

Islamic Holy Days: The Contention of Rukyatul Hillal and Hisab Hakiki Wujudul Hilal Disputes for Muslims in Indonesia

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Abstract

This article analyses the dispute between Rukyatul Hilal and Hisab Hakiki Wujudul Hilal in determining Islamic holidays in Indonesia. However, in its determination, there is often a dispute between the Rukyatul Hilal and Hisab Hakiki methods. This research aims to resolve the dispute between the two methods. The methodology in this research is qualitative, with a literature review. Primary data is sourced from Naqli's arguments, and secondary data from the books of Tafsir. The results show that Islamic holidays have been established in the Qur'an in Surah Yunus and Surah Al-Rahman. Hadith shows the story of the prophet Muhammad in the Rukyatul Hilal method, which contains historical and philosophical values. Hisab Hakiki Wujudul Hilal is found in Surah Yasin. Applying the two methods of determining Islamic holidays has a significant difference where Rukyatul Hilal is through direct observation while Hisab Hakiki uses astronomical mathematical calculations. To mediate the existing controversy, the Indonesian Ulema Council issued a circular letter that both methods have the same position, which is valid. The Ministry of Religious Affairs of the Republic of Indonesia has also found a solution between the two that is elaborated on with Ikmanur Rukyat through a national Itsbat session.

Keywords: Islamic Holy Day, Rukyatul Hilal, Hisab Hakiki, Wujudul Hilal.

Introduction

The Kamariyah month begins the Hijri month, which is very important for Muslims in Indonesia because it determines the time of worship, such as fasting, zakat, and hajj (Ardi, 2012; Rofiuddin, 2019). Starting the Kamariyah month is crucial for implementing worship practices



such as fasting, zakat, and hajj (Kholisoh, 2012). The Kamariyah month marks the beginning of the Hijri month, which is very important for Indonesian Muslims (Rofiuddin, 2019). There are several ways to determine the beginning of the Hijri month, including Rukyat, Hisab, and Imkanur Rukyat. Different parties and organisations may use different methods and procedures to determine the beginning of the Kamariyah month (Hidayat, 2011; Ardi, 2012).

Rukyatul Hilal is a process Muslims use to determine the beginning of the new month in the Qamariyah calendar system (Hilal, 2020). This process involves observing the crescent moon (Hilal) to determine the entry of the new month (Hilal, 2020). Several techniques are used in the Rukyatul Hilal process, and the success rate is influenced by internal and external factors such as weather conditions and observation location (Hilal, 2020). The utilisation of technology in Rukyatul Hilal has been a topic of discussion, with some arguing that image processing is a necessary development of the method (Mustaqim, 2019). However, fiqh views on using devices in Rukyatul Hilal can be a barrier to developing methods with technology (Mustaqim, 2019). To overcome this, efforts have been made to transform the Rukyatul Hilal method to follow technological advances without reducing its validity, according to Fiqh (Mustaqim, 2019).

In recent years, there have been innovations in designing Rukyatul Hilal instruments based on Arduino microcontrollers (Fajrullah et al., 2022). This instrument successfully shows the moon's position and verifies the data used (Fajrullah et al., 2022). However, it should be noted that the moon's position, when viewed from a telescope, is not always in the centre (Fajrullah et al., 2022). There is also a discussion about Rukyatul Hilal's testimony by non-Muslims (Ridhayanti, 2022). According to some Islamic schools of thought and law, non-Muslim Hilal testimonies are unacceptable because they are not human and have no power over Muslims (Ridhayanti, 2022). However, some argue that non-Muslims can fulfil Hilal testimony's formal and material requirements (Ridhayanti, 2022). Overall, Rukyatul Hilal is an essential process for Muslims in determining the beginning of the new month, and there have been attempts to keep up with technological advances while maintaining its validity, according to figh.

Hisab Hakiki Wujudul Hilal is a concept developed by Muhammad Wardan to formulate the National Hijriyah Calendar (Azhari, 2004). This concept is a combination of normative and empirical levels between the Hisab Ijtima' Qabla Al-ghurub and Imkan Al-ru'yah systems, which is also known as the middle way between pure Hisab and pure Rukyat (Azhari, 2004; Basori, 2012). Muhammadiyah uses this concept to determine the beginning of the Qamariyah month (Azhari, 2004). Hisab Hakiki Wujudul Hilal is a Hisab method used by Muhammadiyah to determine the beginning of the Hijriyah month (Basori, 2012; Rijal, 2019). This method is based on the sighting of the hilal, and the sighting criterion is the actual sighting of the hilal after sunset.

In Indonesia, as in many other Muslim-majority countries, hilal sighting is essential in determining the beginning and end of Ramadan. This process is known as "Rukyatul Hilal" (moon sighting) and "Hisab Hakiki Wujudul Hilal" (astronomical calculation of the new moon sighting). However, there are disputes and disagreements regarding which method should be used to determine the beginning of Ramadan. The urgency of this research is to resolve the dispute between the methods of determining the beginning of the month in the Hijri calendar, specifically between Rukyatul Hilal and Hisab Hakiki Wujudul Hilal. Accurate determination of the beginning of the month affects the determination of Islamic holidays, such as Eid al-Fitr and Eid al-Adha, which are essential moments in Muslims' religious practice and social life. These disputes not only reflect the diversity of views and interpretations within the Muslim community but can also impact the unity of Muslims and the consistency of religious celebrations across the country. Therefore, a deep understanding of the urgency of these disputes can provide valuable insights into efforts to reach a joint agreement or formulate a more inclusive approach to determining the beginning of the month in the Hijriyah calendar in Indonesia.



Literature Review

This research involved an exploration of the literature on conflicts that arise in the determination of the beginning of the month, particularly about Islamic holidays in Indonesia. This research opens the door to a multidimensional study encompassing aspects of technical, social, and religious identity. One focal point is the dispute between the traditional method of Rukyatul Hilal, which relies on direct observation of the moon, and the modern approach of Hisab Hakiki Wujudul Hilal, which uses mathematical calculations and the astronomical position of the moon. In this chapter, we will explore the technical aspects of this dispute. Scientific research discussing the Rukyatul Hilal and Hisab Hakiki Wujudul Hilal methods will be outlined to gain a deeper understanding of the advantages and disadvantages of each method.

This article discusses the increasingly frequent differences between the new Imkan ar-Rukyat and Wujudul Hilal criteria. Furthermore, if the new MABIMS Imkan ar-Rukyat criteria are applied in Indonesia, the potential for unity at the beginning of the Hijri month in Indonesia will be reduced (Aini, 2022). Differences in the determination of the beginning of Ramadan and Eid al-Fitr occur between mass organisations and the government (in this case, the Ministry of Religious Affairs). The question arises: Who can determine the beginning of Ramadan and Eid in Indonesia? Whatever method of determination is used, whether through Rukyat Al-hilal, Hisab, or a combination of both, it is clear that the difference of opinion hurts society (Sulfinadia, 2014). The wujudūl hilāl theory, according to Wardan, is still used today, especially among Muhammadiyah members. However, it should be noted that Wardan's thinking has not been able to perfectly answer the problem of the National Hijri Calendar, which is to determine the West and East points of a region or country to start or end the month of Ramadan (Azhari, 2008). The determination of the beginning of the Qamariyyah month occupies an essential position for Muslims. In addition to determining Islamic holidays, it is also used to determine the beginning and end of Ramadan and Dhulhijjah because this issue involves shari'i worship. The concept of Falak Science in determining the beginning of Ramadan, Shawwal, and Dhulhijjah has several methods that have become a scientific discipline, namely Falak Science (Arifin, 2019).

Methods

This article combines the literature study methodology with certain types of qualitative methods. A literature study observation combined with a literature review is the data collection method used in this research (Creswell, 2015). A literature analysis researcher summarises and evaluates the body of knowledge, indicates knowledge gaps, and offers relevant frameworks for further investigation. Verses of the Qur'an and Hadith relating to the Rukyatul Hilal and Hisab Hakiki Wujudul Hilal techniques for identifying Islamic holidays in Indonesia became the primary data sources in this study. Tafsir literature, reports, and scientific publications are secondary data sources in this research. Tafsir and content analysis techniques will be used to analyse the data results. The Tafsir Tahlili method, which collects verses according to the theme of the discussion, is the tafsir analysis used in this article (Yahya et al., 2022).

Result

Astronomical Evidence for Rukyatul Hilal and Hisab Hakiki

Astronomical observations in the context of Rukyatul Hilal and Hisab Hakiki are essential in determining the beginning of the Islamic calendar's Hijri month. Rukyatul Hilal refers to the observation of the Hilal, which indicates the beginning of a new month in the Islamic calendar. Astronomical evidence for Rukyatul Hilal is found in the Prophet Muhammad's traditions, which guide Muslims to witness the Hilal as a sign of the start of the new month. This



observation directly links the calculation of time with natural phenomena, emphasising the importance of the involvement of human observers in determining the beginning of the Hijri month.

On the other hand, Hisab Hakiki refers to mathematical calculations based on celestial bodies' movement, especially the moon's movement. The astronomical basis of Hisab Hakiki can be found in a detailed understanding of the moon's circulation, its relative position to the stars, and the moon's phase cycle. Hisab Hakiki uses astronomical knowledge to calculate the moon's position at any given time, which allows mathematical calculations to determine the beginning of a new month. Although scholars debate the preference between Rukyatul Hilal and Hisab Hakiki, both have a solid basis of astronomical evidence and are integral to accurately determining the Hijri calendar.

The discussion of the astronomical evidence that influences the determination of Islamic holidays is based on several verses of the Qur'an. The first is Q.S. al-Rahman verse 5, which reads that the moon and sun circulate according to calculation. Both celestial bodies are very beneficial for life on Earth, humans, animals, and plants. Without the sun and moon, life on Earth would be chaotic (Al-Razi, 2012). Then Q.S. Yunus verse 5 which reads:

"It is He who makes the sun and the moon shine. He fixed the places of their revolutions so you may know the number of years and the reckoning (of time). Allah has not created them except by right. He explains the signs (of His greatness) to those who know." (Q.S. Yunus verse 5).

Allah created the sun to shine and the moon to shine. Adh-dhiya', or the sun's light, comes from the core of something, while An-Nur, or the moon's light, is the result of an event that does not come from the core of an object. Moonlight itself is obtained from sunlight. The moon has about 28 places of rotation, and from the moon's movement, we can calculate the turn of the month and year. Allah created the heavens, the Earth and everything in them with wisdom and truth; nothing is in vain. In explaining His verses, there are clues to His oneness and power for those who ponder and pay attention with full Tadabbur (Az-Zuhaili, 2018).

Both Rukyatul Hilal's and Hisab Hakiki's methods have the same position, which is valid. Although there are differences between the two, it can be understood that both have clear evidence and legal basis so that their validity cannot be denied. In a hadith, the Prophet Muhammad SAW said:

"From Muhammad bin Abi Harmalah from Kuraib, that Ummul Fadhl bint al-Harith sent Kuraib to Muawiyah in Sham. Kuraib said: I arrived in Levant and fulfilled Ummul Fadhl's request, and I saw the month of Ramadan while I was still in Levant. I saw the moon on the night of Friday. Then, I arrived in Madinah at the end of Ramadan. Abdullah bin Abbas asked me, and I mentioned the moon. He said, "When did you see the moon?" I replied, "Friday night". Moreover, he asked again: "Did you see it yourself?". I replied: "Yes, and the people also saw it, then they fasted, so did Muawiyah". He said: "But we saw the moon on Saturday night, so we kept fasting until we completed 30 days or saw the moon". I asked: "Is it not enough for you to follow Muawiyah's Rukyat and fast?" He replied: "No, this is what the Messenger of Allah (pbuh) told us" (Baqi, 2017).

The above hadith clearly shows that the Rukyatul Hilal method has been used since the time of the Prophet, and flourished during the Abbasid dynasty (749 CE). The hadith (Abu Dawud, No. 2332 & Tirmidzi, No. 689) explains that after Kuraib returned to Madinah, he spoke with Abdullah bin Abbas, who asked when Kuraib saw the Hilal. Kuraib explained that he saw the moon on Friday night, and people in the Levant, including Muawiyah, also saw it, so they started fasting Ramadan. However, Abdullah bin Abbas and the people of Medina saw the moon on Saturday night, so they continued fasting until they had completed 30 days or seen the moon.



Rukyatul Hilal, in the Indonesian context, is generally more prominent and comes to public attention only at the beginning of Ramadan, as this moment is related explicitly to determining the beginning of fasting. This may be due to the high awareness among Muslims of the importance of ensuring the correct start of Ramadan to begin fasting. Meanwhile, for other Islamic holidays such as Eid al-Fitr and Eid al-Adha, the date is less of a focus, as it is more about the celebration and slaughtering of sacrificial animals such Qurban. Qurban is a form of Muslim sacrifice and obedience to Allah, which commemorates the story of Prophet Ibrahim and Isma'il, and emphasises the value of social care through the distribution of sacrificial meat to the needy. The rationale for Rukyatul Hilal may be the emphasis on determining the beginning of Ramadan and the beginning of Shawwal. In a hadith, the Prophet Muhammad said:

"If you see it (the hilal of Ramadan), then fast, and if you see it (the hilal of Shawwal), then break the fast. But if it is cloudy (covered by clouds), then estimate it (to be 30 days)" (Bukhārī & Sharīf, 2003).

At this level, the author only examines figh at the level of rules without further deepening. This is because the figh view on using tools in Rukyatul Hilal is an obstacle to developing Rukyat methods with technology (Mustaqim, 2019). In other figh rules, it can be understood that if Rukyatul Hilal cannot be used in certain conditions, then Hisab Hakiki Wujudul Hilal can be used. And vice versa. In the Indonesian context, Muhammadiyah often uses Hisab Hakiki Wujudul Hilal. The argument that underlies Muhammadiyah using Hisab Hakiki Wujudul Hilal is the word of Allah Q.S. Yasin verses 39-40, which reads:

"And We have fixed the place of circulation of the moon, so that (when it reaches the place of its last circulation) it returns like an old bunch. The sun cannot catch up with the moon, nor can the night precede the day. Each circulates on its axis". (Kementerian Agama Republik Indonesia, 2022).

The above two verses, if taken, can be considered science-based verses, and although some Mufassirs have discussed them briefly, scholars debate their scientific interpretation. Some scholars shun scientific interpretations with the argument that the Qur'ān is not a science book but a text that aims to guide humanity (hudan li al-nas) in matters of tawhid and moral values. The phrase al-Manazil, according to the Mufassir, is repeated many times in astronomical studies. Its changes and derivations are Syaratan, Butayn, Tsurya, Dabaran, Haq'ah, Han'ah, Dzira', Tsanrah, Tarf, Jabhah, Kharatan, Sarfah, 'Awwa', Samak, Ghafr, Zubanayan, Iklil, Qalb, Syawlah, Na'a'im, Baldah, Sa'd al-Zabh, Sa'd Bula', Sa'd Su'ud, Sa'd al-Akhbiyah, Farghr al-Mutaqaddam, Farghr al-Mu'akhkhar, and Batn al-Haut (Al-Zamakhshari, 1995; Qurtubi, 2002). The astronomical verse above describes the perfection of the moon's round shape, then shrinks back into a thin, curved, and yellowish-coloured date because of its old age and dryness (Al-Qarni, 2008).

The above verse indicates that we also set certain distances as the path of movement of the moon so that at any time, the distance changes (Baydawi, 2010). At first, the appearance of the moon appears small with dim light, turns into a crescent moon with bright light, metamorphoses into a full moon, and then slowly shrinks and returns to its original shape. This condition is a provision of sunatullah that He has determined (Kementerian Agama Republik Indonesia, 2016). Finally, careful human enquiry proves what this verse means: that the sun travels in its fixed place of circulation. That is, the sun circulates itself. The progress of the investigation shows that the sun also rotates or walks, walking steadily towards one direction only, never turning with a speed that, according to the calculations of the falak experts, is 12 miles per second (Hamka, 2012).

Meanwhile, according to another view, Mustaqarril Laha can be interpreted as the final limit of its journey on the Day of Judgment when its journey stops, and the moon is no longer moving,



even rolling and extinguished (Al-Thabary, 2000). Thus, the universe reaches its maximum age (Katsir, 2018). Therefore, this holy verse corroborates the latest scientific discovery made at the beginning of this century: the sun always moves on its circular line. This explains that the sun cannot precede the moon, as both circulate in a linear motion that is impossible to meet (Thabathaba'i, 1991). Likewise, the night cannot precede the day unless the earth rotates on its axis from east to west, which is the opposite of the proper direction from west to east (Shihab, 2015).

Every entity, whether the sun, moon or stars, has a path of movement that runs on its circular line. The use of the word "Kullun" instead of "Mudhaf Ilaih" emphasises that every celestial body is a sentient being, and this context is presented with the phrase "Yasbahuuna" (Al-Mahalli & As-Suyuthi, 2015). Taken together, the astronomical evidence of Rukyatul Hilal and Hisab Hakiki is a strong foundation for determining the Islamic calendar's beginning of the Hijri month. Rukyatul Hilal, which refers to the observation of the new moon, is recognised through the Prophet Muhammad's traditions that teach Muslims to directly witness the Hilal to mark the beginning of the new month. Meanwhile, Hisab Hakiki uses mathematical calculations based on astronomical knowledge to determine the moon's position at any given time. Although scholars debate the preference between Rukyatul Hilal and Hisab Hakiki, both play an essential role in determining the beginning of the Hijri month. In this context, harmonisation between the tradition of direct observation and scientific knowledge results in a holistic approach to upholding an accurate Islamic calendar by religious teachings.

Rukyatul Hilal and Hisab Hakiki Wujudul Hilal: Methods and Controversies

In determining the date of the beginning of the Hijri month, Muslims often face debates and differences of opinion regarding the methods used, especially between Rukyatul Hilal and Hisab Hakiki Wujudul Hilal. Rukyatul Hilal, or direct observation of the crescent moon, is a traditional method that directly observes the moon after sunset. This process allows for a spiritual experience and direct involvement of the Muslim community in determining the start of the new month. The dispute between Rukyatul Hilal and Hisab Hakiki Wujudul Hilal reflects the differences in scientific and traditional approaches in determining the start date of the Hijri month and the diversity of Muslims' interpretations and understanding of religious obligations. Within this framework, research on using Rukyatul Hilal and Hisab Hakiki Wujudul Hilal in Indonesia becomes increasingly essential, as it encompasses spiritual, scientific and practical considerations involving the entire Muslim community in Indonesia. At this level, the author will outline some of the apparent differences between the two through

Table 1 below:

No	Category	Difference		
		Rukyatul Hilal	Hisab Hakiki	
1	Methods	Rukyatul Hilal uses direct observation of the crescent moon after sunset. Moon watchers, often scholars or people who are	Hisab Hakiki Wujudul Hilal uses mathematical calculations and the astronomical positions of the moon, sun, and earth to determine Wujudul	
2	Legal Basis	competent in this field, look for the hilal in the sky at night after sunset. This method has a legal basis in	Hilal (the position of the crescent moon) at a certain time. Although it has no explicit legal	
	· ·	Islamic tradition, and several verses of the Qur'an and hadith mention the importance of moon observation to determine the beginning of the Hijri month.	basis in Islamic tradition, this method is considered more scientific and predictable. Hisab Hakiki Wujudul Hilal is based on the calculation of the angle of elongation and the height of the Hilal.	
3	Calculation Criteria	Moon watchers look for the hilal in the sky at night after sunset. The observation criteria involve the	This method considers astronomical parameters to determine Wujudul Hilal, which is when the crescent	



		height of the moon above the horizon, the angle of elongation	moon appears in the sky after
		, 3	sunset. The angle of elongation and
		(angular distance between the sun	the height of the hilal are the main
		and the moon), and the likelihood of	criteria in this calculation.
		clarity of Wujudul Hilal.	
4	Pros	Rukyatul Hilal is considered more	This method is considered more
		traditional and provides direct	stable and can minimise the
		involvement of the Muslim	uncertainties that may occur in
		community.	direct lunar observations.
5	Controversy	Observation results can be affected	Some communities consider it to
J	Controversy		lack traditional values and direct
		.,	
		geographical location.	involvement of Muslims in
			determining the beginning of the
			month.

Table 1. Differences between Rukyatul Hilal and Hisab Hakiki Source: Data processed by the author, 2023

1. Rukyatul Hilal

The determination of Islamic holidays uses the Rukyatul Hilal method, which observes the Hilal in the sky after sunset. Pre-observation preparations include ensuring that the observation is made at night after sunset, identifying the geographical position, and ensuring clear weather without heavy clouds. Rukyatul Hilal criteria are set, including a minimum moon elongation angle of about 7 to 9 degrees; the Moon is above the horizon with sufficient height and can be seen without the aid of optical instruments (Reskiani & Subhan, 2022). This method relies on a trained observer's actual visual sighting of the Hilal. According to this approach, the sighting must be confirmed by a reliable witness who has seen the crescent Moon with the naked eye. This method is based on the tradition of the Prophet Muhammad, who ordered Muslims to start and end fasting based on the sighting of the Hilal (Nurjanah & Adnan, 2021).

Furthermore, hilal observation is carried out by positioning oneself where it is possible to see the western horizon after sunset (Nadhifah, 2020). Determination of the beginning of the new month is done by collecting reports from various observers in various regions. If the criteria are met, then the start date of the new month will be announced. It is important to note that the Rukyatul Hilal method brings variations in the Islamic lunar calendar in different regions and relies on direct observation by local observers. This method is integral to the Hijri calendar and the determination of Islamic holidays such as Eid al-Fitr or Eid al-Adha.

2. Hisab Hakiki

Determination of Islamic holidays using the Hisab Hakiki method (mathematical calculation) and Wujudul Hilal (astronomical position of the Hilal) is an alternative to determining the beginning of the month in the Hijri calendar, including Islamic holidays such as Eid al-Fitr and Eid al-Adha. This method does not rely on direct observation of the Moon like the Rukyatul Hilal method. Hisab Hakiki experts use mathematical calculations to determine the astronomical positions of the Moon, sun and earth, including the angle of elongation and the height of the Hilal for a particular geographical location. Wujudul Hilal, which refers to the astronomical position of the crescent Moon at sunset, is sought by calculating the hilal height and angle of elongation (Rasyidin & Ismail, 2019).

Hisab Hakiki and Wujudul Hilal can produce predetermined dates in the Hijri calendar that are more stable and predictable than the Rukyatul Hilal method (Alimuddin, 2020). Nonetheless, these different approaches can be found in different regions and Muslim communities, which may favour Hisab Hakiki and Rukyatul Hilal according to local religious views and authorities. Meanwhile, Hisab Science today has reached a high level of accuracy, which allows the measurement of the Moon's altitude down to the second. Yusuf Qaradhawi confirmed Hisab's certainty in his book. At the same time, using Rukyat tends to be less accurate because it can be affected by weather conditions, optical devices, and human limitations (Mufid, 2020). Muhammadiyah, in determining the beginning of the Kamariah month, does not adopt the



Hisab Urfi method and relies on calculations based on the average circulation of the Moon and Earth.

Muhammadiyah Indonesia determines the month's age as fixed, which is 30 days for odd months and 29 days for even months, except for the month of Zulhijah in leap years, which is 30 days. Not all Hisab Hakiki methods require the Moon to be above the horizon at sunset, and the horizon determines whether a new Moon has appeared. If the Moon is already above the horizon at sunset, then it marks the beginning of the new lunar month; conversely, if the Moon is still below the horizon, then that night and the next day are still considered days of the previous lunar month (Muhammadiyah, 2021); Meanwhile, Rukyatul Hilal, as a traditional method, emphasises direct observation of the Hilal after sunset. The process involves community participation, especially scholars and moon watchers, which creates a moment of togetherness and illustrates spiritual and cultural values (Rudianto et al., 2021).

The main difference between the two has led to controversy in determining the start date of the Hijri month. While some consider Rukyatul Hilal to be a more traditional approach and involve the community directly, Hisab Hakiki Wujudul Hilal is considered a more reliable scientific method. This method is less influenced by weather factors or geographical location. This controversy reflects the dynamics within the Muslim community, where various views and interpretations have emerged regarding the most accurate and legitimate way to determine Islamic holidays (Tania, 2016).

Understanding these differences and controversies is crucial to achieving consensus and shared understanding within the Muslim community and it supports the notion of unity in the faith and this promotes desired harmony in Muslim society. Despite the different approaches, the end goal remains the same: accurately determining the beginning of the Hijri month so that Islamic holidays can be celebrated together. To imbibe spiritual values and direct involvement in society and achieve unity in religious celebrations, in-depth study and open dialogue on these determination methods have become increasingly important for Muslims in different parts of the world. The dispute between these two methods arises from differences in the interpretation of Islamic teachings and the role of scientific progress in determining religious practices. Some argue that relying solely on visual sightings is in keeping with the Prophet Muhammad tradition and preserves the Islamic calendar's spiritual aspect. Others believe astronomical calculations are more accurate and consistent, especially when challenging visibility conditions.

Decree of the Indonesian Ulema Council on the Method of Determining Islamic Holidays

In Indonesia, the government has established the Indonesian Ulema Council (MUI) to handle religious issues, including determining Islamic holidays. The MUI is authorised to make final decisions based on the recommendations of the MUI Fatwa Commission (Ode et al., 2023; Hardiyanto et al., 2023), which considers both the Rukyatul Hilal and Hisab Hakiki Wujudul Hilal methods. It is important to note that these disputes do not only occur in Indonesia but also other Muslim-majority countries. This discussion aims to balance religious tradition and scientific advancement, ensuring that Islamic holidays are observed accurately and consistently. In connection with this, the Indonesian Ulema Council issued a circular letter containing (Majelis Ulama Indonesia, 2004):

1. Considerations: Firstly, due to differences in dates, Indonesian Muslims often experience difficulties performing the Ramadan fast, Eid al-Fitr prayers, Eid al-Adha prayers, and other worship services related to these three months. Secondly, events such as those mentioned in the first point can harm the sviar and da'wah of Islam. Thirdly, in response to this, on 22 Syawwal 1424 H/16 December 2003 M, the Ijtima' Ulama of the Fatwa Commission throughout Indonesia issued a fatwa on the determination of the beginning of the months of Ramadan, Syawwal, and Dhulhijjah.



- Fourthly, the Indonesian Ulema Council deems it necessary to issue a fatwa on the determination of the beginning of the months of Ramadan, Shawwal and Dhul Hijjah as a guideline for Muslims.
- 2. Stipulate: First, the Government of the Republic of Indonesia, represented by the Minister of Religious Affairs, shall determine the beginning of the months of Ramadan, Shawwal and Dhul Hijjah in Indonesia using the Ru'yah and Hisab methods and shall apply nationally. Secondly, all Muslims in Indonesia must obey the Government of the Republic of Indonesia in determining the beginning of Ramadan, Shawwal, and Dhul Hijjah. Thirdly, in determining the beginning of these months, the Minister of Religious Affairs must consult with the Indonesian Ulema Council, Islamic mass organisations, and other relevant organisations. Fourth, the Minister of Religious Affairs of the Republic of Indonesia may use the results of Rukyat from areas that are possible to be Rukyat outside the territory of Indonesia with the same Mathla' as a guideline.

MUI's 2004 fatwa has determined two things. First, Shawwal and Dhul Hijjah's method of determining the beginning of Ramadan combines Hisab and Rukyat, known as imkanurRukyat (Majelis Ulama Indonesia, 2004) https://muhammadiyah.or.id/hisab-hakiki-wujudul-hilal-apadan-bagaimana/. Secondly, the government has the right to determine the beginning of Ramadan based on the views of the scholars. So, these two methods are currently used to determine the beginning of Ramadan through the Itsbat session. A method that can combine all of them will continue to be sought, given that there are still unresolved differences (Kementerian Agama Republik Indonesia, 2016).

The Indonesian Ulema Council's fatwa on Islamic holidays is essential in guiding Indonesian Muslims in ascertaining the beginning of critical months such as Ramadan, Shawwal and Dhul Hijjah. By referring to MUI Fatwa No. 2/2004, which combines the Hisab and Rukyat methods, this edict emphasises the importance of a balanced approach between mathematical calculations and direct observation of the Hilal. This method is a valid guideline and recognises the diversity of views in society. Through this declaration, the Indonesian Ulema Council seeks to create a joint agreement that respects differences in determining the beginning of the Kamariah month. MUI Fatwa No. 2/2004 provides a strong foundation for integrating Hisab and Rukyat, thus creating a meeting point that maintains the values of diversity and supports the harmony of Muslims in carrying out worship related to the beginning of the Islamic month. Thus, this declaration is not only a recognition of the method of determination but also a concrete step to realise harmony and unity in celebrating Islamic holidays.

Discussion

In the context of Islamic holidays in Indonesia, the debate between the Rukyatul Hilal and Hisab Hakiki Wujudul Hilal methods has become a highly controversial issue. This controversy reflects technical differences in determining the beginning of the month and deeper divisions among Indonesian Muslims. This controversy creates sharp dynamics in the understanding and implementation of worship, especially regarding the determination of holidays such as Eid al-Fitr and Eid al-Adha. The battle between Rukyatul Hilal, which relies on direct observation of the crescent moon, and Hisab Hakiki Wujudul Hilal, which uses mathematical calculations and the astronomical position of the crescent moon, creates prolonged uncertainty. This problem is technical and has significant social impacts on religious identity among Indonesian Muslims (Zufriani, 2016). Some favour Rukyatul Hilal as a tribute to tradition and visual observation closer to Islamic principles, while others see Hisab Hakiki Wujudul Hilal as a more scientific and reliable approach.

This disagreement in the determination of Hari Raya creates instability and internal conflict within the Indonesian Muslim community caused by the uncertainty of time. This difference makes it difficult for the government to organise worship schedules and social activities, as well as dealing with differences of opinion that can cause tension in society. Therefore, the



debate between Rukyatul Hilal and Hisab Hakiki Wujudul Hilal is not just a technical issue but reflects the complex dynamics of maintaining religious identity and diverse values amidst Indonesia's pluralistic society. The effort to find an understanding was realised in the Jakarta recommendations of 2017, which offered argumentative proposals. Analysis of 180 years of Hisab data in Banda Aceh and Pelabuhan Ratu shows that an elongation of 6.4 degrees requires the moon to be above the horizon at Maghrib (Kementerian Agama Republik Indonesia, 2016). The graph shows that at an elongation of 6.4 degrees, the moon's position is always favourable, while at an elongation of less than 6.4 degrees, the moon is still below the horizon or has a negative altitude. The global Rukyat data shows that there is no astronomically reliable hilal testimony with a moon-sun height difference of less than 4 degrees. With a sun altitude of -50', a moon-sun height difference of 4 degrees is identical to a moon height of 3 degrees 10'.

The fiqh proofs support the Hisab and Rukyat schools of thought. However, problems arise when adherents of the Rukyat method need help to accept Hisab as a substitute and vice versa. Muhammadiyah and Persis, for example, have alternating criteria, showing that ijtihad continues to evolve in the understanding of Hilal. Nahdlatul Ulama also performs ijtihad by allowing Hisab to control Rukyat results that may be fooled by bright objects that are not hilal. This shows an opportunity for a meeting point between the Hisab and the Rukyat methods by finding new criteria that apply to both in accordance with Sharia and astronomical scientific principles. Although there is no clear evidence in the Qur'an and hadith about quantitative criteria, the debate about the evidence becomes a standard search to find methods that respect and complement each other. Hisab and Rukyat, as essential elements in Islamic worship, can be integrated to test the correctness of Hisab and make corrections, opening up opportunities to integrate Hisab and Rukyat systems and overcome tensions between supporters of both (Balitbang Diklat Kementerian Agama Republik Indonesia, 2022).

The diversity of perspectives between those who support Rukyatul Hilal, which emphasises tradition and spirituality, and those who support Hisab Hakiki Wujudul Hilal, which embraces both scientific and modern approaches, creates a foundation for a new understanding in interpreting religious teachings in the contemporary context. This novelty lies in the ability of the Indonesian Muslim community to blend tradition with progress, demonstrating flexibility and evolution that not only reflects changes in religious practice but also shapes the inclusive and adaptive face of Islam in Indonesia.

Conclusion

The above explanation shows that the dispute between the Rukyatul Hilal and Hisab Hakiki Wujudul Hilal methods in determining the beginning of the month of Islamic holidays in Indonesia creates deep tensions among Muslims. This controversy reflects technical differences in timing approaches and creates significant social divisions and religious identities. The battle between the traditional Rukyatul Hilal approach, which relies on direct observation of the crescent moon, and the modern Hisab Hakiki Wujudul Hilal approach, which uses mathematical calculations and the astronomical position of the moon, creates persistent uncertainty and results in instability and internal conflict among Muslims in Indonesia. Finding a middle ground that respects traditional values while integrating science and technology is necessary to create a shared understanding and promote unity in celebrating Islamic holidays in Indonesia in a spirit of harmony.

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