

Determination of Qibla Direction on a Ship According to the Falak Science Perspective.

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Article Info	ABSTRACT
Article History Received 22-05-2024 Revision 13-06-2024 Accepted 22-06-2024	The rapid development of the times from time to time, the determination of the direction of Qibla on a Sea Ship can be known using a software-based method (Application). The determination of the direction of Qibla is very important for the benefit of Muslims in carrying out fardhu and sunnah worship when they are doing safar or long trips using ship vehicles. the objectives to be achieved in this writing are 1) To know and understand the method of determining the direction of Qibla on board a Ship, and 2) To determine the determination of the direction of Qibla on a Sea Ship Perspective of Falak. The author uses qualitative research types with syar'i and sociological approaches. The main data collection technique is obtained from the use of the Muslim Pro application in determining the direction of Qibla on board ships. And not only that, but the author also uses data collection techniques obtained through other people or from documentation in the form of written material to complete the data that will be described and analyzed from literature readings that have a relationship with the determination of the direction of Qibla on a Sea Ship from the perspective of science.
Keywords: Qibla Direction, Ships, Falak Science	

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I. Introduction

Y Islamic Sharia is taught, there is a provision for the ummah to carry out worship according to Islamic teachings. The issue of worship is a basic teaching ordained for all Mukallaf. Carrying out a prescribed worship is required to be sincere, sincere and only hoping for a

reward from Allah Almighty.¹ While the worship taught in Islam is muwaqqat worship, it is worship that is determined by the times, even the space that must be fulfilled in worship. In determining in which direction a Qibla place is located on the surface of the Earth, it can study the Science of Falak.² So that the urgency of studying Science of Falak is not only as an interest for the development and mastery of science and technology of Human civilization, but also studying Science as well as a need for worship.³ Performing prayers facing Qibla is a valid requirement.⁴ In general, scholars agree that there are seven legal requirements for a prayer, namely Muslim, holy from small or large hadiths, holy from unclean, intelligent, covering, entering time, and facing the Qibla.⁵ The performance of prayers that do not lead to Qibla is automatically considered invalid. As is generally known that only the direction of Qibla on a Sea Ship is something that not many people know in which direction the Qibla direction is located or leading, when traveling long distances using ships. Similarly, scholars have agreed that leading to Qibla when prayer is mandatory.⁶

According to the translation of QS al-Baqarah 149-150, the meaning is more general that wherever you come and travel, then turn your face towards the Kaaba⁷ when performing prayers according to the word of Allah Almighty. The emphasis in the next verse interprets that the Kaaba is the Qibla of Muslims. From this verse, it can be illustrated how very important it is to worship facing the direction of the Grand Mosque. The obligation to pray binds toddlers who are at home, at work, and on trips who are using vehicles on land such as bicycles, cars, and buses, to using planes and ships. The direction of Qibla is a direction in performing worship, and to achieve perfection of worship requires foresight and accuracy in praying and burying the dead.⁸ The issue of Qibla is none other than talking directions, the direction in question is a cube-shaped place (Kaaba) in Mecca.

There are various ways to determine the direction of Qibla on a Ship, you can use the help of the universe as a reference or use modern tools. Using the help of nature for example with the rising and setting of the Sun, using the shadow of an object or using constellations, and so on. Various ways or methods can be done for a determination of Qibla's direction. The development of Qibla direction determination can be seen from various tools that can be used to measure such as istiwa sticks, Qibla bows, compasses, GPS, and Muslim Pro applications on smartphones. Scholars give varying definitions of the direction of Qibla, although it boils down to one object of study, the Kaaba. Based on this it can be concluded that Qibla is the closest direction from a person to the Kaaba and every Muslim is obliged to face towards him when performing prayers.

¹ Alimuddin, "Perspektif Syar'i Dan Sains Awal Waktu Shalat", Ad-Daulah 1, no 1 (2012), h. 120.

² Fatmawati, Ilmu Falak (Cet. I; Watampone Sulawesi Selatan: Syahadah, Desember 2016), h. 16

³ Muhammad Hadi Bashori, Pengantar Ilmu Falak (Cet. I; Jakarta Timur: Pustaka Al-Kausar, 2015), h. 9.

⁴ Hikmatul Adhiyah Syam dan Subehan Khalik Umar, "Harmonisasi Instrumen Arah Kiblat", Hisabuna: Ilmu Falak 1, no.1 (2020): h. 130.

⁵ Ahmad Sarwat, Shalat di Kendaraan (Cet. I; Jakarta Selatan: Rumah Fiqih Publishing, 2018), h. 9

⁶ Sippah Chotban, "Membaca Ulang Relasi Sains Dan Agama Perspektif Nalar Ilmu Falak", Elfalaky 4, no 2 (2020): h. 225.

⁷ Ka'bah adalah bangun persegi empat serta merupakan tempat atau arah untuk beribadah bagi seluruh umat Islam di Dunia yang berpusat di Masjidil Haram. Muh. Ma'rufin Sudibyo, Sang Nabi pun Berputar, Arah Kiblat dan Tata Cara Pengukurannya (Cet. I; Solo: PT Tiga Serangkai Pustaka Mandiri, Desember 2011), h.

⁸ Rahmatiah, H. L, "Pengaruh Human Error Terhadap Akurasi Arah Kiblat Masjid dan Kuburan di Kabupaten Gowa Provinsi Sulawesi Selatan", Elfalaky 4, no. 2 (2020): h. 172

It is different for people who perform prayers on land and those on ships, as is done every day praying fardhu five times or sunnah prayers. Many people are confused and do not know the method of determining the direction of Qibla when traveling by ship. Even though performing prayers is an obligation for Muslims.⁹ In general, the method carried out by the community in determining the direction of Qibla prayer is only based on the direction of sunrise (*shuruq*) and sunset (*ghurup*)¹⁰ next to the horizons of East and West. It has become a habit to determine the direction of Qibla in the West, as the reason Saudi Arabia is the place where the Kaaba is in the West of Indonesia.¹¹ While in Falak Science, the determination of the direction of Qibla is carried out carefully and accurately. In this case, the researcher used an application called "Muslim Pro".

II. Method

The type of research used by the author for this research is Library Research or literature research that explains according to normative, organized, and systematic and has accuracy in the object of study which is the subject matter. This research approach is an approach syar'i

III. Results and Discussion

The direction is the closest distance measured through a large circle. In Indonesian it is explained that the word direction has two meanings, namely towards and facing a certain point.¹² While the word *al-qiblat* in Arabic means *al-jihat* i.e. "direction". The word is derived from the word *قَبَلَ* one of the derivation forms of *قَبْلَ*, *قَبْلًا*, *قَبْلًا* meaning to face. Facing means the center of view when a Muslim is performing prayers. Qibla is the most important part of Muslims in carrying out prayers, both fardhu and sunnah prayers. In this case, Qibla means facing oneself parallel to the position where the Kaaba is located. Every Muslim who will perform prayers should face Qibla. Every Muslim must know the guidelines for knowing the direction of Qibla, so that when he wants to perform prayers on a long journey for example, and there are no Qibla directions, he can use the Qibla direction guidelines, in determining the direction of Qibla when he wants to perform prayers.

Based on the postulates, the scholars agree that Muslims who are far from the Kaaba, must face right in the direction of the Kaaba, or in the direction of *the ainul Kaaba*. As for Muslims who are far from the Kaaba and do not see the Kaaba, then simply facing the direction of *the Kaaba jihatul* must be done based on the maximum *ijtihad* possible and can be done. The Kaaba in pre-Islamic times was a building that served as a place of worship of idols used by the people in the city of Mecca. Islamic treatise brought by His Holiness the Holy Prophet Muhammad. Slashing down these idols, until this building is used as a place of worship and used as a Qibla for Islamic prayer.

⁹ Muhammad Ridha Muslih and Rahma Amir, "Akurasi Arah Kiblat Musala Stasiun Pengisian Bahan Bakar Umum (Spbu) Di Kota Makassar", *Hisabuna : Ilmu Falak*, 1, no 1 (2020): h. 139.

¹⁰ A. Jamil, *Ilmu Falak Teori dan Aplikasi* (Cet. IV; Jakarta: Amzah, 2016), h. 36.

¹¹ Watni Marpaung, *Introduction to Falak* (cet. I; Jakarta: Prenadamedia Group, 2015), p. 61.

¹² Ghazna Lutfi Amrillah dan Ahmad Haziq Shiddiqie Bin Harrizan, "Pengertian dan Sejarah Arah Kiblat", Program Studi Perbandingan Mazhab Unida Gontor (Agustus 2020): <http://pm.unida.gontor.ac.id/pengertian-dan-sejarah-arrah-kiblat/> (Akses 31 Februari 2021).

Determination is a word that means to determine, determine, or ensure in terms of achieving goals and objectives.¹³ The direction of the Qibla is the direction of one central point of all Muslims to face the Qibla when performing prayers, either the five daily fardhu prayers or the sunnah prayers.¹⁴ From this understanding, it can be explained that the determination of the direction of the Qibla is a determination to ascertain in which direction the center point of a Qibla of the Islamic ummah faces when performing prayers. The determination of the direction of Qibla in Falak Science is carried out carefully and accurately. Muslim Pro application is an application found on smartphones that can be installed easily. Installation can be done through "Google Play Store" on Android-based smartphones. This application is very efficient for users in carrying out worship, as well as finding out the schedule of five prayers at a time, especially for the determination of the direction of Qibla on a Ship. This application can be used anywhere when traveling long distances to a place, both while on land and while in the ocean.

Tools that can be used to determine the direction of Qibla on a ship are smartphones. A smartphone is a phone that has the performance of using an operating software system that provides a relationship with application development. This tool is a tool that presents advanced features such as the internet, such as letters and electronic books and even as a container for data or document irregularities. Smartphones are also understood as oral and written communication tools both near and even long distances. This tool is very practical to use as a communication tool that can be carried anywhere because there is no need to use cables like a landline.¹⁵ Determination of Qibla direction smartphones can be used as a tool to find out the direction of Qibla on ships.¹⁶ This smartphone was created to be carried anywhere while traveling because it is one of the main daily needs for most of its users. Where this tool can also be used to download a Qibla direction determination application. One application that can be downloaded for the determination of the direction of Qibla on a ship is the Muslim Pro application which is a digital compass feature or a software-based compass.

The method that can be used for determining the direction of Qibla on a ship is based on the software (Application) is the Muslim Pro application. The Muslim Pro application is a sophisticated application for determining the direction of Qibla on a Ship. Before using this application, it can first be downloaded on the Google Play Store/apps store on android/ios smartphones. Downloading the application should be done before traveling long distances using ship vehicles. Because when the ship is in the middle of the sea there is no cellular network, because downloading the application requires a cellular data network. In general, it can be known that on the way to a ship the network is lost or errors when in the middle of the ocean.

¹³ Rizky Maulana dan Putri Amelia, *Kamus Lengkap Bahasa Indonesia* (Surabaya: Cahaya Agency, 2013). h. 101.

¹⁴ Lailatul Maskhurriyah, "Penentuan Arah Kiblat di Atas Kapal Menggunakan Alat Navigasi", *Skripsi* (Surabaya: Fak. Syariah dan Hukum UIN Sunan Ampel, 2019), h. 19.

¹⁵ al-Imam, "Pengaplikasian Smartphone Sebagai Media Komunikasi Internasional Dikalangan Pegawai di Kementerian Agama Kabupaten Aceh Barat", *Internasional Jurnal of Islamic Studies and Social Sciences* 1, no. 2 (September 2019): h. 354.

¹⁶ <https://teknologi.bisnis.com/read/20201121/84/1320604/apa-itu-aplikasi-muslim-pro-yang-disorotkemenkominfo> (Access 23 November 2021).

Linguists say that the word Science of Falak is a combination of two Arabic words: Ilm and al-Falak. The word Ilm is a mashdar of the word 'Alima Ya'lamu (knowing). In al-Munawwir's Dictionary, this word has the same meaning as the words 'Arafa (knowing, knowing) and Fahima (understanding, knowing).¹⁷ So literally the word Ilm means Ma'rifah which means "Knowledge" or al-Idrak (fahm) which means "Understanding". And when asked by the owner of the language (Arabic) about Ilm, of course, the answer is "Knowledge that is certain to be under existing reality" or "Understanding of the nature of something optimally".¹⁸ According to the language, "Falak" comes from the Arabic al-falak (الفلق) which means the orbit or trajectory of celestial bodies (madar al nujum). The word Falak (al-Falak) according to the linguistic sense is Majral Kawakib, meaning "Place of travel of the planets". In the Big Dictionary Indonesian is defined as "The path traveled by a celestial body in its circulation around another celestial body with a greater gravitational force". From this understanding, it can be understood that Falak Science is the science that studies celestial bodies. Science of Falak is a science that studies the trajectory and movement of celestial bodies (especially the Earth, Moon, and Sun) in their respective circulation lines to study their phenomena in the framework of human interests. In definition, science is a science that studies the intricacies of celestial bodies in terms of shape, size, physical state, position, movement and interrelationship between one another.

Falak Science functionally becomes a testament¹⁹ or as a place to be able to carry out worship correctly, appropriately, and legally. Because the presence of Falak aims to perfect a worship carried out by Muslims. The benefits of Falak Science are as a science that can determine in which direction the Qibla position of place on Earth and to ensure prayer times have entered or the Sun has set as a sign of breaking the fast. The existence of this Science of Falak Muslims can do rukyatul Hilal so that it can be a direction of view precisely towards the position of Hilal, also can even know that there will be a solar eclipse or lunar eclipse. With Falak Science can grow confidence in carrying out worship, so that worship is more solemn.²⁰

Qibla in Falak Science is an obligation that must be known accurately to the determination of the direction of Qibla. To know the direction of Qibla requires a deep understanding. The determination of the direction of Qibla on Land is not only based on the West and East positions. In practice, the determination of the direction of Qibla on Land requires instruments with a high level of accuracy. Qibla is one of the legal requirements for performing fardhu and sunnah prayers.²¹ Therefore, the determination of the direction of Qibla requires a deep understanding to use an instrument of determination of the direction of Qibla. Instruments that are generally most often and widely used today for the determination of Qibla direction on land are Istiwa Stick, Qibla Tracker, Qibla Bow and so on. From these instruments, it is not possible to use on ships in the determination of Qibla direction, because it requires a flat plane that does not move and takes a long time to use.

¹⁷ Ahmad Warson Munawwir, *The Most Complete Arabic - Indonesian al-Munawwir Dictionary*, (Surabaya: Pustaka Progressive, 1995), p. 1156.

¹⁸ Ar-Raghib al-Ashfahany, *Mu'jam Mufradat Alfadzil Quran* (Beirut: Darul Fikri, t.th), pp. 355.

¹⁹ <https://almanhaj.or.id/2461-hukum-wasilah-tawassul.html> (Access December 25, 2021).

²⁰ Fatmawati, *Ilmu falak* (Cet. I; Watampone: Syahadah, 2016), h. 15-17.

²¹ Nur Khalifa and Rahma Amir, "The Existence of Falak Science in Determining the Direction of Qibla and the Beginning of Prayer Times", *Hisabuna: Science of Falak* 2, no 1 (2021): p. 36.

While the Sea Ship that is running has a route/lane that is not straight to the destination point leaning.

It is different from the determination of the direction of Qibla on a Ship. In general, most people know that when they want to pray on a ship that is in a state of walking, it is only based on where the position of the sun rises and is listed. As for those who use compass for determining the direction of Qibla on board ships, because at night Qibla determination cannot be done. However, in Falak, the determination of the direction of Qibla on a ship can be done by the constellation method. This method also requires a deep understanding because to be able to find out the position of the constellations is not easy. This method cannot be done if the sky is cloudy. But along with the rapid development of the times, the method of determining the direction of Qibla is now very sophisticated because there have been various kinds of software-based methods (applications). One method that can be used to determine the direction of Qibla on a ship is by using the Muslim Pro application.

The accuracy of Muslim Pro application in determining the direction of Qibla on board ships is very accurate because this application can be used non-network or in a state of inactive smartphone cellular data, so users are greatly facilitated in determining the direction of Qibla on ships. The advantage of this application is that it can be used both day and night. Not only can it be used on board ships, but this application can be used wherever and whenever someone travels or travels long distances when they cannot know the position of the Qibla direction. The Muslim Pro application makes it very easy for someone to carry out worship and daily activities of Muslims in the world. This application is also a very efficient method of determining the direction of Qibla because it does not require data to be included in the determination of the direction of Qibla like some other software methods. The Muslim Pro app automatically works to show the position of the Qibla direction and only takes less than a minute to detect the location of the Qibla direction leading. Based on this method, Muslims are very facilitated to perform prayers when they do not know which direction Qibla leads somewhere either on the Sea or on Land. This can also make it easier to perform prayers promptly. And there is no longer any reason for Muslims to pray only wherever the most important thing is that the intention of praying leads to the Kaaba alone, especially "praying on a ship" when unable to know the direction of Qibla. This method can be used in urgent circumstances only to know the Qibla on Land when traveling far if you cannot find the mosque on the way, but still want to perform fardhu prayers on time.

IV. Conclusion

The method used for determining the direction of Qibla on a ship based on software (Application) is the Muslim Pro application which is an application in which there are several features such as prayer time instructions, the Qur'an, colored tajweed, digital prayer beads, and especially the determination of the direction of Qibla on board ships.

In the perspective of Falak, the determination of the direction of Qibla on a Ship using the Muslim Pro application is very effective and efficient because this method allows Muslims to carry out the worship of shalat fardhu on time when doing safar or long trips, especially using ship vehicles. The advantage of this method is that it can detect the position

of the Qibla direction quickly, and can be used wherever and whenever the user is because it does not require a cellular data network

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