THE ESTABLISHMENT OF THE UMMUL QURA CALENDAR IN AN EFFORT TO UNIFY THE GLOBAL ISLAMIC CALENDAR

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Abstract: A calendar is a unit of time consisting of months and days. Calendar has a function to determine the day, month, year or phenomenon of something. Calendars also serve to limit time and as a means of coordinating time. The calendar cannot stand alone, but the calendar is related to civilization and culture. This research will discuss the Ummul Qura calendar made by the Saudi Arabian government. The Ummul Qura calendar is one of the calendars made in an effort to declare the global Islamic calendar. This calendar was prepared by the Research Institute of Astronomy and Geophysics under the auspices of a research institute engaged in astronomy and geography called King Abdulaziz City for Science and Technology (KACST). The calendar is based on modern astronomical theories regarding the sun and moon. The purpose of this study was to see the feasibility level of the Ummul Qura calendar as a global Islamic calendar. The results of this study show that the Ummul Qura calendar as a whole can only be used for civil purposes, not to be used as a determination of the beginning of the new month.
Keywords: Calendar, *Ummul Qura*, Islam.

1. INTRODUCTION

According to the Big Indonesian Dictionary (KBBI) a calendar is a list which contains days and months of the year, or can also be called an almanac or takwim. The term calendar comes from the English modern *calendar*, derived from the old French *calendier* whose origin comes from the Latin *kalendarium* which means the record book of money lenders (Dasarno, 2010). Calendar terms in classical and contemporary literature are commonly called dates, takwim, almanacs and calendars (Azhari, 2012).

The calendar does not stand alone, but the calendar is closely related to the civilization and culture of a country, so there is a calendar designation based on its location. The function of the calendar is to determine the day, time, and natural phenomena that exist, besides that the calendar is useful for limiting time, for example from day to week, week to month *etc*. The calendar is an important means of time management, apart from the form of gestures, the Qur'an also expressly states the importance of a calendar (Anwar, 2016). The dates used by humans are generally based on the circulation of the Sun (*Solar*), Moon (*Lunar*) or a mixture of the two (*Lunisolar*) (Budiwati, 2017). The implications of the calendar in everyday life in fact function not only for administrative, economic, and civil purposes only, but also used for the benefit of Muslim worship (Budiwati, 2017). One of them is the determination of the beginning of the holy months of Ramadan, Shawwal, and Dhul-Hijjah. Until now, however, Muslims do not have a global Islamic calendar or Hijri calendar that can be used by all Muslims.

In historical records, the unification of the Hijri calendar is a matter of great urgency. This happens because the calendar must be able to provide certainty of time without any errors. Other than that, the unification of the Hijri calendar in order to become a global calendar is that since centuries ago after the emergence of Islam, Islam did not have an established and fixed calendar, so there was no calendar that could be used globally by all Muslims(Kurniawan, 2014).

Various efforts have been made by scholars and scholars in an effort to unify the Hijri calendar into a global calendar.The development of calendar (Arafat, 2021) calculations

in determining the beginning of the new month already existed during the caliph leadership of Umar bin Khatab who used the hisab *urfi* method where this was once used as the first official calendar calculation of the Fatimid Dynasty in the 4th century AD. In its development, today there are many calendars that carry the concept of unifying the entire Hijri calendar of Muslims (Iqbal, 2016).

The Ummul Qura calendar is one of the calendars made specifically in an effort to unify the Global Islamic calendar. This calendar was created by the Research Institute of Astronomy and Geophysics under the auspices of a research institute engaged in astronomy and geography called King Abdulaziz City for Science and Technology (KACST). This research will specifically explain the feasibility level of one of the calendars made specifically as an effort to unify the global Islamic calendar, namely the Ummul Qura calendar.

2. RESEARCH METHODS

This research uses a qualitative approach with a type of case study *research* (case study) and is descriptive. Descriptive-qualitative research methods are focused on problems based on facts carried out by observation or observation, interviews, and studying documents. The source of the data used is in the form of books or articles that have been published according to the theme discussed.

3. ANALYSIS OF STUDY FINDINGS

3.1 Formulation of the Ummul Qura Calendar

The Ummul Qura calendar is the official calendar used by the government of the Kingdom of Saudi Arabia. The Ummul Qura calendar was created by the Research Institute of Astronomy and Geophysics under the auspices of the King Abdulaziz City for Science and Technology (KACST). However, this calendar is only used for civil purposes, and is not used to determine the beginning of the new month. In determining the beginning of the new month, the Saudi Arabian government gives its authority to Majlis al-Qada' al-Ala (Supreme Judicial Council) which applies the rukyat method in determining the beginning of the new month, in contrast to Ummul Qura which uses the hisab method. Actually, the Ummul Qura calendar itself is a merger of two previous calendars, namely the Najd calendar and the Kingdom of Saudi Arabia calendar. In terms of its history, the Ummul Qura calendar continues to experience development and innovation (Anwar, 2008). According to Zaki al-Mutafa and Yasir Mahmud, both from the King Abdulaziz City for Science and Technology, as quoted by Syamsul Anwar, the um al-Qura calendar has undergone several stages of development, namely: (Musonnif, 2015)

1. The development of the first stage in 1950 – 1972, where the reference used based on hisab as a determination of the beginning of the new moon is when the sun sets on the 29th and the moon is already at an altitude of 9^{0} above the horizon, so the new moon falls on the next day.
2. The second stage in 1973 – 1998, the reference used at this time is that if ijtima' occurs on the 29th before 00:00 based on GMT, then the new moon falls on that night and the next day.
3. The third stage in 1998 – 2002, the reference used was when the moon set at the same time as the sun set in Mecca. During this time, for the first time, the coordinates of the Kaaba were used to design the calendar.
4. The fourth stage from 2003 to the present uses 2 references, namely when ijtima' occurs before sunset on the 29th and when the moon sets after sunset or the moon is

above the horizon when the sun sets. If both references are met, the new moon begins that night and the next day.

This last reference to the um al-Qura Calendar was used by Jamaluddin 'Abd ar-Raziq to devise a unified calendar which he called the Unified Islamic Qamariay Calendar or the Revised um al-Qura Calendar (Anwar, 2008).

3.2 Ummul Qura Calendar Expert Team and Level of Accuracy

In the history of the formation of the Ummul Qura calendar, there have been many updates in the dating system. This is also inseparable from the thoughts and ideas of scholars and experts in their fields. To increase the level of accuracy, a team of Ummul Qura calendar experts was formed where this team consisted of a drafting team and a supervisory team.

1. In 1400 H, the drafting team was chaired by Muhammad al-Umail who served as Deputy Minister of National Economy and Finance for Administration, consisting of Sheikh Muhammad bin Nashir al-'Abudi as General Treasurer of Islamic Da'wah, Sheikh Abdullah bin Khamis, Ahmad as director of the Observatory of Rield University, Muhammad al Ammari as Head of the General Administration of State Printing, and Abdullah al-Fuhaid as Head of Production and Quality of State Printing.
2. In 1403 AH, the drafting team increased with the presence of Sheikh Muhammad bin Ibrahim bin Salim. In 1404 AH, Shaykh Muhammad 'Abdur Rahim al-Khalid replaced the position of Sheikh Abdullah bin Khamis. In 1406 AH, Salih bin Muhammad al-Malik joined the language corrector team, then in 1409 AH, the leadership was replaced by the Minister of Finance for Central Services Ibrahim bin Abdurrahman al-Thasan, with members Sheikh Muhammad Nashir al-Abudi as General Treasurer of Rabitha al-Alam al-Islam, Sheikh Muhammad bin Abdurrahim al-Khalid, Muhammad al-Umail as deputy of the Ministry of Finance for Administration, Fadl Ahmad as director of the Riyadl University Observatory, and Muhammad al-Ammari as Director of the General Administration of the State Printing House.
3. In 1412 H, the drafting team was chaired by Dr. Shaleh bin Abdurrahman al-Adhl, an employee of King Abdulaziz City for Science and Technology (KACST), consisting of Sheikh Muhammad bin Ibrahim bin Salim, Sheikh Muhammd bin Nashir al-Abudi as General Treasurer of Rabitha al-Alam al-Islam, Sheikh Muhammad bin Ibrahim bin Salim, Sheikh Abdurrahim al-Khalid, Ibrahim bin Abdurrahman al-Thasan as deputy Minister of Finance for Central Services, Muhammad al-Umail as deputy of the Ministry of Finance for Administration, Fadl Ahmad as director of the Riyadl University Observatory, Shaleh bin Hamd al-Malik, Muhammad al-Ammari as Director General of Government Printing Affairs, and Sa'ad al-Sawaji as Director of the Government Printing Affairs Branch in Riyadl.
4. In 1414 AH, the drafting and supervisory team was still the same as in the previous period. It's just that Muhammad bin Abdullah al-Sakran as General Director of Government Printing replaced Muhammad al-Ammari as General Director of Government Printing Affairs.
5. In 1416 AH, the management team was the same as in the previous period. It's just that Abdul Aziz al-Murshid as the official of the Government Printing replaced the position of Prof. Shaleh bin Hamd al-Malik, and Muhammad al-Umail has resigned from his position.
6. In 1418 AH, Sheikh Muhammd bin Ibrahim bin Salim died, so the drafting team changed. Chaired by Shaleh bin Abdurrahman al-Adhl from the head of the Research Institute of Astronomy and Geophysics under King Abdulaziz City for Science and

Technology (KACST), consisting of Sheikh Muhammad bin Ibrahim bin Salim, Sheikh Muhammd bin Nashir al-Abudi, as deputy General Treasurer Rabithah al-Alam-al-Islami, Sheikh Sulaiman bin Mani' as a member of the Council of Senior Scholars, Sheikh Muhammad bin Abdurrahim al-Khalid, Abdullah bi Shaleh al-Uthaymin as General Treasurer of King Faisal International Prizee, Sa'd bin Hamdan al-Hamdan as deputy Minister of Finance for Revenue, Dadl Ahmad as Director of Riyadl University Observatory, Sulaiman bin Suwailim al-Suwailim as Director of General Administration of Government Printing, Sa'd al-Sawaji as Director of Government Printing Publishing, and Abdul aziz al Murshid as Government Printing Maintenance Sector.

7. In 1420 AH, the management was still the same as the previous period. However, Uthman al Qarni replaced Abdul aziz al-Murshid.
8. In 1421 AH, the management was still the same as the previous period. The difference is, Ahmad was replaced by Abdullah bin Nashir al-Rajihi as Deputy Supervisor for Astronomical Research at King Abdulaziz City for Science and Technology (KACST).
9. In 1422 H, Abdullah bin Nashir al-Rajihi was replaced by Zaki bin Abdurrahman bin Abdurahman al-Mustofa as Deputy Superintendent for Astronomical Research at King Abdulaziz City for Science and Technology (KACST).
10. In 1424 H, Sa'ad al-Sawaji resigned from his position, then Uthman bin Jarwan al-Qarni had become a commissioner, and there was the addition of two new members, namely Sa'd bin Abdurrahman al-Muqbil as Director of the Administration of the State Printing Warehouse and Ali bin Muhammad al-Syahrani as Director of State Printing Equipment.
11. In the following year, the head of the Ummul Qura calendar formulation team was Muhammd bin Ibrahim al-Suwail as the head of the King Abdulaziz City for Science and Technology (KACST) with members of Sheikh Muhammad bin Ibrahim bin Salim, Sheikh Muhammad bin Nashir al-Abudi as Deputy General Bendehara Rabithah al-alam-al-Islami, Sheikh Sulayman bin Mani', as a member of the Council of Senior Scholars and Royal Advisors, Sa'd bin Hamdan al-Hamdan as Deputy Minister of Finance for Revenue, Turki bin Sahw al-Utaibi as Professor of Grammar Imam Muhammad bin Sa'ud al-Islamiyyah University, Zaki bin Abdurrahman al-Mustafa as Associate Professor from King Abdulaziz City for Science and Technology (KACST), Hasan bin Muhammad Bashirah as Head of the Department of Science and Astronomy from King Abdulaziz City for Science and Technology (KACST), Ayman bin Sa'd bin Jarwan al-Qani as Director of State Printing Publishing, Sa'd bin Abdurrahman al-Muqbil as Director of State Printing Warehouse Administration, and Ali bin Muhammad al-Syahrani as Director of State Printing Equipment.
12. In 1431, Prof. Uthman bin Jarwan al-Qarni was no longer in office and Abdurrahman bin Ali al-Khudlair joined the commissioner.

Judging from the members who continue to change, this indicates that the Ummul Qura calendar formulation team continues to improve quality and performance. However, the Ummul Qura calendar that uses the hisab method as a determination of the beginning of the month and is not considered in accordance with the existing sharia, so the level of accuracy of this calendar is only used for civil purposes. This calendar system is also not used for determining the beginning of the new month in the context of worship, such as the beginning of Ramadan, Shawwal, and Dhul-Hijjah.

3.3 Ulema and Community Response to the Ummul Qura Calendar

Not all scholars in Saudi Arabia agree with the use of the hisab method as a determinant of the beginning of Ramadan as the Ummul Qura calendar. Sheikh Abdullah bin Baz, chairman of the Lajnah Daimah for Scientific Research and Fatwas of Saudi Arabia disagrees on the grounds that the early determination of the month of Ramadan should use the rukyat or *istikmal* method. In addition, Abdullah bin Baz emphasized that the use of falak, especially the hisab method in determining the beginning of the month of Radahan, is an act of heresy and is not useful because there is no basis for shari'a. This opinion is based on a hadith that reads:

صُو مُوا لِرُؤْيَتِهِ ، وَأَفْطِرُوالِرُؤْيَتِ ، فَإِنْ غُمَّ عَلَيْكُمْ فَأَكْمِلُوا الْعِدَّةَثَلاثِينَ

"*Breakfast because you see it (hilal), and Breakfast it because you see it (hilal), and if it is covered by clouds then perfect the month of Sha'ban to thirty days.*"

This opinion has become a common opinion among scholars, because the Council of Senior Scholars in the Kingdom of Saudi Arabia also thinks so. However, along the way, the hisab method began to be considered in determining the beginning of Ramadan, Shawwal, and Dhul-Hijjah. This happened because it also took into account several scientific findings such as the announcement of 40 years of hilal observations carried out by the Saudi Arabian government. As a result, 87% are inaccurate and have no scientific validity. In addition, there are also suggestions and criticisms from some scholars who are pro the hisab method.

Rabithah al-Alam al-Islamy held a conference "*Itsbatu ash-Shuhur al-Qamariyah baina ulama ash-Shari'ah ati wa al-Hisabi al-Falaky"* which coincided on 11-13 February 2012 in Mecca al-Mukarramah (Rofiuddin, 2016). The discussion in this conference was in the form of the formation of a committee whose members were experts in science and scholars. The formation of this committee aims to unify the beginning of the Hijri month in a country with a majority Muslim population. At this event, the city of Mecca is designated as an observation point and establishes an international hjri calendar for all Muslims. In this conference it was affirmed that Islam does not prohibit the use of modern technology to support the process of observing the determination of the beginning of the Hijri month. They also agreed that Muslims living in countries with minority Muslim populations should start and end Ramadan fasting if the new moon is seen anywhere in the country. If the new moon is difficult to observe for various reasons, they can refer to the nearest Muslim country or the nearest Muslim community (Azhari).

Among scholars, the use of the Ummul Qura calendar is still a pro and con because of the use of the hisab method which is considered not in accordance with sharia. The team that formulated the Ummul Qura calendar was also aware of the facts that occurred on the ground. It could be that the appearance of the moon occurs a day or two after the date predicted by the drafting team. In 1419 AH the government of the Kingdom of Saudi Arabia formed an official hilal observation committee to observe the appearance of the hilal or crescent moon in each month of Qamariyah. However, sometimes scholars themselves also get testimony from less experienced witnesses, so often the public is confused.

The Ummul Qura calendar system has indeed experienced development and innovation in its journey (Butar – Butar et al, 2016). The existence of this development was carried out because there were still shortcomings in the early days of the design of this calendar, as happened in the first stage. Here, the problem that arises is that it could be that at altitudes below 9° the hilal can already be observed with clear weather conditions. This triggered differences among adherents of the hisab method and the

rukyat method. In the second stage, problems arise due to ijtima' criteria which are based on 00:00 GMT time. The difference in time of 3 hours between Greenwich and Mecca causes the possibility that the beginning of the new moon will begin before the hilal position is seen at the observation point of Mecca.

Likewise the problem arises in the third stage, where when the 29th of the month of Qamariyah the moon sets after the sun is immersed. However, at that time there was no ijtima'. On August 27, 2003, in Mecca the sun sets at 18:41 while the moon sets at 18:39 and ijtima' only occurs at 20:27 local time. In this case Saudi Arabia was one day earlier in determining the emergence of hilal predictions, so at that time there was no ijtima' but a new moon had appeared.

In the next stage, namely the fourth stage (1423 H) until now, a new criterion was formed. Through this criterion, at least it can reduce some of the shortcomings that exist in the previous stages. Based on the new criteria, the committee that drafted the calendar of Ummul Qura did not patent a limit on how many degrees of hilal would be seen. This is because, according to the committee compiling the calendar of Ummul Qura, it has fulfilled the existing shara. Then the Shura Council of Saudi Arabia issued a decree through the Council of Ministers of the Kingdom of Aran Saudi, which stated that the reference in determining the beginning of the month of Qamariyah is the setting of the moon after sunset based on local time (Mecca), and the condition of ijtima' occurs before sunset.

Although the use of the Ummul Qura calendar among scholars still raises pros and cons, in society this calendar is widely used by several neighboring countries of Saudi Arabia, for example such as Qatar and Bahrain. In addition, for Muslims in countries with a non-Muslim majority, this calendar is still used, especially for mosques whose establishments are funded by the Saudi Arabian government. In fact, the Ummul Qura calendar became the *default* setting of the Arabic Microsoft Vista.

4. CONCLUSION

The unification of the Hijri calendar so that it can be used by all Muslims of the world is an urgent matter. Various efforts have been made by holding conferences discussing the preparation of the Hijri calendar. The Ummul Qura calendar is the official calendar used by the government of the Kingdom of Saudi Arabia. The Ummul Qura calendar was created by King Abdulaziz City for Science and Technology (KACST). This calendar uses the hisab method in determining the beginning of the month, so this calendar is only used for civil purposes. In determining the beginning of the new month, the Kingdom of Saudi Arabia gives its authority to Majlis al-Qada' al-Ala (Supreme Judicial Council) which applies the rukyat method in determining the beginning of the new month.

As the year progresses, the Ummul Qura calendar continues to experience improvement and development, as well as the Ummul Qura calendar formulation team that continues to improve its quality. Although some scholars in Saudi Arabia do not approve of the use of the hisab method in the Ummul Qura calendar because it is considered heresy and not useful, the Ummul Qura calendar is actually widely used by several neighboring countries such as Qatar, as well as Muslims whose residents are majority non-Muslims.

In practice, the formulation process in making a calendar is inseparable from several fundamental factors. The first factor is public acceptance of the development of increasingly advanced science. The second factor is the political importance of designing a calendar. In this position, it can be seen that the calendar cannot stand alone because the calendar is closely related to the dynamics of civilization and culture.

BIBLIOGRAPHY

Anwar, Syamsul. *Diskusi & Korespodensi Kalender Hijriyah Global*. Yogyakarta : Suara Muhammdiyah. cet. 1, 2014.

Anwar, Syamsul. *"Perkembangan Pemikiran Tentang Kalender Islam Internasional"*, Makalah disampaikan pada Musyawarah Ahli Hisab dan Fikih Muhammadiyah, Yogyakarta 21-22 Jumada Tsaniah 1429 H / 25-26 Juni 2008.

Arafat, Muhammad. 2021. *Konsep Penyatuan Kalender Hijriah Global Perspektif Syamsul Anwar.* Skripsi. Yogyakarta: Universitas Islam Indonesia.

Azhari, Susiknan. *Kalender Islam ke Arah Integrasi Muhammdiyah-NU*. Yogyakarta: Museum Astronomi Islam, 2012.

Azhari, Suksinan. *Penyatuan Kalender Islam "Satukan Semangat Membangun Kebersamaan Umat."*.http://dokumen.tips/documents/penyatuan-kalender-islam-olehsusiknanazhari. diakses pada hari Kamis, 22 April 2022 pukul 12.30.

Budiwati, Anisah. *Telaah Awal Kalender Hijriah Global Tunggal Jamaluddin 'Abd al-razik (Sebuah Upaya menuju Unifikasi Kalender)*. Jurnal Bimas Islam. Vol.10 No.III, 2017.

Butar – Butar, Arwin Juli Rakhmadi. *Kalender Islam Lokal ke Global, Problem dan Prospek*. OIF UMSU. cet. 1, 2016.

Dasarno, Ruswa. *Penanggalan Islam, Tinjauan Sistem, Fiqh dan Hisab Penanggalan*. Yogyakarta: Labda Press, 2010.

Kurniawan, Taufiqurrahman. *Penyatuan Kalender Islam*. Yudisia. Vol.5, No. 2, Desember 2014.

Musonnif, Ahmad. *Kalender Umm Al-Qura (Studi Pergeseran Paradigma Sistem Kalender di Kerajaan Arab Saudi)*. AHKAM. Vol. 3 Nomor. II. November, 2015.

Rofiuddin, Ahmad Adib. *Penentuan Hari Dalam Sistem Kalender Hijriah*. Al-Ahkam. Vol. 26, No. 1, April 2016.