Development of Special Product for Early Systematic Training to Muslim Children in Terengganu

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Abstract: *Prayer is a must-do for every Muslim, starting from childhood. There is no denying that there are Muslim families who value prayer and some who are still lazy or do not perform prayers. Some issues were raised regarding the problem of not performing prayers in Muslim families, especially children. Among them is the need to design a special product as a supporter for this group to perform prayer without stress. So, this study explains the development of Islamic-based special product serves as a catalyst for early systematic training of prayer to Muslim children aged 7 to 10 years in the state of Terengganu, Malaysia. Although Terengganu is declared as the first Islamic state in the country, but to this day unfortunately many of the children of the age mentioned above have not performed their prayers properly. This may be due to the factors of laziness to prayer caused by the influence of entertainment from digital devices, the lack of prayer guidance from parents and guardians or the absence of special prayer products in the market. From the point of view of applied research methods, the special Islamic-based product has been produced through innovative design concept in which three essential elements are implanted namely aesthetics, practical and portable, and cultural and manufacturing acceptability. Further, the observation and interview techniques are performed when conducting the pilot tests, henceforth four design processes such as ideation and development, refinement and detailing, digital production and model making stages are used to complement the image of subject matter is well-fitted to the outcome of the study that offers low production costs, uniqueness looks and multipurpose applications. Therefore, the results of this study are in line with religious claims through the Quran and Hadith, besides helping the children to increase their devotion to God as a first step towards becoming a virtuous and responsible person.*

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I. INTRODUCTION

The facts say that Terengganu was the first state to be declared as Islamic state in the country. Until to this day it is one of the most Muslim-majority states that continue to adopt and adapt various Islamic values and lifestyles [1]. Terengganu is also known by the Arabic honorific as *Dar-al-Iman* means Abode of Faith [2]. Every Muslim must perform or abandon every single thing outlined in the *Quran* and the *Hadith*. Islam has fixed the things contained in the Pillars of Faith and the Pillars of Islam. There are six things mentioned in the Pillars of Faith and five things in the Pillars of Islam. One of the five pillars of Islam is prayer that plays a role to strengthen the relationship between the servant and God. The prayer is divided into two categories: the obligatory prayer and the optional prayer. The obligatory prayers are performed five times a day according to the prescribed time, while the optional prayers are performed as many times as desired at the selected time [3]. A prayer performed by a Muslim can bring a sense of awe and awareness of the existence of God [4]. This is a symbol of true confession from a servant to his God [5]. Prayers can also invite love and forgiveness from God [6] where a Muslim will not be afraid on the Judgment Day when his prayer and repentance are accepted by God [7]. The effect of performing prayers will be a warning to a Muslim to refrain from committing any sin [4]. The best prayers according to Islam are to congregate in the masjid [9] and to perform all prayers on time [8] with fervently because of the God [10]. One of the reasons for the helps and forgiveness from God is be patient and to perform the prayer [11] whether through the five times a day of obligatory prayers or through the optional prayers that performed as many times as desired at the selected time of the day [8] or through the obligatory Friday prayer [12]. In prayer practices, guidance and education have been emphasized since childhood. This proves that Islam is not just a religion; it is also a law-based way of life [13]. According to the *hadith* of the Prophet (peace be upon him) said that a prayer should be commenced by a Muslim from the age of 7 to 10 years [14]. All efforts made by parents and guardians to ensure that their children are able to perform their prayers are a great responsibility because prayer is the first thing that God will interrogate [15].

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II. METHODS AND TECHNIQUES

A. Pilot Test

We conducted pilot tests by using two techniques: observation and interviews. This study was conducted in the research area, which was around Terengganu state that located on the east coast of peninsular Malaysia. We chose this location due to its Arabic honorific of *Dar-al-Iman* means Abode of Faith for the state in Malaysia.

In other words, we wanted to see the problem amongst the target children who were still not praying, and then solving the problem through design development of a special Islamic-based product.

The observation and interview sessions (see Table I and Table II below) ran concurrently for four weeks. We visited over 80 homes throughout the state. The visits were random to note and consult Muslim parents or guardians who have children, nephews or nieces aged 7-10 on the matters related to individual demographic size, product structure information and point of view distribution.

We collected the entire study data over two month, of which three issues were identified and needed to be resolved namely the laziness to prayer due to the influence of digital devices, the lack of prayer guidance from parents or guardians and the absence of special prayer products in the market.

Table- I: Sampling of the participant observations

Districts	Places	Date (Week)	No. of Samples
Kemaman, Dungun &	Indoor observations only (e.g. living rooms, dining rooms, bedrooms, under the stairs, etc.)	17–23 December 2017 (Week 1)	Home 1–25
Marang & Hulu Terengganu		24–30 December 2017 (Week 2)	Home 26–50
Kuala Terengganu & Kuala Nerus		01–07 January 2018 (Week 3)	Home 51–75
Setiu & Besut		08–14 January 2018 (Week 4)	Home 76–95

Table- II: Semi-structured interview data from 17 December 2017 to 14 January 2018

No	Themes	Question Structures	Participant Answers
1	General Information	As the prayer is an obligation for every Muslim, are your children[a] aged between 7-10 stead-fasting and consistency to perform their prayer?	A large proportion of the respondents were quick to state that most of their children[a] do not pray regularly.
2	Place of Prayer	Are your children[a] aged between 7-10 performing their prayer at home or in the most?	The vast majority of the respondents highlighted that indeed, the children[a] performing prayer at home and sometime in the mosque.
3	Number of Prayer	How many of the prayer frequencies performed by your children[a] aged between 7-10 in the whole daytime?	The responses revealed that the majority of the respondents said the number of prayer times for their children[a] per day ranges between 2-3 times.
4	Reasons and Ideas	If your children[a] aged between 7-10 are intentionally away from the prayer, what are you going to do for them as Muslim parents[b]? And what are the reasons for not praying in your opinion?	The vast majority of the respondents highlighted that indeed, the most important reason is lack of an Islamic product that encourages children[a] to pray or clarify certain Islamic symbols. They also said that most of their reactions were verbal encouragement or anger, which was lacking of guidance from parents[b]. Another point was laziness to prayer due to the influence of digital devices.
5	Method Encouraging	As Muslim parents[b], do you have a special method or approach in teaching and encouraging your children[a] aged between 7-10 for them to perform the prayer?	The majority of the respondents said that the most popular techniques used to encourage their children[a] are videos.
6	Malaysian Market	Did you know about the availability of a special product which can be able to encourage and increase the steadfastness and consistency of your children[a] aged between 7-10 in order to perform their prayers?	All respondents said that there was no special product in the Malaysian market to encourage children's[a] prayer rather than they used some clothing or videos.
7	Interest and Curiosity	Do you agree and get interested to own if that special Islamic product is designed and developed with specific criteria existed in one of the places at the Holy-Land?	All respondents were interested in acquiring that special Islamic product to encourage their children[a] to pray. The majority of respondents preferred to the design, heritage and standards according to *Masjid al-Nabawi* in *Madinah al-Munawwarah*.

[a.] including nephews and nieces. *(Table footnote)*
[b.] including guardians. *(Table footnote)*

B. Design Development

We determined the innovative design concept before deciding on the essential elements for design development of a special Islamic-based product for children aged 7 to 10 years in the state of Terengganu. The innovative design concept was known as semiotic-based sustainable heritage design, while the essential elements for design were aesthetics, practical and portable, and cultural and manufacturing acceptability.

According to Berger, 2011 stated that a social product must be equipped with the language and symbolism that known as semiotic. Semiotics has two elements: semantic and pragmatic. Semantic is the knowledge of the meaning of a word and a sign, while pragmatic is a post-semantic situation [16].

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A product developed for social use is classified as a semiotic based product [17]. In the religious aspect, semiotic products of Islamic heritage have four elements such as calligraphy, human and animal figures, plant motifs and geometric patterns [18]. These elements are commonly found in many *masjid* structures worldwide. For example in *Masjid al-Nabawi* [19] has a special place called *ar-Rawdhah*

al-Jannah means Garden of Paradise [20] is a place of worship for the congregation for there all wishes will be accepted by God [21]. The place has five landmarks of the pillar of *Aisha*, the *mihrab*, the pillar of *Mukhallaqah*, the pillar of *taubat* and the *minbar* [22].

We proceeded to the design development stage in which four design processes have been outlined. At the **ideation and development** stage (see Figure 1 and Table III). We sketched as many as possible the *Masjid al-Nabawi*'s design structures based on its heritage, history, colours, patterns and forms. We chose this *masjid* that located in *al-Madinah al-Munawwarah* as it was the popular choice answer from the respondents when conducting the pilot tests. The *masjid* has a special place and some landmarks for its own identity which finally be declared as our subject matter for the study.
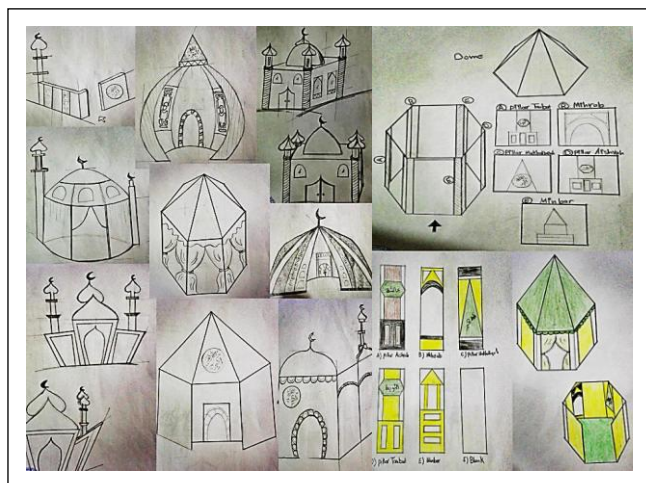

Fig. 1. Ideation and Development Stage

Table- III: Data of the ideation and development stages

Facts	Descriptions
Selected Subject Matter by Majority of the Respondents	▪ *Masjid al-Nabawi* in *al-Madinah al-Munawwarah,* Saudi Arabia
Highlighted Design Structures	1. Heritage 2. History 3. Colours 4. Patterns 5. Forms
Landmarks of the Subject Matter (Special Places a.k.a *ar-Rawdhah al-Jannah* means Garden of Paradise)	1. The pillar of *Aisha* 2. The *Mihrab* 3. The pillar of *Mukhallaqah* 4. The pillar of *Taubat* 5. The *Minbar*

At the **refinement and detailing** stage (see Figure 2 and Table IV), the *masjid* has a special place and some landmarks for its own identity which finally be declared as our subject matter for the study. We performed design specifics for this Islamic-based special product through dimensional measurement, colour setting and raw material selection. The outcome of this study will be applied indoors.

Table- IV: Data of the refinement and detailing stages

Facts	Descriptions
Dimensional Measurements	C × B × A (810mm × 700mm × 865mm)
Colour Setting	Yellow, Grey, White, Red and Green
Raw Material Selection	High density polyester fabrics, Plastic rods, Prints, Sprays, Glues, Sponges, Masking tapes and Sewing tools
Application and Usage	Indoors only

At the **digital production** stage (see Figure 3 and Table V), we used some design software like 2D AutoCAD, 3D Studio Max and Adobe Photoshop to produce this Islamic-based special product digitally. There were seven pieces of digital design available in this phase, such as (design **A**) the pillar of *Aisha* in red, green, grey and white alongside the components of square and long rectangles extended to the top of the dome with a hexagon shape and Arabic phrase of *Aisha*; (design **B**) the *mihrab* in yellow, grey and white alongside the components of triangles, squares, rectangles and arches; (design **C**) the pillar of *Mukhallaqah* in yellow, grey and white alongside the components of triangle, squares and rectangles with a triangle at the centre and Arabic phrase of *Allahu Akhbar;* (design **D**) the pillar of *taubat* in yellow, green and white alongside the components of square rectangles extended to the top of the dome with a hexagon shape and Arabic phrase of *At-Taubat*; (design **E**) the *minbar* in yellow and white alongside the components of triangles and rectangles; (design **F**) the blank in white without any component; and (design **G**) the latter is a detail for the whole combination of six pieces of digital design stated above.
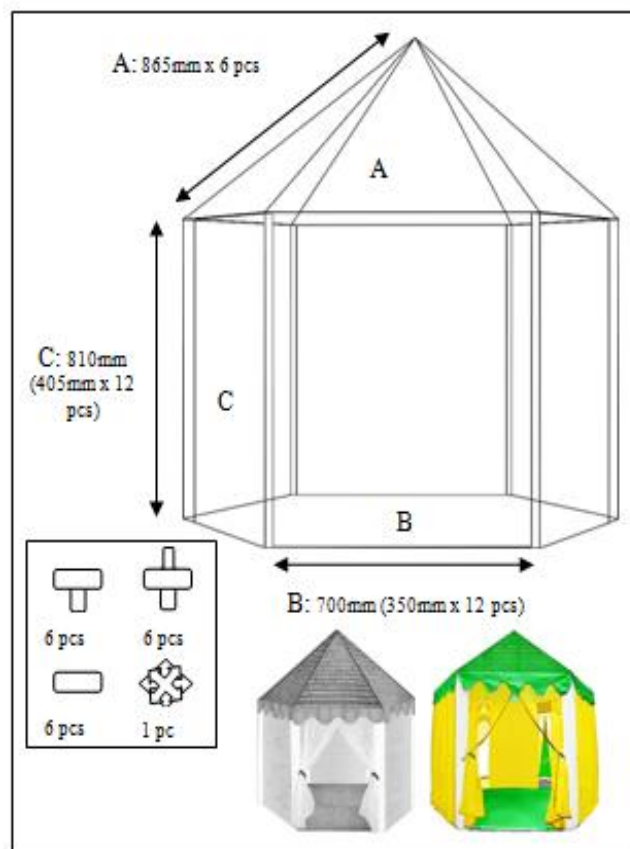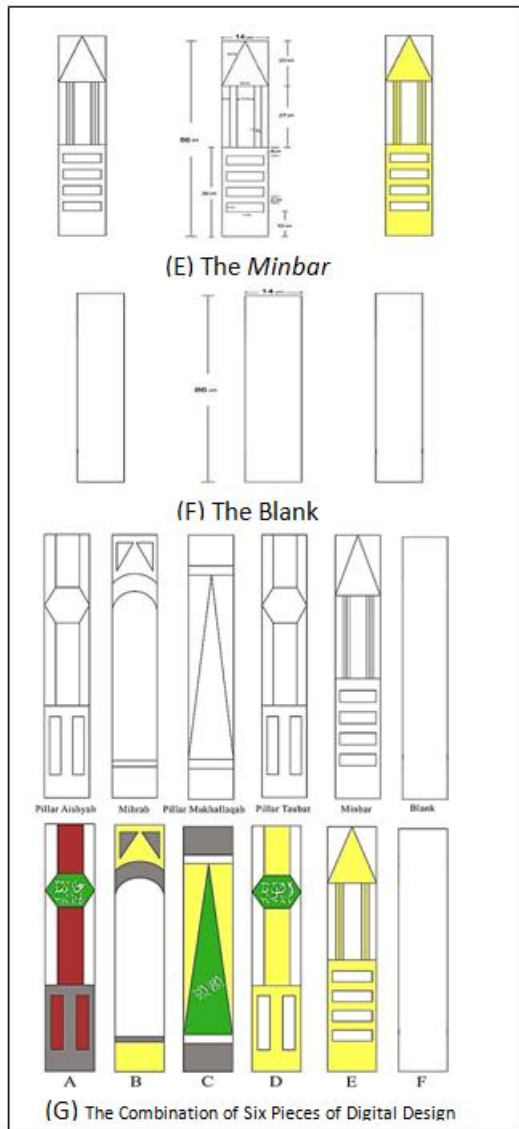

Fig. 2. Refinement and Detailing Stage

Fig. 3. Digital Production Stage

Table- V: Data of the digital production stages

Designs	Insignias	Components	Dimensions
A (Pillar of *Aisha*)	Red, green, grey and white	Square, long rectangles, top of dome with hexagon shape and Arabic phrase	86cm × 14cm
B (*Mihrab*)	Yellow, grey and white	Triangles, squares, rectangles and arches	86cm × 14cm
C (Pillar of *Mukhallaqah*)	Yellow, grey and white	Triangle, squares, rectangles and centred-triangle with Arabic phrase	86cm × 14cm
D (Pillar of *Taubat*)	Yellow, green and white	Square rectangles and top of dome with hexagon shape and Arabic phrase	86cm × 14cm
E (*Minbar*)	Yellow and white	Triangles and rectangles	86cm × 14cm
F (Blank)	White	None	86cm × 14cm
Soft-wares	2D AutoCAD, 3D Studio Max and Adobe Photoshop		

In the **model making** stage (see Figure 4 below), We developed this Islamic-based special product based on the data contained in Figures 1–3 and Tables III–V. Each dimension is accurate. The colours used were the colours found in design structure of *Masjid al-Nabawi*. The selection of raw materials and equipment for the production of this Islamic-based special product has been listed as high density polyester fabrics, plastic rods, prints, sprays, glues, sponges, masking tapes and sewing tools. This stage was conducted, furnished and completed in the School of Industrial Design at Universiti Sultan Zainal Abidin Malaysia.

Fig. 4. Model Making Stage

We proceeded to the analysis stages to prove that the three essential elements for design were suit to the outcome of the study (see Figure 4) as follows:

A. Aesthetics

In the context of aesthetics, the results for the outcome of the study indicated that there were various elements and principles of design. Some types of visible lines were curved, zigzag, diagonal, horizontal and vertical lines. Also, there were three types of rectangle, hexagon and triangle shapes alongside three types of pyramid, cylinder and cuboid forms as well as three types of textures: tactile, visual and artificial. We emphasized some of the colours such as grey tones, white tones and some colours in primary and secondary colours. Six design principles could be found in the outcome of the study namely balance, harmony, pattern, emphasis, value and space.

Table- VI: Aesthetics facts for the outcome of the study

Elements of Design	Explanations
Lines	Curved, zigzag, diagonal, horizontal and vertical
Shapes	Rectangle, hexagon and triangle
Forms	Pyramid, cylinder and cuboid
Textures	Tactile, visual and artificial
Colours	Grey tones, white tones and some colours in primary and secondary colours
Principles of Design	**Explanations**
	Balance, harmony, pattern, emphasis, value and space

B. Practical and Portable

In the context of practicality, the results for the outcome of the study showed that the usefulness aspects have been met during use. This Islamic-based special product had successfully solved three major problems that were the laziness to pray due to the influence of digital devices, the lack of prayer guidance from parents or guardians and the absence of special prayer products in the market. The outcome of this study was definitely encouraging for children aged 7 to 10 years to perform their prayers. In addition, it can also be used as a place to recite and study *al-Quran* and *al-Hadith*, a cubicle workstation to study and review school work and a fun compartment for colouring and art activities. At the same time, this Islamic-based special product had the added value of interaction and emotion for the child as worshiping at *Masjid al-Nabawi* is the dream of every Muslim including the target children, but financial and distance factors were always a burden to them. Furthermore, in the context of portability, the results for the outcome of the study showed that the functional aspects have been met during use, where it could simply be done by anyone to fold and put it in a small bag since high skill was not required. It was developed based on academic research solutions with high quality and durable results.

Table- VII: Practical and portable facts for the study outcome

Practicality Contexts	Explanations
Solutions	Solving three major problems: (i) laziness to pray due to the influence of digital devices, (ii) lack of prayer guidance from parents or guardians and (iii) the absence of special prayer products in the market
Encouragement	Catalysing children aged 7 to 10 years to perform their prayers properly and consistently
Usages	A place to recite and study *al-Quran* and *al-Hadith*, a cubicle workstation to study and review school work, and a fun compartment for colouring and art activities
Usefulness	Interaction and emotion values as worshiping at *Masjid al-Nabawi* is the dream, but financial and distance factors are always a burden
Portability Contexts	**Explanations**
User-friendly	Simply be done by anyone to fold and put it in a small bag since high skill is not required
Durable and Quality	Academic based research solutions

C. Cultural and Manufacturing Acceptability

In the context of cultural and manufacturing acceptability, the results showed that (see Table VIII) the outcome of the study was successfully categorized into cash cow product benchmarks compared to dog, star and question mark. We agreed that it was easy to sell and useful to target groups. Furthermore, in terms of product positioning, we used two types of variables (price factor vs. innovative design concept) illustrated in a cross-sectional diagram (see Figure 5). There were four indoor playhouse companies trading in the country: Both Companies A and D offered low prices but their products had no Islamic feature and value, while Company B offered relatively low prices despite using the same design concept as Companies A and D. Meanwhile, Company C offered high prices amongst all companies with using the same design concept as all companies. When our product was compared to the four companies above, we agreed that the

outcome of this study (marked as "x") was in the position between "reasonable prices" and "Islamic-based innovative design concept" since this solution offered Islamic heritage feature and value through the subject matter of a special place called *ar-Rawdhah al-Jannah* means Garden of Paradise alongside its landmarks of pillar of *Aisha*, the *mihrab*, pillar of *Mukhallaqah*, pillar of *taubat* and *minbar*.

Table- VIII: Facts of cultural and manufacturing acceptability

| Cultural Acceptability	Explanations	Product Positioning
Races	All ethnicities in the world	Yes, usable
Religions	All Muslims in the world	Yes, usable
Non-Muslims	Can use it without coercion	
Manufacturing Acceptability	**Explanations**	**Product Benchmarks**
The Cash Cow	Ease-to-sell, high market	Yes, acceptable for standards
The Dog	Hard to sell, weak in market	No, unacceptable
The Star	Well-known, hard to sell	No, unacceptable
The Question Mark	Hard to sell, doubtful	No, unacceptable
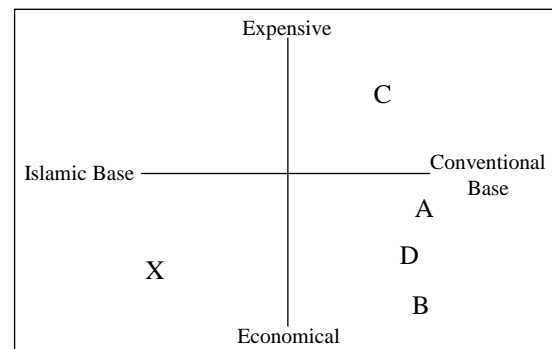
Fig. 5. Cross-Sectional Diagram for Playhouse Companies in Malaysia

IV. CONCLUSIONS

We have developed a special product to support children in this state where it can act as a catalyst for them to perform their prayers without stress and coercion. A full-scale model for Islamic-based special product produced from the subject matter of a special place (*ar-Rawdhah al-Jannah* means Garden of Paradise) with its five landmarks (the pillar of *Aisha*, the *mihrab*, the pillar of *Mukhallaqah*, the pillar of *taubat* and the *minbar*) found in *Masjid al-Nabawi* has been successfully produced through the concept of semiotic-based sustainable heritage design. This solution serves as an early systematic training for and resolver to some of the key issues amongst Muslim children aged 7 to 10 years who still not perform their prayers properly in the state of Terengganu, Malaysia. The solution can be applied indoors, whether in the living rooms, bedrooms or under the stairs. It serves as a catalyst to encourage these target groups to perform their prayers as well as to be used as a place to recite and study *al-Quran* and *al-Hadith*, a cubicle workstation to study and review school work and a fun compartment for colouring and art activities.

This Islamic-based special product offers low production costs with affordable retail prices for uniqueness looks and multipurpose applications.

It benefits to nurseries, kindergartens and at the terrace of the *masjid* as well as can be placed in the paediatric wards, in the mall kid zones or at the airport terminals.

It is possible to be reproduced by the other makers as it goes through the production process as usual with existing machineries, equipment and design software. The solution contributes significance to the state of Terengganu particularly and to those in the other states in Malaysia generally.

In addition to applications in Malaysia, this solution can also be used by Muslims around the world. It provides opportunities for the future design researchers locally and globally to use this finding of the study as a reference to redevelop such product based on the major design structures of *masjid* in the world, such as *Masjid al-Haram* in Makkah al-Mukarramah, *Masjid al-Aqsa* in Baitul Maqdis, *Blue Masjid* in Istanbul, *Masjid Hassan II* in Casablanca, *Masjid Faisal* in Islamabad, *Masjid Sheikh Zayed* in Abu Dhabi, *Masjid Sultan Qaboos* in Muscat, *Masjid Umayyad* in Damascus, *Masjid Putra* in Putrajaya, *Masjid Omar Ali Saifuddien* in Bandar Seri Begawan, *Masjid Istiqlal* in Jakarta, *Masjid Kul Sharif* in Kazan, *Masjid Kristal* in Terengganu, *Masjid Sultan Salahuddin Abdul Aziz* in Shah Alam, and others.

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