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Thayib standardization for Muslim friendly public worship facilities in Indonesia

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Abstract

Purpose – This study aims to determine the ideal standardization of public worship facilities in Muslim-friendly tourist destinations as the availability of those facilities, such as prayer rooms and toilets, is very important for Muslim tourists.

Methodology – This study uses a factor analysis approach. Samples were obtained using a convenience sampling technique, with a total sample of 326 respondents from various provinces throughout Indonesia. The process was carried out after going through a focus group discussion (FGD) as a screening stage for the questions used in the quantitative analysis.

Findings – The results of this study indicate that there are two recommended factors for the standardization of prayer facilities and four for the standardization of toilet facilities. Implementing these factors affects tourists' intentions to revisit destinations or recommend such destinations to other travelers.

Implications – This research is believed to be authentic because it offers a model of standardization of public facilities in Muslim-friendly tourism areas for the halal industry, as well as provides a comprehensive review of the underlying literature. Thus, this study is expected to have a significant impact on both practical and theoretical knowledge.

Originality – This research is considered original and important for both practice and theory fields to provide a standardization that can be applied especially for Muslim-friendly tourism.

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Introduction

Standardization is crucial across various business sectors, including Muslim-friendly tourism. As a relatively new field, Muslim-friendly tourism has significant potential for development, yet lacks established standardization for improvement. Effective standardization in this sector can yield economic, social, environmental, and cultural benefits. However, allowing the private sector to manage without clear policies or a legal framework can lead to significant weaknesses (Saad et al., 2014).

Creating standardization for Muslim-friendly tourism is essential. Muslim-friendly tourism is an integral part of the expanding global halal tourism industry, which has shown promising growth prospects. Mastercard-CrescentRating (2019) indicates that the halal industry serves 1.8 billion Muslim consumers, with an expected compound annual growth rate (CAGR) of 6.2% from 2018 to 2024. This steady increase underscores an industry's potential for continuous expansion.

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The provision of Muslim-friendly tourism is becoming increasingly prominent due to the rising demand for travel among pious communities and growing levels of prosperity. Many countries, regardless of their Muslim populations, are now focusing on this segment (Santoso et al., 2023). Several criteria have been established in various countries to standardize halal services and ensure customer satisfaction. For example, the Food and Supplies Inspection and Certification Association (GIMDES) in Turkey inspects and certifies halal and healthy products. GIMDES's hospitality service specifications, based on halal concepts, cover aspects such as hotel rooms, kitchens, public spaces, business and employee management, and halal food and beverages.

In Singapore, CrescentRating has developed the halal star rating Criteria to rate accommodations based on compliance with halal standardization. Iran's national standardization organization has issued standardization for halal tourism, accessible through its website. Malaysia's department of standardization introduced the muslim-friendly hospitality services standardization in 2015, along with the salam standardization for certifying halal accommodations (Mastercard-CrescentRating 2019; Rhama, 2022).

In Russia, halal services in hotels and other hospitality businesses are regulated by muslim.ru. Croatia's Halal International Authority and Center for Halal Quality Certification manages the certification and categorization of accommodation facilities based on halal quality. Halal India provides halal-friendly tourism standardization, and in Indonesia, the Indonesian Ulema Council (MUI) sets standardization for Sharia-compliant hospitality facilities and services. These institutions ensure that Muslim travelers feel more comfortable and secure, knowing that the services they receive meet stringent halal standardization (Pamukcu and Sariisik, 2021).

Nevertheless, most of these ratings and standardizations focus on the halal aspect, but do not provide a comprehensive view on how tourism management provides thayib or good public service facilities, such as prayer rooms and toilet facilities. A survey conducted by CrescentRating covered respondents from Malaysia and Indonesia in September and November 2021 addressed that an important factor that Muslims consider when planning a tour is the availability of Muslim-friendly service facilities with the highest percentage, namely 85% (Mastercard-CrescentRating, 2019).

Muslim-friendly tourism does not only focus on providing halal food or drinks but must provide places that have an impact on tourists' feelings of safety and comfort (Putra & Tucunan, 2021), such as during prayer room with prayer rooms available as prayer facilities and Muslim-friendly toilets. Muslim-friendly tourism is one of which focuses on the completeness of supporting facilities in the form of public facilities (prayer room). These public facilities are expected to be able to meet the needs of Muslim tourists while still enjoying tourism without having to leave their obligations as Muslims, namely, carrying out prayers; for this, it is necessary to provide prayer rooms, ablution areas, and clean toilets.

However, the issue of providing high-quality prayer facilities in Muslim-friendly tourist areas remains a significant challenge in various halal tourist destinations, including Indonesia. According to Muslim et al. (2023), the availability of public worship facilities is crucial for developing a tourist destination. It is argued that the presence of public amenities, particularly prayer rooms and toilets, is essential for meeting the needs of tourists and enhancing their overall experience. Similarly, according to Rusli et al. (2019), the availability of public worship facilities is crucial for the development of tourist destinations. Public worship facilities, especially prayer rooms and toilets, are essential for meeting the needs of Muslim tourists and enhancing their overall experience.

Given this background, it is imperative for the Indonesian government to consider developing *"thayib"* standards to ensure the availability of high-quality public facilities, such as prayer rooms and toilets, in Muslim-friendly tourism areas. Indonesia has significant potential to advance its halal industry, including halal tourism, owing to its archipelagic geography and cultural context. Muthmainnah et al. (2020) reported an 18% annual growth in Indonesia's halal tourism sector in 2018 driven by both local and international tourists. Furthermore, the Ministry of Tourism and Creative Economy of the Republic of Indonesia (Kementerian Pariwisata dan Ekonomi

Kreatif, 2020) has set ambitious targets in its 2020-2024 strategic plan to enhance both the quality and quantity of tourists.

Despite these efforts, the development of tourism facilities in various Indonesian destinations has lagged, as evidenced by the low number of tourists utilizing these facilities despite extensive promotions by both government and local authorities. This mismatch between the development of the tourism industry and the enhancement of accessibility has hindered tourism businesses from meeting market demand, resulting in a lack of competitiveness. Therefore, the provision of prayer facilities in Muslim-friendly tourist areas in Indonesia is essential. Establishing good-quality or thayib standardization for these facilities is the critical first step that must be taken.

Literature Review

This study conducts a comprehensive analysis of the standardization of public worship facilities in Muslim-friendly areas, drawing upon several key reference journals to support its findings. One pivotal reference is the study by Pamukcu and Sarisik (2021), which proposes standardization for halal tourism within the hospitality industry. Their research highlights Islamic lifestyle as the predominant factor influencing the selection of halal-concept hotels in Turkey. The focus is primarily on accommodation services, which encompass various aspects that are essential for a halal-friendly stay. However, their study notably omits other crucial variables, such as halal food, recreational activities, and transportation services, which are integral to a holistic halal tourism experience. This limitation suggests that, while accommodation is vital, a comprehensive approach to halal tourism requires addressing a broader range of services.

The second significant reference is the study by Ali et al. (2022), which delves into the standardization of sustainable facilities in Muslim-friendly tourism and hotels in Malaysia. This research aims to establish a robust standardization for prayer rooms and washroom facilities by utilizing factor analysis to identify the critical components of these facilities. By employing SPSS software for their analysis, the authors seek to ensure that prayer and washroom facilities meet the needs of Muslim tourists, thereby enhancing their overall travel experience. The focus on sustainable practices also underscores the importance of environmentally friendly and culturally appropriate amenities in promoting tourism.

In addition to these primary references, this study incorporates findings from other notable studies. Battour et al. (2011) investigated the impact of destination attributes on Muslim tourists' choices, identifying the availability of prayer room facilities and supporting amenities such as toilets as critical factors influencing travel decisions. Conducted in Malaysia, this qualitative study relied on data obtained from interviews, providing valuable insights into the preferences and requirements of Muslim tourists. The emphasis on qualitative data highlights the nuanced understanding of Muslim travelers' needs, although it also underscores the need for quantitative validation to generalize the findings.

Kim and Bendak (2021) provided a focused examination of safety risks in ablution spaces within mosques by employing random observations across 15 mosques in Saudi Arabia. Their findings revealed a significant lack of proper slip resistance in many ablution rooms, which poses considerable safety risks to users. The study's limited sample size and absence of historical data on accidents constrain its broader applicability. Nonetheless, it highlights an essential aspect of prayer room facility safety that warrants further investigation and improvement.

Mokhtar (2020) addressed the design guidelines for female Muslim public worship facilities in public buildings, considering variables such as the position of the imam, prayer room area, and various amenities including audio equipment, lighting, ventilation, makeup rooms, and shoe racks. This study underscores the deficiencies of current facilities, particularly in terms of comfort and accessibility for female worship. However, it fails to provide comprehensive design guidelines and lacks empirical data to support its findings in different cultural contexts. This limitation highlights the need for more extensive research and detailed design frameworks that cater to the specific needs of female Muslim worship.

In the context of Indonesia, this study references several relevant investigations. Sunarsa and Andiani (2019) explored tourists' perceptions of public toilet hygiene in Bali, discovering that

cleanliness standardization is generally inadequate, with common complaints about smelly and dirty toilets lacking essential supplies, such as tissues and soap. This finding indicates a significant area for the improvement of tourist facilities to enhance the overall visitor experience.

Retnosary et al. (2021) examined the importance of prayer facilities in shopping centers and found that the presence of such facilities significantly enhances the comfort and economic engagement of Muslim visitors. The provision of prayer rooms has been shown to positively impact visitors' willingness to spend more time and money in shopping centers, thereby benefiting both visitors and businesses.

Similarly, Nevelyn and Aruan (2020) investigated the role of toilet facilities in decision-making regarding nature-based tourism in Indonesia. Their study highlighted the substantial influence of toilet availability and cleanliness on tourist behavior, suggesting that well-maintained facilities can enhance tourists' enjoyment and willingness to engage in nature-based activities.

Hariyanto and Yuwono (2021) provide a comparative analysis of prayer room conditions in shopping centers in Surakarta and Jakarta. Their findings revealed that well-designed prayer rooms can significantly benefit shopping center managers by increasing tourist visits and satisfaction. The comparison between the two cities highlights the varying standardization and potential for improvement in Surakarta to match the more advanced facilities found in Jakarta.

Collectively, these studies underscore the critical importance of prayer room facilities in Muslim-friendly tourism but reveal a lack of comprehensive research on the standardization of these facilities. This research aims to bridge this gap by identifying specific standardization for prayer rooms and toilets in Muslim-friendly tourism in Indonesia. Drawing on indicators from existing studies, such as accessibility, layout, supporting facilities, safety, and security from Ali et al. (2022) and room requirements from Pamukcu and Sarisik (2021), this research seeks to provide a detailed framework for the standardization of public worship facilities. Other relevant indicators include ablution room design (Kim & Bendak, 2021) and cleanliness standardization (Sunarsa & Andiani, 2019). This study aspires to offer a comprehensive and culturally sensitive approach to the standardization of public worship facilities in Muslim-friendly tourism, addressing existing gaps in the literature and providing practical guidelines for implementation.

Research Methods

Research Design

This study comprises two main stages of analysis. The first stage involves literature review to search relevant thayib requirements for prayer room and toilet, both from general and muslim perspective. Next, a focus group discussion (FGD) was conducted to identify relevant indicators for the study, drawing from experts' opinions. As Kitzinger (1994) described, an FGD explores specific issues or phenomena by engaging a group or individuals in focused activities, leading to a consensus.

The FGD was conducted on February 28, 2023, via an online zoom meeting. The discussion included nine experts in the halal industry, such as religious scholars, the Head of the Research Division of the Ministry of National Enterprise, the Head of researchers from the Masyarakat Ekonomi Syariah (MES) Research Center, the Head of the Islamic Economics Study Program at the Faculty of Business Economics, University of Indonesia, the Head of the Halal Industry Development Division at Komite Nasional Ekonomi dan Keuangan Syariah (KNEKS), members of the National Sharia Council, researchers from the Sharia Economic Department of Bank Indonesia, and Muslim-friendly tourism business practitioners, The Single Focus Group technique was employed, allowing all participants to discuss the topic interactively in one group. The FGD provided valuable suggestions and inputs from experts, refining the questionnaire items for the subsequent factor analysis stage, which aims to develop thayib standardization for public prayer room facilities in Muslim-friendly tourism.

The results of the FGD were transformed into a questionnaire survey. The questionnaire uses a 1-5 scale and data were collected using a non-probability sampling method, specifically convenience sampling. According to Sugiyono (2018), non-probability sampling means that not

every element or member of a population has an equal chance of being selected. Convenience sampling involves choosing samples from individuals or groups that are easily accessible.

The questionnaire was distributed to MES members across all Indonesian provinces. However, the study imposed four specific criteria for respondents: they must be Indonesian citizens, Muslim, over 17 years of age, and have visited Muslim-friendly tourist destinations.

The number of samples was determined using the Slovin formula (Almeda et al. (2010):

$$n = \frac{N}{1 + N\,e^2}$$

$$n = \frac{321}{1 + 321 * 0.05^2} = 319$$

where n represents the required sample size, N is the population size, and e is the acceptable margin of error.

Based on calculations using the Slovin formula, the sample size required for this study was determined to be 319. A total of 335 respondents participated in the survey, but nine did not meet the research criteria. Consequently, the final sample consisted of 326 respondents who met the necessary criteria.

Validity and Reliability Analysis

Validity analysis was employed to determine the validity of the variables, following the approach outlined by Sekaran (2016), in which a correlation value above 0.3 indicates validity. Reliability, which refers to the consistency and stability of the measurement values, was assessed by considering an alpha value greater than 0.6 as indicative of stable reliability.

Respondents' Profile

The demographic information of the respondents revealed several key characteristics (Table 1). The gender distribution showed a significant majority of female respondents, with 222 females (68%) compared to 104 males (32%). The age distribution is heavily skewed towards younger generations, with Gen Z making up the largest group of 202 respondents (61%), followed by Gen Y with 90 respondents (28%). Gen X and Baby Boomers were much smaller groups comprising 29 (9%) and 5 (2%) of the respondents, respectively.

In terms of educational level, the majority of respondents held a diploma, accounting for 162 individuals (50%). This was followed by 105 respondents (32 %) with a senior high school education. A small proportion of respondents had vocational school education (14 respondents, 4%), bachelor's degrees (10 respondents, 3%), junior high school education (3 respondents, 1%), and other forms of education (31 respondents, 10%).

Regarding provincial domicile, the majority of respondents resided in Java (238 individuals, 73%). Other regions had significantly fewer respondents, including Sumatera (33 respondents, 10.38%), Bali and Nusa Tenggara (30 respondents, 9.2%), Kalimantan (19 respondents, 5.82%), Sulawesi (seven respondents, 2.13%), Maluku (two respondents, 0.6%), and Papua (one respondent, 0.3%).

When examining respondents' occupations, the largest group consisted of 165 respondents (51%). This was followed by private employees with 47 respondents (14%) and entrepreneurs with 34 respondents (10%). Other occupations included civil servants (20 respondents, 6%), teachers or lecturers (27 respondents, 8%), housewives (10 respondents, 3%), laborers or workers (3 respondents, 1%), traders (1 respondent, 0.30%), TNI or POLRI members (1 respondent, 0.30%), and other occupations (10 respondents, 6%).

Table 1. Demographic information

Category	Description	Frequency	(%)
Gender	Male	104	32
	Female	222	68
Age Category	Baby Boomers	5	2
	Gen X	29	9
	Gen Y	90	28
	Gen Z	202	61
Level Education	Junior high school	3	1
	Senior High School	105	32
	Vocational School	14	4
	Bachelor	10	3
	Diploma	162	50
	Other	31	10
Province Domicile	Sumatera	33	10.38
	Jawa	238	73
	Kalimantan	19	5.82
	Sulawesi	7	2.13
	Papua	1	0.3
	Maluku	2	0.6
	Bali, Nusa Tenggara	30	9.2
Work	Student	165	51
	Civil Servant or Equivalent	20	6
	Housewife	10	3
	Laborer or Worker	3	1
	Teacher or Lecturer	27	8
	Trader	1	0.30
	TNI or POLRI	1	0.30
	Private employees	47	14
	Entrepreneur	34	10
	Other	10	6

Source: Author's calculation

Results and Discussion

Result of Focus Group Discussion

After conducting a comprehensive literature review, various indicators were identified to develop the thayib standardization for prayer rooms and toilet facilities. These indicators were then refined through a focus group discussion (FGD) to ensure that they comprehensively covered the necessary aspects for constructing the thayib standardization. The FGD process identified 25 indicators for the prayer room variable and 38 for the toilet variable. Following the FGD, a questionnaire was distributed to 30 respondents and an exclusion process was conducted to further refine the indicators. As a result of this process, several indicators were excluded. For the prayer room, the exclusion indicators were as follows.

- Separate rooms for men and women
- A surah or separator to facilitate movement
- Mirrors and dressing rooms for women
- Prayer rugs for each row
- Separation from the toilet

For the toilet variable, the excluded indicators included:

- Quietness
- Presence of a mirror
- Availability of a hairdryer and towels
- Dry and non-slippery floors

- Background music
- Availability of a lock or code

After the exclusion process, 19 indicators for the prayer room and 31 indicators for the toilet variable were finalized for factor analysis. These indicators were then used to develop comprehensive questionnaires.
The finalized prayer room indicators included:
- Strategic location
- Spacious and clean room
- Noise-free environment
- Provision of loaned make or sarong
- Sandal/shoe racks availability
- Benches for waiting
- Qibla direction indicator
- Regular maintenance schedule
- Clear separation of clean and unclean zones
- Adequate lighting and ventilation
- Gender-segregated prayer areas
- Availability of fans or air conditioning
- Special prayer sandals
- Clean and dirt-free prayer area
- Proper ablution facilities with smooth water waste flow
- Gender-segregated ablution areas

The finalized toilet indicators included:
- Bright lighting
- Clean and well-maintained sanitation
- Safety for users
- Warm toilet room conditions
- Proper barriers between cubicles to prevent water movement
- Floor slope preventing water stagnation
- Non-transparent cubicles
- Lockable doors
- Gender-segregated toilet rooms
- Sufficient number of toilet rooms
- Minimal queueing
- Clothes hangers
- Availability of toilet tissue, trash cans, liquid soap, and air freshener
- Easy-to-clean floors
- Separate sitting toilets and sinks
- Accessible location with clear signage
- 24-hour availability
- Hourly cleaning schedule
- Suggestion box availability
- Luminance level above 200 Lux
- 15% per hour ventilation
- Toilets for persons with disabilities

These indicators were used as the basis for thorough factor analysis to ensure the effective standardization of facilities in Muslim-friendly tourism areas.

Results of Factor Analysis

The exploratory factor analysis (EFA) model used in this study reduces the number of variable indicators to a smaller set than initially identified. EFA allows researchers flexibility to develop or explore data. According to Hair et al. (2017), EFA is employed when a theoretical foundation regarding the number of factors and variables is not established beforehand. It is typically used to assess the construct validity of a scale, based on statistical evidence.

The reliability of the indicators was assessed using the Cronbach's alpha coefficient, which ranged from 0 to 1. An indicator was considered reliable if its Cronbach's alpha (CA) value was above 0.60. Conversely, if the CA value was below 0.60, the indicator was deemed unreliable. The prayer scale had a Cronbach's alpha greater than 0.60, indicating its reliability. The scale for prayer rooms was divided into two categories: main and supporting facilities. The toilet scale was categorized into four groups: toilet design, support facilities, accessibility, and other facilities.

Several steps were undertaken to conduct factor analysis. First, the Kaiser-Meyer-Olkin (KMO) test was performed to assess sample adequacy. The KMO test determines the suitability of the data for factor analysis, with a value above 0.50 indicating adequacy (Yusof et al. 2023). The analysis yielded a KMO value of 0.955 for the prayer scale and 0.964 for the toilet scale, indicating that the sample size was "perfect" for factor analysis (Table 2 and Table 3). Bartlett's sphericity test results showed chi-square (190) = 4458.647; $p < 0.000$, confirming that the data were normally distributed.

After verifying the suitability of the data for factor analysis, Principal Component Analysis and Varimax Rotation were applied to examine the scale factor structure. The analysis excluded certain items that did not meet communality requirements, with extraction values below 0.50. For the prayer room indicators, 20 items remained, forming two components with eigenvalues of 10.779 for Factor 1 and 1.424 for Factor 2, contributing 61.015 percent to the total variance. For toilet indicators, 31 items remained, forming four components with eigenvalues of 16.13, 1.802 for factor 2, 1.466 for factor 3, and 1.049 for factors 1, 2, 3, and 4, respectively, contributing 65.962 percent to the total variance.

Table 2. Results of factor analysis for standardization of prayer room

Factors and items for prayer room	Core value	Adj R squared	Factor load	Mean	SD
F1: Main Facilities: (α = 0.861)					
P4. The room is clean			0.608	4.6074	0.70108
P6. There are Mukena or Sarong lending facilities			0.541	4.5000	0.76359
P10. Qibla direction is available			0.742	4.6258	0.67560
P15. Separate prayer rooms for men and women			0.648	4.5000	0.73902
P16. There is a fan or air conditioning			0.521	4.1938	1.01042
P18. The prayer area is clear of sacred boundaries			0.713	4.6442	0.68100
P19. Prayer area free from dirt			0.800	4.6472	0.63835
P21. Clean from the sacred boundary			0.750	4.6718	0.57078
P23. Faucets are available as ablution water channels			0.803	4.6718	0.56536
P24. The ablution water flows smoothly			0.783	4.6810	0.59954
	14.301	0.571			
F2: Supporting facilities; (α = 0.953)					
P1. The location of the prayer room is strategic			0.577	4.4448	0.70276
P2. The room is quite spacious			0.642	4.4018	0.74495
P5. Away from noise			0.721	4.3190	0.80922
P9. There is a bench (as a waiting room)			0.789	4.2393	0.90015
P11. There is a bench (as a waiting room)			0.708	4.3098	0.84071
P12. There is an area separating clean and not clean zones			0.544	4.3558	0.86775
P13. Lighting and ventilation			0.543	4.5276	0.73433
P17. There are special sandals for the prayer room			0.742	4.6012	0.65670
	12.158	0.516			
KMO = 0.955; X^2 (190) = 4458.647; Bartlett Sphericity Test (p) = 0.000					

Source: Author's calculation

Table 3. Results of factor analysis for standardization of prayer room

Factors and items for toilet	Core value	Adj R squared	Factor load	Mean	SD
F1: Toilets design; (α = 0.966)					
T1. Have bright lighting			0.655	4.3282	0.88035
T3. Clean appearance			0.734	4.4448	0.90894
T4. Maintained sanitation			0.753	4.4202	0.92392
T5. No physical harm to the user			0.732	4.4509	0.88181
T7. There is a barrier between cubicles so that water from the next room does not move to the next cubicle			0.580	4.4632	0.79819
T8. The slope of the floor keeps water from stagnating			0.676	4.4755	0.82519
T9. Cannot be peeked from the outside			0.804	4.5767	0.77575
T10. The toilet door can be locked			0.691	4.6135	0.72600
T11. The toilet room is different for men and women			0.533	4.7331	0.64159
T12. There are quite several toilet rooms available			0.578	4.1963	0.94696
T13. No need to queue long			0.651	4.3436	0.90727
T14. Clothes hangers are available			0.606	4.2914	0.95967
T16. There is a trash can			0.528	4.4509	0.91604
T23. The floor is not slippery			0.667	4.4233	0.98228
T24. Floors are easy to clean			0.577	4.3865	0.90350
T25. The floor is not attached to the wall or floor			0.652	4.5337	0.78275
T28. There is a sink			0.622	4.2607	0.91288
	36.685	0.681			
F2: Supporting facilities;(a = 0.591)					
T15. Toilet tissue is available			0.636	3.9693	1.25477
T20. Liquid soap is available			0.642	4.1810	1.06745
T21. Air freshener			0.669	4.1718	1.07900
T27. Sitting toilets are available			0.669	3.7853	1.06550
T34. There is a toilet cleaning schedule every hour per day			0.566	4.0798	0.98282
T37. Ventilation 15% per hour			0.452	4.1569	0.93458
T38. There are toilets for persons with disabilities			0.571	4.2400	1.16968
	8.329	0.652			
F3: Accessibility;(a = 0.806)					
T29. The location is not too far			0.648	4.4080	0.80142
T30. The location can be seen			0.708	4.3620	0.78307
T31. Available 24 hours			0.711	4.3497	0.90151
T32. There are clear indications			0.689	4.4816	0.72194
	2.119	0.705			
F4: Other facilities;(a = 0.572)					
T6. The condition of the toilet room is quite warm			0.813	3.6227	0.99629
T35. Suggestion box available			0.562	3.7846	1.18494
T36. Lighting level above 200 Lux			0.606	3.8062	0.98881
	2.195	0.661			
KMO = 0.964; $X^2(465) = 7779.226$; Bartlett Sphericity Test (p) = 0.000					

Source: Author's calculation

The results of the first-level confirmatory factor analysis (CFA) for the Prayer Scale are shown in Figure 1. Using 19 items, the highest value observed was 1.31 and the lowest was 0.85. For the toilet scale, as shown in Figure 2, 31 items were analyzed, yielding the highest value of 1.58 and the lowest value of 0.54. Based on this, thayib standardization for prayer room facility can be divided into two primary factors: Main Facilities and Supporting Facilities. Meanwhile, thayib standardization for the toilet can be divided into four factors: Toilet Design, Supporting Facilities, Accessibility, and Other Facilities. These findings confirm that the constructs for both the prayer room and toilet scales are well-defined and reliable.

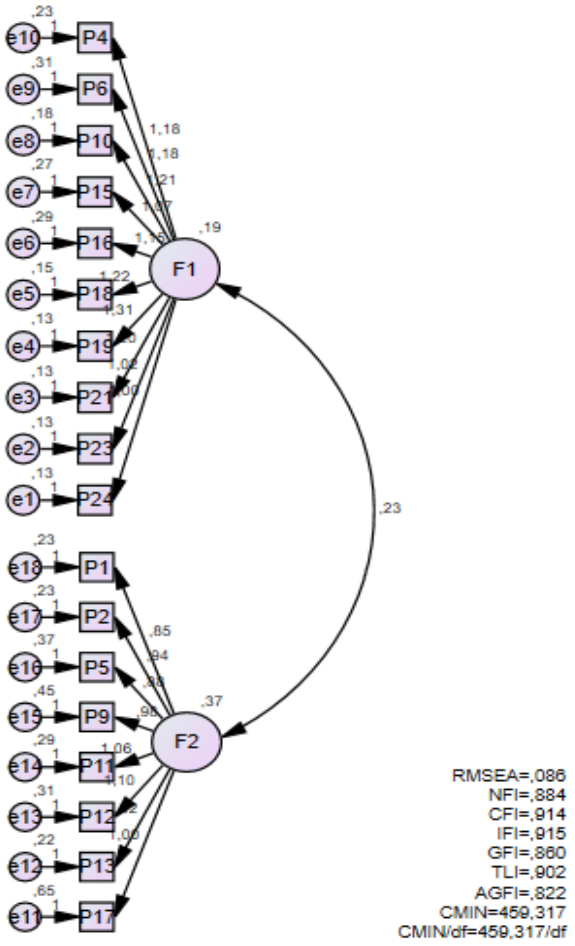

Figure 1. Model about first-level confirmatory factor analysis of the thayib standardization for prayer room.
Source: Data processing

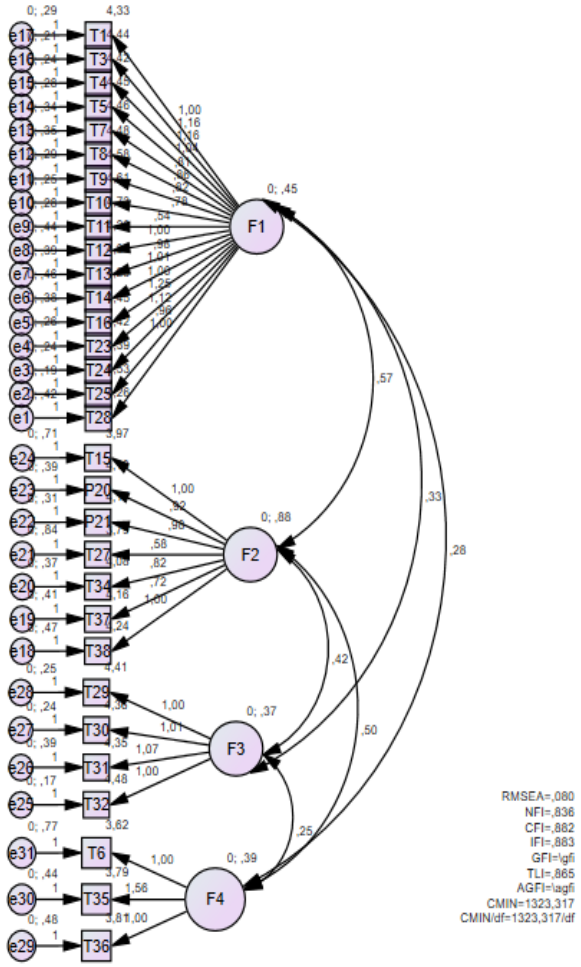

Figure 2. First level confirmatory factor analysis with multi-factor of thayib standardization for toilet.
Source: Data processing

Based on the confirmatory results of Figure 1 and Figure 2, Table 4 provides a summary for further explanation.

Table 4. Results of confirmatory factor

Scale	RMSEA	NFI	CFI	IFI	GFI	TLI	AGFI	CMIN	CMIN/df
Prayer room	0.086	0.844	0.914	0.915	0.860	0.902	0.822	459.317	459.317
Toilet	0.080	0.836	0.882	0.883	-	0.865	-	1323.317	1323.317

Source: Author's calculation

Table 4 presents the results of the analysis used to determine the fit of the research model. The Root Mean Square Error of Approximation (RMSEA) values, which are crucial indices in assessing model suitability in Structural Equation Modeling (SEM) analysis, were 0.086 and 0.080, respectively, meeting the requirement of being less than 0.08. Additional indices, such as the Comparative Fit Index (CFI) and Normed Fit Index (NFI), had values of 0.914 and 0.882, respectively. These values indicate that the measurement model is appropriate.

Discussion

The analysis reveals two primary factors for the thayib standardization of public worship facilities: the prayer room, main facility factor, and supporting facility factor. These findings provide a streamlined perspective compared to Ali et al. (2022), who identified a broader array of factors for prayer room standardization, including accessibility, layout, supporting facilities, safety, and

security. Similarly, Pamukcu and Sariisik (2021) highlighted different requirements for prayer rooms, such as the need for prayer mats, sufficient prayer space, Qibla direction signs, and availability of the Qur'an. These contrasting results underscore the variability in what different researchers consider essential for the standardization of prayer room facilities.

For supporting public worship facilities, specifically toilets, the analysis identified four critical thayib standardization factors: toilet design, supporting facilities, accessibility, and other facilities. This finding contrasts with Ali et al. (2022), who categorized washroom facilities based on factors such as universal design, orientation, hygiene, and water-saving features. Furthermore, Pamukcu and Sariisik (2021) outlined distinct requirements for toilet facilities, emphasizing the need for both squats and flush toilets for men and women, the inclusion of bidets, and ensuring that toilets do not face the Qibla. These variations highlight diverse approaches to standardizing toilet facilities in different contexts and regions.

Discrepancies in the standardization of public worship facilities across various countries, particularly in studies conducted in Turkey and Malaysia, can be attributed to several factors. These include differences in tourists' needs and expectations, specific research conditions and locations, and unique issues related to the religious facilities in each country. Conducting focus group discussions, as in this study, is crucial for aligning the needs of Muslim travelers with expert perspectives, ensuring the relevance and applicability of the findings.

The findings of this research underscore the persistent issues faced by tourists in accessing adequate public worship facilities in Muslim-friendly tourism destinations. The quality and condition of these facilities significantly impacts tourists' intentions to visit, their decisions to revisit, and their likelihood of recommending these destinations to others. The provision of high-quality religious facilities is crucial for enhancing overall tourist experience.

The practical implications of this study are as follows. The availability of well-maintained and appropriately designed religious facilities can significantly enhance tourists' comfort and peace of mind, contributing to a satisfying travel experience. However, the current state of public worship facilities in Indonesian Muslim-friendly tourism areas presents numerous challenges, indicating a gap between existing facilities and tourist expectations. Therefore, the standardization of public worship facilities identified in this study aims to address these gaps, ensuring that the facilities meet tourists' standardization and desires. This effort is essential for reinforcing the concept of Muslim-friendly tourism in Indonesia, ensuring it is not merely a nominal designation but a true reflection of the quality of public worship facilities provided, thereby enhancing the overall appeal and credibility of these destinations.

Conclusion

In conclusion, this study highlights the importance of thayib standardization for public worship facilities and identifies the key factors necessary for creating comfortable and accessible environments for Muslim tourists. By streamlining the findings of previous research, this study emphasizes the primary factors for prayer rooms, main facilities, and supporting facilities, and four critical factors for toilet facilities: design, supporting amenities, accessibility, and additional features. These factors are crucial for meeting the diverse needs of tourists and addressing the persistent issues they face in accessing adequate religious facilities in Muslim-friendly tourism destinations.

The practical implications of this study are significant for enhancing the overall tourist experience in Indonesia. The current state of public worship facilities in Indonesian Muslim-friendly tourism areas indicates a gap between existing amenities and tourist expectations. The proposed standardization aims to bridge this gap, ensuring that the facilities not only meet but also exceed the needs and desires of the tourists. This standardization is essential for solidifying Indonesia's reputation as a truly Muslim-friendly destination, improving tourist satisfaction, and increasing the likelihood of repeat visits and recommendations. Ultimately, this effort will enhance the appeal and credibility of Indonesian Muslim-friendly tourism, making it a more attractive option for global travelers.

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Author Contributions

Conceptualization: Ronald Rulindo
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Methodology: Ronald Rulindo
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Supervision: Ronald Rulindo,Fadhil Akbar Purnama
Validation: Ronald Rulindo
Visualization: Fadhil Akbar Purnama
Writing – original draft: Rosviana Rosida
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Appendix 1: Members of focus group discussion

Name	Position
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Sitta Rosdaniah, Ph.D.	Head of the Research Division of the Ministry of Religion of BUMN
Erika Takidah, Ph.D.	MES Research Center researcher
Tika Arundina, Ph.D.	Head of IEI UI Study Program
Nadia Isellini, MBA.	Muslim Friendly Tourism Entrepreneurs
Ni Putu Desinthya	Head of Halal Industry Development Division, KNEKS
Muhammad Bagus Teguh, Lc.	National Sharia Council
Fadhil Akbar Purnama	Economist at the Islamic Economics and Finance Department of Bank Indonesia
Ronald Rulindo, Ph.D.	Chairman of the MES Research Center