The Problems of the Relationship between Science and Religion in Qibla Direction Calibration at the Great Mosque of Demak and Baiturrahman Mosque in Semarang, Indonesia

Problematika Hubungan Sains dan Agama dalam Kalibrasi Arah Kiblat di Masjid Agung Demak dan Masjid Baiturrahman Semarang, Indonesia

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Abstract: The relationship between science and religion in the practice of Islamic law (fiqh) is dilemmatic. On the one hand, science is in harmony with religion, and the two are mutually exclusive on the other hand. This article includes the last category by presenting evidence from two cases of Qibla direction calibration in Indonesia. The author focuses on the disagreement between fiqh and scientific results on the calibration of the Qibla direction at the Great Mosque of Demak and Baiturrahman Mosque in Semarang, Indonesia. Using literature research and content analysis, the author finds that fiqh’s rejection of science lies in the intersection of fiqh with Sufistic elements and the reality of social establishment. In the Qibla’s case direction at the Great Mosque of Demak, they believe that Sunan Kalijaga determined the direction of the Qibla in the mosque, and the mosque has a switched historic value. In contrast to the case of the Qibla direction at the Baiturrahman Mosque in Semarang, which has no historical value and the Qibla direction was previously determined using a simple tool, they reasoned that changing the prayer lines in the mosque could cause discomfort and lack of stability for the congregation when carrying out prayer rituals. Thus, a scientific integration approach is needed in handling the gap between science and religion in religious practice in Indonesia.

Keywords: Religion, Science, Qibla Direction Calibration, Great Mosque of Demak, Baiturrahman Mosque Semarang.


Kata Kunci: Agama, Sains, Kalibrasi Arah Kiblat, Masjid Agung Demak, Masjid Baiturrahman Semarang.

A. Introduction

The relationship between science and religion is a central issue in civilization and culture. On the one hand, science is an ally of Islam. On the other hand, the relationship between science and Islam is disintegrating and contradicting each other. For a Muslim, the existence of science needs to get legitimacy from norms originating from Islam. This rejection of science is caused by findings in the field of science that do not come from Islamic ethics and morals. In contrast to the two studies, which view it from a conflict approach, some scholars seek to integrate science with Islam.

This article describes the disagreement between fiqh and scientific results by presenting two cases of calibration of the Qibla direction at the Great Mosque of Demak and the Baiturrahman Mosque of Semarang in the practice of religion in

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3 Nasser Mansour, "Science Teachers’ Views of Science and Religion vs. The Islamic Perspective: Conflicting or Compatible?," *Science Education* 95, no. 2 (March 1, 2011): 281–309.
Indonesia. The Qibla direction of the two mosques has been calibrated using the scientific method or astronomy. Interestingly, after the results of the Qibla direction calibration carried out by the Ministry of Religious Affairs, the Central Java Regional Office stated that the two mosques did not lead directly to the Kaaba. Although the prayer rows at the Great Mosque of Demak have been adjusted to the results of the Qibla direction calibration for a while, the prayer rows of the two mosques were finally returned to their original state. In both cases, the results of scientific work do not agree with religious norms and have an impact on rejection at the level of application. Differences in fiqh understanding can also have implications for determining the direction of Qibla.

In the Indonesian context, several scholars have studied the relationship between science and religion in constructing fiqh in Indonesia. One of them is Susiknan Azhari, who explains the problem of integrating science and religion in terms of reckoning and rukyat in Indonesia. Some scholars argue that science is coherent with religion after reviewing the fatwas issued by the Indonesian Ulema Council (MUI) regarding transplantation and changes in religious practices during the Covid-19 period. Not coherent with religion, some scholars argue that there is an integration between science and religion. It is evidenced by the MUI fatwa methodology, which combines the methods of science and religion. Science and Islam are one and cannot be contradicted.

Meanwhile, some scholars found that Muslim groups’ rejection of science in religion impacted the transmission of Covid-19. The rejection of science is also

11 Hooker, “Islam and Medical Science.”
found in determining the direction of Qibla.\textsuperscript{15} This article is included in the last typology that examines Qibla direction calibration. In contrast to Muthmainnah and Fattah Setiawan Santoso, who study it normatively, this article uses the calibration of the Qibla direction at the Great Mosque of Demak and the Baiturrahman Mosque in Semarang as real examples of the neglect of fiqh on the results of scientific work.

This article is library research using content analysis. This library research and content analysis is used to answer why science is still neglected with calibration of the Qibla direction at the Great Mosque of Demak and the Baiturrahman Mosque in Semarang in the practice of religion in Indonesia. Interestingly, this neglect occurred amid massive efforts by Islamic universities to integrate or find common ground between religion and science.\textsuperscript{16} For this reason, this article discusses the relationship between science and religion in Indonesia, the characteristics of fiqh, methods and tools for determining the direction of Qibla, and a description of two cases that ignore the results of the calibration of the Qibla direction with the scientific method and return to neglecting it.

B. Science and Religion in Indonesia: Integration or Disintegration?

The separation of knowledge from science and religion stems from differences in the truth’s acceptance or validity of the information provided by physical things with metaphysical things.\textsuperscript{17} In the series of modern scientific history, science is everything that can be digested by the five senses or is empirical. For adherents of empiricism (also known as positivism), truth is what appears, what can be proven and witnessed by the five senses.\textsuperscript{18} Consequently, knowledge is structured and becomes a science emphasizing all things physical. Because of his

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\item \textsuperscript{15} Muthmainnah Muthmainnah and Fattah Setiawan Santoso, “Pemanfaatan Sains dan Teknologi dalam Pengukuran Arah Kiblat di Indonesia,” \textit{Ulumuddin: Jurnal Ilmu-Ilmu Keislaman} 10, no. 2 (December 29, 2020): 149–62.
\item \textsuperscript{17} Hadi Masruri and Imron Rossidy, “Filsafat Sains dalam Al-Qur’an: Melacak Kerangka Dasar Integrasi Ilmu dan Agama,” \textit{El-QUDWAH} 4, no. 1 (2007): 1–16.
\item \textsuperscript{18} Izzatur Rusuli and Zakiul Fuady M. Daud, “Ilmu Pengetahuan dari John Locke ke Al-Attas,” \textit{Jurnal Pencerahan} 9, no. 1 (March 30, 2015): 12–22.
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fanaticism, things that smelled of metaphysics were removed from the science category.\textsuperscript{19}

On the other hand, religion (Islam), which never separates and distinguishes between knowledge from physical and metaphysical matters, is understood as a party that only puts forward everything that smells of metaphysics.\textsuperscript{20} It is related to the definition of religion and the basic foundation of religion which prioritizes something metaphysical, such as believing in angels who are not visible, believing in previous prophets who have not been found, until believing in the last day that will come in the future. In Indonesia, it is alleged that religious communities practice the way Islam emphasizes the way of Islam that puts forward abstract things, once known as superstition for the practice of Islam by Muslims in Indonesia.\textsuperscript{21}

The paradigm of separation of science and religion (general science and religious science) has been tried to erode by scholars and ulemas in Indonesia in the last three decades. Several professors and thinkers of Islamic studies have tried to formulate how there is harmony and understanding between general science and religious knowledge. M. Amin Abdullah, professor of UIN Sunan Kalijaga, offers the integration of science with theo-anthropocentric-integralist character, also known as the scientific spider web. This idea tries to map out the existence of all aspects of life, which comes from two main sources in Islam, the Qur’an and the sunnah. These two sources inspired the birth of studies on hadith, fiqh, and interpretation, in philosophy. At the same time, there are several scientific studies according to their respective characteristics, such as sociology, anthropology, archaeology, history, ethics, and others. The outermost net is in the form of practical rules that have taken the form of law, economic studies, human rights, environmental issues, and others. All of them are interconnected like spider webs that are inseparable from one another.\textsuperscript{22}

\textsuperscript{22} Parluhutan Siregar, “Integras Keilmuan dalam Perspektif M. Amin Abdullah,” \textit{MIQOT: Jurnal Ilmu-Ilmu Keislaman} 38, no. 2 (December 9, 2014).
From a different perspective, Kuntowijoyo offers scientific integration that can be achieved in four stages. First, make religion (the Qur'an) a grand theory to give color to guidance and ethics in life. Second, towards theo-anthropocentrism. This stage recognizes that there is an intelligence of the human mind that cannot be denied in obtaining the truth, and it cannot be denied that humans cannot be separated from divine rules. Both are sources of knowledge. The third is dedifferentiation. This stage is responsible for the differentiation of religion and other sectors of life that is echoed by the spirit of modernism. Dedifferentiation requires the reunification of religious elements with other sectors of life. Finally, intergalactic science, namely science that does not distinguish between divine revelation and the findings of the human mind. There is no longer the term excessive secularism that overrids religion and excessive religious radicalism that looks down on other than religion.23

Integrating science and religion has inspired several State Islamic Institutes in Indonesia, which have been transformed into State Islamic University (UIN), offering the concept of scientific integration with their respective characteristics. Among them is UIN Syarif Hidayatullah Jakarta24 offering the concept of ‘reintegration of knowledge’, UIN Yogyakarta choosing the term ‘interconnection-interrelation’,25 UIN Sunan Ampel Surabaya introducing the concept of ‘integrated twin towers’,26 UIN Maulana Malik Ibrahim Malang offering the concept of ‘tree of knowledge’,27 UIN Makassar using the term ‘cell integration of science’, UIN Semarang uses the term ‘unity of science’, and UIN Sunan Gunung Jati Bandung with the idea of ‘wheel of knowledge’.28 Unfortunately, the integration of science and religion promoted by each UIN is not in line with some of the religious practices of

27 Zainiyati.
Muslims in Indonesia, including the practice of calibrating the Qibla direction in this article.

C. Sources and Characteristics of Fiqh

Fiqh is the work of fiqh experts from time to time. As the definition commonly used in the study of fiqh, it is understood as the science (knowledge) of practical sharia laws (amaliyah), which are taken from detailed arguments.\(^{29}\) This definition requires that all matters related to Muslim practice refer to the textuality of the Qur’an and hadith. It is because the measure of truth is based on what is contained in the two main sources of Islamic teachings. Thus, fiqh is the product of human thought on the Qur’an and hadith.\(^{30}\)

Textuality can be seen from the sources of Islamic law (mashādir al-tasyrī’), which have been described in the study of uṣūl al-fiqh (Islamic legal theories). There are four agreed sources of law (ittifāq), namely the Qur’an, sunnah, ijmā’ (consensus) and qiyās (analogy).\(^{31}\) The Qur’an and Sunnah occupy the main and top sources, respectively. It is based on the hadith about the sources of law used by Mu’adz bin Jabal in ijtihad.\(^{32}\) Meanwhile, ijmā’ and qiyās are methods that require the role of humans as sources of legal truth, provided that they do not conflict with the Qur’an and Sunnah.\(^{33}\)

Apart from the agreed sources of law, several other sources of Islamic law are still in dispute (mukhtalaf). Among them are istihsān (the public interest), istishāb (presumption of continuity), istishlah (consideration of public interest), syar’u man qablanā (revealed laws before Islam), ‘urf (local custom), and sādd dzari’ah (eliminating pretexts). All the disputed sources still make the Qur’an and


hadith as a measure of truth. All results using some of these methods must be returned to the general truth in the Qur’an and Sunnah.34 Because it belongs to the category of mukhtalaf, some scholars accept it, and some reject it. Therefore, the result of this mukhtalaf fiqh is referred to as dhannī (presumptive).35 According to Haris, several methods used to formulate fiqh lead to three categories: linguistic interpretation, case study, and categorization. The three categories have very strong textual nuances.36

Regarding the practical nature of fiqh, it leads to guidelines that Muslims can use directly. Ordinary people are ready to use what has been contained in fiqh. Because fiqh is practical, it will try to keep up with the times. Why follow? It is because the reference of Islamic jurists (fuqaha) in formulating fiqh has changed along with the development of human civilization. Therefore, there is one rule that allows fiqh to always adapt to space and time, taghayyur al-akhām bi taghayyur al-amkinah/changes in the law (possible) along with changes in time and place.37 The rule of law is under the practical-applicative nature of fiqh and must adapt to the conditions in which fiqh exists.38

In the Qibla’s context direction in Indonesia, one has to look at the development of science that is getting more and more advanced here, not necessarily the Qibla direction which was previously determined by simple tools such as a magnetic compass under current science. Because the direction generated from the magnetic compass is not pointing to the true north but the direction of Earth’s magnetic north. So that the fiqh of the Qibla direction must always be applied so that the Qibla direction produced based on science is truly in line with the concept of fiqh.

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D. Qibla Direction Calibration Method and Tool

Praying facing the Qibla is one of the legal requirements. Under normal conditions, a Muslim who wants to pray must try to face the Kaaba in the Grand Mosque, Mecca, as his Mecca. Therefore, mosques and prayer rooms used as places of prayer for Muslims must be sought so that the existing buildings and their prayer line direct and face the Qibla.\(^{39}\) Thus, knowledge and tools to know the Qibla direction are very important for Muslims.

Knowledge and equipment to know the direction of Qibla develops over time. Knowing the Qibla direction is a command from the Qur’an and hadith, which are still general and not yet applicable. The Qur’an only mentions “fawallu wujūhakum syathrah/ turn your face towards him (Masjidil Haram)” as contained in Surah al-Baqarah verses 144 and 150. Besides the Qur’an, the command to face the Qibla is also contained in the hadith narrated by Al-Bukhārī, istaqbil al-qiblah/facing the Qibla. Because the two arguments are still generally commanded, the fiqh experts (fuqahā’) try to make the command to face the Qibla to be amaliy and can be a guide for the people. The efforts of these fiqh experts are known as ‘ainul qiblah and jihātul qiblah.\(^{40}\)

‘Ainul qiblah is the opinion of the fuqaha to designate the conditions in which a person can see or know the Kaaba directly. It applies to people who perform prayers in the Grand Mosque and nearby. As for jihātul qiblah, it is a condition in a person who cannot see the Kaaba directly. It applies to Muslims who are far from the Kaaba.\(^{41}\) In addition to the opinion of the fuqaha, Muslims already know to determine the direction. In the past, Arabs used the constellations of Orion and Polaris to find the closest point to the Grand Mosque, where the Kaaba is located. So that when traveling far from Mecca, they can try to get to the Kaaba well.


\(^{41}\) Ahmad Izzuddin, Ilmu Falak Praktis: Metode Hisab-Rukyat: Praktis dan Solusi Permasalahannya (Semarang: Pustaka Rizki Putra, 2012).
In addition, Muslims have also discovered the rashdul qiblah to find the time the sun is above the Kaaba. Thus, every object at that time is pointing toward the Kaaba. There are two types of this method, annual and daily. The annual Rashdul qiblah occurs twice, 27 or 28 May and 15 or 16 July. At the same time, the daily rashdul qiblah is adjusted to a certain location on the Earth, allowing the sun’s shadow to produce an angle equal to the azimuth of the Qibla or vice versa.  

Along with the development of science, the direction to face the Kaaba has been sought by Muslims accurately, even though it is located far away from the Grand Mosque. Various tools and methods have been found to find out the Qibla direction. Al-Fazzari, for example, had invented (perfected) a tool known as the astrolabe in the 8th century AD. Ibn al-Syātir had discovered the rubu’ mujayab (quadrant). These two tools can be used with certain calculations to determine the Qibla direction. In the modern era, the two tools were refined into a theodolite.

E. Abandonment Science in Jurisprudence Determination of Qibla Direction: Case Studies at the Great Mosque of Demak and the Baiturrahman Mosque in Semarang

The Qibla direction calibration method and tool that the author has described previously is a practical guide in carrying out fiqh facing the Qibla. These tools and methods are a tool in determining the direction of Qibla, as desired in the integration’s study of science and religion. Referring to the opinion that science should be an important guideline for strengthening the implementation of fiqh or Islam, Muslims should be able to accept the calibration of mosques or prayer rooms using the latest methods and equipment to determine the direction of Qibla. Unfortunately, some Muslims have not fully accepted the use of science in determining the direction of Qibla. In this discussion, the author makes the

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calibration of the Qibla direction at the Great Mosque of Demak and the
Baiturrahman Mosque of Semarang as two cases of neglect of science.

The first is the calibration of the Qibla direction at the Great Mosque of
Demak. This mosque is a legacy of Walisongo, nine guardians who spread Islam in
Indonesia. Sunan Kalijaga has determined the Qibla direction of the Great Mosque
of Demak. Sunan Kalijaga himself is a member of Walisongo whose grave is near to
the Great Mosque of Demak, namely in the Kadinlangu Complex. In 2012, the Ministry
of Religious Affairs Regional Office of Central Java calibrated the Qibla direction at
the mosque using the latest methods and equipment, namely contemporary
calculation methods and using a theodolite. The result is that the Qibla direction of
the Great Mosque of Demak is less oblique to the north by twelve degrees one
minute.46

Because the Great Mosque of Demak has a sacred history, numerous parties
are interested in the calibration results. It received various responses in response to
it, whether to change the mosque’s prayer line according to the results of the Qibla
direction calibration or leave it intact as before. Jurisprudence, social, and mystical
considerations are used by various parties to take a stand. Finally, the Takmir of the
Great Mosque of Demak decided to use the prayer line as before it was calibrated,
even though the prayer line of the mosque was adjusted to the calibration results
for six months.47

In rejecting the results of the direction calibration, the Takmir of the Great
Mosque of Demak and local religious leaders used mystical and sufistic reasons.
The mystical reason is illustrated by the belief of the community or mosque users
that Sunan Kalijaga calibrates the Qibla direction of the Great Mosque of Demak. The
Qibla direction calibration is carried out using Sunan Kalijaga’s left hand holding the
Mustaka of the Great Mosque of Demak and the other hand at the end of the Kaaba.48
Muslims believe the stories recorded in this century in Java to be the correct and
proper direction of Qibla. In the Sufistic perspective, the truth of the Qibla direction
sought by Sunan Kalijaga is considered absolute truth. This reason is reinforced by

46 Munif, “Analisis Kontroversi dalam Penetapan Arah Kiblat Masjid Agung Demak.”
47 Munif.
48 Munif.
the local community’s belief in the prohibition of arguing or disagreeing head-on with their spiritual teacher.⁴⁹ In the context of the Great Mosque of Demak, Sunan Kalijaga is a spiritual teacher who must be followed and obeyed in all his words and actions.

The second is the calibration of the Qibla direction at the Baiturrahman Mosque in Semarang. This mosque is located in Simpang Lima, Semarang City. Because it is located in the city center, this mosque is visited by thousands of people every year to perform prayers. In 2010, the Ministry of Religion of the Central Java Regional Office calibrated the Qibla of the mosque. Calibration is carried out using the latest equipment with methods that are believed to be scientifically accurate enough, which in this case uses contemporary calculation methods and tools such as theodolite. The result is that the Qibla direction of the Baiturrahman Mosque in Semarang is too tilted to the north by two degrees, zero minutes, thirty-three seconds. The value of north is equivalent to a distance of two hundred and forty kilometers from the point of the Kaaba.⁵₀

After the Qibla direction calibration results were submitted, the Takmir of the Baiturrahman Mosque Semarang ignored it. They do not want to adjust the prayer rows with the calibration results. They reasoned that the change in rows could cause discomfort and a lack of stability for the congregation when performing prayers at the mosque.⁵¹ The reason why Muslims worship at the mosque is the argument of the Takmir Baiturrahman Mosque in Semarang to ignore the results of the Qibla direction calibration through the scientific method (science).

The tight battle between scientists and Sufism at the Great Mosque of Demak did not occur at the Baiturrahman Mosque in Semarang. The mosque located in the center of the city is classified as a mosque that does not have historical value as the Great Mosque of Demak. The Qibla direction of the Baiturrahman Mosque in Semarang is determined by people who are not spiritual teachers like Sunan Kalijaga. Previously, the determination of the Qibla direction only used simple

⁵¹ Rohmah.
equipment as a tool, namely a compass. When a simple tool is faced with more modern equipment, it will immediately be defeated. Therefore, what happened in Qibla’s case direction at the Baiturrahman Mosque in Semarang was not a battle for truth from a different angle but testing the old truth with the latest equipment, which is believed to be able to provide a more precise truth.

F. The Dispute between Science and Sufism in Determining Qibla Direction

There is a dispute between science and Sufism in calibrating the Qibla direction (fiqh) in a place of worship as a mosque or prayer room. Especially for mosques and prayer rooms with high historical value and (or) mosques that are the center of the crowd. Fiqh can go hand in hand with science and (or) Sufism. Fiqh can become scientific fiqh and Sufistic fiqh in some cases. Scientific fiqh is a fiqh term that uses science to strengthen fiqh practice. In this term, fiqh can only provide rules for carrying out Islamic teachings in the form of signs. In the Qibla direction, for example, science is used to support the requirements for valid prayer by facing the Kaaba. Fiqh does not provide further information and procedures for determining the Qibla direction. This role was taken over by science.

In contrast to scientific fiqh, Sufistic fiqh is an intersection between fiqh and Sufistic elements. Sufistic terminology is also known as Sufism. There is an Arabic proverb (maqālah) that is quite popular regarding the relationship between fiqh and mysticism (tasawuf), man tafaqqaha wa lam yatashawwafa faqad tafassafa, wa man tashawwafa wa lam yatafaqqaha faqad tazandaqa/whoever believes in fiqh but puts aside Sufism, it will fall for anyone who does fasiq. Those who practice Sufism but ignore fiqh will be trapped in the attitude of zindiq. In Sufism, inner peace or heart is the main goal. According to Sufi scholars, Sufism cannot be done independently, but there must be a spiritual teacher (a kind of murshid) who teaches it. Everything said by this murshid should not be debated or refuted. The message must be accepted as is.

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54 Mudin, “Suhbah.”
Mosque of Demak. The local Muslim community has believed the direction of the Qibla at the Great Mosque of Demak to be the legacy of Sunan Kalijaga, the foremost spiritual teacher of Muslims in Java.

Meanwhile, between the scientific and the Sufi is very difficult to meet and walk side by side. The main factor causing the difficulty of a meeting between science and Sufism is both characteristics. Scientifics prioritize rationality and the five senses related to physical things, while Sufism comes from the depth of spiritual experience from the heart (al-qalb), which is not visible and involves metaphysical matters. The difficulty of the conference between science and Sufism is further exacerbated by accusations from the scientific group who regard Sufism as a knot that weakens the joints of life to become more advanced and developed.

As a node that can be side by side with scientific and Sufistic, fiqh provides an option that can bridge the difference in views between Sufism and science in terms of facing the Qibla. Fiqh offers jihatul qiblah rules for Muslims who cannot see the Kaaba directly or are located very far from the Kaaba. Jihatul qiblah allows a person to face the Qiblah without being exactly straight like a ruler, and it can slide slightly obliquely to the right or to the left. The inaccuracy of facing the Qibla can still be tolerated by fiqh with a note that it is not as big as the direction of the wind as the original meaning of jihad. The scientific node still understands this perspective. Otherwise, the Sufistic knot requires prayer to be performed solemnly and brings peace of mind and soul. However, what calms the heart should not be arbitrary. It must remain in the fiqh corridor of jihatul qiblah. If this is violated, it is possible to fall into the term zindiq in religion. It is where science and Sufism meet.

In the context of the dispute between the scientific and the Sufis in calibrating the Qibla direction, Amin Abdullah’s spider web approach is relevant. It should be

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59 Siregar, “Integrisi Keilmuan dalam Perspektif M. Amin Abdullah.”
the result of human thought to support matters related to religion. On the one hand, the results of human thought can provide a new perspective in providing an assessment of the truth and can be a support for practicing religious teachings on the other hand. Qibla direction calibration has played both roles. However, acceptance or rejection of the results of the Qibla direction calibration needs to use another scientific approach. The Takmir of the Baiturahman Mosque in Semarang sees the sociological and psychological side of the Muslim community who worship at the mosque. They are worried that the mosque congregation will feel uncomfortable carrying out their worship. As a result, it will indirectly disrupt the social order of people and all parties who come into contact with the Baiturrahman Mosque in Semarang. The same thing happened to the Takmir of the Great Mosque of Demak, who ultimately chose to return the prayer rows at the Great Mosque of Demak to their original state.

Qibla direction calibration using the latest methods and equipment is an applicative form of integrating science with Islam. Borrowing Kuntowijoyo’s language, theo-anthropocentrism plays a role in the efforts of Muslims to develop knowledge to support and strengthen religious practices. It must be admitted that the human mind can develop a science that produces certain truths according to its own version. But in terms of theo or religion, like it or not, you have to submit to God’s will and commandments. Facing the Qibla is a religious obligation, so one’s prayer can be considered valid before God. To support and carry it out, religious obligations require human efforts in leading to the Kaaba. Of course, for Muslims in the Grand Mosque and nearby, this is an easy matter. It is a big problem for Muslims located outside Mecca or thousands of kilometers from Mecca. It is where the role of calibration as a result of science comes into play. Qibla direction calibration at the Great Mosque of Demak and the Baiturrahman Mosque in Semarang is an effort to answer the needs of Muslims facing the Qibla.

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G. Conclusion

In terms of worship must face the Qibla; religious orders are still general. Therefore, the fuqaha try to make the religious text practical by using several methods and modern tools (science) in determining the Qibla direction. However, some Muslim communities cannot accept the use of methods and tools in the calibration of the Qibla direction at the Great Mosque of Demak and the Baiturahman Mosque in Semarang. They use sociological to mystical-Sufistic reasons to ignore the results of the fiqh and science products. In the Qibla’s case, direction at the Great Mosque of Demak, they believe that Sunan Kalijaga determined the direction of the Qibla in the mosque, and the mosque has a historical value that switches. In contrast to the case of the Qibla direction at the Baiturahman Mosque in Semarang, which has no historical value and the Qibla direction was previously determined using a simple tool, they reasoned that changing the prayer lines in the mosque could cause discomfort and lack of stability for the congregation when carrying out prayer rituals.

There is a contest between science and Sufism in calibrating the Qibla direction (fiqh) in calibrating the Qibla direction at the Great Mosque of Demak and the Baiturahman Mosque in Semarang. Jurisprudence can go hand in hand with science and (or) mysticism. Jurisprudence can use science to strengthen and strengthen fiqh practice. On the other hand, there is an intersection between fiqh and Sufism. The main factor causing the difficulty of a meeting between science and Sufism is both characteristics. Therefore, a scientific integration approach is needed in handling the gap between science and religion in religious practice in Indonesia.

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