

## Analysis of Factors Affect the Differences of the Determination of *Fajr* *Ṣādiq* and Its Relevance to the Basic Principles of Sharia

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### Article Info

#### Article history:

Received April 28, 2023

Revised June 13, 2023

Accepted June 14, 2023

#### Keywords:

*Fajr Ṣādiq*,

Dawn,

Prayer,

*Maqāṣid*

### ABSTRACT

This study aims to: (1) analyze the factors that cause differences in the determination of the beginning of *fajr* prayer time; (2) analyze the relevance of the determination of *fajr ṣādiq* as the beginning of *fajr* prayer time with the basic principles of Islamic law. This research is qualitative descriptive research using library research methods with normative of sharia and philosophical approach. The results of the study found several things. First, the difference in setting the schedule of *fajr* prayer is due to differences in the determination of the criteria of the elevation of the sun under the horizon and differences in interpreting the meaning of the *naṣ* and terms related to the time of *fajr* prayer, such as *fajr*, *galas*, *isfār*, *tabayyun* and others. Second, the basic principle in determining the beginning of the time of *fajr* prayer based on the perspective of Sharia is that the *fajr* prayer is determined by the signs that are believed, so that the criteria for the appearance of *fajr ṣādiq* are set at the unquestioned elevation of the sun and with signs that are *ḥissiyah* (observable with five senses) in accordance with *maqāṣid al-taysir* that can be understood and observed by every Muslim. This study contributes to the studies related to determining the start of prayer times. The results of this study provide recommendation in the form of determining the angle of *fajr ṣādiq* at the criterion between  $-18^{\circ}$  and *iḥtiyāt* 2 minutes or  $-17.5^{\circ}$ , as a precautionary measure, so that the polemic that occurs in the community regarding prayer time schedules is expected to be reduced or even resolved.

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## 1. INTRODUCTION

Prayer is an obligatory worship based on the Qur'an, *sunnah* and *ijmā'* of the scholars (Al-Maqdisī, 1986). Prayer should not be abandoned under any circumstances, even if the conditions of prayer cannot be fulfilled because of excuses, such as the absence of water for *wuḍū'*, dust for *tayammum*, vagueness of qibla direction or do not have a cloth to cover the *aurah*, prayer must still be done (Al-Nawawī, 2010) and should not leave it (not done) until it comes out of the appointed times. Allah says in Quran Surah al-Nisā' verse 103,

إِنَّ الصَّلَاةَ كَانَتْ عَلَى الْمُؤْمِنِينَ كِتَابًا مَوْقُوتًا

Meaning:

"Indeed, prayer has been decreed upon the believers a decree of specified times."

Anyone who wants to pray must be sure that the time has come. If a person is in doubt concerning the prayers, it is not permissible to do so until they are certain (Al-Maqdisī, 1986). Al-Syafi'i (1990) said of *fajr* prayer,

وَمَنْ صَلَّى قَبْلَ تَبَيُّنِ الْفَجْرِ الْآخِرِ مُعْتَرِضًا أَعَادَ وَصَلَّيْهَا أَوَّلَ مَا يَسْتَتِقِنُ الْفَجْرَ مُعْتَرِضًا حَتَّى يَخْرُجَ مِنْهَا مُغَلِّسًا

Meaning:

"... And whoever does it before the last dawn is clear, he repeats his prayer when he first believes it until the end of his prayer at the *galas* (late night darkness mixed with morning light)."

The calculation of science of *falak* about prayer times and the determination of qibla direction scientifically provides convenience for Muslims in worship (Bashori, 2015) without hesitation or have to make direct observations of the signs of the causality (nature). The schedule of prayer that is determined based on the science of *falak*, according to the scholars, can be used by the muezzins to know the beginning of prayer time (Al-Daimah, 2017). Nevertheless, the appearance of prayer schedules in diverse communities still continues to reap polemics until now even though the issue has actually emerged for a long time. The root cause is complicated to understand because the schedules are compiled by experts of science of *falak* who are not in doubt professionalism and credibility. Ironically, the scholars who actually present a solution to the problem, precisely inseparable from dissent (Mustaqim, 2020).

The above argument hints at the importance of a deeper study of the causes of the emergence of such prolonged polemics with appropriate analytical methods. Although research on the beginning of *fajr* time has been widely done (Ardi, 2020; Herdiwijaya, 2017; Kurniawan & Riyadi, 2021; Rakhmadi, Setiawan, & Raisal, 2020), both scientifically and based on the perspective of sharia, there has been no more specific research examining the determination of the early appearance of *fajr ṣādiq* as a marker of the entry of the *fajr* prayer time based on the basic principles of sharia.

Asyisya (2017), focused his research on sharia's *naṣ* and the interpretation of scholars in strengthening the prayer schedule that has been used so far in various Muslim-populated countries, especially in Morocco, as a rebuttal to the arguments of contemporary researchers and scholars who oppose the schedule and reveal things that are considered as their misunderstandings. This research essentially reinforces previous studies conducted by Ibrahim ibn Muhammad al-Subaihy that more specifically support the schedule that has been in force in Saudi Arabia using linguistic and *syar'i* approaches, then refuted by al-Ainain (2010) in his paper entitled *al-Fā'i'iq fī Bayāni al-Fajr al-Ṣādiq* and al-Khaṣlān (2016) on his personal website.

Smith (2019a) in Yemen, examined this polemic with a *syar'i* approach, in addition to describing the opinions of scholars both pro and counter to the existing schedule, he reinforced the views of each side by citing the interpretation of fascists so that his study seemed more broad. Saktono (2017), Chairman of The Islamic Science Research Network (ISRN) at Muhammadiyah University of Prof. Dr. Hamka (UHAMKA), a research center on the integration of Islamic science, examined the beginning of *fajr* with a scientific approach. He found that none of the scientific data indicated *fajr* on the criteria  $-20^{\circ}$ . The results of this study then became one of the data sources used by Muhammadiyah in the initial decision at dawn with the criteria  $-18^{\circ}$  in 2021 (Muhammadiyah, 2021).

Furthermore, Herdiwijaya (2017), one of Muhammadiyah's Astronomy Experts, examined the beginning of *fajr* by using a light intensity meter called a photometer to measure the brightness of the sky. This study is purely with a scientific approach with the conclusion that the angle of elevation of the sun  $-18^{\circ}$  has not indicated a change in the brightness of the sky, and only began to occur at the angle of elevation  $-17^{\circ}$  and gives the conclusion that on this criterion is the beginning of the dawn of dawn. Kassim Bahali et al. examined the accuracy of the criteria of  $-20^{\circ}$  sun elevation at the beginning of dawn time embraced by the Ministry of Religious Affairs of Malaysia from February 2017 to September 2018 in three countries namely Malaysia, Indonesia and Thailand. Using a scientific approach, he found that the average value of *fajr* emergence based on observations in the three countries was on the criteria of  $-17.15^{\circ}$  or about 9 to 12 minutes after *fajr* prayer in Malaysia and Indonesia (Bahali, Samian, Muslim, & Hamid, 2019). Furthermore, Zuhri (2017), with an astronomical approach, examined the cause of the difference in the determination of criteria  $-20^{\circ}$  at the beginning of *fajr* with  $-18^{\circ}$  at the beginning of the prayer time Isha which according to the results of his research should be the same two  $-18^{\circ}$ . Two years later, Niri et al. (2019) in Malaysia also examined the criteria of  $-20^{\circ}$  at the beginning of dawn set by the Malaysian government using an astronomical approach, finding that the misrepresentation of the criteria because the determination was purely from theoretical astronomical observations regardless of the factors that influenced the observation results such as changes in the brightness of the sky, and could not be proven by the naked eye.

From some of the results of the above research, found the difference with this study is located in the *knife sharper analysis* of the root cause of differences in argumentation in the determination of the beginning of the time of *Fajr* Prayer both from the aspect of science and *syar'i* to its relevance to the basic principles of Shariah. Therefore, this study was conducted with the aim of: (1) analyzing the factors that cause differences in the determination of the beginning of *Fajr* Prayer time; (2) analyze the relevance of the determination of *ṣādiq* dawn as the beginning of *Fajr* Prayer time with the perspective of the basic principles of Islamic law. Hopefully this study can provide a contribution in the form of recommendations in determining the angle of the *fajr ṣādiq* time as an effort to overcome the polemic that occurs in the community regarding prayer time schedules.

## 2. METHODS

This research is qualitative descriptive research using library research method with normative of sharia and philosophical approaches (Creswell & Creswell, 2017). The source of data is obtained from classical and contemporary literature of scholars from various groups of fields such as Qur'anic interpretations (*tafsir*), hadiths, jurisprudence and *fiqh*, the results of scientific research related to the beginning of the *fajr ṣādiq*, scientific journals and online media.

The data obtained is then analyzed and induced through the inductive method into an essential but universal and then concluded as the basic principles of sharia. These principles are used to analyze differences in determining the start of the *fajr ṣādiq*. Inductive methods and reasoning are considered appropriate as the methods used in this study because these methods make it easier for researchers to think and reason concepts in drawing conclusions from observations of particular things into general or universal symptoms (Mustofa, 2016; Rapar, 1995).

### 3. RESULTS AND DISCUSSION

#### 3.1. Analysis of Differences in Setting the Beginning of *Fajr* Prayer Time

##### 3.1.1. Differences in Arguments regarding The Criteria of Elevation of the Sun Under the Horizon

Smith (2019b) classified this polemic into two groups, namely groups that are pro against the schedule that applies in some countries that are claimed to be *jumhur* groups, and groups that are cons as *al-'aqalliyyah* or minority groups. If observed further, it will be found that the criteria for *fajr ṣādiq* based on the *jumhūr* version such as Saudi Arabia, Egypt, Jordan, United Arab Emirates, Morocco, Libya, Yemen, Iraq, and others, are between -18° to -20°, whereas minority parties are the ones who set it on the criteria of higher elevation than that.

The pro-*taqwīm* (prayer schedule) version of *Ummul Qura* sets the angle of the sun's elevation at -18° which then changes to -19° (Niri et al., 2019; Saktono, 2017), among them was determined by astronomer, Ahmad Nur, in 1395 H. This decree was strengthened by several major scholars in Saudi Arabia such as Abdul Azīz bin Bāz, Ṣālih bin Fauzān al-Fauzān and Abdul Azīz bin Abdullah Alu Syaikh through a fatwa based on the observations of the *fajr* monitoring team in Riyadh. While the counter-parties, reinforced by Sa'ad bin Turkī al-Khaṣṣlān and others who argue that most of the *taqwīm* in the Islamic world, among them *taqwīm* of *Ummul Qura*, have problems in determining the beginning of the dawn prayer time by making the horizon of astronomy as a sign of the beginning of the dawn prayer time, where the astronomical horizon is the dawn of *kāzib* that has been prompted by the Prophet so as not to be fooled by it (Audah, 2010).

Among the scholars who describe the argumentative defense against *taqwīm* of *Ummul Qura* is al-Syinqīṭī (2021) who reasoned that distinguishing between the dawn of *ṣādiq* and the dawn of *kāzib* was a complex issue for many. The distance between the *adhaan* and *al-tabayyun* (the dawn is clear) is very close, only about the duration of one's drinking. As for the middle of Medina, the beginning of dawn can not be seen. This argument is reinforced by quoting hadith 'Aisha narrated by Bukhari and Muslims about the Prophet's prayer at the *galas* (end of night, early dawn) which ends when the women can not be recognized because of the darkness of *galas*. Furthermore, he said that if the Prophet prayed after dawn, performed the *sunnah* prayer and lay down briefly on his right side, then Bilāl recited *iqāmah* and woke him up by reading between 60 to 100 verses in prayer, but it turned out that after prayer, the women could not be identified, should it be considered that the prayer schedule is only *lāgiyah* (vain)? (al-Syinqīṭī, 2021).

According to al-Subaihi (2007), *taqwīm* of *Ummul Qura* has been practiced since decades ago and strengthened by the *fatwas* of the scholars and evidenced by the research of some *falak's* experts such as Salih bin Muhammad al-Ujairi in Kuwait and Abdullah Muhammad al-Khudhairi. In addition, al-Subaihi (2007) also accused the opposing party of having erred in defining the *fajr ṣādiq* that is standard in observation. The allegations were confirmed by Audah (2010) and Ashisya (2017), that contemporary groups consider

the canceled prayers performed before the horizon turns yellow, and that what is meant by the *fajr ṣādiq* is the light that spreads in the streets, in houses and on mountain peaks.

The argument was later refuted by al-Khaṣṣlān (2016) that the main purpose of writing al-Subaihi's book was only as a form of defense against *taqwīm* of *Ummul Qura*, but he regretted the author who had never made dawn observations even once, so according to him, it became a huge deficiency for the author. According to him, it is not wise for a person to make a book on a problem that he has never touched scientifically at all (Al-Khaṣṣlān, 2016).

In addition to al-Khaṣṣlān, al-Ainain (2010) also refuted al-Subaihi's argument by quoting Abdul Muhsin al-Ubaikan's confession, that after he explained the accuracy of the team's observations recommended by the *jumhūr* to Abdul Azīz bin Bāz, he requested that Abdul Azīz bin Bāz as a cleric, mandate the team to conduct joint observations, previously, Abdul Azīz bin Bāz agreed to the request but the team in charge refused. According to Abd al-Muhsin al-Ubaikan, as narrated by Ahmad al-Ainain, it is evidence of a lack of spirit to correct mistakes (Al-Ainain, 2010). Abd al-Muhsin al-Ubaikan admitted to having made several dawn observations with several scholars and a falak expert in the city of Malik Abdul Aziz for twenty years outside the city of Riyadh and found that the *fajr ṣādiq* only appeared about 30 minutes after the adhan was recited (Smith, 2019a).

As for Egypt, *Dār al-Iftā'* or The Fatwa Institute of Egypt officially issued a *fajr* prayer schedule with the elevation of the sun at  $-19.5^\circ$  that is at the time of Abd al-Majid Sulaim based on a question about the validity of the results of the calculation of the early dawn by British astronomers on December 20, 1935, which was then justified and confirmed as the beginning of the dawn prayer time and the official fast which was killed by *Dār al-Iftā'* and issued by the Egyptian Government in the Decree no. 827 of 1975 was later revised by Decree no. 328 of 1983 (Bashori, 2011; Smith, 2019b).

Among the opposing parties to the *taqwīm* of *Dār al-Iftā'* are Ahmad Shakir and Abd al-Malik al-Kulaib. In 1981, Abd al-Malik al-Kulaib based on the results of his research proved that the dawn of *ṣādiq* appeared on the criteria of the elevation of the sun  $-17^\circ$  to  $-18^\circ$  under the horizon, and argued that the prayer performed based on the *taqwīm* is null and void (Smith, 2019b). *Dār al-Iftā'* at the time of Jad al-Haq Ali Jad al-Haq then issued fatwa no. 311 of 21/11/ 1981 as a rebuttal to Abd al-Malik al-Kulaib that his remarks were not based on valid evidence so that his opinion was not taken into account. This fatwa was affirmed by *falak* scholars and scholars such as Muhammad Sayyid Ṭanṭāwi and some *falakiyah* experts at *al-Qahirah* University (Smith, 2019b).

One and a half months after the fatwa was issued, *Dār al-Iftā'* formed a team of dawn researchers from various institutions in Egypt such as *al-Hai'ah al-Misriyyah al-Ammah li al-Masahah*, *Ma'had al-Arsyad al-Falakiyah*, *Falakiyah* Department in *Kulliyah al-'Ulūm al-Qāhirah*, Department of *al-Masahah wa al-Falak* at *al-Qahirah* University and *Dār al-Iftā'*. After the formation of this team, and before its task ended, *Dār al-Iftā'* during the time of Sheikh Abd al-Lathif Hamzah in 1983 issued a fatwa officially that the existing *taqwīm* was in accordance with the prayer times both in *syar'i* and *falakī*. Al-Qadhi Muhammad Hasan as the *syar'i* representative of *Dār al-Iftā'* in the team, based on the observation of *fajr ṣādiq* and the sinking of *syafak* with eyes, said that the existing *taqwīm* has been relevant in *syar'i* and *falakī*, namely the criteria  $-17.5^\circ$  for the beginning of Isha time and  $-19.5^\circ$  for the beginning of dawn (Smith, 2019b). This polemic does not stop there but still continues to this day. The last fatwa issued by *Dār al-Iftā'* regarding doubts about *taqwīm* was in 2017 (Majmū' Min al-Mu'allifin, 2010).

This polemic also penetrated into western countries inhabited by Muslim minorities. Islamic Society of North America (ISNA) considers that prayer times are even much earlier between 20 minutes to 25 minutes before dawn (Al-'Adwī, 2009). In 2011, ISNA set a new criteria for the beginning of dawn prayer time of -17.50 according to the direction of *Markaz al-Falak al-Daulī* in the Emirate that the dawn of *ṣādiq* appears at the elevation of the sun -18° below the horizon (Center, 2012). This raised questions because the determination is not based on observation data in the local country.

The ISNA criteria are almost the same as the research of Dhani Herdiwijaya, one of Muhammadiyah's Astronomy Experts in Indonesia in 2017, who found that the elevation of the sun at the beginning of dawn is -17° (Herdiwijaya, 2017). Previously it was claimed by Agus Hasan Bashori that the nature of the elevation of dawn is -14° and -15° (Bashori, 2011). According to him, in Indonesia, around 1975, Sa'duddīn Jambek set the criteria of -20° for the beginning of dawn prayers in Indonesia for reasons of prudence in fasting (A. H. Bashori, 2011).

In 2021, Muhammadiyah set the criteria of -18° for *fajr* prayers at the Plenary Session IV of the Muhammadiyah Tarjih Deliberation on the grounds that the majority of the height of the sun at dawn based on the results of analysis of 750 observation data in various regions of the world is between -18.4° to -17° and based on the agreement of some astronomers (Muhammadiyah, 2021). The criteria set by Muhammadiyah actually reinforce what was previously embraced by Thomas Djamaluddin (Rizalludin, 2018) and Muhammad Syauqat Audah, Head of *Markaz al-Falak al-Daulī* in the Emirate (Audah, 2010). A month after that, precisely on April 20, 2021, the Falakiah Institute of Nahdlatul Ulama Executive Board in Jakarta, strengthened the government's version schedule by officially releasing a study on the beginning of dawn prayer times in Indonesia that the criteria -20° is accurate and scientific based on the results of the latest observations in Indonesia with a variety of instruments (Falakiah, 2021).

### 3.1.2. Differences in Interpretation of Terms in *Naṣ*

The scholars have agreed that the beginning of the entry of the dawn prayer time is marked by the dawn (Al-Nawawī, 2010). In the Shari'a *naṣ*, there are several terms related to the time of dawn prayer that is the root cause of differences in interpretation among scholars and scholars of *falak*, until there is an opinion that the dawn prayer is done at its own time, not at night, nor at day, even some consider it as part of the night prayer (Al-Nawawī, 2010). Some of these terms are as follows.

#### 3.1.2.1. *fajr*

Linguistically, the word "*fajr*" means "the light of dawn; i.e. the reddish light of the sun in the dark of the night," (Manẓūr, 2010) or *al-fajru fī ākhiri al-lail ka al-syafaq fī awwalihi* (dawn at the end of the night like syafak at the beginning of the night). According to Ahmadi al-Adwī, it is termed dawn because of *infijārihi* (it radiates) (Al-'Adwī, 2009). *Fajr* or *fajr ṣādiq* as a sign of the beginning of the entry of the dawn prayer time has been defined by the Prophet (s) in his words (Al-Albānī, 2010),

الفجر فجران ، فجر يقال له: ذنب السرحان ، وهو الكاذب يذهب طولاً ، ولا يذهب عرضاً ، والفجر الآخر يذهب عرضاً ، ولا يذهب طولاً

Meaning:

"There are two types of *fajr*; one of them is called the *fajr* of the wolf's tail, which is the *fajr kāzib* whose vertical direction does not widen, and the other *fajr* that leads horizontally not vertically."

*Jumhūr ulamā* (the majority of scholars) defines the *fajr ṣādiq* as white light stretching and spreading over the horizon (Rusyd, 2005). Some terms such as *al-istiṭārah*, *al-istiṭālah*, *al-suṭu'*, *al-intisyār* and *al-i'tirād*, according to Smith (2019b), all refer to the same meaning. Some describe it as a white light that stretches red and scattered, as defined by al-Alawi (2012). This definition is affirmed by Asyiyā (2017) that the beginning of the appearance of *fajr ṣādiq* is white and then mixed with red, according to him, it has been agreed between scholars and *falak* experts. Another opinion says that the dawn is a red dawn that appears after white dawn as the color of twilight red. This view is narrated from Hudzaifah and Ibn Mas'ud but is considered *syāḏ* (strange) by Rusyd (2005) because it contradicts with mentioned in Quran surah al-Baqarah verse 186 about *al-khaiṭu al-abyaḏ* (white thread) as the limit of the end of *saḥūr* meal time.

Some scholars assume that the character of dawn *ṣādiq* is something that is clearly visible, while others consider it as something vague or difficult to observed. Muflih (1997) defines the dawn of *ṣādiq* with the white light of *muntasyiran*, *fasyian*, *zāhīran* or stretched, spreading and clear. In addition to being clear, according to Syāfi'i (1990), it must also be believed. In contrast to Asyisyā (2017) who assumes that the beginning of the *fajr ṣādiq* is sometimes difficult to observed except for people who have a sharp visibility or by using tools. Therefore, dawn is termed *al-khaiṭu* (thread) because it is so smooth, what else with the current conditions with thick air pollution, dust, and the ubiquitous spread of light. At the beginning of the dawn this is, for the person who will fast it is obligatory for him to be the one who thinks it is the opinion of *jumhur ulama* and has been practiced all the time (Asyisyā, 2017).

From the aspect of the definition of *fajr*, the pro *taqwīm* party that has been practiced so far accuses the opposing party has misunderstood the meaning of *fajr*, because it assumes that the nature of the *fajr* in question is what is defined by a group that mentioned by al-Thabari when commenting on the word *al-tabayyun* as the deadline for eating *saḥūr*, namely:

ذلك بعد طلوع الفجر وتبينه في الطرقات والبيوت

Meaning:

"That what is meant is the rising of dawn and its appearance in the streets and in houses." (Al-Subaihi, 2007).

According to Abu al-Barakat Kamal Asyisyā, this definition is the root of the deviation of contemporary scholars who are opposed to the existing schedule (Asyisyā, 2017), Ibrahim al-Subaihy previously attributed its relevance to the interpretation of the opposing parties such as Taqiyuddin al-Hilaly, Sulaiman al-Tsunayyan, Muhammad Rasyid Ridha and Muhammad Nasiruddin al-Albani in uncovering their mistakes (Al-Subaihi, 2007).

Saad bin Turkey al-Khaṣlān considers Ibrahim al-Subaihy's argument above to be very subjective on the grounds that if such a definition of *fajr* is embraced by the current observation team, then research and observations outside Riyadh for 150 kilometers do not need to be done, just in the middle of the city and do not need to prepare a camera with high resolution (Al-Khaṣlān, 2016).

The issue of dawn interpretation also reaps contradictions among researchers and astronomers in Indonesia. According to Dhani Herdiwijaya, the appearance of the physic of dawn (twilight) is not easy to see and feel by the five senses as the phenomenon of sunrise or sunset (Herdiwijaya, 2017). This opinion is similar to the definition embraced by the Nahdlatul Ulama Falakiyah Institute which is carved from the opinion of al-

Zamakhshari, al-Razi and others that the sadic dawn is a light other than the dawn of *kāzib* that has appeared on the eastern horizon but is still faint and white (Falakiah, 2021).

Djamaluddin (2017) argues that for those who consider that *fajr ṣādiq* is not an astronomical dawn because it should be a brighter dawn, with a difference of about 24 minutes, it is only natural in the interpretation of *ijtihadiyah*. According to Agus Hasan Bashori, this opinion can be a reason for confusion in understanding the *fajr ṣādiq* because the timing of prayer is based on revelation, while the product of *ijtihadiyah* is the determination of how high the sun is under the horizon at *fajr ṣādiq* began to appear from an astronomical perspective (Bashori, 2011).

### 3.1.2.2. *al-tabayyun*

This term is mentioned in Qurān Surah al-Baqarah verse 187 concerning the *fajr ṣādiq*. The pro *taqwīm* argues that the term of *al-tabayyun* in the verse signals a burden in seeking and observing the dawn, because in Arabic the form of the word "*tafa'ala*" means *al-ṭalab* (request) and *al-takalluf*, as during the meeting between the black thread and the white thread indicating the existence of the two at the same time and the possibility is sketchy. As a result, if the light of dawn has spread and is clear, then there is no more *hajat* to *tabayyun* from the disguise (Smith, 2019a).

This is in contrast to the argument of Khan (2003), who said,

فجاء بلفظ التفعّل، لإفادة أنه لا يكفي إلا التبين الواضح، أي: يتبين لكم شيئاً فشيئاً حتى يتضح؛ فإنه لا يتم تبينه وظهوره إلا بعد كمال ظهوره

Meaning:

"The verse uses lafaz '*tafā'ul*' to benefit that (the dawn) is not taken into account except what is clearly visible, that is, appear little by little until it is clear to you, indeed it is not perfect considered *al-tabayyun* unless after its appearance is perfect.

### 3.1.2.3. *al-galas* and *al-isfār*

According to Ibn Manzḥur, the word *galas* which is a derivation of the masdar form *taglīs* means *ḡalam fī akhīr al-lail izā ikhtalaṭa bi ḡaw'u al-sabāḥ* (dark at the end of the night if it has mixed with the morning light) (Manẓūr, 2010). This definition is in common with the definition of al-Mubarak Furi, namely *ikhtilāṭ dhiyā' al-subḥ bi ḡulmati al-lail* (the mixing of the light of dawn with the darkness of the night) (Al-Mubarakfūrī, 2010). While Djamaluddin (2017) defines *ḡalam fī akhīr al-lail* as "dark at the end of the night".

According to Agus Hasan Bashori, defining the term of *galas* with "dark at the end of the night" or "dark" can not give a correct understanding, can not understand the meaning of the Messenger of Allah *ṣallallāhu 'alaihi wa sallam*, because *galas* is dark end of the night that has mixed with the light of the morning or white early in the day, as it is understood from other histories (Al-Nawawī, 2010; A. H. Bashori, 2011).

The prayer of the Prophet at the *galas* is not understood that he performs it before dawn, because the ruling of the origin of the shari'a (*naṣ*) is to strengthen each other and not contradict. Imam Bukhari and Muslim as narrated by al-Nawawī (2010) argues that the Prophet never prayed the *fajr* prayer before *fajr*, only that he always did it at the *galas*.

Syāfi'ī (1983) commented on the meaning of *al-isfār* which is understood by some scholars as the best time to pray *fajr* prayer when the horizon has turned yellow,

الإِسْفَارُ الْمَذْكُورُ فِي هَذَا الْحَدِيثِ عَلَى تَبَيُّنِ طُلُوعِ الْفَجْرِ، وَزَوَالِ الشَّكِّ



Meaning:

"*Al-isfār* referred to in the hadith is the belief in the rising of dawn and the loss of doubt."

Similarly, Imam Ahmad said,

الإسفار الذى أراد عليه السلام، هو أن يتضح الفجر، فلا يشك أنه قد طلع

Meaning:

"*Al-Isfār* which is meant by the Prophet (s) is the clearness of dawn so that there is no doubt that it has risen." (Baṭṭāl, 2010)

Ibn Daqīq mentions an interpretation of hadith *al-isfār* which is considered contradictory to the hadith *al-taglīs*, namely,

تَبَيَّنَ طُلُوعُ الْفَجْرِ وَوُضُوْحُهُ لِلرَّائِي يَقِيْنًا

Meaning:

"The rising of the *fajr* is clear to those who see it with certainty."

From some arguments of the experts and scholars related to the above terms, it is understood that there is a tendency of pro *taqwīm* parties to emphasize the definition of the beginning of *fajr* prayer time in a dark atmosphere at the end of the night where the dawn is still difficult to detect by the five senses, although it is called that the *fajr ṣādiq* is white but still faint to observe, therefore it takes effort to be able to successfully see it. While the counter *taqwīm* is more likely to define the *fajr ṣādiq* with a white light or reddish that stretches across the horizon, mixed with the darkness of the night but can be easily and clearly recognized and detected by the five senses by anyone so that its appearance is not in doubt.

## 3.2. Analysis of the Initial Determination of the *Fajr* Time Perspective of the Basic Principles of Sharia

### 3.2.1. Principle of *Maqāṣid al-Syarī'ah*

*Maqāṣid al-Syarī'ah* (sharia wisdom) is understood based on the shari'a passages found in the groups of sharia laws such as theology, worship and *mu'āmalah*. The *naṣ* and laws are analyzed by *istiqrā'i* (inductive) so that a similarity of sharia attention is found. In this matter, it is found that one of the *maqāṣid al-syarī'ah* that all forms of worship to God must be built on the foundation of belief. For example in the issue of theology, belief is the foundation of faith even though man is level in degrees according to the quality of his practice (Taimiyyah, 1996).

In the matter of *mu'āmalah*, it is prescribed clarity on each contract, so that all the blame that can cause doubt in it has been closed tightly by sharia unless only a few of them if it is seen as carrying a large *maslaḥat*, but it is tied to strict conditions, such as buying of *salām* (Azzam, 2022).

This *maqāṣid* seems to be increasingly observed in matters of worship, such as not being allowed to cancel prayers just because of something in doubt. Prohibition of fasting on *yaum al-syak* (questionable day) and the order to complete the number of months of *Shakban* to 30 days if the *hila* is not seen in order to build the belief of fasting in *Ramaḍān*.

This *maqāṣid* in the determination of qibla direction as a condition of the validity of prayer is a very clear guide in this matter and worth noting. The Prophet avoids to detail the direction of qibla so that a Muslim, wherever he is, on land or at sea, can perform prayers without any hesitation and *was-was* because of the vagueness of the direction of qibla, whereas since long ago, the qibla of the Prophet's mosque was right towards the *ka'bah* until now. The Prophet said,

مَا بَيْنَ الْمَشْرِقِ وَالْمَغْرِبِ قِبْلَةٌ.

Meaning:

"Between east and west, there is qibla."

Regarding the definition and criteria of *fajr* that are disputed by experts who tend to set the angle of the sun under the horizon based on the appearance of dawn, although it may still be difficult to detect by the sense of vision, al-Nawawī (2010), answered the question,

طُلُوعُ الْفَجْرِ وَالْمَرَادُ الطُّلُوعُ الَّذِي يَظْهَرُ لَنَا لَا الَّذِي فِي نَفْسِ الْأَمْرِ

Meaning:

"What is meant by the appearance of dawn is the appearance of dawn physically for us not the appearance itself."

From al-Nawawī's (2010) speech can be drawn an important conclusion, that the criteria of *fajr* that is taken into account is an aspect of visibility and not mere theoretical. It can also be understood as an answer in observing the *fajr ṣādiq* no need *takalluf* because the subject referred to in the verse is the dawn that appears and not the man who is required to so thoroughly seek and observe it. This view is relevant to *maqāṣid al-syarī'ah* from the aspect of *al-taysir* (ease). al-Nawawī (2010) then reinforced his view that,

صَلَاةُ الصُّبْحِ مِنْ صَلَوَاتِ النَّهَارِ وَأَوَّلُ النَّهَارِ طُلُوعُ الْفَجْرِ الثَّانِي هَذَا مَذْهَبُنَا

Meaning:

"*Fajr* prayer is included in the prayer (noon, while the beginning of the day is the appearance of the second dawn. This is our sect."

Nevertheless, sharia on the other hand establishes a concept in the determination of the law termed *galabatuḥẓān* (strong guess)(Qudamah, 2010) the lower qualifications of *al-yaqīn* (belief) but higher than just *al-ẓān* because of the ease of applying sharia. What is meant by *galabatuḥẓān* according to Muhammad ibn Salih al-Uṣaimīn,

إن ترجح عنده أحد الاحتمالين؛ فالراجح ظن، والمرجوح وهم، وإن تساوى الأمران فهو شك.

Meaning:

"If one of the two possibilities is stronger, then the stronger is called *ẓān*, which *marjūh* is called *wahm*, and if both are balanced then it is called *syak* (doubt)."

Thus, it can be understood that the definition of *galabatuḥẓān* is stronger than just a *ẓān*. Abu Hilal al-Askari quoted Abdullah al-Fauzan as explaining the book of *al-Waraqāt*,

غلبة الظن عبارة عن طمأنينة الظن، وهي رجحان أحد الجانبين على الجانب الآخر، رجحاناً مطلقاً، يطرح معه الجانب الآخر

Meaning:

"*Galabatuḥẓān* is a picture of the condition when the assumption becomes comfortable, the tendency of one between the two sides absolutely, with the possibility of the other side."

When explaining the issue of *qiyas*, Ibn Qudāmah *raḥimahullāh* said, "There is no need for certainty on the issue of branches (to be *qiyas*) but enough with *galabatuḥẓān*, because *al-ẓān* is like *qaṭ'iyyāt* in the matter of sharia"(Qudamah, 2010).

Regarding the determination of the beginning of the *fajr* prayer time, until now, many of the experts and scholars who question the authenticity of the criteria -20° even -19° degrees at the initial determination of the time of *fajr* prayer (Zuhri, 2017). This is because the data found is relatively small compared to the lower criteria and the *fajr* prayer time is considered too early. Thus, the criteria can be assumed as a questionable criterion and do not reach the qualification *galabatuḥẓān* let alone *al-yaqīn*, whereas the dawn prayer must begin with confidence.

If anyone argues with the advice to hasten and pray at the beginning of time, it does not mean that it is permissible to do it at a questionable time. Regarding of *al-taglīs* and *al-isfār* in performing fajr prayer, Ibn Baṭṭāl said,

فَكَأَنَّهُ قَالَ عَلَيْهِ السَّلَامُ: (أَسْفَرُوا بِالْفَجْرِ)، أَيْ تَبَيَّنُوهُ، وَلَا تَغْلِسُوا بِالصَّلَاةِ وَأَنْتُمْ تَشْكُونَ فِي طُلُوعِهِ حَرَصًا عَلَى طَلَبِ الْفَضْلِ بِالتَّغْلِيسِ، فَإِنْ صَلَّاتُكُمْ بَعْدَ تَيَقُّنِ طُلُوعِهِ أَكْثَرُ لِلْأَجْرِ، وَعَلَى هَذَا التَّأْوِيلِ لَا تَتَضَادُّ الْآثَارُ

Meaning:

“The Prophet said, ‘*Asfirū bi al-fajr*’ seems to mean that the Prophet said, ‘Make it clear, and do not pray at the time of the *galas* while you doubt the rising because of your spirit to achieve the virtue of prayer at the *galas*, verily the prayer you perform in a state of certainty the rising of the dawn is greater in reward’. This argument will not reap contradictions among the *atsar*” (Baṭṭāl, 2010).

On the other hand, it is understood that the spirit to reap the virtues of prayer at the beginning of its time must also be addressed wisely without being eliminated by law, because there are other instructions from the Shari'a about the preferability of delaying prayer times for the benefit of congregational prayers, such as hadith Jabir bin Abdillah ra. when describing the prayers of the Prophet, he said,

...وَالْعِشَاءُ أَحْيَانًا وَأَحْيَانًا إِذَا رَأَوْهُمْ اجْتَمَعُوا عَجَلًا. وَإِذَا رَأَوْهُمْ انْبَطَّوْا آخَرًا، وَالصُّبْحُ كَانَ النَّبِيِّ - صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ - يُصَلِّي بِهَا بَعَلَسَ

Meaning:

“And sometimes he (prophet) prays 'Isha' faster if he (prophet) sees them gathered faster, and withdraws it if he (prophet) see them gathered more quickly.”

### 3.2.2. *Maqāṣid al-Taisir fī al-Tasyri' (Easy in Sharia's Determination)*

One of the *maqāṣid al-syarī'ah* in the concept of *tasyri'* is that it tends to provide convenience in the implementation of worship and avoid things that can cause difficulties in it (Siroj, 2019). This attention of sharia is understood based on the theory of *istiqrā'i* (inductive) to the universal laws of sharia. Among the descriptions of the application of wisdom is that sharia tries to avoid not being too mathematical and very certain in the issue of worship, such as the determination of illat, the cause or condition of an worship, thus making it *hissiyah* (observable with five senses). For example, the direction of qibla is determined as a condition of the validity of prayer as previously hinted, *hilāl* as a sign of the obligatory fasting of Ramadan, sunset as a sign of breaking the fast, the rising of dawn as the beginning of the time of *imsāk*, and the position of the sun at prayer times, including the light of dawn as a sign of the entry of the beginning of prayer time, without having to be incoquality (Al-Duwaihi, 2009). These signs are easy to understand, well observable with the five senses by everyone. The signs are not just an undetectable definition, especially if it causes polemic in the community.

The argument of *maqāṣid kulliyah* (universal wisdom) above becomes the basic principle in setting the prayer schedule. Sharia laws that are partial or *maqāṣid juz'iyah* either derived directly from the evidences of syar'i or based on a concept or method that is only secondary qualified, not the main source such as the method of falakiyah reckoning, must be relevant to the *maqāṣid kulliyah* and not brought to the contradiction because this shari'a strengthens each other. Imam al-Syāṭibi (1997) said,

فَمَنْ الْوَاجِبُ اعْتِبَارُ تِلْكَ الْجُزْئِيَّاتِ بِهَذِهِ الْكُلِّيَّاتِ عِنْدَ إِجْرَاءِ الْأَدْلَةِ الْخَاصَّةِ مِنَ الْكِتَابِ وَالسُّنَّةِ وَالْإِجْمَاعِ وَالْقِيَاسِ؛ إِذْ مُحَالٌ أَنْ تَكُونَ الْجُزْئِيَّاتُ مُسْتَعْنِيَةً عَنِ الْكُلِّيَّاتِ، فَمَنْ أَخَذَ بِنَصِّ مَثَلًا فِي جُزْئِيٍّ مُعْرِضًا عَنْ كُلِّيٍّ؛ فَقَدْ أَخْطَأَ. وَكَمَا أَنَّ مَنْ أَخَذَ بِالْجُزْئِيِّ مُعْرِضًا عَنْ كُلِّيٍّ؛ فَهُوَ مُخْطِئٌ، كَذَلِكَ مَنْ أَخَذَ بِالْكُلِّيِّ مُعْرِضًا عَنْ جُزْئِيٍّ.

### Meaning:

“Thus it becomes an obligation to establish a partial *maqāṣid* based on a comprehensive *maqāṣid* in implementing the specific evidences of the Qur'an, *Sunnah*, *ijmā'* and *qiyās*, as it is impossible for a partial *maqāṣid* regardless of the comprehensive *maqāṣid*. Whoever ignores the comprehensive *naṣ* and only adheres to the partial passage has made a mistake, and vice versa.”

Abd al-Wahaf Khallāf says that if there is a multi-interpretation or contradiction with the other, then *maqāṣid al-syārī'ah* is the determinant in compromising it or that will strengthen one of its interpretations.

### 3.2.2.3. Fiqh Rules

Some institutions and researchers make the worship of eating of *saḥūr* as the reason for setting the criteria of *iḥtiyāt* (prudence) in the determination of the beginning of the time of *Fajr* Prayer. Concerns about the breaking of fasting if it turns out that eating of *saḥūr* after *fajr* can affect the accuracy of the beginning of the *fajr* prayer time. This issue is essentially a classic question that has long been discussed by *fuqaha* until a *fiqh* rule appears that reads,

ما عرف ثبوته ييقن لا يحكم بزواله بالاحتمال أو “لا يزال إلا ييقن مثله”.

### Meaning:

“What is known for certainty, not being punished vanishes because of uncertain possibilities,” or in other words “Not obliterated except with the same conviction.”

Therefore, in the Syafi'i sect and others, eating *saḥūr* is still permissible until it is clear that *fajr* rises and the loss of doubt, as it is not permissible to break the fast except with confidence in the entry of the night time marked by the perfect setting of the sun (Muchtar, 2022). Even if a person is shown to eat of *saḥūr* after *fajr* because he doubts it before, according to the Syafi'i sect and others, his fast remains valid, based on the rule of “*al-aṣlu baqā'u mā kāna 'alā mā kāna*” which means that the original law is the fixedness of what is going on, in this case it is night time, until it is believed to be the entry of daylight hours. Ibn Nuja'im mentions the example of the rule that is related to Abu Ḥanīfah that if a person eats *saḥūr* doubt of the *fajr* then the fast is valid, because the original law is the fixed night time, the obligation to make up only if the assumption is strong (*galaba 'alā ḡannihi*) that the *fajr* has actually risen but he still eats *saḥūr*.

If further observed, in relation to the time of *fajr* prayer, *iḥtiyāt* (prudence) in the implementation of dawn prayer is actually preferred over *iḥtiyāt* to eat of *saḥūr*. Mistakes made if without the element of deliberateness related to eating *saḥūr*, the consequences are lighter than the mistakes made when the *fajr* prayer is done before entering the time.

## 4. CONCLUSION

Based on the above analysis and discussion, some conclusions that can be drawn. *First*, the occurrence of differences in the setting of the *fajr* prayer schedule is caused by several factors, namely: (1) differences in the determination of the criteria of elevation of the sun under the horizon, where the parties that maintain the existing schedule in their respective countries are considered as *jumhur*, with criteria between -18° and -20°; and (2) differences in interpreting the meaning of the *naṣ* related to the time of *fajr* prayer and the terms contained in it, such as *fajr*, *galas*, *isfār*, *tabayyun* and others. *Second*, the basic principles in determining the beginning of the *fajr* prayer time based on the perspective of Sharia are: (1) *fajr* prayer is determined by the signs that are believed, so that the criteria for the appearance of *fajr ṣādiq* is set at the unquestioned elevation of the sun; and

(2) Sharia stipulates the obligatory requirement of *fajr* prayer with signs that are *ḥissiyah* (observable with five senses) namely the appearance of *fajr ṣādiq*, in accordance with *maqāṣid al-taysir* (ease) that can be understood and observed by every Muslim, so that the beginning of *fajr* prayer time is determined based on the criteria of elevation of the sun that is easy to understand, not a difficult to see especially if it is just a theory.

Based on the above analysis and conclusions, the study provides recommendations for setting the angle of *fajr ṣādiq* on the criteria between  $-18^{\circ}$  and *iḥtiyāt* 2 minutes or  $-17.5^{\circ}$ , with several considerations: (1) *Falak* experts still continue to differ opinions and continue their research; (2) the counter *taqwīm* that exists not only from astronomers but strengthened by scholars who conduct direct research; (3) the criteria set by pro *taqwīm* parties from both experts and scholars seem to disagree with one criterion,  $-18^{\circ}$  or  $-19^{\circ}$  or  $-20^{\circ}$ , because each only defends the schedule in his country; (4) research on *fajr ṣādiq* must be continuously deepened, especially from two aspects, namely basing research on the correct definition of *fajr* in *syar'i* terms, and prioritizing the quality of research data based on procedures established by experts.

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