenience for tourists and congregants seeking to engage in worship. This facility enables individuals to uphold personal cleanliness before and after engaging in religious rituals. Cleanliness is a crucial component of worship in Islam. Visitors and pilgrims can enhance their worship experience by accessing a toilet for better organisation.

Toilets offer guests flexibility. They must be reassured about locating lavatory facilities elsewhere as the Prayer Room offers them in the same vicinity. This is particularly advantageous for individuals who travel from far away or have certain health conditions that necessitate increased focus on hygiene and sanitation.

Having a Toilet at the Samudera Mall Basement Prayer Room enhances the comfort and privacy of visitors. Providing a dedicated Toilet allows guests to feel more secure and at ease while engaging in bathing activities. They need not be concerned about inappropriate interactions between males and females. Islamic religious principles stress the segregation of males and females concerning privacy and hygiene.

The comfortable Toilets at the Samudera Mall Basement Prayer Room enhance its appeal as a place of prayer. Worshippers can feel more secure and content with the amenities offered when they visit. This might motivate them to return to the prayer room later on. Satisfied guests prefer to suggest this place of worship to their acquaintances if they find the toilet facilities comfortable.

The absence of lavatory facilities at the Lawu Plaza mosque can hinder tourists and worshippers. They must locate lavatory facilities in other places, which might be less convenient or effective during worship. This can disturb their concentration and ease when performing religious rituals.

This discrepancy indicates that a restroom in the Prayer Room of Samudera Mall Madiun City Basement offers substantial advantages. The Toilet offers additional comfort for guests and worshippers, enabling them to uphold personal cleanliness before and after prayer. Furthermore, the Toilet provides the necessary flexibility and seclusion for visitors. This facility's presence enhances the appeal of the Prayer Room as a place of worship and may promote future return visits.

#### Proposed Design Solution for Basement Prayer Room at Lawu Plaza Mall of Madiun City for Worshippers

The research findings indicated that visitor happiness and comfort are strongly affected by the restricted space, lack of seclusion, and exposure to external components in the prayer room. The prayer room's restricted area generates a crowded and constrained ambience, which negatively impacts the entire visitor experience. Visitors moving through the prayer room felt uneasy about the distance separating the ablution facility and the prayer space, which could result in water spills and damp floors during prayer. The findings offer insight into the physical and structural obstacles that must be overcome to enhance the prayer area and optimise the visitor experience.

Interviews at the Empathy stage aimed to gather visitors' subjective experiences and feelings about the prayer area. One common topic was that participants recognised the drawbacks or restrictions of the Basement Prayer Room. Nevertheless, they continue to utilise the facility for pragmatic purposes, primarily because of its proximity. This emphasises the significant impact accessibility has on visitor decision-making, indicating that despite their challenges, prayer rooms continue to be a crucial venue of worship for persons who value convenience.

Enhancing comprehension of consumers' viewpoints is crucial to tackling their unease regarding ambient noise and sanitation concerns. Research has demonstrated that external noise disruptions, particularly those generated by motorised activities, diminish the peacefulness in places designated for prayer. Visitors emphasised the importance of a tranquil and favourable environment for worship, noting its substantial impact on the entire visitor experience. The results underscore the need to consider environmental factors to enhance the prayer area and optimise worshippers' spiritual experience.

Hence, the researcher proposes enhancing and revamping the prayer room at Lawu Plaza Mall of Madiun City to provide a more comfortable and solemn environment for those seeking worship. Here are some solutions that will be provided.

Firstly, the artificial ventilation design. Artificial Ventilation improves air circulation in the basement prayer room. This will assist preserve the air quality and enhance the comfort of worshippers. Artificial Ventilation is necessary in basement rooms with restricted access to fresh air. If there is insufficient Ventilation, the air in the prayer chamber can stagnate, leading to decreased oxygen levels and higher humidity.

All of this can disturb visitors' comfort and even have a negative impact on their health (Darmawan & Rohman, 2022).

Artificial Ventilation is intended to facilitate adequate air circulation in basements. This system typically comprises air ducts, fans, and filters. The air ducts will link the worship space to the external fresh air, while the fan will circulate the air in and out of the chamber. Filters are necessary to purify the air by removing dust particles, pollution, and unpleasant odours.

The artificial ventilation system brings fresh air into the worship room, symbolising God's life-giving and comforting presence for the worshippers. Thus, it is essential to uphold a well-functioning ventilation system to preserve the cleanliness and spiritual solace of the worship area. Ways to enhance artificial Ventilation include:

1. Installing a fan or mechanical ventilation system can manage the airflow in the basement prayer area. Positioning the fan by the window can generate a breeze and improve air circulation.
2. Ensure adequate Ventilation: Ensure the basement prayer room has sufficient windows or openings for proper air movement. These windows or air vents can facilitate the intake and exhaust of air, enabling fresh air to enter and contaminated air to depart.
3. Utilise architectural materials such as glass or other transparent materials that promote air circulation. The materials facilitate the passage of light and air into the underground prayer area to ensure proper air circulation.

Secondly, recommendations for utilising and altering wall materials. The subterranean prayer room is crucial in a building, particularly for religious worship. Acoustic and visual concerns are frequently a primary focus during the design and construction of underground prayer rooms. Utilising and adjusting wall materials can effectively address these issues. Appropriate wall materials for basement areas have favourable acoustic characteristics. Using materials like wood, glass, porous concrete, or other acoustic insulation materials can decrease sound reflections and enhance the acoustic quality of the room. Furthermore, the material must be moisture-resistant and able to preserve indoor air quality.

Furthermore, changes to the wall material might enhance the visual appeal of the basement worship area. Patterned acoustic panels or geometric wall designs enhance the room's aesthetic appeal. The selection of colour and texture of wall materials can impact the overall aesthetic appearance (Saputra & Kania, 2022).

1. Utilise wall materials with high sound absorption qualities.

Acoustic materials can absorb sound waves that enter a room. In subterranean worship areas, worshippers strongly value and expect calm and tranquillity. This substance aids in diminishing echoes and noise that may disrupt focus during worship. Acoustic foam is one potential choice for an acoustic material. Acoustic foam is a lightweight, porous substance that absorbs and suppresses sound. This

material is typically provided in panels or tiles for easy installation on the walls of the underground worship area. Aside from acoustic foam, there are also acoustic panels available. Acoustic panels are often constructed from a more compact and thicker substance than acoustic foam. The panels can be mounted on the basement prayer room walls to reduce sound. Acoustic panels come in many forms and colours to be customised according to the room's aesthetics. Aside from selecting wall materials with sound solid absorption properties, it is crucial to carefully think about the layout and positioning of the walls in the basement prayer room. Correctly built and strategically positioned walls can enhance their ability to absorb sound.

2. Choose calm and calming wall colours

The appropriate wall colour is crucial in building a worship space to establish a serene ambience. Neutral and theme-coordinated colours can be an excellent choice for creating this effect. White is a commonly utilised colour in prayer room design. The colour white conveys a sense of cleanliness, freshness, and tranquillity. Furthermore, white colour reflects light effectively, creating the perception of a more luminous and spacious environment. White is frequently paired with neutral tones like grey or beige to create a cosier and more inviting ambience. In addition to white, neutral tones like light brown, beige, or grey can be suitable options. These colours evoke a cosy, organic feel and maybe effortlessly paired with other decorating components. In addition to neutral tones, colours that complement the musala's concept can also be considered. If your musala's subject is nature or garden, consider using light green or other natural colours like brown or dark blue. The colours will evoke a refreshing and tranquil ambience reminiscent of being surrounded by nature.

3. Install wall decorations that are relevant to the prayer room theme.

Adorn the prayer room with wall decorations that match its subject, like calligraphy or Islamic paintings. Decorating the walls with prayer room-themed decor can enhance the Islamic ambience and contribute to the reverence of devotion. By adhering to these steps, the prayer room can establish a serene and tranquil atmosphere that enhances the reverence of worship.

The third item is the suggested enlargement of the prayer space. The prayer space can be expanded to accommodate the growing number of guests. Steps to expand the prayer area include:

1. Identifying potential growth areas, such as vacant spaces surrounding the basement prayer room.
2. Develop a practical layout to optimise the utilisation of the area.
3. Ensure the presence of sufficient amenities, including prayer mats, ablution equipment, and storage for praying visitors.
4. Storage facilities in the prayer room address the issue of disorganised prayer equipment. Proper storage for prayer rugs, mukena, sarong, and other prayer equipment will lead to a tidier and more orderly worship space (Gong et al., 2022).



5. The suggestion to relocate the prayer spot within the mall considers the many visitors and the limited space available. This idea aims to cater to the increasing number of worshippers by finding a larger, more secluded space in the mall. This approach deals with space constraints and aligns with design principles that prioritise accessibility and inclusivity, guaranteeing that all visitors, including those from other locations, can worship comfortably without compromising privacy and comfort (Sidabutar et al., 2023).

The planned improvements to the Lawu Plaza Mall Basement Prayer Room aim to enhance visitor experience, comfort, and inclusivity. The measures, like artificial Ventilation, wall material replacement, prayer area expansion, storage addition, and potential relocation within the mall, were developed utilising the Design Thinking technique. This approach emphasises a comprehensive comprehension of visitor requirements and interactions to guide strategic design choices that cater to a wide range of visitors. Implementing these enhancements in the Basement Worship Space can improve it, creating a more humble, practical, and spiritually nurturing environment for worship.

## CONCLUSION

The research examines visitor happiness and design challenges at Basement Prayer Room of Mall Lawu Plaza Madiun City using Design Thinking approaches. The empirical results gathered via observations and interviews identified several obstacles affecting the overall visitor experience, such as spatial limitations, privacy concerns, insufficient illumination, and Ventilation. The proposed alternatives, rooted in Design Thinking principles, encompass recommendations for artificial Ventilation, alteration of wall materials, enlargement of prayer places, extra storage space, and potential relocation of the mall. The solutions are designed to enhance the prayer room's comfort, inclusivity, and functionality by following human-centred design principles. This study highlights the need to consider visitor requirements and experiences when developing places of worship in modern metropolitan settings.

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