

Method of Determining the Beginning of the Lunar Month (Scientific Study of the Syattariyah and Naqsyabandiyah Orders in Indonesia)

Riza Afrian Mustaqim^{1*}

Ar-Raniry Islamic University State Banda Aceh

(Jl. Syeikh Abdul Rauf Darussalam Banda Aceh, Indonesia)

^{1*}Email: riza.mustaqim@ar-raniry.ac.id

Abstract

The problem of very significant differences is present in the determination of the beginning of the Kamariah month of the Shattariyah and Naqsyabandiyah communities in Indonesia. The difference is motivated by the use of conventional methods in determining the beginning of the Kamariah (Lunar) month. This research explores how the method of determining the beginning of the Kamariah month of the Shattariyah and Naqsyabandiyah congregations. how is the scientific verification of the method of determining the beginning of the Kamariah month of the Shattariyah and Naqsyabandiyah congregations. This research is a scientific research. The analysis used in this research is component analysis. The results of this research show that First, the method of determining the beginning of the Kamariah month applied by these two communities, the Shattariyah and Naqsyabandiyah communities, is a conventional method, especially in the hisab that is applied. In addition, there is Rukyatul Hilal, which is also classified as conventional in its application. Secondly, the method of determining the beginning of the month of Kamariah in the Shattariyah and Naqsyabandiyah orders cannot be scientifically proven in the Scientific Review. There are many errors in determining the beginning of the Kamariah month according to this order. The irrelevant Hisab method is the main cause. On the other hand, Rukyatul Hilal, which is considered as a determinant, has shortcomings in its application so that it is not able to detect the presence of Hilal accurately and precisely.

Kata kunci : Method, Determination, Beginning of the Lunar Month,

Artikel Info

Received:

16 Oktober 2022

Revised:

09 Mei 2023

Accepted:

17 Mei 2023

Published:

27 Juni 2023

A. Introduction

The Syattariyah and Naqsyabandiyah communities often differ on the beginning of fasting and holidays. Differences with government decisions (results of the Isbat session) always cause quite serious problems among the community. The reason is that these two Tarekat differ almost every year in the beginning of Ramadan, Shawwal and Zulhijah, the differences that occur are not only one day, but even up to two or three days.

The results of the initial determination of Ramadan 1442 H of the Syattariyah and Naqsyabandiyah communities, for example, where the Naqsyabandiyah communities (West Sumatra and North Sumatra) fast on Monday, 12 April 2021 ('West Sumatra Naqsyabandiyah Order' 2021) while Syattariyah in West Sumatra starts 1 Ramadan 1442 H for two days after that, Wednesday, 14 April 2021. ('After Manaliak Month of the Sattariyah Order of West Sumatra Begins Fasting' [n.d.]) This is different from the Congregation of Syattariyah in Aceh, who are followers of Habib Muda Seunagan, where this tarekat begins fasting on Monday 12 April 2021. ('Congregation of Syattariyah Habib Muda Seunagan' 2021)

If the above phenomena are

compared with the results of reckoning and rukyat, then: 1) the results of the contemporary essential reckoning in Indonesia on 1 Ramadan 1442 H, from Papua to Sabang Banda Aceh, the height of the hilal ranged from $02^{\circ} 37.08'$ to $03^{\circ} 33.06'$.¹ 2) Based on the results of Rukyat (Decree of the Isbat of the Indonesian Ministry of Religion and Ikhbar Nahdlatul Ulama) the results of Rukyat in determining 1 Ramadan 1442 H that the new moon was seen on 29 Shakban 1442 H so that 1 Ramadan fell on Tuesday 13 April 2021.²

There is a patron-client relationship between the community of the Tarekat and its Murshid. Therefore, it is not surprising that all the policies set by the murshid are followed more than the decisions of the government, such as the results of the isbat court to determine the important beginnings of the month of Hijri, such as 1 Ramadan, 1 Shawwal and 10 Zulhijah.³

In Indonesia, the issue of determining the beginning of the lunar month is decided

¹ Islam, Direktorat Urusan Agama Islam Dan Pembinaan Syariah Direktorat Jendral Bimbingan Masyarakat. 2021. *Ephemeris Hisab Rukyat* (Jakarta)

²PBNU.. 'Ikhbar/Pemberitahuan Hasil Ryukyatul Hilal Bil Fi'li Awal Ramadan 1442 H'. 2021

³ Rizky, Cut Rahma, And Agus Nurhadi. 'Hukum Islam Dan Patronase Dalam Penentuan 1 Ramadhan Di Bungong Keumang', *Al-Ahkam*, 2018. 28

by the Ministry of Religious Affairs of the Republic of Indonesia through an isbat assembly. The ISBAT session is expected to address the differences in the beginning of Ramadan, Shawwal and Zulhijah in Indonesia.⁴ In addition, there is a MUI fatwa which states that the Indonesian people are obliged to abide by the results of the Isbat session set by the Ministry of Religion of the Republic of Indonesia on the issue of the beginning of the lunar month. This is also an alternative to the differences in the beginning of fasting and holidays in Indonesia.⁵

Hisab and rukyah have the same purpose, which is to determine the beginning of the lunar month. Both methods are based on the interpretation of the arguments that examine the rukyatul hilal. Along with the times, both methods have a fairly accurate level of accuracy. In reckoning, for example, in terms of the data used, there has been a transition from data obtained in the conventional way to data observed at any time. Similarly, in rukyah, observations that could initially only be made with the naked eye have moved to the use of telescopes.

At the beginning of the lunar month,

⁴ Undang-Undang. 2006. 'Peradilan Agama'

⁵ Fatwa MUI. 2004. 'Penetapan Awal Ramadan, Syawal, Dan Zulhijah'

reckoning will produce results in the form of the position and altitude of the new moon. The reckoning also determines the time. In this case, the output of the reckoning is the state and condition of the new moon at the beginning of the lunar month. This makes it possible to know scientifically whether the new moon is already above the horizon or vice versa. This is in contrast to the case of rukyah, where rukyah gives results as to whether or not the new moon is visible at the time of observation.

Based on the reality and ideals above, there was a gap between that and that. Or between the decision of the government (Ministry of Religion of the Republic of Indonesia) in the Isbat session with the phenomenon of the difference between the Syattariyah and Naqsyabandiyah orders in the beginning of the lunar month. This is interesting to study in order to find out the difference in the estuary of determining the beginning of the month so that an appropriate formulation based on science can be found for the phenomena that occur.

B. Research methods

This research is a phenomenological research⁶ that examines a problem that arises in a group, which consists of a series of other

⁶Sujarweni, V. Wiratna. *Metodologi Penelitian* Yogyakarta: Pustaka Baru Press (2020)

problems related to differences in the method of determining the beginning of the Syattariyah and Naqsyabandiyah months. This research also includes scientific research,⁷ which seeks data on other methods of determining the beginning of the lunar month to compare with the methods used by the Tarekat.

Primary data was obtained from the results of the decisions of the Syattariyah and Naqsyabandiyah communities in determining the beginning of fasting and holidays. The results of the decisions are obtained through a study of documents from the main sources that can be accounted for.

The primary data to be used in this research will be obtained from library materials, including: encyclopaedias, books, articles, scientific works published in mass media such as magazines and newspapers, as well as scientific journals and research reports. relating to the methods and problems of determining the beginning of the lunar month in general and the Syattariyah and Naqsyabandiyah orders.

The data obtained will be analysed using Componential Analysis,⁸ which involves contrasting the elements in the domain obtained. The contrasting elements are sorted and then the relevant categorisation is made.⁹ In this case, the element that will be contrasted is the difference in the beginning of the lunar month between the Syattariyah and Naqsyabandiyah tarekat and the government (Ministry of Religion of the Republic of Indonesia), which will then be selected and categorised based on relevant scientific phenomena and studies.

C. Results and Discussion

Results

Method of Determining the Beginning of the Lunar Month in the Syattariyah and Naqsyabandiyah Orders

The Syattariyah Congregation of Ulakan, West Sumatra

Mursyid Tarekat Nagari Kuto Tuo, Agam Regency has three sites for the development of this tarekat in West Sumatra, located in the districts of Ulakan, Sijunjung and Agam. The first entry into this tarekat was in 1910, which was pioneered by Sheikh

⁷Sumadi Suryabrata. *Metodologi Penelitian*, 10th Edn Jakarta: PT. Raja Grafindo Persada (1997).

⁸Sujarweni, V. Wiratna. *Metodologi Penelitian* Yogyakarta: Pustaka Baru Press (2020)

⁹Marzuki, Peter Mahmud. 2021. *Penelitian Hukum* (Jakarta: Kencana)

Burhanuddin Ulakan with the distribution through places of worship - places of worship in general consisted of places of worship for the public and special places of worship for congregations.¹⁰

The recruitment system is carried out in an open manner through recitations, where congregations who wish to learn more about the teachings and understanding of the Tarekat are directed to meet the Murshid for introduction, bait, and then become part of the followers of that Tarekat.

In determining the beginning of the lunar month, this Tarekat as a whole refers to a reference book found in Ulakan. In general, this tarekat uses calculations and rukyatul hilal to determine the beginning of the lunar month, it's just that rukyatul hilal is preferred. According to the statement of the Murshid, all the congregations of the Tarekat understand well the calculations in determining the beginning of the lunar month in the Syattariah congregation. In the teachings of this Tarekat, the calculation of Rukyat is one of the studies that is invited so that it can be understood by all followers. However, in determining the beginning of the lunar month, the Mursyid determines when the first day is entered.

¹⁰ Tuanku Ismed Ismail. 2022. *Wawancara Mursyid Tarekat Syattariah* (Kuto Tuo, Padang Sumatera Barat)

In this case, all the Murshids integrate with each other to agree on when the first date falls through the methods they follow. Although at the time of the observation all the devotees were followed in their respective places. But in the end the Murshid decided together with the Murshids in other areas.

The Syattariah Order is not authoritarian in applying the results of the Rukyat to its congregations as determined by the Murshid; this Tarekat gives the congregation the freedom to choose whether or not to follow the decisions that have been determined. But what is interesting is that all the congregations of the tarekat have the principle that as students in the tarekat, they have an obedient attitude towards the teacher and do not want to deny or go beyond their teacher in the tarekat. So that if there is a disagreement with the government, the entire community will absolutely follow the decision conveyed by the Mursyid.

So that we can see that even though there is no compulsion or intervention from the Murshid to follow every decision absolutely, the congregation of the Tarekat has put the principle of obedience and submission to their Murshid first. Without any consequences if they do not strictly follow the teachings of the Tarekat, especially in determining the beginning of

the lunar month.

On the other hand, it should be noted that reckoning rukyat is part of the 21 amaliyah worship of the Syattariyah community. This means that reckoning rukyat has a fairly important position and place in this tarekat.

The rukyatul hilal syattariyah meeting is held on the 29th of every month. It's just that this tarekat has its own time in relation to the 29th or the time of its rukyatul hilal, because this tarekat has its own calculation standards. So there is often a difference with the rukyat time set by the government or other large mass organisations. However, in the researcher's search, the form of taqwim was not found, only a calculation referring to the Syattariyah reference book.

The Syattariyah congregation does not use any tools to perform rukyat, believing that whatever is given by God is what we use as a tool to observe the new moon.

The Syattariyah order also understands reckoning. They use urfi reckoning, but for determination they use rukyat.¹¹

¹¹ Thomas, Djamaluddin. 2010. 'Arah Kiblat Tidak Berubah' <<https://tdjamaluddin.wordpress.com/2010/05/25/Arah-Kiblat-Tidak-Berubah/>>

The Syattariyah Order of Peuleukung Aceh

In relation to Syattariyah Peuleukung Aceh, the determination of the beginning of the month of Kamariah refers to the book Taajul Mulk. The book was written by one of the leading scholars. Sheikh Abbas Kutakarang. In this book there are various determinations of the beginning of the lunar month. Regarding the number of days in the book, the Bashitah year is 355 days, while the leap year is 355 days. Diman in each month consists of 29 or 30 days. With the division of odd months consisting of 30 days and even months consisting of 29 days. Whereas in the last month (12) it really depends on the year, leap or basithah. If it is a Basithah year, the number of days is 29, while if it is a leap year, it is 30. (Abu Said Kamaruddin [n.d.]

It should be understood that in determining the beginning of the lunar month, the Syattariyah Peuleukung Aceh community essentially uses "Hisab Numbers Five". This reckoning is a very practical and simple calculation, namely adding the number of days by five days calculated from the day at the beginning of the Hijri month of the previous year. This Tareqat considers this method to be an essential reckoning of Taqribi, which has a simple system of addition, subtraction, multiplication and

division. This method has been practised by this Tarekat for about 200 years and has become a standard system. According to them, this method of reckoning was introduced by Habib Abdul Rahim Qutubul Wujud, who was the grandfather of Habib Muda Seunagan.

As well as the number five, the Syattariyah Peuleukung Aceh congregation has several other provisions if, after calculating the number five, the day falls on a Wednesday or Friday. If it falls on a Wednesday, an extra day is added, which becomes a Thursday. But if it falls on a Friday, an extra day is added, making it Saturday. Or it could be a setback. If it falls on a Wednesday, it becomes a Tuesday; if it falls on a Friday, it becomes a Thursday. Both additions and subtractions apply every five periods.

According to research, the Syattariyah Peuleukung Aceh congregation did not start fasting on Wednesday because they thought it was a day when many disasters, diseases and other bad things happened. Even according to the Book of Ina, they believe that it is also the day when it is not allowed to cut nails because it can cause striped disease.

As for Friday, according to this Tareq, it is not permissible to begin fasting on this day, based on the hadith of the

Prophet Muhammad, which reads

عن محمد ابن عباد قال: سألت جابر رضي الله عنه: نهى رسول الله ص.م عن صوم يوم الجمعة يعني أن ينفرد بصومه؟ قال: نعم

It means:

From Muhammad bin 'Ibal: "I asked Jabir ra. is it true that the prophet prohibit fasting on Friday, i.e. specialize on Friday only? He (Jabir ra.) replied: Yes." (H.R. Bukhari)

According to the Syattariyah Peuleukung Aceh congregation, based on the above hadith, it specialises in fasting especially on Fridays. However, if Sunnah fasting is forbidden to be performed on that day, then the meaning of obligatory fasting is also forbidden or may not begin on Friday as mentioned in the above hadith (Ishmael 2019).

The Naqshbandiyah Order of West Sumatra

In addition to calculations, the Naqshbandiyah community also performs rukyat. The rukyat performed by the Naqsyabandiyah Congregation was performed at 01:00 WIB in the morning on the eastern horizon. The Naqshbandiyah order assumes that the afternoon rukyatul hilal is blocked by the light of the sun at sunset, thus blocking the observer's view of the hilal. Thus, the moon seen is not the real moon, and anything seen with a thin shape at sunset is not the first hilal of the month.

In the Naqsyabandiyah

Congregation, all the congregations perform Rukyat as one of the routine activities in the places and places they have determined. It's just that this tarekat is guided by the appearance of the new moon in the early hours of the morning, which is clearly visible when observed. And it is at this time that the first appointment begins. The Naqshbandiyah order is of the opinion that the hilal at the end of the month, seen in the early hours of the morning and on the eastern horizon, is the new moon at the beginning of the month.

The next method is *ijmak*. What is meant by *ijmak* in determining the beginning of the lunar month is the gathering of murshid priests in their surau (coming from the south coast, Anduring and other areas) to determine when the beginning of the next lunar month will fall. It can be said that the *ijmak* is a declaration process by the murshids of the tarekat as to when the beginning of the first lunar month will be.

While the postulate is an observation of natural phenomena by paying attention to the situation and conditions that occur in the night sky. In determining the date of the first tarekat, they had made observations up to two months before. It is as if the observation of the new moon depends on natural phenomena. So it can be said that the argument uses *ra'yu* or thoughts. Or

analogising nature by using the mind.

While *Qiyas* is the process of reading nature, which is to harmonise calculations with nature.

All these methods become one of the knowledge that the Murshid teaches to his students so that all the communities have knowledge of it, only in this case the community is not required to understand the method. All these methods are also a unity that cannot be separated from each other.

In the understanding of the Naqsyabandiyah community, there is no need for rukyat aids in any form. They observe the new moon in the morning with their eyes without the use of any aids.

The Naqshbandiyah order also believes that the interference highlighted by some parties against them is inappropriate. The existence of a statement accusing them is a mistake because they personally, in principle, as tarekat, never accuse or falsely justify the methods used by other groups. They have the principle that each group and class has its own way and method, while the Naqshbandiyah Congregation uses these methods as the way they follow in determining the beginning of the lunar month.

There are things in the Naqshbandiyah order that are quite interesting in terms of the congregation's

obligation to follow the decisions of the Murshid absolutely. If there are worshippers or followers who refuse or are unwilling to observe the appointed time of Eid or fasting, they are expelled from the Naqshbandiyah order. This is because, according to the Murshid, this attitude or behaviour shows the disobedience of a follower to his priest. In all aspects, the Murshid has shown an attitude of concern for the Congregation, so if this concern is met with disobedience, it is a form of denial.

Furthermore, each Murshid scattered throughout the region is absolutely responsible for any matter of rukyatul hilal. Both those arising from the community and from other parties questioning the decisions made. So, if there is a question as to why his feast day falls at a different time from the one set by the Ministry of Religion of the Republic of Indonesia (Government), then the Mursyid must explain the concept and the method of determination used, instead of conveying this decision absolutely following the decision of the Mursyid in the city of Padang. Instead, he must use a methodical explanation. And the Murshid in each region is responsible for the entire congregation in implementing the results of the initial determination of the lunar month.

Scientific Overview of the Method of Determining the Beginning of the Lunar

Month of the Syattariyah and Naqsyabandiyah Orders

In science, the truth of a theory is relative. A theory is always considered true until a new theory is found that can disprove it. Thus the old theory cannot be immediately replaced by a new theory. Even a new theory will always exist until there is another theory that contradicts it, and so on.

Scientific knowledge (science) is knowledge obtained through the use of scientific methods that further guarantee the certainty of its truth. In essence, science is an attempt to organise common sense, a knowledge that comes from experience and observation in everyday life, followed by careful and thorough thought using various methods (Jan Hendrik Rapar 2002).

Truth is defined in the Great Indonesian Dictionary as; 1) the right state. 2) Something right. 3) Honesty, sincerity. Truth lies in the extent to which the subject has knowledge of the object. While knowledge itself comes from various sources, where these sources also function as a measure of truth.

Beerling claims that the independence of scientific knowledge is actually related to three scientific norms. First, scientific knowledge is knowledge that has a basis of justification. Second, scientific knowledge is systematic. Third, scientific

knowledge is intersubjective. (Beerling 1998)

In order to find out the scientific verification of the determination of the beginning of the lunar month of the Syattariyah and Naqsyabandiah communities, the authors compare the dates of the determination of the beginning of the lunar month of each tarekat with the simplified reckoning dates of various contemporary reckoning methods.

This is necessary because scientific calculations or reckoning have an accuracy that is quite exact and precise, with corrections that are carried out continuously and in detail to reach a very accurate level.

The following are the dates for determining the beginning of the lunar month in the Syattariyah and Naqsyabandiyah orders for the past 3 years:

Table 1. The Naqshbandiyah Order of Padang, West Sumatra

YEAR	RAMADAN	SYAWAL	ZULHIJAH
2020	23 Mei	23 Mei	20 Juli/30 Juli
2021	12 April	12-13 Mei	9 Juli/19 Juli
2022	1 April	1 Mei	28 Juni/8 Juli

Table 2. The Syattariyah Order of Peuleukung Aceh

YEAR	RAMADAN	SYAWAL	ZULHIJAH
2020	22 April	22 Mei	20 Juli/30 Juli
2021	11 April	11 Mei	9 Juli/19 Juli
2022	30 Maret	29 April	27 Juni/8 Juli

Table 3. he Syattariyah Order of Padang, West Sumatra

YEAR	RAMADAN	SYAWAL	ZULHIJAH
2020	-	-	22 Juli/1Agustus
2021	14 April	14 Mei	12 Juli/22 Juli
2022	4 April	4 Mei	1 Juli/11 Juli

The data above clearly show that there are quite significant differences between the two tarekat, even within the same tarekat. This study does not discuss the differences between the same tarekat and other tarekat. Rather, it focuses on how the scientific review of the method of determining the beginning of the lunar month by the two tarekat was applied to the developing contemporary method of reckoning (Mustaqim 2018).

The following are the results of the calculation of contemporary methods for determining the beginning of the lunar month. As follows:

Contemporary Account Data For 2020

Table 4. Hisab 1 Ramadan 1441 H

RAMADAN 1441 H	ADDURRU L ANIQ	IRSYADU L MURID	MASLAKU L QASHID
DATE	23-April-2020	23 - April – 2020	23 - April - 2020
DAY	Kamis- Wage	Kamis - Wage	Kamis - Wage
TIME	09 : 27 : 07 WIB	09 : 28 : 03 Wib	9 : 26 : 41.1
SUNSET	18 : 46 : 6 WIB	18 : 46 : 05 WIB	18 : 46 : 07 WIB
GEOGRAPHICA L MOON	04° 11' 04"	04° 10' 56"	04° 12' 39"

HEIGHT			
TOPOGRAPHIC	03° 18' 59"	03° 48' 25"	03° 50' 07"
AL HILAL			
HEIGHT			
SOLAR	282° 55' 57"	282° 55'	282° 42' 07"
AZIMUTH		57"	
MOON	280° 02' 29"	280° 04'	279° 42' 56"
AZIMUTH		07"	
MOON	-02° 53' 28"	-02° 51'	-02° 59' 11"
POSITION		50"	
ELONGATION	05° 51' 42"	05° 51' 42"	06° 00' 04"
AGE OF THE HILAL	09 : 18 : 58	09 : 18 : 03	09 : 19 : 26
DURATION OF HILAL	00 : 16 : 44	00 : 21 : 52	00 : 16 : 51
NURUL HILAL	0.26 %	0.26 %	0.27 %
MOONSET	19 : 2 : 50 WIB	19 : 07 : 58 WIB	19 : 02 : 58 WIB

Table 5. Hisab 1 Syawal 1441 H

SYAWAL 1441 H	ADDURRUL ANIQ	IRSYADUL MURID	MASLAKUL QASHID
DATE	23-Mei-2020	23-Mei-2020	23-Mei-2020
DAY	Sabtu-Wage	Sabtu-Wage	Sabtu-Wage
TIME	00 : 40 : 05 Wib	00 : 40 : 45 Wib	0 : 39 : 59.26 Wib
SUNSET	18 : 48 : 8 WIB	18 : 48 : 08 WIB	18 : 47 : 56 WIB
GEOGRAPHICAL MOON HEIGHT	07° 49' 36"	07° 47' 19"	07° 43' 12"
TOPOGRAPHICAL HILAL HEIGHT	06° 51' 52"	07° 19' 46"	07° 15' 37"
SOLAR AZIMUTH	290° 55' 01"	290° 55' 01"	290° 42' 09"
MOON AZIMUTH	290° 00' 21"	290° 03' 48"	289° 48' 07"
MOON POSITION	-00° 54' 40"	-00° 51' 13"	-00° 54' 02"
ELONGATION	08° 47' 02"	08° 45' 42"	08° 41' 53"
AGE OF THE HILAL	18 : 08 : 03	18 : 07 : 23	18 : 07 : 56
DURATION OF HILAL	00 : 31 : 18	00 : 37 : 27	00 : 30 : 53
NURUL HILAL	0.6 %	0.58 %	0.57 %
MOONSET	19 : 19 : 26 WIB	19 : 25 : 35 WIB	19 : 18 : 48 WIB

Table 6. Hisab 1 Zulhijah1441 H

ZULHIJAH 1441 H	ADDURRUL ANIQ	IRSYADUL MURID	MASLAKUL QASHID
DATE	21-Juli-2020	21 - Juli - 2020	21 - Juli - 2020
DAY	Selasa-Pon	Selasa - Pon	Selasa - Pahing
TIME	00 : 32 : 53 WIB	00 : 34 : 07 WIB	0 : 34 : 55.68 WIB
SUNSET	18 : 57 : 36 WIB	18 : 57 : 37 WIB	18 : 57 : 40 WIB
GEOGRAPHICAL MOON HEIGHT	09° 27' 48"	09° 27' 12"	09° 11' 30"
TOPOGRAPHICAL HILAL HEIGHT	08° 25' 22"	08° 56' 51"	08° 40' 45"
SOLAR AZIMUTH	290° 30' 46"	290° 30' 47"	290° 44' 41"
MOON AZIMUTH	290° 35' 08"	290° 39' 30"	290° 55' 42"
MOON POSITION	00° 04' 22"	00° 08' 43"	00° 11' 01"
ELONGATION	10° 22' 31"	10° 23' 05"	10° 08' 35"
AGE OF THE HILAL	18 : 24 : 43	18 : 23 : 30	18 : 22 : 45
DURATION OF HILAL	00 : 37 : 51	00 : 44 : 16	00 : 36 : 46
NURUL HILAL	0.82 %	0.82 %	0.78 %
MOONSET	19 : 35 : 28 WIB	19 : 41 : 53 WIB	19 : 34 : 26 WIB

The coordinates of the calculation data above refer to the latitude and longitude coordinates in Banda Aceh, as the area that has the most potential to see the new moon based on the reckoning data. In addition, the calculation data in the three years above refer to some of our contemporary reckoning, this is deemed necessary to be presented as one of the scientific analyses in this study. The author will describe where the discrepancy and error lies in determining the beginning of the lunar month in the Syattariyah and Naqsyabandiyah communities.

First, 1 Ramadan 1441 H in the year 2020. In this case, the government decided through the Isbat session that 1 Ramadan 1442 H will fall on Friday 24 April 2020. If we look at the results of the calculation of the position of

the new moon at the end of Shakban, it is at $03^{\circ} 18'59''$ based on the book Addurul Aniq, $03^{\circ} 48' 25''$ Ersyadul Pupil, $03^{\circ} 50' 07''$ Malakul Qashid. This automatically denies the implementation of the 1st Ramadan of the Syattariyah Peulekung community in Aceh on 22 April 2020. This means that if there is a difference of 12° in one day, then the day before (when the Syattariyah Pelekung community begins 1 Ramadan 1441 H) the position of the new moon will be at an altitude of minus 9° . This would be something that is scientifically unacceptable, where the turn of the month begins at a time when Ijtima or conjunction has not occurred, because the position of the new moon is still far below the horizon.¹²

Secondly, the interesting thing happened on 1 Ramadan 1442 H in 2021. The government, through the Ministry of Religious Affairs, set 1 Ramadan to fall on 13 April 2021. If you look at the calculation data based on the topocentric hilal height data, based on the book Addurul Aniq, the hilal is at the height of $03^{\circ} 14' 20''$, the elongation is $05^{\circ} 29' 35''$, and the age of the moon is 09 : 12 : 40, while in the book Ersyadul Pupils, the height of the new moon is $03^{\circ} 44' 57''$, the elongation is $05^{\circ} 32' 05''$, with the age of the month 09: 12: 59, and almost similar data are also found in the results of the calculations of the book Maslakul Qashid, where the height of the new moon is $03^{\circ} 48' 22''$, the elongation is 05°

41' 01", and the age of the moon is 09: 14: 06. Judging from the above data, this is in line with the government's decision to decide 1 Ramadan 1442 H on 13 April 2021, because based on the above calculation data at the time of 29 Syakban 1442 H the position of the new moon already met the criteria for IMka al-rukyat MABIMS (Minister of Religion Berunei Darussalam, Indonesia, Malaysia and Singapore). Where in that year still used the criteria of 238. (2° for the height of the new moon, 3° for the elongation and 8 hours for the age of the moon). It can be assumed that even if the new moon is not visible at that time, the government's decision will be based on the results of the calculations that have met the criteria for allowing the new moon to be rukyat.

If we now examine the reality of the determination of the beginning of the lunar month in each tarekat, there are errors from a scientific point of view and from a point of view. 1) Tarekat Syattariyah Peuleukung Aceh, started 1 Ramadan 1442 H on 11 April, two days earlier than the government decree. This means that, based on the above dates, the height of the new moon on 12 April is still not visible with optics, and certainly not with the bare eye. This means that this decision is definitely wrong, because two days earlier it was certain that the new moon was still far beyond the horizon. 2) The Naqsyabandiyah Order of Padang states that 1 Ramadan 1442 H will fall on 12 April 2021, which means that conceptually this tarekat has a scientific invalidation of the results of 1 Ramadan, it's just that the height of the new

¹² Khilafiah, Antara, Dan Sains, Jayusman Fakultas Uşuluddin, Iain Raden, And Intan Lampung. [N.D.]. *Kajian Ilmu Falak Perbedaan Penentuan Awal Bulan Kamariah*

moon below the horizon is higher than the Syattariyah Peuleukung community in Aceh. Conceptually, the determination of these two tarekat is still in a state of the new moon that has not yet existed and is visible above the horizon. 3) The interesting thing about the Syattariyah Congregation in Padang, West Sumatra, which started 1 Ramadan 1442 H on the 14th of April 2021 or 1 day later than the government prescribed. In this case, if we refer to the reckoning dates of the contemporary books above, then this delay is also something wrong, this tarekat started 1 Ramadan 1442 H when the height of the new moon had reached 15° . This is the height of the new moon on the second day of the current month. In his analysis, this decision will have an impact on reducing the number of days of Ramadan from 29 or it could have an impact on the implementation of fasting on 1 Shawwal.¹³

Overall, it can be seen that the determination of the beginning of the lunar month of Tarekat in this study is far from scientific truth and wetness. This can cause a significant difference. On the other hand, there are two points of emphasis that cannot be justified scientifically. These are:

The relevance of the calculation method used

In general, the three orders above use reckoning to determine the beginning of the

lunar month. Some use reckoning as the main determinant, while others limit it to followers. What the author wants to explain is that the reckoning practised and used as a guide by each Tarekat is the urfi reckoning. Hisab, which has developed in the treasures of the development of reckoning in the civilisation of astronomy. At that time, the urfi reckoning was used as the only guide, but its existence could not be guided continuously because of its accuracy and precision, which had to be updated with the reckonings that developed afterwards, such as the taqribi reckoning, the ultimate reckoning, and the contemporary reckoning.

In this discourse, the truth of science, which always leads to the renewal of methods in order to increase the accuracy and precision of a calculation method, is defeated by the faith of the followers of Tarekat, who follow and justify everything that comes from the Murshid or his teachers. Tarekat teachings emphasise obedience, there is forced obedience, there is also obedience that comes instinctively from Tarekat followers who have a very strong emotional attachment to their Murshid. This would contradict the truth of science.

The Murshid and the followers of the Tarekat will follow any teaching that has been taught from generation to generation. There is no attempt to re-identify the truth

¹³ Martin Van Bruinesen. 1994. *Tarekat Naqsyabandiyah DI Indonesia* (Bandung: Mizan)

like the truth of science which is always dynamic in implementing theories that are constantly evolving (Sonny Keraf and Mikhael Dua [n.d.]).

Rukyatul Hilal without reckoning and tools

Hisab and Rukyat are methods that didn't come into being at the same time, but they complement each other. As the oldest method, rukyatul hilal plays a very important role in the development of science, including the improvement of the quality of rukyatul hilal in determining the beginning of the lunar month. In addition, technological advances have had an impact on the development of rukyatul hilal as an observation that plays an important role. The dates of reckoning, whether solar or lunar, can be formulated in such a way as to be inseparable from the main role of rukyat as a driver of change.

The connection in this case, if the use of rukyatul hilal without a reckoning procedure in determining the beginning of the lunar month in several evolving tarekat is the denial of scientific values that can weaken the observation itself, at least the presence of reckoning in rukyatul hilal is able to provide a practical mechanism in detecting the presence of the new hilal quite short above the horizon. Therefore, his disclaimer is a fatal error. The simple analogy is, if merukyat is developed without

reference to hias data, then how is it possible to explore the entire western horizon with a very short hilal time on the horizon, this is where the scientific value of reckoning is present, guiding rukyatul hilal with a fairly practical mechanism. Where the reckoning data can provide initial information on when the observer must focus his eyes when performing the rukyatul hilal, where the sun is in the position where the hilal will appear, how many degrees the height of the hilal will be, and how long the hilal will appear and set at what time. The disclaimer of reckoning in the performance of rukyat in the method of determining the beginning of the lunar month determined by the tarekat is really far from scientific values.

Apart from the problems mentioned above, except for small groups who deny tools or technology in rukyatul hilal. Observations using the latest technology are part of the important scientific task of determining the beginning of the lunar month, which cannot be separated. The exclusion of this tool actually weakens the quality of the rukyatul hilal. The limitations of the eye in determining whether the new moon is visible or not are easily overcome by the important role of technology as a tool. So when this is developed and practised by the above communities, it is natural that

there will be many disputes that have a fairly long span of time.

Science makes technology as a support for the truth of science based on data and facts, in the treasures of Islamic development there are also scholars who develop technology for magnifying small objects or approaching distant objects for worship and observation needs. In fact, this can be used as a reference that the rukyatul hilal technology in the form of telescopes and the like is not only a scientific need that supports scientific observations, but also the scientific treasures of previous scholars.

D. Conclusion

Based on the above, the conclusions of this study are as follows:

1. The method of determining the beginning of the lunar month used by these two communities, the Syattariyah and Naqsyabandiyah communities, is a conventional method, especially the reckoning used. The calculation is inaccurate because it refers to the average orbit of the moon around the earth, not the actual orbit. This is followed as an inherited teaching by the community of Tarekat. There is also a rukyatul hilal which is still relatively conventional, in reality denying the use of aids and referring to different times and methods.

2. In scientific research, the method of determining the beginning of the lunar month in the Syattariyah and Naqsyabandiyah orders cannot be scientifically proven. There are many errors in determining the beginning of the lunar month according to this Tarekat. An irrelevant method of reckoning became the main cause. On the other hand, the rukyatul hilal, which is considered as a determinant, has shortcomings in its application, so it is not in the capacity of trying to detect the presence of the hilal that is precise and accurate.

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