

THE CONCEPT OF ZONING SYSTEM FOR THE DETERMINATION OF PRAYER TIME IN MALAYSIA FROM CONTEMPORARY ISLAMIC JURISPRUDENCE PERSPECTIVES

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Abstract	<p><i>The determination of Islamic prayer time required a reference in timekeeping. This is because determination of Islamic prayer time depends on a position of the sun, and sun position are varying from one location to another. A 45 km displacement in terms of location will result to the difference in 2 minutes. The 2 minutes difference is vital as it is used for determining the time for breaking the fast or the end of Subh prayer time windows. There are numerous methods of timekeeping referencing or zoning system in Malaysia. Most of the states in Malaysia used the westernmost point method in determining the prayer times. Meanwhile, Perak, Penang and Kedah used multiple reference points in order to resolve the issue of the difference in prayer time zone. However, both method a considered new problem in Islamic Jurisprudence and its position in Islamic Law has not been discussed in the classical Islamic literature. Therefore, this paper seeks to examine the zoning system under the framework of contemporary Islamic Jurisprudence. A qualitative approach has been adopted through two methodologies, literature analysis and in-depth interview. These methodologies aimed to put light on the Islamic Jurisprudence position on zoning system based on principle of maslahah and mashaqqah. The finding indicated the prayer time zoning system in Malaysia is a product of ijtihad that produce through the maslahah, musyaqqah and suitability of the respective states.</i></p> <p>Keywords: <i>Zoning, System, Ijtihad, Prayer, Time.</i></p>
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INTRODUCTION

An expertise in Islamic astronomy knowledge is needed to set the beginning and end of prayer time. Each country has its own astronomy members. The astronomers play a role in ensuring that the obligation of prayer time is performed according to the prayer times schedule and expiry of time to coincide with Fiqh. For example, the United Arab Emirates (UAE) divides prayer time according to nine major cities namely Abu Dhabi, Al-Ain, Sharjah, Umm Al Quwain, Fujairah, Ajman, Ras Al Khaimah, Khorfkan and Dubai (General Authority of Islamic Affairs and Endowments, 2019). Similarly, to Saudi Arabia, prayer times are also determined based on 26 major cities such as Riyadh, Tabuk, Mecca, Medina, Damman, Hail, and Sakakah and others (Umm al-Qura, 2019). However, small countries such as Singapore only have one prayer time zone. This indicates that the prayer time zoning is dependent on

each country's geographical land size and terrain. The country Islamic religious authority and the astronomers has a validation authority in determining the prayer time in each states (Muhammad Paidi et al., 2019).

Prayer time zone in Malaysia was introduced in 1995 (Mustafa Din & Mohamad Saupi, 2015). The prayer time zone is divided according to state. Each state is divided according to zones based on the existing districts within two minutes (Abdul Halim, 1997). In general, the total of zones followed by year can be classified in Table 1.

Table 1: Number of Total Zone in Malaysia

Year	Total of Zone
1995	168
1996	66
1998	42
2004	49
2021	58

According to Table 1, the total of prayer time zone in Malaysia up to 168 zones (Utusan Melayu, 1995). This is due to the prayer times were determined based on the position of the major cities in each state (Nurul Kausar et al., 2019). In 1996, the number of prayer time zones had decreased by 66 zones (Berita Harian, 1996). The reduction of zones to 66 zones is due to the westernmost point method being introduced in prayer time determination. After the improvements, the number of zones was reduced to 42 zones in 1998 (Berita Harian, 1998). Meanwhile, in 2004 the total of zones was changed to 49 zones (JAKIM, 2004). The number of zones has increased to 49 zones due to Kedah having implemented the multiple reference point method in determining prayer time zone. Now in 2022, the number of zones has reached a total of 58 zones (JAKIM, 2021). Consequently, each prescribed prayer time zone should not exceed two minutes. Thus, the Department of Islamic Development Malaysia (JAKIM) has resolved three criteria as follows (Mustafa Din & Mohamad Saupi, 2015):

- a. The difference between East and West of each zone should be within two minutes.
- b. A reference station zone must be within the west side of the zone.
- c. Highland areas such as hills and mountains, or islands need to have a separate time zone.

Although these criteria had been issued, the States' Islamic religious authority has a validation authority in selecting methods and determining the reference point for each zone (Muhammad Paidi et al., 2019). Accordingly, the number of zones by states can be seen in the following Table 2 (JAKIM, 2021).

Table 2: Number of Zone in Each States

No	States	Number of Zones
1.	Perlis	1
2.	Kedah	7
3.	Penang	1
4.	Perak	7
5.	Selangor	3
6.	Wilayah Persekutuan. (Kuala Lumpur & Labuan)	2
7.	Negeri Sembilan	2
8.	Melaka	1
9.	Johor	4
10.	Kelantan	2
11.	Terengganu	4

12. Pahang	6
13. Sabah	9
14. Sarawak	9
Total	58

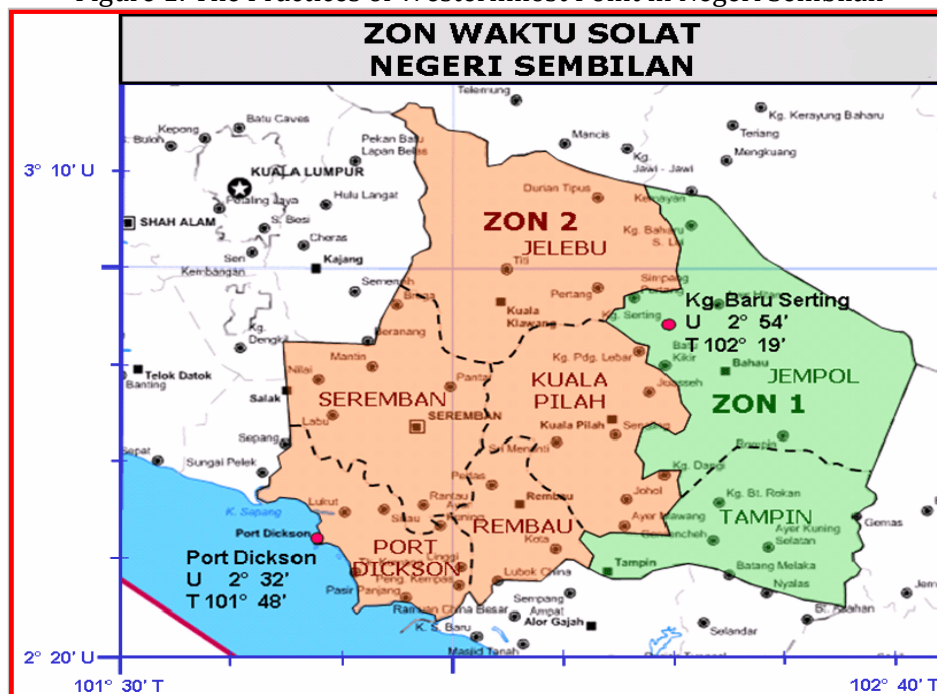
ZONING SYSTEM IN PRAYER TIME DETERMINATION

Prayer time zones are a selection of nearby districts that have a two-minute time difference integrated into the same zone. The time indicated is selected after taking into the entry time for prayer for each of these locations. There are two practices in prayer time zoning system in Malaysia (Muhamad Zakuwa, 2019). These two methods were highlighted below.

Westernmost Point Method

Most of the states in Malaysia including Johor, Negeri Sembilan, Pahang, Melaka, Sabah, Sarawak, Selangor, Kuala Lumpur, Terengganu, and Kelantan applied this method in determining the prayer time. Westernmost point of each zone is selected as a reference station. This is because westernmost point will consider the timing of prayer time during sunset in the west which is vital during Ramadhan (Hardi et al., 2019). For example, in Negeri Sembilan, for zone one Kampung Baru Serting is selected as a reference station while in zone 2 Port Dickson is selected as reference station. Both reference stations are the Westernmost Point for each zone. The position of reference point is portrayed in Figure 1.

Figure 1: The Practices of Westernmost Point in Negeri Sembilan



Multiple Reference Point Method

The multiple reference point method is the determination of prayer time zoning system based on various points within a zone. In contrast to westernmost point method which relies on single point in a zone, multiple reference point method provides a more accurate determination of prayer time since it relies on various point within a zone to accommodate the position of the sun throughout the year (Nurul Kausar, 2021). Currently the multiple reference point method only practiced by three states in Malaysia particularly in Kedah, Penang and Perak. This method was proposed by Tuan Haji Abdul Majid bin Abdul Wahid (Abdul Majid, 2005). The points of the zone were selected according to the north, south, east and west of the zone. Comparing to the westernmost point method, this method points out minimum of five points and maximum of 13 points within the zone (Abdul Halim, 2015).

The example of the implementation of multiple reference point system for prayer time zoning is Penang. As show in Figure 2, the multiple reference points indicated by yellow pin.

Figure 2: Practices of Multiple Reference Point in Penang

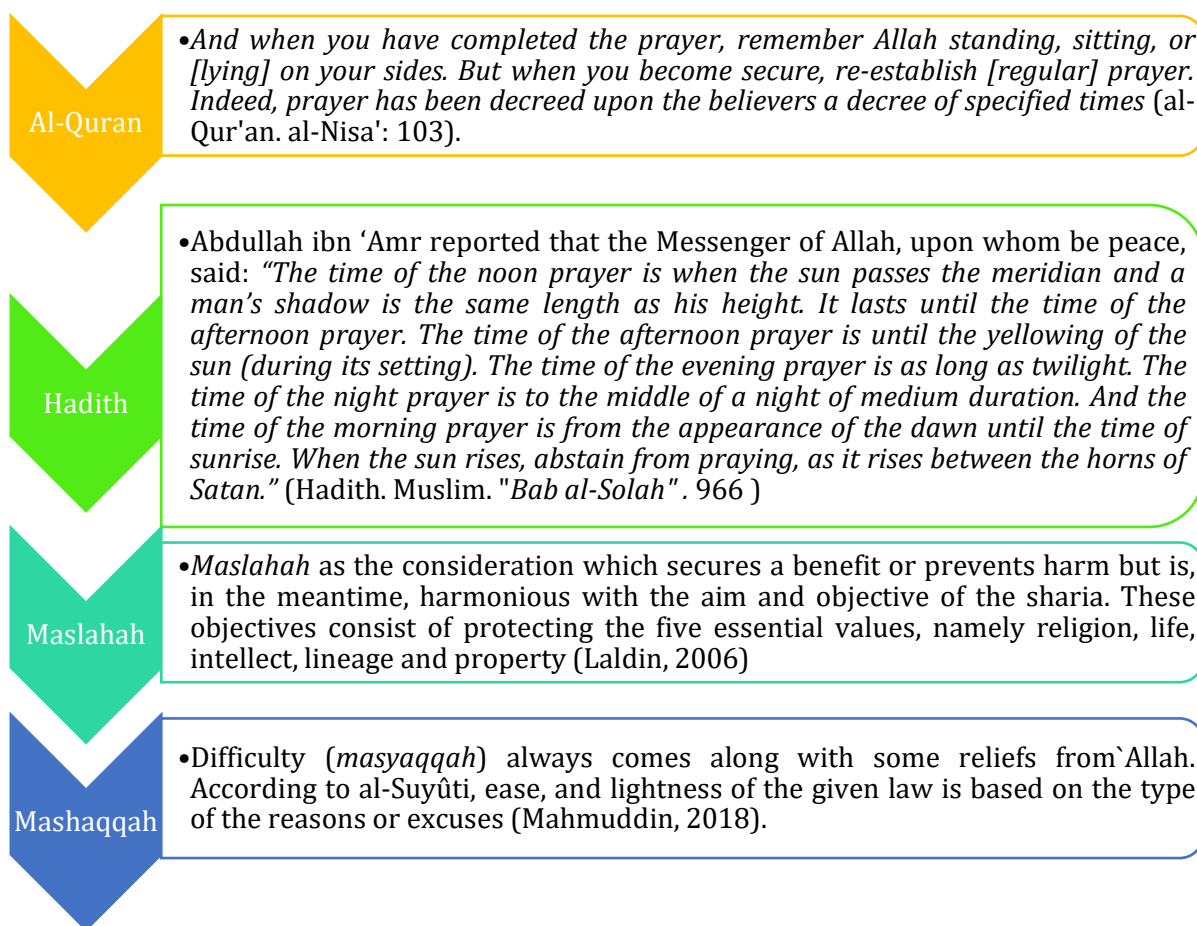


RESOURCES ON ZONNING SYSTEM IN ISLAMIC JURISPRUDENCE LAW

Islam, the fastest growing religion in the world, with over 1.2 billion followers has the astounding capability of adapting to ever changing conditions (Arsia J. & Muhammad J., 2011). The Quran has given the fundamental education and knowledge but the Muslim scholars must interpret this fundamental knowledge wisely in accordance with the spirit of the time. By using the original sources (Quran and Hadith) and the rules of Islam, *ijtihad* holds the contemporary problems and try to solve them according to the rulings of Shariah (Shahzadi Pakeeza & Fariha Fatiha, 2016).

The first level of Islamic law being the actual spirit is related to the progress and development of human life while the second level which is structural form of Islamic law's aims to give it discipline and structure. Demands of life is going to change day by day and human life also comes under the influence of the influence of these changes. In this changeable phenomenon it become necessary to take on the structural review of Islamic law, but it must be kept in mind that the spirit and discipline of Islamic law must be alive and does not clash with the aspects of evolution of human life. Therefore, applying the zoning system to determine the daily prayers is *ijtihad* (Anhar Opir et al., 2019). The fundamental resources applying the zoning system in Islamic Fiqh highlighted in Figure 3.

Figure 3: Resources on Zoning System in Islamic Fiqh



METHODOLOGY

The literature research was conducted using various databases such as Science Direct, Scientific Journal, conference proceeding, reports, online newspaper, open access article, governmental websites were also included in this study. In addition, this study involving in-depth interviews with the authorities of the Islamic astronomy, the authorities of religion such as Sahibus Samahah Mufti of states, and experts on Islamic ruling and practitioners. The interview was a semi-structured interview technique. Research article that used in this study is not bound by year of publication since most of the data pertaining Malaysia prayer time zoning is not available.

The parameters outlined under this research questioned. Firstly, how the practices of zoning system impact each state in Malaysia and Muslim society? Secondly, how was this, in turn, relates to the framework of Islamic jurisprudence? To encapsulate the discussion this paper will be divided into four main sections. The first section is introduction which is practices of zoning system in Malaysia then followed by application of the westernmost point method and multiple reference point method in each state in Malaysia. Second section will excavate the discussion on the zoning system in Islamic jurisprudence law. It then comes with the analysis outcomes according to *mashaqqah*, *raf'u al-haraj* and *maslahah* in order pertaining the zoning system issues. Lastly, section four will provide the conclusion on this paper.

RESULT & ANALYSIS

This section highlights the relationship between the zoning system on prayer time determination and contemporary Islamic jurisprudence. Therefore, the discussion focuses

under the roof of *mashaqqah*, *raf'u al-haraj* and *maslahah*. The discourse between the zoning system on prayer time determination is highlighted as below.

Principle of Shariah in Prayer Time Determination

The determination of prayer time is discussed in Islamic jurisprudence studies namely fiqh. It covers the injunctions from the Quran and hadith with views from Islamic jurists namely *fuqaha'* related to the obligation of Muslim prayer time (Mohammaddin et al., 2012). There are five daily obligatory prayers that should be observed in Islam which coincide with significant temporal changes sun's position as the earth rotates its celestial axis and moves through its various stations during its elliptical revolution around the Sun (Mohamoud, 2017). Based on al-Qur'an and the hadith, the fuqaha have formulated the duration of each obligatory prayer as follows (Muslim, "Bab al-Solah", 966):

- a. *Fajr*: commences when the *fajar sadiq* begins to lighten up at dawn time on the horizon. *Fajar* prayer times end at sunrise.
- b. *Zuhr*: Commences immediately after midday when the sun has passed the local meridian of particular location and ends when the shadow of an object is equal to its height discounting the object's shadow of zenith time.
- c. *Asr*: commences when the *Zuhr* time terminates and ends when the sun sets. Meanwhile, in Hanafi school of jurisprudence, the *Zuhr* ends and *Asr* begins when the shadow of an object is twice its height plus any shadow that remains at zenith time.
- d. *Maghrib*: commences when the sun disappears below the horizon at sunset.
- e. *Isha'*: commences at the disappearance of *syafaq ahmar* and ends when the *fajar sadiq* rise at the horizon.

The determining of daily prayer times has been verified clearly with nass. However, there are some difficulties in measuring parameters the movement of the sun by using the naked eyes. The movement of the sun and the measurement of the shadow cannot be performed clearly visible (Nurul Kausar et al., 2020). Currently, the mismanage city development and urban growth in Malaysia had cause the hardship in astronomical observation.

Arise out of this difficulty, knowing the time of the beginning and end of the daily prayer times measured through the trigonometry calculation. In fiqh perspective, the determination of prayer time is referred to as *zanni* (speculative) (Anhar Opir, 2019). It requires in-depth research among al-kibrah. Al-Kibrah is an expert or authority is based on knowledge and truth of a matter considering the factors of experience, expertise in a field and continuously carrying out the problems issues in astronomical observation and astronomical calculation (al-Zuhayli, Mustafa, 1982).

The Implementation of Two Minutes in Zoning System

Along with the passage of time and developments in the science of astronomy, it is necessary for certain limits and time intervals in determining the zone for the daily prayers. Thus, the two-minutes difference between East and West of each zone is taqribi (Anhar Opir et al., 2019). According to Abd al-Rahman bin Muhammad bin Husain al-Masyhur, the beginning of the time and the end of prayer times is *taqribi*. *Taqribi* refers to the nearest or closest assumption instead of *tahdidi* which is accurate (Ibn Ruslan, Shihab al-Din Abu al-'Abbās Ahmad, 2016).

The application of the two-minute zone is ijihad which is dependent on each state government authority. This is because the nature of a prayer time zone is dependent on suitability of the wideness of a zone. A large area of state will require a larger zone or a bigger number of zones per state. A larger zone in some cases will exceed the two-minute time zone. This is why some prayer time zones adhere to the two-minute zone while some exceed the two-minute zone. Due to this reason, the formation of a zone either below two minutes or exceed two minutes is dependent on the ijihad of the state. However, it is

difficult to determine the range of two minutes in each zone. (Anhar Opir, 2019; Hardi, 2018)

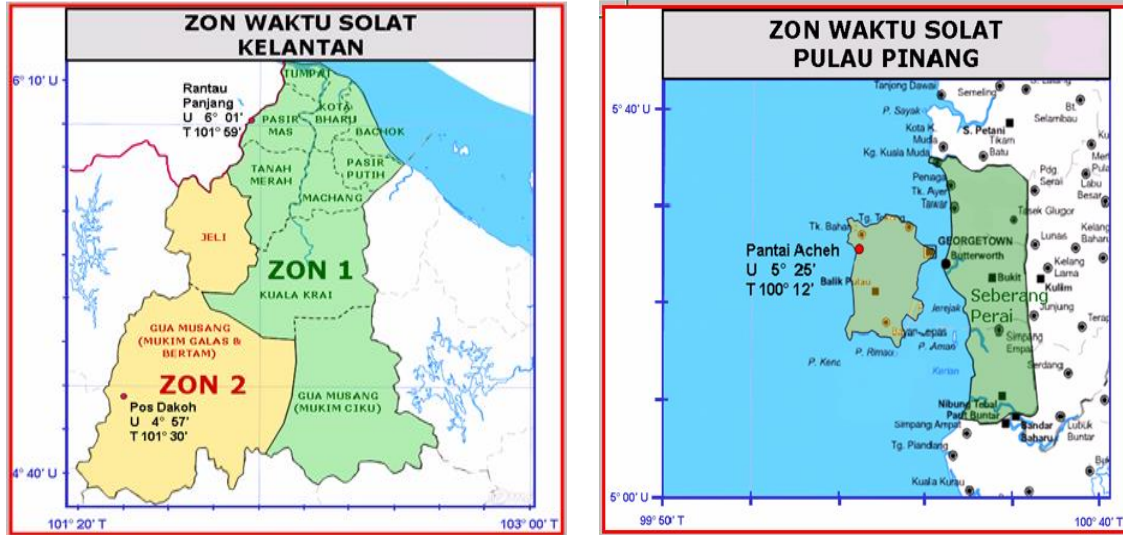
The time difference limit depends on the zoning requirements of the geographical shapes of the zones. There was a zone with a time difference up to five minutes. The issue of this ruling is *ijtihad not qati'e*. This is because each state has different geographical forms causing the time difference to last more than two minutes (Mohamad Shukri, 2019) For example, the state of Penang has an area of 1033 sq km. Meanwhile, Kelantan has an area of 14,931 sq km. In context, the time difference between Penang state is smaller than Kelantan. Furthermore, based on the counts conducted by the state of Penang, the difference between three minutes. However, the time differences in Kelantan obtained showed a difference of up to six minutes (Nurul Kausar, 2021). Hence, the need for a zone to exceed the two-minute time limit is dependent on their respective states (Wan Muhammad Ezani & Faizal Jani, 2019). A study found the states with larger area of zone caused the maximum difference within the zone. The study indicated the states with small sizes such as Perlis, Kuala Lumpur and Labuan fulfilled the accuracy of two-minutes.

Ease and Flexibility in Implementing the Westernmost Point Method and Multiple Reference Point Method

Islam is not a religion that burdens the life of its adherents with excessive hardship. If an order is difficult to be implemented, *rukhsah* or exception is available in Islam as stated in the Holy Quran, surah al-Baqarah verse 286 and al-Nisa verse 28. This fiqh principle is based on the principle of *rukhsah* which eliminates the hardship Allah has imposed for some reason. This principle is also applied widely in fiqh related issues and agreed upon by Islamic scholars as one of the main or core principles (*kubra*) (Taqiuddin al-Hosni, 1997). This Fiqh principle also applies on prayer time zoning. The implementation using the westernmost point method and the multiple reference points is to choose the lightest harm (*masyaqqah khofifah*) which is under the roof of *irtikab akhaf al-dhararain* (Mohd. Yusof & Mohd. Rashidi Isa, 2019). In the case of prayer time zoning the westernmost point is not totally accurate in determining the prayer time because it only rely on a single point within the zone an emphasize on position of the sun during sunset and sunrise. Meanwhile, transforming a prayer time zone into multiple reference point zone requires identification of various reference station and examination of solar path which is difficult task for government authority.

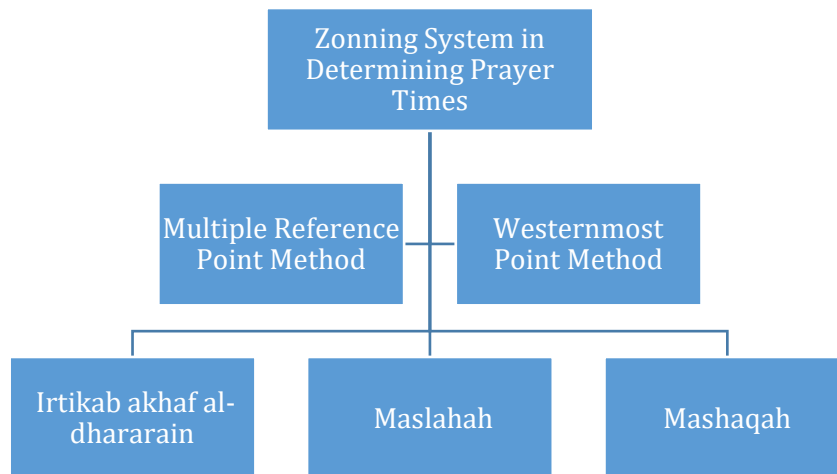
Maslahah in the context of the zoning system made by who should be beneficial for States' Islamic religious authority and should be perceived by the public (Anhar Opir, 2019). Theoretically each zone has its own irregular geographical shapes. Therefore, both methods, the westernmost point and the multiple reference point implement based on the *maslahah* of the district. The problem here is even though a district is in the same zone but is under the different *mukims* (Khairul Anwar et al., 2020). The terrain of the Penang is approaching a rectangle and almost met the projections between north and south. Meanwhile, the geographical of Kelantan is in irregular shapes. The geographical shapes of Penang and Kelantan as in Figure 4.

Figure 4: Geographical of Kelantan and Penang



In addition, by implementing the method of determining prayer time based on the current location such as the coordinates of the mukim mosque it will certainly cause inconvenience. For example, the Kuala Lumpur has an area of 342 sq km and consists of 80 mosques. This indicates that 80 different prayer schedules should be provided. Undeniably, the prayer times based on the current location produced is accurate and meets the requirements of Sharia. However, the increased number of prayer timetables is unreasonable and unnecessary (Muhammad Hanif, 2019). Considering its severe impact during *iftar* (Maghrib) and *imsak* in Ramadhan (Abdul Majid, 2019).

CONCLUSION



In conclusion, zoning system was introduced to facilitate its implementation among the administration of the States' Islamic religious authority and Muslim society. According to the principles of the Islamic jurisprudence is permitted based on the principles such as *irtikab akhaf al-dhararain*, *maslahah* and *mashaqqah*. These principles coincide with the Fiqh rules that have been discussed which support that every harm and distress should be eliminated. The principles of this jurisprudence are governed by the authentic texts of the Quran and the Sunnah and are not designed to fit personal reason.

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