

## Dynamics of Islamic Legal Ijtihad Toward the Unification of the Global Hijri Calendar

**Taufiqurrahman Kurniawan\***

State Islamic Institute of Kudus, Indonesia

**Lutfiyatun Nikmah**

State Islamic Institute of Kudus, Indonesia

\*Corresponding Author's Email: [taufiqtwin@gmail.com](mailto:taufiqtwin@gmail.com)

Article	Abstract
<p><b>How to cite:</b>  Taufiqurrahman  Kurniawan &amp; Lutfiyatun  Nikmah, 'Dynamics of  Islamic Legal Ijtihad  Toward the Unification  of the Global Hijri  Calendar '(2024) Vol. 5  No. 2 Rechtenstudent  Journal, Sharia Faculty of  KH Achmad Siddiq  Jember State Islamic  University.  <b>DOI:</b>  10.35719/rch.v5i2.416</p> <p><b>Article History:</b>  Submitted: 21/06/2024  Reviewed: 29/06/2024  Revised: 10/07/2024  Accepted: 23/07/2024</p> <p><b>ISSN:</b>  2723-0406 (printed)  <b>E-ISSN:</b>  2775-5304 (online)</p>	<p>Efforts to realize a globally applicable calendar to unite Muslims in the world have been carried out for a long time. This is done so that there is no longer a difference for Muslims in starting the beginning of the month, thus minimizing conflicts that occur among Muslims. The idea of these efforts not only reaches unification locally, but also internationally. One example of efforts to realize the global Islamic calendar is two calendar system concepts, namely the local hijri calendar with a single global hijri calendar. In this regard, Muslims differ in their views in response to the idea of the concept of unification. using theoretical studies from library research materials including astronomical theories and the results of the thoughts of astronomers or Falak, the decision of the world isbath trial. From the results of this study, it can be concluded that efforts to realize an established Islamic calendar and unite the ummah. The new Indonesian Hisab Rukyat criteria need to be proposed based on Indonesian rukyat data supported by international astronomical criteria based on consideration of the main confounding factors, namely the contrast of light around the sun and twilight light above the horizon. The unification of the Single Global Hijri calendar is needed with significance for reasons including, uniting the world community in the form of an Islamic calendar in terms of the schedule of worship times, so as to realize harmony with one another even in different containers and countries.</p> <p><b>Keywords:</b> <i>Local Hijri Calendar, Single Global Hijri Calendar, Comparative Study.</i></p> <p><b>Abstrak</b>  Upaya mewujudkan kalender yang berlaku secara global untuk mempersatukan umat Islam di dunia telah dilakukan sejak lama. Hal ini dilakukan agar tidak ada lagi perbedaan bagi umat Islam dalam menentukan awal bulan, sehingga meminimalkan konflik yang terjadi di antara umat Islam. Gagasan dari upaya ini tidak hanya mencapai persatuan secara lokal, tetapi juga internasional. Salah satu contoh upaya mewujudkan kalender Islam global adalah konsep dua sistem kalender, yaitu kalender Hijriah lokal dengan kalender Hijriah global tunggal. Dalam hal ini, umat Islam berbeda pendapat dalam menanggapi gagasan konsep persatuan tersebut. Dengan menggunakan studi teoritis dari bahan penelitian pustaka termasuk teori astronomi dan hasil pemikiran para astronom atau Falak, keputusan pengadilan dunia isbath. Dari hasil penelitian ini, dapat disimpulkan bahwa upaya untuk mewujudkan kalender Islam yang mapan dan mempersatukan umat Islam. Kriteria Rukyat Hisab Indonesia yang baru perlu diusulkan berdasarkan data rukyat Indonesia yang didukung oleh kriteria astronomi internasional berdasarkan pertimbangan faktor-faktor pengganggu utama, yaitu kontras cahaya di sekitar matahari dan cahaya senja di atas cakrawala. Penyatuan Kalender Hijriah Global Tunggal diperlukan dengan signifikansi karena alasan antara lain, menyatukan komunitas dunia dalam bentuk kalender Islam dalam hal jadwal waktu ibadah,</p>

sehingga mewujudkan harmoni satu sama lain bahkan dalam wadah dan negara yang berbeda.

**Kata kunci:** *Kalender Hijriah Lokal, Kalender Hijriah Global Tunggal, Studi Banding*

## Introduction

The determination of the beginning of the month of Kamariah, especially in determining the beginning of Ramadan, Shawwal and Zulhijah, arose a problem that quite a lot of controversy from practitioners of Falak Science and leaders of community organizations. In fact, not a few make this issue a matter of discussion and raised into an interesting issue to be used as a tool for dividing the people.

This issue heated up when a case arose about the determination of Eid al-Adha, that there was a difference in Eid al-Adha 1425 H between Indonesia and Saudi Arabia ago. Based on historical records such events have occurred, for example in 1973 and 1975. According to the decision of the Ministry of Religious Affairs of the Republic of Indonesia, Eid al-Adha 1395 fell on Saturday, December 13, 1975 A.D. This decision was based on the results of hisab supported by reports of ru'yatul-hilāl results. Suddenly on Monday, December 8, 1975, the Saudi Arabian Embassy in Jakarta broadcast news in newspapers in Jakarta, that the wukuf that year fell on Thursday, December 11, 1975, so that naturally people in Makkah had a holiday on Friday December 12, 1975.<sup>1</sup>

Similarly, on Eid al-Adha 1425 H, based on the calculations of hisab experts and ru'yatul-hilāl reports on 1 Zul-Hijjah 1425 H fell on Wednesday, January 12, 2005 A.D. The Ministry of Religious Affairs of the Republic of Indonesia determined Eid al-Adha 1425 H to fall on Friday to coincide with January 21, 2005 A.D. This determination was then stated in the Decree of the Minister of Religious Affairs Number 15 of 2005 dated January 12, 2005 in Jakarta. The Decree of the Minister of Religious Affairs is the same as the Muhammadiyah Calendar, the Calendar of Ummul Qurra' Makkah Al-Mukarramah, and the Decree of the Supreme Qadla Council of Saudi Arabia.

The decision of the Qadla Assembly was rectified on Friday 14 January 2005 by stating that wukuf in Arafat falls on Wednesday coinciding with January 19, 2005 and Eid al-Adha falls on Thursday coinciding with January 20, 2005 A.D. The Qadla Assembly reasoned that on Friday night the 3rd of Zul-Hijjah 1425 H (January 15, 2005), there came some eyewitnesses who saw the moon or hilal on the night of Tuesday, i.e. from as-Sih to the east of ar-Rain region.<sup>2</sup>

Because of that, two kinds of responses arose about the determination of Eid al-Adha 1425 H in Indonesia. First, the group that brought Eid al-Adha fell on Thursday, because it had received definite information that wukuf fell on a Wednesday, not Thursday as originally thought. Second, the group that defended the original decision, namely Eid al-Adha 1425 H fell on Friday 21 January 2005, because it used wilayatul-hukmi and not global matlak.<sup>3</sup>

In this case, what is interesting to note is the attitude of the PKS (Prosperous Justice Party) which is based on the wukuf event set by the Government of Saudi Arabia and the results of the Turkish Congress which established Makkah as the standard for determining the

<sup>1</sup> Susiknan Azhari, "Mengkaji Ulang Cara Penetapan Idul Adha 1425 H," *Suara Muhammadiyah*, No. 05, year of 90, Bulan Maret, (2005), 19

<sup>2</sup> *Ibid.*

<sup>3</sup> *Ibid.*

day of Eid al-Adha throughout the world. This attitude is stated in the Decree of the PKS Sharia Council numbered 03/B/K/DSP-PKS/XII/1425 signed by Salim Segaf Al-Jufri.<sup>4</sup>

The above case also arises among Hizb ut-Tahrir, which understands the text of the Prophet's hadith about the commandment of fasting Ramadan. They argue that the hadith implies that the sight of Ramadan or Shawwal by a Muslim wherever he is, obliges all Muslims around the world to fast or break their fast without exception. There is no difference between the country in which the moon is visible and another, between one region and another, or Muslims from one another. This is because anyone among the Muslims who succeeds in performing rukyatul-hilāl is an argument for others who do not see it to fast. The testimony of a Muslim in one country is no more important than the testimony of a Muslim in another.<sup>5</sup>

They also argue that the lines between countries and the barriers of nationalism created by infidels in Muslim countries today are of no value at all to be used as an excuse for differences in starting and ending the month of Ramadan.<sup>6</sup>

Their understanding seems not to accept hisab, not only that but they also understand the text of the hadith is very practical. For example, the phrase "فان غبي عليكم" means if you do not see it with your eyes. Then the Prophet (peace be upon him) said "فاقدروا له", they understood the text does not mean returning to calculation (hisab). But to the Prophet SAW.

A. (رواه مسلم) فاعن غبي عليكم فاكملوا العدد

It means: "If clouds cover you, then perfect the count to thirty days".<sup>7</sup>

They used the hadith above and then made the guidelines for determining the beginning of the month of Kamariah which was used as one of the standards for determining the beginning of the month of Kamariah. Say "rukya global" or in other words *matlak* global as the term that appears today.<sup>8</sup>

However, it should be noted that the above problem arises because there are different days in the implementation of Wukuf in Arafat different from the days in other places or countries. This problem is then added to the problem of the concept of the day, that when is determined or the start of the day. This arose the idea of Ilyas to make the idea of an Islamic global calendar by discovering the theory of the curved line of hilal circulation or the cross line of the lunar date, which was then made by 'Audah, some science calculation *software* in making the Islamic global calendar. So the idea arose for a single global lender unification effort.

This effort is not as easy as turning the palm of the hand, but it is necessary to use the hisab method because all of it goes through the calculation process and the procedure of science. The use of this hisab method is still a contradiction with the scholars who respond to the method. Many scholars still do not accept and even reject the existence of the hisab method. So that the hisab method contradicts a lot because it is considered not in accordance with the hadiths of the Prophet SAW.

It is possible that many interesting things to study and research. Because Muslims are confused in responding to the problem. That cause makes many Muslims break in the

---

<sup>4</sup> *Ibid*, 10.

<sup>5</sup> Abu Fida', "Wajib Serentak Dalam Mengawali Dan Mengakhiri Ramadan," paper presented at the Rukyat and Hisab Seminar on 5 December 1999, Bangil: 1999, 4.

<sup>6</sup> *Ibid*.

<sup>7</sup> Muslim, *Shahih Muslim bi Sārhi An-Nawawi*, (Bairut, Libanon: Dar Al-Fikri, 1983 M/1403 H), Juz II, Jilid IV, 193.

<sup>8</sup> Tim Penyusun Kamus, *Kamus Besar Bahasa Indonesia*, (Jakarta: Balai Pustaka, 1999), 638.

implementation of Ramadan fasting as well as Eid al-Fitr and Eid al-Adha. This is where the author is interested in researching it.

## Research Method

This study also uses a research design study analysis of Islamic legal methodology<sup>9</sup> using the theory of Imam Asyaukani because researchers will elaborate between the facts of legal ijthad not only in the passages of the Quran and Hadith, but with a burhani approach. Namely by looking at the phenomenon of determining the beginning of the month of Kamariah factually to obtain legal results that are in accordance with the climate of society in the modern world or contextually. From this research design related to research studies as the basic material for obtaining accurate data. So researchers use theoretical studies from *library research* materials including astronomical theories and the thoughts of astronomers or Falak, world isbath court decisions, and others. So that later this research will obtain theoretical results and can find new theories. In addition, researchers use the corroboration method, meaning evidence that confirms or *corroborates* existing theories. There are three data needed in this research method, namely first, data on the interpretation of hisab rukyat texts used in determining the beginning of the month of kamariyah. Secondly, it is necessary to need the methods of Islamic law that are concerned, as a tool to be used in parsing these texts. Third, astronomical data related to efforts to establish a global Islamic calendar and a local Islamic calendar.

## Results and Discussion

### Views on Hisab Wunama Hilal and Imkanur Ru'yah

The Indonesian nation has two large organizations that use different hisab methods. Some use the hisab wunama hilal method and some use the hisab imkanur ru'yah method. The difference is that the hilal wutitle method assumes that if the hilal (beginning of the month) already exists, even though it is not visible or visible, then it still fasts the next day. While the imkanur ru'yah method argues that the existence of hilal has not been considered until the hilal can be seen with the naked eye.<sup>10</sup>

The second method above is what our government uses. That method turned out to be closer to the postulate. Because in the postulate it is stated,

وَإِذَا رَأَيْتُمُوهُ فَافْطِرُوا، إِذَا رَأَيْتُمُوهُ فَصُومُوا

From Ibn 'Umar (may Allah be *pleased with him*), he said, "I have heard the Messenger of Allah (*peace and blessings of Allaah be upon him*) say, "If you see hilal, then be happy. If you see it again, then have a holiday." (HR. Bukhari no. 1906 and Muslim no. 1080).

This postulate shows that the moon must be visible and not merely present to signify the beginning of fasting. If the hilal is present but not visible, then it is not fasting the next day.

Regarding the criteria for the hilal title method, there are three as follows:<sup>11</sup>

1. There has been ijtimak (conjunction),

<sup>9</sup> Mohammad Nasir, *Metode Penelitian*, Jakarta: Gaka Indonesia, 1988.

<sup>10</sup> Ismail Koto, et.al, "Islamic Holy Days: The Contention of Rukyatul Hillal and Hisab Hakiki Wujudul Hilal Disputes for Muslims in Indonesia" *Pharos Journal of Theology*, 105(2), 2024. <https://doi.org/10.46222/pharosjot.105.210>

<sup>11</sup> Najmi, "'Urfi Hisāb Position in Determination of Beginning of Month of Qamāriyah in Province Jambi" *Journal of Comprehensive Islamic Studies*, 2(2), 2023. DOI: <https://doi.org/10.56436/jocis.v2i2.199>.

2. Ijtimak (conjunction) it occurs before sunset, and
3. At sunset the upper disk of the Moon is above the horizon (the new moon has come into being).

These three criteria of use are cumulative, all three must be met at once. If one is not met, then the new month has not yet begun. "If after ijtimak, the moon sets after sunset then that night is designated as the beginning of the Hijri month regardless of the angle of the height of the moon at sunset."

From this method, if the position of the moon (new moon) at sunset is above the horizon, regardless of height, as long as it is greater than ZERO degrees, then it is considered to enter the new moon.

#### **T. Djamaluddin argues about the hilal wutitle method:**

The difference between Eid al-Fitr and Eid al-Adha often occurs in Indonesia. The main cause is not the difference in hisab (calculation) and rukyat (observation) methods, but in the difference in criteria. If you want to be more specific about the root of the problem, the main source of the problem is Muhammadiyah which is still adamant in using the hilal wunama hisab.<sup>12</sup> If the position of the moon is positive above the horizon, but the altitude is still around the limit of the hilal visibility criteria (imkan rukyat, the limit of possibility to be observed) or lower, it can be ascertained that there is a difference. The last difference we experienced was on Eid al-Fitr 1327 H/2006 AD and 1428 H/2007 H and Eid al-Adha 1431/2010. Eid al-Fitr 1432/2011 this year is also almost certain to make a difference. If the criteria of Muhammadiyah are not changed, it is certain that the beginning of Ramadan 1433/2012, 1434/2013, and 1435/2014 will also be different.<sup>13</sup> The community was confused, but only presented with a temporary solution, "let's respect each other". Is there a permanent solution? There, Muhammadiyah together with Islamic mass organizations must agree to change their criteria.

Why does that difference inevitably occur when the moon is at a very low position, but already positive above the horizon? We take the case of the determination of Eid al-Fitr 1432/2011. At the time of maghrib 29 Ramadan 1432/29 August 2011 the height of the moon throughout Indonesia was only about 2 degrees or less, but it was already positive. Please note, the ability of hisab has been owned by all Islamic mass organizations equally, including NU and Persis, so that such hisab data is already known to the public. With astronomical devices readily available, anyone can now take them. With the position of the moon like that, Muhammadiyah from the beginning has announced Eid al-Fitr to fall on August 30, 2011 because the moon ("hilal") has existed above the horizon during the maghrib August 29, 2011.<sup>14</sup> But another mass organization that practices hisab as well, namely Persis (Islamic Union), announced that Eid al-Fitr falls on August 31, 2011 because it is based on the criterion of imkan rukyat (the possibility of rukyat) which at the time of maghrib August 29, 2011 month is still too low to be able to bring up the observed hilal. NU based on rukyat is still waiting for rukyat results. However, in some previous incidents such as 1427/2006 and 1428/2007, reports of hilal testimony at the time of the moon were very low were often rejected

---

<sup>12</sup> Karis Lusdianto, "The Concept of Maslahah in the Dynamics of Rukyah and Hisab Methods for Determining the Beginning of the Lunar Month" *Istinbath*, 20(1), 2023.

<sup>13</sup> Majelis Tarjih dan Tajdid PP Muhammadiyah, *Argumentasi Hisab Muhammadiyah*, Kumpulan makalah dalam kegiatan *Sarasehan dan Sosialisasi Paham Hisab Muhammadiyah* di Yogyakarta pada tanggal 30 Rajab 1435 H/2014 M.

<sup>14</sup> Abdul Mufid, et.al, "Unification of Global Hijri Calendar In Indonesia: An Effort to Preserve the Maqasid Sunnah of The Prophet (SAW)" *Journal of Islamic Thought and Civilization*, 10(2), 2020. DOI:[10.32350/jitc.102.02](https://doi.org/10.32350/jitc.102.02)

because there could be no rukyat and often observers turned out to be wrong to indicate the direction of the hilal.

In 1437/2016, the International Conference on the Unification of the Islamic Calendar held in Istanbul, Turkey, agreed to adopt a global Islamic calendar based on the principle of one day and one date for the entire world. This decision was positively received and followed by an in-depth study supported by ten years of astronomical calculations, which were then compared with calendar criteria developed in Indonesia and disseminated through extensive socialisation efforts nationwide. As part of this evaluation, on Wednesday, 27 Sha'ban 1443/30 March 2022, the Tarjih and Tajdid Council of the Central Executive of Muhammadiyah convened a hybrid Focus Group Discussion (FGD) titled *Muhammadiyah Hijri Calendar and the Global Hijri Calendar 1444–1450 H* at Ahmad Dahlan University, Yogyakarta, with the primary agenda of reviewing the ten-year hisab results and harmonising perceptions regarding the principles, conditions, and parameters (PSPs) of the Turkish global Islamic calendar. During the meeting, the terms “Single Global Hijri Calendar” and “Integrated Global Hijri Calendar” emerged, and it was agreed that the proposed calendar extension would be submitted to the hisab and Science and Technology Division for further consideration, while simultaneously being presented to the 32nd National Congress of Tarjih in Pekalongan in 1445/2024.<sup>15</sup>

As long as Muhammadiyah is still adamant with its hilal title criteria, we are always haunted by differences in holidays and the beginning of Ramadan. What exactly is the hilal title hisab? Many circles in the internal Muhammadiyah glorify it, as if it is a symbol of the superiority of their hisab that they believe in, especially when compared to the rukyat method. Of course they are fanatical members of Muhammadiyah, but actually do not understand hisab, as if hisab is only with the criteria of hilal wutitle.

According to him, the hilal title only exists in theory, it is impossible to observe. It is said again, that the theory / criterion of hilal wutitle does not have a strong foundation in terms of shari'i and astronomical. In terms of shari'i, the interpretation referring to QS Yasin 39-40 seems forced. From an astronomical point of view, the hilal title criterion is an obsolete criterion that has long been abandoned among falakists.

Please note, the most ancient method of determining the calendar is hisab urfi (only based on periodic, 30 and 29 days repeatedly, which is now used by several small groups in West Sumatra and East Java, whose results are different from modern hisab or rukyat methods). Then developed hisab imkan rukyat (hilal visibility, calculating the probability of hilal being observed), but still using hisab taqribi (approach) whose accuracy is still low. Muhammadiyah also used it at the beginning of its history. Then to avoid the hassle of imkan rukyat, used hisab ijtimak qablal ghurub (conjunction before sunset) and hisab wunama hilal (hilal form above the horizon marked by the moon setting later than the sun). Now the criteria of ijtimak qablal ghurub and wunama hilal are beginning to be abandoned, except by some groups or countries that still lack the involvement of hisabists, such as by Saudi Arabia for its Ummul Quro calendar.<sup>16</sup> Now calendar makers tend to use the rukyat imkan criterion because it can be compared with rukyat results. Imkan rukyat calculations are now very easy to do, helped by the development of astronomical software. Information on imkanur rukyat or hilal visibility is also very easily accessible online on the internet.

---

<sup>15</sup> Syamsul Anwar, ‘Tindak Lanjut Kalender Hijriah Global Turki 2016: Tinjauan Usul Fikih’, *Jurnal Tarjih*, 13(2) 2016, 99–123.

<sup>16</sup> Aslaksen, “The Umm al-Qura Calendar of Saudi Arabia,” <http://www.phys.uu.nl/~vgent/Islam/ummalqura.htm>

Muhammdiyah, who seemed too strict to stay away from rukyat, stuck to cheese mudan (frozen thinking) in science or astronomy regarding the determination of the glandular system. They are quite satisfied with the hilal title, an old criterion that can be considered astronomically obsolete. They turned off the tajdid (renewal) that actually became the name of their think tanks, the Tarjih Council and Tajdid.

According to Muhammadiyah, there is no *ijmā'* (scholarly consensus) that mandates the exclusive use of *rukyaṭ* (moon sighting) to determine the beginning of the Islamic month. This is evidenced by the existence of scholars who permit the use of *ḥisāb* (astronomical calculation), such as Mutarrif ibn 'Abdillah, Ibn Suraij, and al-Subkī, as well as modern scholars including Rashid Riḍā, Muṣṭafā al-Marāghī, Aḥmad Shākīr, Muṣṭafā al-Zarqā', Ṭāhā Jābir al-'Alwānī, Fayṣal Mawlawī, and Sharaf al-Quḍāh. Historically, *ḥisāb* was often associated with astrology and divination; however, contemporary astronomy is a scientific discipline concerned solely with calculating the movements of celestial bodies and bears no relation to prophetic claims. While some classical scholars regarded astronomy as speculative (*ẓannī*), others—most notably al-Subkī—affirmed its accuracy, a position further reinforced by advances in modern science and technology. Although Ibn Taymiyyah associated *ḥisāb* with Jewish practices and viewed its use as imitation, *ḥisāb* is in fact a universal science accessible to all and is not explicitly attributed to any religious group by the Prophet. As Syamsul Anwar explains, the prescription of *rukyaṭ* in Islamic law serves the objectives of *maqāṣid al-sharī'ah*, particularly the facilitation of fasting during Ramadan; thus, *rukyaṭ* functions as a means rather than an end. Since the ultimate purpose is to ascertain the commencement of Ramadan, alternative methods such as *ḥisāb* may legitimately replace *rukyaṭ* insofar as they effectively achieve this objective. Consequently, Muhammadiyah's advocacy for the unification of the Islamic calendar—conceptualized as the Single Global Hijri Calendar—aligns with *maqāṣid al-sharī'ah* by fostering unity among Muslims in fasting and celebrating religious observances collectively.<sup>17</sup>

Unfortunately. While other Islamic organizations continue to change. NU, which initially tended to ban rukyat with tools, including glasses, has now equipped itself with advanced astronomy and telescope software. Perhaps the number of hisab members in NU is much higher than in Muhammadiyah, even though they are rukyat practitioners. While Persis (Islamic Union), a "small" organization that is very active with its Hisab Rukyat Council, dared several times to change its hisab criteria. In fact, Persis sometimes identifies as the "twin brother" of Muhammadiyah because it relies on hisab, without waiting for rukyat results. Exactly several times changed the criteria, from *ijtimak qablal ghrub*, *imkan rukyat 2 degrees*, *wunama hilal throughout Indonesia*, to *imkan rukyat astronomis applied*.

For the sake of unification of the ummah through the hijri calendar, indeed needed to criticize the practice of hisab rukyat in NU, Muhammadiyah, and Persis. NU and Persis are very open to change. Muhammadiyah tends to be resistant and defensive in terms of its hisab methods. His opinion seemed evenly distributed among Muhammadiyah members, as if hisab was only with the criteria of hilal wutitle. It has become their belief that he says is difficult to change. The tajdid (renewal) movement in hisab science turned itself off. When invited to discuss the criteria for imkan rukyat, it looks a priori as if it is part of rukyat that seems to be avoided.

---

<sup>17</sup> Syamsul Anwar, 'Unified Islamic Calendar in the Perspective of Islamic Legal Philosophy', *Al-Jami'ah*, 2016, doi:10.14421/ajis.2016.541.203-247

It can be concluded that the weakness of the hisab method lies when using imperfect calculating tools so that the results can be different from other hisab experts. In addition, the many kinds of hisab methods result in different results, including hisab urfi with modern or contemporary hisab results. Because of the different results of the various methods, it shows the weakness of the human way compared to the way that Islam has outlined.

### How Islam Determines the Beginning of the Hijri Month

How to determine the beginning and end of Ramadan has been outlined by Islam through the oral of the Prophet *sallallahu 'alaihi wa sallam*. Consider the following hadith.

إِذَا رَأَيْتُمُوهُ فَصُومُوا: يَقُولُ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ - سَمِعْتُ رَسُولَ اللَّهِ: [قَالَ] وَعَنِ ابْنِ عُمَرَ رَضِيَ اللَّهُ عَنْهُمَا فَإِنْ عَمَّ عَلَيْكُمْ فَأَقْدَرُوا لَهُ وَإِذَا رَأَيْتُمُوهُ فَأَفْطَرُوا

From Ibn 'Umar (may Allah be pleased with him), he said, "I have heard the Messenger of Allah (peace and blessings of Allaah be upon him) say, "If you see hilal, then be happy. If you see it again, then have a holiday. If the hilal is closed, then it is fulfilled (the month of Sha'ban becomes 30 days)." (Muttafaqun 'alaih. HR. Bukhari no. 1906 and Muslim no. 1080).<sup>18</sup>

The above hadith shows that the determination of the beginning of Ramadan is only in two ways, there is no third way. The first way is with rukyatul hilal. The second way is to complete the month of Sha'ban into 30 days. While the hisab method is only as a tool to estimate, not as the main reference.

Many *madhhabs* support the use of both *hisāb* and *rukyat* as legitimate references for determining the beginning of the Qamariyah month. Broadly speaking, two principal approaches are employed in the Hijri calendar system: the *rukyat* method and the *hisāb* method. The *rukyat* approach involves the direct observation of the *hilāl* (crescent moon), whereas *hisāb* relies on astronomical calculations based on established formulas to estimate the visibility of the *hilāl*.<sup>19</sup> These two methods function as interrelated and essential factors in determining the commencement of the Qamariyah month. While *rukyat* utilizes various astronomical instruments to observe the horizon at sunset on the final day of the lunar month in order to confirm the sighting of the crescent moon, *hisāb* provides calculated data concerning the timing of the new month. Nevertheless, *rukyat* is susceptible to environmental factors such as weather conditions and the observer's horizon. Since the Middle Ages, Muslim scholars have developed *'ilm al-falak* (Islamic astronomy), a scientific discipline that studies the movements of the sun, moon, earth, and other celestial bodies to determine times of worship and regulate the Islamic calendar.<sup>20</sup>

Based on historical records, the Prophet Muhammad (peace be upon him) determined the beginning of the Qamariyah month through direct observation of the *hilāl* (crescent moon), rather than by means of *hisāb* or astronomical calculation. At that time, astronomy had not yet developed as a systematic science, and social conditions particularly among Bedouin communities living in remote areas did not support the application of calculation-based methods. The limited circulation of information between urban centers and rural regions further constrained the feasibility of computational approaches. Had the Prophet relied on

<sup>18</sup> Firdaus bin Yahya, "An Analytical Study of Beginning and End of Ramadan During Prophet Muhammad's Time," in AACII.

<sup>19</sup> Nur Afdal Purnama Putra, Andi Muh. Akmal, and Halimah B, A Scientific Approach to Hilal Observation in the Works of Ibn Rajab Al-Majdi: A Study of the Book *Khulāṣah Al-Aqwāl Fī Ma'rifat Al-Waqt Wa Ru'yat Al-Hilāl*, 3.2 (2022), . 1–20, doi:10.24252/hisabuna.v3i2.28417.

<sup>20</sup> Wahidin, Problem of Unification Hijri Calendar, *Al-Afaq: Journal of Astronomy and Astronomy*, 4.2 (2022)

mathematical calculations to determine the beginning of the month, this would have posed practical difficulties for Bedouin society, as mathematical knowledge was generally confined to certain groups, such as Jewish and Christian communities. In contrast, contemporary astronomy employs arithmetic and geometric principles to calculate the relative positions of celestial bodies, especially the earth, moon, and sun. These calculations serve various religious purposes, including determining the direction of the *qibla*, prayer times, and the commencement of months in the Hijri calendar.<sup>21</sup>

### **Uniformity of Hijri Calendar in Indonesia**

Many people think that the source of the diversity in determining the beginning of Ramadan and holidays is only the difference between *hisab* (astronomical calculations) and *rukyat* (observation of the moon). Though for the current context it is not that simple anymore. The debate is no longer limited to *hisab* and *rukyat*. It can be between *hisab* adherents with *hisab* or *rukyat* with *rukyat*, even in its current development the source of problems is due to differences in *hisab* criteria that are used as a basis for determining the beginning of the month of Qamariyah.

In Indonesia there are at least two criteria of *hisab* adhered to. Some are based on the criteria of *hilal wutitle*, as long as the moon has existed above the horizon at the time of the Maghreb has been considered to enter the new moon. This criterion is used by Muhammadiyah. Another criterion is *imkanu ar-ru'yat*, based on estimates of whether or not *hilal dirukyat* may be.

The main element of no unification of the Hijri calendar in Indonesia lies in the difference in criteria between two large mass organizations, namely NU and Muhammadiyah. The key to the problem of unifying the Hijri calendar in Indonesia lies in the hands of the two large organizations, if these two organizations want to use one mutually agreed criterion, then the problem of the Hijri calendar in Indonesia can be considered 'finished', while other groups in the issue of determining the beginning of the month of Qamariyah will gradually be able to adjust.

Muhammadiyah holds that the relevant religious texts are *ta'aqqulī* (rational in nature), allowing them to be interpreted in light of changing times and circumstances. In contrast, Nahdlatul Ulama regards these texts as *ta'abbudī* (devotional), requiring acceptance as acts of worship without questioning their underlying rationale; any contextual developments are treated merely as supplements rather than alterations of meaning. This fundamental difference explains why Muhammadiyah adopts *hisāb* despite prophetic traditions instructing the use of *rukyat al-hilāl*, whereas Nahdlatul Ulama continues to prioritise *rukyat al-hilāl* and employs *hisāb* only as a supporting tool, even though exclusive reliance on *hisāb* is now technically feasible.<sup>22</sup>

More broadly, these divergent approaches reflect differing attitudes toward modernity: Muhammadiyah tends to embrace modern scientific developments within religious practice, while Nahdlatul Ulama places greater emphasis on preserving tradition and maintaining the literal meaning of the texts rather than contextual reinterpretation. Consequently, these

---

<sup>21</sup> Kayla Nurul Azkiyya, et.al, "Implementation of the Method for Determining the Beginning of the Hijri Month and Conversion of the Date of Eid al-Fitr 2025 AD/1446 AH Gregorian –Hijri" *Al-Afaq*, 7(2), 2025: 230.

<sup>22</sup> Yunahar Ilyas, *Fiqh Ulil Amri: Perspektif Muhammadiyah*, <https://Tarjih.or.id/wp-content/uploads/2020/08/Fiqh-Ulil-Amri-Perspektif-Muhammadiyah.pdf>, accessed 27 January 2025

orientations significantly influence each organisation's responsiveness to advances in science and technology in the application of Islamic law, particularly in matters of worship (*'ibādāt*).

NU bases its calendar criteria on imkanur rukyah with a hilal height of at least 2 degrees, considering that the results of hisab with rukyah results in the field, but actually a height of 2 degrees does not guarantee the occurrence of rukyah.<sup>23</sup> While the Muhammadiyah mass organizations base their calendars on the Hilal Wunama Criteria. The role of the two major Islamic organizations (NU and Muhammadiyah) is still dominant in determining the beginning of Ramadan, Eid al-Fitr, and Eid al-Adha. The results of government decisions in the early Ramadan or Eid al-Fitr itsbat session led by the Minister of Religious Affairs and attended by representatives of Islamic mass organizations and rukyah hisab experts usually have no effect on the decisions made by the leaders of each Islamic organization. If the new criteria for determining the beginning of the month, let's call it the Indonesian Hisab Rukyah Criteria, can be agreed upon and can replace the currently diverse criteria used by each Islamic mass organization, God willing, unity in determining holidays can be achieved. At least, all hijri lenders issued by various Islamic mass organizations will be the same as the Standard Taqwin that is a reference to the government. Indeed, the possibility of differences is still possible outside the issue of hisab rukyah, for example because of the belief of following Saudi Arabia's decision in terms of determining Eid al-Adha.

The difference in the height of the moon at least between 2 degrees by NU and 0 degrees by Muhammadiyah often causes differences in the conclusion of the beginning of the month which has an impact on differences in the determination of the beginning of Ramadan, Eid al-Fitr, and Eid al-Adha. Muhammadiyah also uses the principle of wilayatul hukmi in the criteria for hilal wutitle, namely if hilal has existed in some parts of Indonesia then it is considered applicable in all jurisdictions of Indonesia. The problem of differences is also often exacerbated by the controversial rukyahul hilal results by some NU circles. The rukyah result is controversial because the moon is so low that it is impossible to see or even because the moon has actually set during the Maghreb or the moon's altitude is negative.

In achieving organizational objectives, the implementation of strategies, innovations, and evaluations is inherently a continuous process that requires a system capable of effectively supporting and accelerating their realization. Within an established system, interactions among involved actors form structured patterns that facilitate goal attainment. One such framework is the Triple Helix theory, which emphasizes collaboration among key stakeholders. In the context of efforts to unify the Hijri calendar in Indonesia, this model assigns academics a crucial intellectual role, particularly in providing scientific foundations from the fields of astronomy, Islamic jurisprudence (*fiqh*), and related disciplines. As articulated by Thomas Djamaluddin, the unification of the Hijri calendar requires three essential parameters: the presence of a single authoritative institution responsible for calendar determination, the adoption of a mutually agreed-upon criterion, and the establishment of a clear scope of validity. Together, these parameters are fundamental to ensuring the consistency and stability of the Hijri calendar at both national and global levels.<sup>24</sup>

---

<sup>23</sup> Ahmad Musonnif, "Islamic Law and Science in NU-Muhammadiyah's Lunar Calendar Determination" *Al-Hilal*, 6(2), 2024. 200.

<sup>24</sup> Vivit Fitriyanti, et.al, "The Triple Helix Theory as a Solution for the Unification of the Hijri Calendar in Indonesia" *Al-Fikrah*, 13(2), 2024: 207.

Within the Triple Helix framework, the role of the community represented by Islamic mass organizations in Indonesia is equally significant, as these organizations exert substantial influence over religious practice and social behavior through the authority of their fatwas. Given the historical prominence and societal influence of Muhammadiyah and Nahdlatul Ulama as Indonesia's two largest Islamic organizations, it is essential for their leadership to seek common ground and work toward a unified criterion for determining the Hijri calendar. This necessitates structured dialogue and collaboration among experts and astronomers affiliated with these organizations to formulate criteria that are both scientifically sound and religiously acceptable. The continued absence of a shared understanding among Islamic organizations indicates that efforts toward Hijri calendar unification remain fragmented and are likely to continue as separate, independent initiatives rather than as a cohesive national project.<sup>25</sup>

## Conclusion

The realisation of the Single Global Hijri Calendar is :as a form of a lunar calendar system (based on the circulation of the moon), with a number of days as few as 29 days and as many as 30 days, with the principle of one day one date throughout the world and the most absolute principles include: For worship and civil/administrative purposes at once One day one date worldwide, Acceptance of hisab, Transfer of imkanu rukyat, Unity of matlak and Acceptance of international date line. The unification of the Single Global Hijri Calendar is very necessary with the significance of the reasons including, uniting the people of the world in the form of an Islamic calendar in terms of worship time schedules, so as to realise harmony with one another even though in different containers and countries.

Muhammadiyah's reliance on *hisab* with the *hilāl wujud* and *wilāyat al-ḥukmī* principles reflects a rational (*ta'aqqulī*) and modernist orientation, while NU's emphasis on *imkān al-ru'yah* and *rukyat* as a devotional (*ta'abbudī*) practice underscores a commitment to textual literalism and tradition. As long as these two major organisations maintain different criteria, calendar unification will remain difficult; however, the adoption of a mutually agreed national *hisab-rukyat* standard could significantly reduce recurring differences and foster greater unity in the observance of Islamic holy days in Indonesia.

## Bibliography

### Book

Kamus Besar Bahasa Indonesia. Jakarta: Balai Pustaka, 1999.

Mohammad Nasir. *Metode Penelitian*. Jakarta: Ghalia Indonesia, 1988.

Muslim. *Ṣaḥīḥ Muslim bi Sharḥ al-Nawawī*. Vol. 4, Juz II. Beirut: Dār al-Fikr, 1983/1403 H.

### Journal

Anwar, Syamsul. "Tindak Lanjut Kalender Hijriah Global Turki 2016: Tinjauan Usul Fikih." *Jurnal Tarjih* 13, no. 2 (2016): 99–123.

Anwar, Syamsul. "Unified Islamic Calendar in the Perspective of Islamic Legal Philosophy." *Al-Jami'ah: Journal of Islamic Studies* 54, no. 1 (2016): 203–247. <https://doi.org/10.14421/ajis.2016.541.203-247>.

Azkiyya, Kayla Nurul, et al. "Implementation of the Method for Determining the Beginning of

---

<sup>25</sup> *Ibid*, 222.

- the Hijri Month and Conversion of the Date of Eid al-Fitr 2025 AD/1446 AH (Gregorian–Hijri).” *Al-Afaq* 7, no. 2 (2025): 230.
- Fitriyanti, Vivit, et al. “The Triple Helix Theory as a Solution for the Unification of the Hijri Calendar in Indonesia.” *Al-Fikrah* 13, no. 2 (2024): 207.
- Ismail Koto, et al. “Islamic Holy Days: The Contention of Rukyatul Hillal and Hisab Hakiki Wujudul Hilal Disputes for Muslims in Indonesia.” *Pharos Journal of Theology* 105, no. 2 (2024). <https://doi.org/10.46222/pharosjot.105.210>.
- Karis Lusdianto. “The Concept of Maslahah in the Dynamics of Rukyah and Hisab Methods for Determining the Beginning of the Lunar Month.” *Istinbath* 20, no. 1 (2023).
- Najmi. “Urfi Hisab Position in Determination of Beginning of Month of Qamariyah in Province Jambi.” *Journal of Comprehensive Islamic Studies* 2, no. 2 (2023). <https://doi.org/10.56436/jocis.v2i2.199>.
- Mufid, Abdul, et al. “Unification of Global Hijri Calendar in Indonesia: An Effort to Preserve the Maqasid Sunnah of the Prophet (SAW).” *Journal of Islamic Thought and Civilization* 10, no. 2 (2020). <https://doi.org/10.32350/jitc.102.02>.
- Musonnif, Ahmad. “Islamic Law and Science in NU–Muhammadiyah’s Lunar Calendar Determination.” *Al-Hilal* 6, no. 2 (2024): 200.
- Putra, Nur Afdal Purnama, Andi Muh. Akmal, dan Halimah B. “A Scientific Approach to Hilal Observation in the Works of Ibn Rajab al-Majdi: A Study of the Book *Khulāṣah al-Aqwāl fī Ma’rifat al-Waqt wa Ru’yat al-Hilāl*.” *Hisabuna: Jurnal Ilmu Falak* 3, no. 2 (2022): 1–20. <https://doi.org/10.24252/hisabuna.v3i2.28417>.
- Wahidin. “Problem of Unification Hijri Calendar.” *Al-Afaq: Journal of Astronomy and Astronomy* 4, no. 2 (2022).

### Research Papers

- Abu Fida’. “Wajib Serentak dalam Mengawali dan Mengakhiri Ramadan.” Makalah disajikan pada *Seminar Rukyat dan Hisab*, Bangil, 5 Desember 1999.
- Azhari, Susiknan. “Mengkaji Ulang Cara Penetapan Idul Adha 1425 H.” *Suara Muhammadiyah*, no. 5, tahun ke-90 (Maret 2005): 19–28.
- Firdaus bin Yahya. “An Analytical Study of Beginning and End of Ramadan During Prophet Muhammad’s Time.” Dalam *AACII Proceedings*.
- Majelis Tarjih dan Tajdid PP Muhammadiyah. *Argumentasi Hisab Muhammadiyah*. Kumpulan makalah Sarasehan dan Sosialisasi Paham Hisab Muhammadiyah, Yogyakarta, 30 Rajab 1435 H/2014 M.

### Internet

- Ilyas, Yunahar. *Fiqh Ulil Amri: Perspektif Muhammadiyah*. Yogyakarta: Majelis Tarjih dan Tajdid PP Muhammadiyah. Diakses 27 Januari 2025. <https://tarjih.or.id/wp-content/uploads/2020/08/Fiqh-Ulil-Amri-Perspektif-Muhammadiyah.pdf>.