

Religion and Science: Analysing Medical Fatwas of the Majelis Ulama Indonesia (2010–2021)

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Received: 11-02-2024 | Revised: 30-08-2024, 08-12-2024 | Accepted: 13-01-2025

Abstract

The advancement of knowledge, particularly in the medical field, often surpasses established religious norms, giving rise to new legal challenges. This presents a significant issue for Islamic scholars and modern institutions such as Majelis Ulama Indonesia (the Indonesian Ulema Council, MUI). This article examines the dialectical relationship between revelation (*naşş*) and science in the medical fatwas issued by the MUI, focusing on how Islamic scholars construct legal arguments by integrating the Qur'an and Hadith with scientific findings to advance scientific *ijtihad* (Islamic legal reasoning). Adopting a qualitative, library-based methodology, the study meticulously analyses 20 medical fatwas issued by the MUI between 2010 and 2021. Using a functional interpretive paradigm that incorporates revelation, reason, and reality as foundational elements of fatwa formulation, the article finds that the MUI engages in a dialogical process between revelation and science in its medical fatwas. The dialectic between *naşş* and scientific discoveries reveals two models of integration: deductive-falsification and inductive-verification. The deductive-falsification model appears in fatwas offering guidance for specific actions, while the inductive-verification model is applied in determining the legal status of scientific products. These integration models demonstrate that the MUI positions *naşş* as the independent variable and scientific findings as the dependent variable in the development of scientific *ijtihad*. This approach emphasises the decisive role of revelation in determining the acceptability of scientific advancements as the foundation for legal rulings.

[Kemajuan ilmu pengetahuan, khususnya di bidang medis, sering kali melampaui norma-norma agama yang mapan, sehingga menimbulkan berbagai persoalan hukum baru. Hal ini menjadi tantangan bagi para ulama dan lembaga Islam modern seperti Majelis Ulama Indonesia (MUI). Artikel ini mengeksplorasi hubungan dialektika antara wahyu (*naşş*) dan sains dalam fatwa-fatwa medis yang dikeluarkan MUI, serta bagaimana para ulama membangun dalil-dalil hukum dengan mengintegrasikan Alquran dan hadis dengan temuan-temuan ilmiah dalam pengembangan *ijtihad* ilmiah. Dengan mengadopsi metode kualitatif berbasis kepustakaan, penelitian ini menganalisis secara cermat isi dari 20 fatwa medis yang dikeluarkan MUI sejak tahun 2010 hingga 2021. Dengan menggunakan paradigma interpretatif-fungsional yang mempertimbangkan wahyu, akal, dan realitas sebagai dasar pertimbangan fatwa, artikel ini menemukan bahwa MUI telah melakukan dialog antara wahyu dan sains dalam memproduksi fatwa-fatwa medisnya. Dialektika antara *naşş* dan temuan-temuan ilmiah dalam fatwa-fatwa tersebut menunjukkan adanya dua model integrasi: deduktif-falsifikasi dan induktif-verifikatif. Model deduktif-falsifikasi ditemukan dalam fatwa-fatwa yang memberikan pedoman bagi umat Islam untuk mengamalkan tindakan-tindakan tertentu,

sedangkan model induktif-verifikatif muncul dalam fatwa-fatwa yang menetapkan status hukum (halal atau haram) bagi produk-produk sains. Kedua model integrasi ini menunjukkan bahwa MUI telah memosisikan naṣṣ sebagai variabel independen dan temuan-temuan ilmiah sebagai variabel dependen dalam pengembangan ijtihad ilmiah. Temuan-temuan ini menempatkan wahyu sebagai faktor penentu diterima atau tidaknya suatu produk ilmiah sebagai dasar putusan hukum.]

Keywords: Indonesian Ulema Council, Medical Fatwa, Religion and Science, Scientific Ijtihād.

Introduction

Science and religion have differences in aspects of ontology, epistemology, and axiology. Based on the ontology aspect, religion examines the inner side while science analyses the outer side. In the epistemological aspect, religion bases its truth on God's authority, while science relies on human understanding. From an axiology perspective, religion aims at personal transformation, while science refers to the concept of knowledge or human benefit.¹ Science can demonstrate and strengthen religious narratives through certain themes.² Science needs to be used to interpret, accommodate, and reconcile religious teachings in everyday life.³ These differences result in the relationship between the two not always being integrative, but could lead to conflict and independence in dialogue.⁴ John F. Haught categorised the relationship science and religion into four forms, namely conflict, contrast, contact, and confirmation.⁵ The relationship has a reciprocal interaction,⁶ hence independent dialogue efforts are needed in subjective, objective, and intersubjective aspects,⁷ as well as reviewing verification and falsifying the results of human interpretation.⁸

The development of science often goes beyond the provisions, creating new legal problems due to the absence of religious norms. Several legal issues that have sparked debate include the cigarette case,⁹ Assisted-Reproductive Technology (ART)¹⁰ and the Covid-19 outbreak¹¹ leading to differing fatwas among Islamic scholars and Islamic religious

¹ Zainal Abidin Bagir, ed., *Integrasi Ilmu dan Agama: Interpretasi dan Aksi*, 1st ed. (Bandung: Mizan, 2005), 101 and 148.

² Sonny E. Zaluchu and Jacob D. Engel, "When Do Religion and Science Meet in Uncertainty?," *Verbum et Ecclesia* 43, no. 1 (14 April 2022): 1–7.

³ Cristine H. Legare and Aku Visala, "Between Religion and Science: Integrating Psychological and Philosophical Accounts of Explanatory Coexistence," *Human Development* 54, no. 3 (2011): 169–84.

⁴ Ian G. Barbour, *Juru Bicara Tuhan: Antara Sains dan Agama*, trans. E. R. Muhammad (Bandung: Mizan, 2002), 55–83.

⁵ John F. Haught, *Perjumpaan Sains dan Agama: Dari Konflik ke Dialog*, trans. Fransiskus Borgias (Bandung: Mizan, 2004), 1–33.

⁶ Alexandru-Corneliu Arion, "Relationship between Faith and Science in the Major World Religions," *ICOANA CREDINTEI. International Journal of Interdisciplinary Scientific Research* 4, no. 7 (2018): 51–66.

⁷ M. Amin Abdullah, "Religion, Science, and Culture: An Integrated, Interconnected Paradigm of Science," *Al-Jami'ah: Journal of Islamic Studies* 52, no. 1 (8 June 2014): 175–203.

⁸ Muhammad Muhibbuddin, "Ijtihād Scientific dalam Hukum Islam (Refleksi Metodologis Penemuan Hukum Islam)," *Abkam: Jurnal Hukum Islam* 3, no. 1 (1 July 2015): 1–18.

⁹ Saifuddin Zubaidi, "Cigarette Fatwas, Contestation of Religious Authority and Politics in Indonesia," *Ijtihād: Jurnal Wacana Hukum Islam dan Kemanusiaan* 20, no. 1 (10 June 2020): 61–78.

¹⁰ Maizer Said Nahdi and Eka Sulistiyowati, "Bioethics and Islamic Values: Assisted Reproductive Technology in the Context of Indonesia," *Studia Islamika* 24, no. 1 (30 April 2017): 69–98.

¹¹ Syafiq Hasyim, "Prioritizing Life over Religion in Indonesia's Covid-19 Fatwas: The Fatwas of NU, Muhammadiyah, and MUI," *Studia Islamika* 30, no. 3 (2023): 407–38.

organisations in Indonesia. This poses challenges for modern Muslim scholars and institutions such as Majelis Ulama Indonesia (the Indonesian Ulema Council, MUI), which guides new scientific findings. The MUI fatwa addresses science as a response to reality based on Islamic law methodology. Among the fatwas issued by the MUI is one related to medical, outlining laws pertaining to health and drugs. The Islamic scholars are involved in its formulation, alongside other parties, such as the government, institutions, and scientists. The extent to which their opinions are used as the basis for legal arguments is worth studying, as it examines the relationship between Islamic law, government policies, and scientific statements. Additionally, it discusses the position of science in the fatwa and compliance with Islamic law in accommodating scientific findings.

Many studies have been conducted on MUI fatwas related to scientific matters, both from the aspects of methodology, objectives, and their integration with science. Based on the methodology, Ahmad Zaky Syauckani found that from a methodological aspect, the MUI fatwa on health and medicine had three typologies according to *naṣṣ* (Qur'anic and *ḥadīth* texts), through opinion, *tarjīḥ* (selecting the strongest Islamic scholars' opinion), and producing new *ijtihād* (independent legal reasoning).¹² The basis for establishing MUI fatwas on science is research and can be accounted for in a sharia and scientific manners.¹³ This is because one of the conditions for its issuance is to realise the benefit of society.¹⁴ In contrast, in the fatwa on Covid-19, the MUI uses a mixed method (*talfīq manḥajī*), which is a paradigmatic breakthrough in responding to the challenges of the times.¹⁵ Concerning vaccines, the *fiqh* (Islamic jurisprudence) rules regarding emergencies provide ease for practitioners of Islamic law.¹⁶ The basis for determining halal is the content of the vaccine, although for emergency reasons, all vaccines can be accepted.¹⁷ From the objective aspect, MUI fatwas are based more on empirical-scientific arguments (*burbānī*) as well as the ethical principles of Islamic teachings contained in the rules of *maṣlaḥah* (public good) and *sadd al-ẓarī'ah* (avoiding danger).¹⁸ These fatwas are in accordance with *maqāṣid al-sharī'ah* (objectives of Islamic law), with a focus on the need to care for the soul before maintaining religion,¹⁹

¹² Ahmad Zaky Syauckani, "Fatwa-Fatwa Kesehatan dan Kedokteran Majelis Ulama Indonesia Tahun 2005-2010 (Studi Pendekatan Ushūl al-Fiqh)" (Thesis, Jakarta, Institut Ilmu Al-Qur'an (IIQ), 2015).

¹³ Heryani, "Memahami Fatwa MUI tentang Kadar Etanol pada Produk Makanan dan Minuman," 11 November 2021, <https://halalmui.org/memahami-fatwa-mui-tentang-kadar-etanol-pada-produk-makanan-dan-minuman/>.

¹⁴ Maskur Rosyid, "Merealisasikan Kemaslahatan; Membaca Ulang Metodologi Fatwa MUI," in *Peran Fatwa MUI dalam Berbangsa dan Bernegara, Pandangan Akademisi terhadap Fatwa MUI*, ed. M. Asrorun Ni'am Sholeh (Jakarta: Komisi Fatwa MUI, 2018), 51.

¹⁵ Muhammad Iqbal, "Metode Talfiq Manhaji MUI dalam Fatwa," *Al-'Adl* 13, no. 2 (25 April 2020): 149–64.

¹⁶ Rizky Fauzi Iskandar, "Kedokteran Kontemporer Perspektif Hukum Islam: Studi Kasus Fatwa MUI tentang Vaksin" (Thesis, Jakarta, UIN Syarif Hidayatullah, 2020).

¹⁷ JM Muslimin, Rizky Fauzi Iskandar, and Yulia Fatma, "Islam and Medicine: A Study on the Fatwa of Indonesian Ulama Council on Vaccines," *Al-Istinbath: Jurnal Hukum Islam* 6, no. 1 (25 May 2021): 85–106.

¹⁸ Ilyas Supena, "Konstruksi Epistemologi Fikih Pandemi: Analisis Fatwa-Fatwa MUI," *Al-Manahij: Jurnal Kajian Hukum Islam* 15, no. 1 (11 June 2021): 121–36.

¹⁹ Mashuri Mashuri, Iffatin Nur, and Muhammad Ngizzul Muttaqin, "Maqāṣid Sharī'ah Flexibility to Overcome COVID-19 in Indonesia: From Government Policies to Fatwā of Council of Indonesian Ulama (MUI), Nahdlatul Ulama (NU), and Muhammadiyah," *De Jure: Jurnal Hukum dan Syar'iah* 13, no. 2 (31 December 2021): 240–63.

although according to Hasyim's findings,²⁰ there is reluctance from fatwa institutions in Indonesia, including the MUI, to adopt the proposition prioritize life in fatwas about Covid-19. Besides, MUI's fatwas have logical reasoning, align with the interests of the government, and end the negative stigma against the political role of the clergy.²¹ These fatwas demonstrate independence, strengthening the MUI's role as a link between government policy and society. The legal arguments and fatwa methods used by the MUI are more inclusive, flexible, and progressive towards social and religious issues.²²

The integration of science and social sciences in MUI fatwas is quite dynamic.²³ The MUI attempts to compromise science and religion.²⁴ The MUI uses religious narratives and laboratory test evidence as legal arguments in its fatwas.²⁵ However, these studies have not explored the integration model between revelation and science in determining fatwas. This research focuses on exploring how the MUI dialogues revelation, which is an authoritative source in fatwas, with science which is a product of human reason. To what extent does science influence the determination of fatwas, whether it is subordinated to the provisions of revelation or provides a new interpretation of revelation? Mapping the dialectical model of revelation and science is useful for examining the flexibility and progressiveness of the MUI, as discovered by previous researchers.

This study is library research using medical fatwas issued by the MUI from 2010 to 2021, a period during which the MUI issued many fatwas requiring scientific findings to determine their laws. Over 40 fatwas were issued, but 20 fatwas related to drug, health, and medical issues were selected. These fatwas were obtained from the MUI fatwa database²⁶ as primary source, while writings or opinions about the fatwas served as secondary sources. The analysis employed content analysis, examining legal arguments (*naşş* and *fiqh* rules), Islamic scholars' opinions (*aqwāl 'ulamā'*), and the scientists' opinions in the fatwas. The approach used is the functional interpretation paradigm,²⁷ which places revelation, reason, and reality in a functional, rather than structural, relationship. The model of interpretation aims to link revelation, reason, and actuality dialectically.

²⁰ Hasyim, "Prioritizing Life over Religion in Indonesia's Covid-19 Fatwas," 407–38.

²¹ M. Asrorun Ni'am Sholeh, "Towards a Progressive Fatwa: MUI's Response to the COVID-19 Pandemic," *AHKAM: Jurnal Ilmu Syariah* 20, no. 2 (30 December 2020): 281–98.

²² Muhammad Lutfi Hakim et al., "Between Exclusivity and Inclusivity of Institutions: Examining the Role of the Indonesian Ulama Council and Its Political Fatwa in Handling the Spread of Covid-19," *Khazanah Hukum* 5, no. 3 (31 December 2023): 230–44.

²³ A. Halil Thahir, "Towards the Multidimensional Ushul al-Fiqh: A Study of the Integration of Science in the Fatwa of Majelis Ulama Indonesia," *Samarah: Jurnal Hukum Keluarga dan Hukum Islam* 8, no. 2 (7 May 2024): 687–705.

²⁴ Muhammad Rasyid, "Integrasi Islam dan Sains dalam Fatwa Majelis Ulama Indonesia (Tinjauan Fatwa MUI No. 02 Tahun 2004 tentang Peranan Hisab dan Rukyah dalam Penetapan Awal Bulan)," *Proceeding Antasari International Conference* 1, no. 1 (2019): 347–71.

²⁵ Ahmad Atabik and Muhammad R. Muqtada, "Maqashid Quran's Critical View on Indonesian Ulama Council's Fatwa on Halal Certification of COVID-19 Vaccine," *HTS Teologiese Studies/Theological Studies* 80, no. 1 (20 March 2024): 1–6.

²⁶ See: Majelis Ulama Indonesia, "Database Fatwa Majelis Ulama Indonesia," accessed 13 January 2024, <https://fatwamui.com/data-fatwa>.

²⁷ Abdul Mustaqim, *Epistemologi Tafsir Kontemporer*, 1st ed. (Yogyakarta: LKiS, 2010), 67.

MUI and Its Fatwas on Medical

The MUI is an institution that accommodates Indonesian Islamic scholars (*ulamā'*), Islamic leaders (*ẓu'ama'*), and Muslim intellectuals.²⁸ Founded in Jakarta on 26 July 1975,²⁹ the MUI has four functions according to Article 4 of its basic guidelines; a forum for deliberation, a forum for friendship, a representative forum for Muslims in relations with inter-religious communities, and a fatwa provider for Muslims and the government. The MUI has two central roles, as a servant of the ummah (*khādim al-ummah*) and as a government partner (*sādiq al-hukūmah*).³⁰

As a fatwa provider, MUI has prepared guidelines and procedures for determining fatwas, established through the Ijtima' Ulama of the Indonesian Fatwa Commission in Jakarta on 16 December 2003. The fatwa guidelines stipulate that the MUI has the authority to issue fatwas on Sharia issues in general, including faith, sharia, social culture, society, the environment, and morals. The determination of MUI fatwas is carried out collectively by the Fatwa Commission and the National Sharia Council. The Fatwa Commission operates under the MUI management structure at both central and regional levels, adapting its role and functions to that of the MUI in general. The National Sharia Council is special, namely, to determine fatwas on sharia economics related to sharia financial products and services, as well as to supervise the implementation of these fatwas.³¹

The method for determining a fatwa is regulated in Article 6, which addresses issues with clear law and arguments, issues with differing opinions, and issues without legal opinions from Islamic scholars. Problems with clear laws and arguments are resolved based on those laws and arguments. For issues with differing opinions, common ground is sought through comparative studies. If a problem lacks a legal determination, collective *ijtihād* is conducted using the *bayānī* (textual), *ta'līlī* and *manhajī* (methodological) methods.³² The procedure for determining an MUI fatwa by the Fatwa Commission can occur in three ways; through deliberation among fatwa commission members in a plenary session, during the MUI annual forum or conference, and at the MUI National Conference (MUNAS), held every five years.³³ Of the 20 fatwas studied, 19 were decided by the Fatwa Commission, while one was decided through a national meeting, MUI Fatwa No. 001/MUNAS X/MUI/XI/2020 on the Use of Human Diploid Cells to Produce Drugs and Vaccines.³⁴

²⁸ M. Atho Mudzhar, *Fatwa-Fatwa Majelis Ulama Indonesia: Sebuah Studi tentang Pemikiran Hukum Islam di Indonesia 1975-1988*, Ed. dwibahasa, Seri INIS 17 (Jakarta: INIS, 1993), 56–63.

²⁹ Majelis Ulama Indonesia, "Pedoman Dasar dan Rumah Tangga Majelis Ulama Indonesia Hasil Musyawarah Nasional (MUNAS) MUI VI Tahun 2000" (Sekretariat Majelis Ulama Indonesia, 2000), 4.

³⁰ Majelis Ulama Indonesia, "Pedoman Dasar dan Rumah Tangga Majelis Ulama Indonesia Hasil Musyawarah Nasional IX MUI Tahun 2015" (Sekretariat Majelis Ulama Indonesia, 2015), 19.

³¹ "Regulation of the Indonesian Ulema Council No. 12/PO-MUI/II/2018 on Guidelines for Issuing Fatwas by the Indonesian Ulema Council," Articles 16–22.

³² "Regulation of the Indonesian Ulema Council No. 12/PO-MUI/II/2018 on Guidelines for Issuing Fatwas by the Indonesian Ulema Council," Article 6.

³³ "Regulation of the Indonesian Ulema Council No. 12/PO-MUI/II/2018 on Guidelines for Issuing Fatwas by the Indonesian Ulema Council," Articles 8–11.

³⁴ "MUI Fatwa No. 001/MUNAS X/MUI/XI/2020 on the Use of Human Diploid Cells for the Production of Drugs and Vaccines."

Typology of MUI Fatwas on Medical

From the decisions aspect, the MUI fatwas relating to medicine, health, and drugs can be categorized into two types: general legal guidelines and legal provisions for specific products. There are 12 fatwas into the general guideline category and 8 in the form of legal provisions for specific products. The two types of fatwas have different goals and characteristics. The first category consists of fatwas that provide legal guidelines for events, possesses the following characteristics. First, its legal provisions are general, and second, it does not incorporate the opinions of scientific experts. However, there is consideration of opinions in fatwas regarding genetic engineering and its products, immunisation, the use of alcohol or ethanol in medicine, and blood plasma for medicinal ingredients. Third, the basis for these fatwas is to respond to government policies and provide legal certainty for Muslims.

The second type is a fatwa providing a legal ruling on a product in a specific case. Unlike the first category, this fatwa has distinct characteristics. First, it is issued in response to a request for halal certification, from the government and companies producing these products. Second, it provides legal decisions regarding halal, *ḥarām* (prohibited), and *mubāḥ* (permissible) in emergencies. Third, the formulation process involves various parties outside the MUI institution, including the government and the Food and Drug Supervisory Agency in which is responsible for determining the safety, quality, and efficacy of products, as well as scientific experts from various fields. The differences in fatwa typologies and their characteristics can be seen in the Table 1.

Table 1
MUI Fatwas Typology and Its Legal Argumentations

No.	Fatwa Number	Fatwa Title	Legal Argumentation						Type of Fatwa
			Q	H	ILM	ISO	SO	R	
1.	1 of 2010	The Use of Microbes and Microbial Products in Food Products	√	√	√	√	-	-	Guidelines for Muslims
2.	6 of 2010	The Meningitis Vaccine	√	√	√	√	√	-	Legality of Science Products
3.	30 of 2013	Medicine and Treatment	√	√	√	√	-	-	Guidelines for Muslims
4.	35 of 2013	Genetic Engineering and its Products	√	√	√	-	√	-	Guidelines for Muslims
5.	4 of 2016	Immunization	√	√	√	√	√	-	Guidelines for Muslims
6.	14 of 2017	Influenza Vaccine Products from Hualan Biological Bacterin Co. Ltd., Xinxiang, China	√	√	√	√	√	-	Legality of Science Products
7.	33 of 2018	The Use of MR (Measles-Rubella) Vaccine by Serum Institute of India for Immunization	√	√	√	√	√	-	Legality of Science Products
8.	40 of 2018	The Use of Alcohol/Ethanol in Medicine	√	√	√	√	√	-	Guidelines for Muslims

9.	45 of 2018	The Use of Blood Plasma for Medicinal Purposes	√	√	√	√	√	-	Guidelines for Muslims
10.	12 of 2019	Transplantation from Deceased Donors	√	√	√	√	-	-	Guidelines for Muslims
11.	13 of 2019	Transplantation from Living Donors	√	√	√	√	-	-	Guidelines for Muslims
12.	001/MUNAS X/MUI/XI/2020	the Use of Human Diploid Cells to Produce Drugs and Vaccines	√	√	√	√	√	√	Guidelines for Muslims
13.	14 of 2020	The Implementation of Worship During the Covid-19 Pandemic	√	√	√	√	-	-	Guidelines for Muslims
14.	2 of 2021	Covid-19 Vaccine Products from Sinovac Life Sciences Co. Ltd., China, and PT Bio Farma (Persero)	√	√	√	√	√	-	Legality of Science Products
15.	13 of 2021	The Law of Covid-19 Vaccination During Fasting	√	√	√	√	-	-	Guidelines for Muslims
16.	14 of 2021	AstraZeneca's Covid-19 Vaccine Products	√	√	√	√	√	-	Legality of Science Products
17.	23 of 2021	The Law of Swab Tests for Covid-19 Detection While Fasting	√	√	√	√	√	-	Guidelines for Muslims
18.	27 of 2021	Covid-19 Vaccine Products from Sinopharm	√	√	√	√	√	-	Legality of Science Products
19.	48 of 2021	Pfizer's Covid-19 Vaccine Products	√	√	√	√	√	-	Legality of Science Products
20.	53 of 2021	Covid-19 Vaccine Products from Anhui Zhifei Longcom Biopharmaceutical Co., Ltd.	√	√	√	√	√	-	Legality of Science Products
Note: Q= Qur'an; H= <i>Ḥadīth</i> ; ILM= Islamic Legal Maxim; ISO= Islamic Scholar' Opinion; SO= Scientist Opinion; R= Regulation.									

Source: MUI Fatwas Database, 2024.

Fatwa Method and Legal Argument

In preparing the fatwa, the MUI follows the procedure established at the XI MUI National Conference in 2015. The MUI fatwa is determined collectively by the Fatwa Commission and is based on the Qur'an, *ḥadīth*, *ijmā'* (consensus), *qiyās* (analogical reasoning), and other recognised arguments. Fatwa determination involves a comprehensive study of the opinions of past Islamic scholars, the opinions of Islamic jurists from various *madhhab* (schools of law) or '*ulamā'*', a review of related fatwas, and insights from jurisprudence experts. In cases where the law and its arguments are clear (*ma'lūm min al-dīn bi'l-ḍarūrah*), the law is conveyed as it is. For issues lacking legal opinions among the *madhhab* or '*ulamā'*', the determination is based

on collective *ijtihād* using the *bayānī* and *ta'lilī* methods (*qiyāsī, ilḥaqī, istḥṣānī, and sadd al-dārā'i*'), as along with the legal determination method (*manhajī*) guided by madhhab scholars.³⁵

The fatwa on medical issues follows MUI's fatwa procedure, utilizing the Qur'an, *ḥadīth*, Islamic legal maxims (*qawā'id al-fiqhiyyah*), and the opinions of Islamic legal scholars as sources. The MUI Fatwa Commission employed varied and contextual methods in its *ijtihād*. It integrates text interpretation with the findings of scientific experts and government policies. The Commission used methodological integration, combining observation methods with reasoning and intuition.³⁶ The observation method relies on medical findings from experts and government policies related to societal conditions. Reasoning and intuition come from interpretations of legal texts from the Qur'an, *ḥadīth*, *fiqh* rules, and the Islamic scholars' opinions. This integration of science and religion in law-making can produce a comprehensive legal product.³⁷ The MUI Fatwa Commission developed five methods for determining a medical fatwa based on the legal arguments used in establishing a fatwa.

First, maintaining legal continuity involves enforcing legal provisions from previous texts in new events enacted by law. In this context, the MUI Fatwa Commission contextualizes provisions in classical *fiqh* to address contemporary issues. This method is evident in determining the measure of purification that meets the sharia aspect. This is stated in MUI Fatwa No. 1 of 2010 on the Use of Microbes and Microbial Products in Food Products³⁸ and the fatwa regarding the halalness of vaccines, specifically in the final process.³⁹ The vaccine method, carried out by intramuscular injection, is considered to break fasting according to classical Islamic jurisprudence scholars.⁴⁰ The same method is also applied in determining the halalness of vaccines based on the ingredients and production process. This provision has been regulated in classical *fiqh*,⁴¹ and a product is declared halal when the ingredients and production process do not use unclean materials.

Second, applying the principle of legal absoluteness as part of the *iḥtiyāṭan* (prudence) principle in determining the law. The genus (*uṣūl*) prohibition, as stated in the *naṣṣ* provisions, applies equally to all species or *juṣ'*. This is noted in the fatwa regarding the Meningitis

³⁵ "Regulation of the Indonesian Ulema Council No. 12/PO-MUI/II/2018 on Guidelines for Issuing Fatwas by the Indonesian Ulema Council," Articles 2–6.

³⁶ Azhar Arsyad, "Integration Tree and the Interconnectivity of Science and Religion," *Kalimah: Jurnal Studi Agama dan Pemikiran Islam* 14, no. 2 (30 September 2016): 115–38.

³⁷ Egi Sukma Baihaki, "Preacher and Scientist: Integration of Science in Law Determination," *Jurnal Kaunika* 14, no. 1 (2018): 1–4.

³⁸ "MUI Fatwa No. 1 of 2010 on the Use of Microbes and Microbial Products in Food Products."

³⁹ See: "MUI Fatwa No. 6 of 2010 on the Meningitis Vaccine"; "MUI Fatwa No. 14 of 2017 on Influenza Vaccine Products from Hualan Biological Bacterin Co. Ltd., Xinxiang, China"; "MUI Fatwa No. 33 of 2018 on the Use of MR (Measles-Rubella) Vaccine by Serum Institute of India for Immunization"; "MUI Fatwa No. 2 of 2021 on Covid-19 Vaccine Products from Sinovac Life Sciences Co. Ltd., China, and PT Bio Farma (Persero)"; "MUI Fatwa No. 14 of 2021 on AstraZeneca's Covid-19 Vaccine Products"; "MUI Fatwa No. 27 of 2021 on Covid-19 Vaccine Products from Sinopharm"; "MUI Fatwa No. 48 of 2021 on Pfizer's Covid-19 Vaccine Products"; "MUI Fatwa No. 53 of 2021 on Covid-19 Vaccine Products from Anhui Zhifei Longcom Biopharmaceutical Co., Ltd."

⁴⁰ MUI based its decision on the opinion of Imām Aḥmad al-Khaṭīb al-Syarbīnī in *Mughnī al-Muḥtāj ilā Ma'rīfat al-Fāḥ al-Minhāj* (5/127) and the opinion of Muḥammad al-Mukhtār ash-Syinqīṭī in *Syarḥ Zād al-Mustaqnī* (4/103).

⁴¹ Some of the classical *fiqh* books that serve as the basis for determining fatwas include: *Tuhfat al-Muḥtāj* by Imām Ibn Ḥajar al-Haytamī, *Rawḍat at-Ṭālibīn wa 'Umdat al-Muḥtāj* by Imām al-Nawawī, and *Tabdhīb al-Āthār* by Imām at-Ṭabarī.

Vaccine produced by Glaxo, which was deemed unlawful by the MUI,⁴² because it uses materials contaminated with pigs, which are forbidden (*ḥarām*). The prohibition of organ or tissue transplantation also demonstrates this method. According to the MUI Fatwa Commission, the human body does not belong to another and cannot be transplanted. This provision includes organs, which are part of the human body. This is outlined in the Fatwa on Transplants from Dead and Living Donors.⁴³ The use of cells derived from parts of the human body for medicinal or vaccine ingredients should be regarded with reverence.⁴⁴

Third, using the *istḥsān bi al-darūrah* method excludes the application of the law due to an emergency.⁴⁵ *Istḥsān* is an effective legal method for adapting the law to changing social context and challenges.⁴⁶ Some fatwas using this method include the MUI Fatwa on Drugs and Treatment, which permits the use drugs made from unclean ingredients under the condition of *darūrah shar'īyyah*, when there are no halal alternatives and with a recommendation from a competent expert.⁴⁷ The Fatwa on Transplants from Dead and Living Donors also states that transplants are permitted under *darūrah shar'īyyah* when other medical options are unavailable.⁴⁸ The Fatwa on the Use of Human Diploid Cells for Drug and Vaccine Production Materials employs this method as well. Although the MUI rules that the use of human diploid cells is unlawful, it allows for permissibility if no halal ingredients are available.⁴⁹ The fatwa on the Implementation of Worship during the Covid-19 Outbreak allows replacing Friday prayers with midday prayers due to the pandemic emergency.⁵⁰ The permissibility of using the MR Vaccine from the Serum Institute of India (SII), deemed illegal, is also based on emergency circumstances.⁵¹ Measles is highly contagious, while Rubella is typically mild. The permissibility of using the AstraZeneca,⁵² Sinopharm,⁵³ and Pfizer vaccines⁵⁴ has been debated. The success, availability, and safety of AstraZeneca, as certified by the Food and Drug Supervisory Agency, should be considered, along with the intense competition for vaccines. However, legal provisions in this fatwa indicates changes and exceptions. Changes in the law can shift from *ḥarām* to *mubāḥ*, but this permissibility is

⁴² “MUI Fatwa No. 6 of 2010 on the Meningitis Vaccine.”

⁴³ See: “MUI Fatwa No. 12 of 2019 on Transplantation from Deceased Donors”; “MUI Fatwa No. 13 of 2019 on Transplantation from Living Donors.”

⁴⁴ “MUI Fatwa No. 001/MUNAS X/MUI/XI/2020 on the Use of Human Diploid Cells for the Production of Drugs and Vaccines.”

⁴⁵ *Istḥsān* is the most decisive method for deriving contemporary Islamic law. See: Diky Faqih Maulana and Abdul Rozak, “Istḥsān as a Finding Method of Progressive Islamic Law in the Industrial Revolution Era 4.0,” *El-Mashlahab* 11, no. 2 (23 December 2021): 127–45.

⁴⁶ Johari Johari et al., “Istḥsān Method and Its Relevance to Islamic Law Reform: Content Analysis of Fatwa of Majelis Ulama Indonesia on Corneal Transplant,” *De Jure: Jurnal Hukum dan Syar'iah* 15, no. 1 (4 July 2023): 1–20.

⁴⁷ “MUI Fatwa No. 30 of 2013 on Medicine and Treatment.”

⁴⁸ See: “MUI Fatwa No. 12 of 2019 on Transplantation from Deceased Donors”; “MUI Fatwa No. 13 of 2019 on Transplantation from Living Donors.”

⁴⁹ “MUI Fatwa No. 001/MUNAS X/MUI/XI/2020 on the Use of Human Diploid Cells for the Production of Drugs and Vaccines.”

⁵⁰ “MUI Fatwa No. 14 of 2020 on the Implementation of Worship During the Covid-19 Pandemic.”

⁵¹ “MUI Fatwa No. 33 of 2018 on the Use of MR (Measles-Rubella) Vaccine by Serum Institute of India for Immunization.”

⁵² “MUI Fatwa No. 14 of 2021 on AstraZeneca’s Covid-19 Vaccine Products.”

⁵³ “MUI Fatwa No. 27 of 2021 on Covid-19 Vaccine Products from Sinopharm.”

⁵⁴ “MUI Fatwa No. 48 of 2021 on Pfizer’s Covid-19 Vaccine Products.”

special and applies only to specific situations or emergencies. Legal permissibility will cease when the emergency condition ends.

Fourth, legal reform is based on benefits, allowing new laws to take effect consideration from medical experts. One example is the fatwa on genetic engineering and immunisation.⁵⁵ The MUI Fatwa Commission states that genetic engineering on animals, plants, and microbes is permissible because it is beneficial and not harmful. The fatwa on immunisation indicates that it is permissible and even mandatory to prevent death, serious illness, or life-threatening permanent disability.⁵⁶ This emphasis on benefit as the basis for provisions demonstrates the MUI Fatwa Commission's efforts to reform legally in the absence of prior's texts. The principle of achieving benefit and eliminating harm serves as the foundation for determining the law.

Fifth, the scientification of *naṣṣ*, such as making scientists' findings a basis for interpreting *naṣṣ* and establishing the applicability law of a product. Several fatwas indicate this method regarding vaccines, alcohol, blood plasma, *ṭayyib* (good) standardisation, and the swab test during fasting. The MUI Fatwa Commission determines the size of alcohol or ethanol that falls into the *khamr* (intoxicant) category based on laboratory research.⁵⁷ The results indicated that the content was included in the *khamr* category. Therefore, when these standards are not met, it is not included in the *khamr* category. In the fatwa on the Use of Blood Plasma for Medicinal Materials, the MUI also stipulates that plasma does not include blood because it has undergone the centrifugation process; hence, the law is sacred and may be used.⁵⁸ Regarding influenza vaccines, measles, rubella, and Covid-19, the MUI Fatwa Commission determines the *ṭayyib* size of a scientific product using the Food and Drug Supervisory Agency provision, such as safety, quality, and efficacy.⁵⁹ This standard was used to determine the ability of vaccines to meet the *ṭayyib* element, one of the arguments for determining the scientific product's halalness. Moreover, the fatwa regarding the permissibility of the test during fasting is based on the swap method used, namely the nasopharynx and oropharynx. It is permissible to perform medical procedures during fasting, if they do not break the fast, according to the explanations of medical experts.⁶⁰ Fatwa, or Islamic legal rulings, consider science, and the legal decision depends on the study's result.

The five methods used in establishing fatwa on medical issues show the science and religion integration-interconnection model. According to Fathul Mufid,⁶¹ this interconnection is divided into integrative-independent (science and religion are interdependent in ontology), integrative-complementary (scientific and religious methods are complementary epistemologically), and integrative-qualitative (the axiological relationship

⁵⁵ "MUI Fatwa No. 35 of 2013 on Genetic Engineering and Its Products."

⁵⁶ "MUI Fatwa No. 4 of 2016 on Immunization."

⁵⁷ "MUI Fatwa No. 40 of 2018 on the Use of Alcohol/Ethanol in Medicine."

⁵⁸ "MUI Fatwa No. 45 of 2018 on the Use of Blood Plasma for Medicinal Purposes."

⁵⁹ "MUI Fatwa No. 2 of 2021 on Covid-19 Vaccine Products from Sinovac Life Sciences Co. Ltd., China, and PT Bio Farma (Persero)."

⁶⁰ MUI based its fatwa on explanations from biochemists and molecular biologists, as well as laboratory test results from the Hospital of Universitas Tanjungpura, Pontianak. See: "MUI Fatwa No. 23 of 2021 on the Law of Swab Tests for Covid-19 Detection While Fasting."

⁶¹ Fathul Mufid, "Islamic Sciences Integration," *QIJIS (Qudus International Journal of Islamic Studies)* 2, no. 2 (20 August 2016): 144–60.

between science and religion has a reciprocal qualification). These domains can eliminate the dichotomy between science and religion concerning formal objects, methods, and roles. In the integrative-independent domain, the arguments of *naṣṣ* are integrated with scientific findings while remaining independent in determining the law, as seen in the first and second methods. The integrative-complementary domain is evident in fatwas use scientific findings as complementary arguments for legal determination. The third and fourth methods show how scientific findings complement the basic considerations for determining law related to *ḥarām* and *mubāḥ* based on its *ḍarūrī* characterisation. The integrative-qualitative domain is found in the fifth method, where scientific findings qualify *naṣṣ* provisions, such as the requirements for halal, sacred, and *ṭayyib* standardisation.

The Dialectic Model of Science and Religion in Fatwa

The MUI's fatwa on the medical shows that there is a dialectic between science and religion in law-making. Science, a product of human thought, integrates with legal provisions from Islamic teachings. In establishing this law, the presence of science faces methodological and ideological problems.⁶² Scientific discoveries, such as vaccines, genetic engineering, blood plasma, and human diploid cells, raise societal questions about their permissibility and halalness. These scientific products have not been discovered, and the legal provisions are not found in the *naṣṣ* or the opinions of the classical Islamic jurisprudence scholars. MUI, an institution with the authority to establish Islamic law, should provide answers to these scientific findings. Therefore, the use of science in the fatwa formulation contributes to the discovery of the reasons for the application of Islamic law.⁶³

The MUI has guidelines for establishing fatwas to address new problems. The three methods are fatwas on issues with clear laws and arguments, fatwas on issues with differing opinions among Islamic scholars and method of fatwa on issues without existing laws.⁶⁴ Each fatwa should have a clear basis and an accountable methodology. In formulating a fatwa on medical matters, three methods are employed: referencing *naṣṣ* arguments from the Qur'an and *ḥadīth*, applying *fiqh* principles, and considering the opinions of Islamic jurisprudence scholars taken from their *fiqh* books. These provisions are then compared with scientific findings to interpret and determine the law. The MUI Fatwa Commission conducts a scholastic dialogue using interdisciplinary and multidisciplinary methods.⁶⁵

The dialectic between science and religion in the MUI's fatwa on medicine reveals two models: law guiding science and science guiding law. The model in which Islamic law guides science can be seen in the MUI fatwa to provide general societal guidelines. Apart from providing legal provisions, the MUI's fatwa also provides a moral and spiritual guidance for

⁶² Theeb Alkahtani et al., "Forensic Science in the Context of Islamic Law: A Review," *Journal of Forensic and Legal Medicine* 34 (August 2015): 179–81.

⁶³ Alvi Jauharotus Shukriya and Hayyun Durrotul Faridah, "Science and Technology Studies of the Causes of Prohibited Foods in Islamic Law," *Journal of Halal Product and Research (JHPR)* 2, no. 1 (2 June 2019): 44–50.

⁶⁴ "Regulation of the Indonesian Ulema Council No. 12/PO-MUI/II/2018 on Guidelines for Issuing Fatwas by the Indonesian Ulema Council," Article 6.

⁶⁵ Dragos Constatin Sanda, Luana Alexandra Smarandoiu, and Costea Munteanu, "The Dialogue between Science and Religion: A Taxonomic Contribution," *Religions* 8, no. 3 (March 2017): 35.

everyday life of Muslims.⁶⁶ *Ijtihād*, in this model, is deductive (*istidlālī*). The provisions in the *naṣṣ*, *fiqh* principles that are *mu'tabar* (reliable), and the opinions of Islamic jurisprudence scholars form the basis for determining the law. Furthermore, science's existence is a legal consideration subject to the provisions. Its decisions guide the direction of scientific development, which needs to be met and cannot be violated. This dialectical model is contained in the fatwa concerning the use of microbes and microbial products, drugs and treatments, genetic engineering, immunization, alcohol, blood plasma, transplantation, and human diploid cells for medicine and vaccine product materials. In this fatwa, legal decisions are dominated by the opinions of Islamic jurisprudence scholars and little or no input from scientific experts is involved.⁶⁷ This is understandable because, in *ijtihād istidlālī*, mastery of the *naṣṣ* and their interpretations are within the Islamic scholars' authority.

The second model is science guiding law, and in this category, the role of scientists dominates in law-making, as seen in their involvement in fatwa formulation. It is found in a fatwa on vaccines, such as meningitis, influenza, measles, rubella, and Covid-19. Science is the basis for establishing laws and changing legal provisions, and the opinions of scientific experts and institutions are the arguments used by Islamic scholars in deciding fatwas. Scientific findings also form the basis for determining benefits, emergency conditions, and defining the term *ṭayyib*.⁶⁸ The legal determination in fatwas depends on the scientific expert's statement regarding the product to be legalised. In this formulation, MUI uses the inductive *ijtihād* model (*istiqrā'ī*).

The product benefit is based on scientific experts' information, as in the fatwa regarding the permissibility of vaccines declared *ḥarām*.⁶⁹ Benefits include preventing Covid-19 transmission and achieving herd immunity. The determination of an emergency is also based on scientific experts' considerations, such as the permissibility of using the measles-rubella vaccine, which is *ḥarām* and made from pigs.⁷⁰ Its halalness is based on the emergency of measles-rubella transmission, which can cause death. The *ṭayyib* criteria for determining vaccines are obtained from scientific institutions, such as the Food and Drug Supervisory

⁶⁶ Abd Rauf Muhammad Amin et al., "Problematic Fatwa: An In-Depth Sociological Investigation of MUI's Fatwa on Supporting Palestine's Struggle," *El-Usrah: Jurnal Hukum Keluarga* 7, no. 1 (1 July 2024): 237–52.

⁶⁷ There are several MUI fatwas on medical matters whose rulings do not involve scientific experts. See: "MUI Fatwa No. 35 of 2013 on Genetic Engineering and Its Products"; "MUI Fatwa No. 4 of 2016 on Immunization"; "MUI Fatwa No. 40 of 2018 on the Use of Alcohol/Ethanol in Medicine"; "MUI Fatwa No. 45 of 2018 on the Use of Blood Plasma for Medicinal Purposes"; "MUI Fatwa No. 001/MUNAS X/MUI/XI/2020 on the Use of Human Diploid Cells for the Production of Drugs and Vaccines"; "MUI Fatwa No. 23 of 2021 on the Law of Swab Tests for Covid-19 Detection While Fasting."

⁶⁸ The basis for several MUI fatwas is the results of laboratory tests issued by the Food and Drug Supervisory Agency (BPOM), which guarantee safety, quality, and efficacy. See: "MUI Fatwa No. 2 of 2021 on Covid-19 Vaccine Products from Sinovac Life Sciences Co. Ltd., China, and PT Bio Farma (Persero)"; "MUI Fatwa No. 14 of 2021 on AstraZeneca's Covid-19 Vaccine Products"; "MUI Fatwa No. 27 of 2021 on Covid-19 Vaccine Products from Sinopharm"; "MUI Fatwa No. 48 of 2021 on Pfizer's Covid-19 Vaccine Products."

⁶⁹ There are some vaccines that have been ruled *ḥarām* by the MUI. See: "MUI Fatwa No. 6 of 2010 on the Meningitis Vaccine"; "MUI Fatwa No. 33 of 2018 on the Use of MR (Measles-Rubella) Vaccine by Serum Institute of India for Immunization"; "MUI Fatwa No. 14 of 2021 on AstraZeneca's Covid-19 Vaccine Products"; "MUI Fatwa No. 27 of 2021 on Covid-19 Vaccine Products from Sinopharm"; "MUI Fatwa No. 48 of 2021 on Pfizer's Covid-19 Vaccine Products."

⁷⁰ "MUI Fatwa No. 33 of 2018 on the Use of MR (Measles-Rubella) Vaccine by Serum Institute of India for Immunization."

Agency. Some Islamic scholars define *ṭayyib* vaccines according to provisions like safety, quality, and efficacy.

MUI fatwas regarding medicine primarily use the first model, emphasising the dominance of text in legal determination. All the medical fatwas mentioned utilise the *bayānī* (*naṣṣ sharʿī* and *qawli*) and *taʿlīlī* approaches in their legal arguments. Legal texts (*naṣṣ*) and Islamic scholars' opinions form the basis for establishing laws. Scientific experts' opinions are considered when there are no legal provisions, serving as a basis for determining benefits or emergencies. This contrasts with Heryani's finding⁷¹ that the basis for determining the MUI fatwa on science was research results. Laboratory test results remain subordinate to religious teachings.⁷²

MUI Fatwa and Development of Scientific *Ijtihād*

The clash of religion and science is a debate between rationality and irrationality. Hence, the way to overcome the concept is to understand the truth.⁷³ In the *ijtihād* context, an appropriate approach is needed to interpret the Islamic law provision using a scientific perspective. Nidhal Guessoum offered a quantum approach from the philosophy of Qur'an. Scholars' interpretation of the Qur'an can produce knowledge and methodology, resulting in a hierarchy. The reading of the Qur'an should be conducted in stages through two levels of reading, general and accessible to all people.⁷⁴

In the MUI's fatwa related to medical matters, the benefit attainment, the harm prevention, and the fulfilment of the *ṭayyib* aspect serve as the philosophical basis for determining the law. Science is a tool for interpretation and law determination, highlighting that reason is the law source, not just a tool for interpretation. MUI integrates revelation and science while acknowledging God's position as the authoritative source in Islam. God's authority is represented through the Qur'an and *ḥadīth* texts as fatwa's sources,⁷⁵ but the rules in the holy book require interpretation and elaboration.⁷⁶ Therefore, *muftis* play an important role in translating these rules into reality. The fatwa reflects an intersection between God's authority as the law source and humans as law interpreters. Adaptability, flexibility, dynamics, and legal plurality in Islam demonstrate the authority of Islamic scholars in elaborating God's laws.⁷⁷

Methodologically, the dynamics of *ijtihād* involve both deductive (*istidlāl*) and inductive model (*istiqrāʾ*) in fatwa law determination. The use of these two *ijtihād* models reflects MUI's

⁷¹ Heryani, "Memahami Fatwa MUI tentang Kadar Etanol pada Produk Makanan dan Minuman," 11 November 2021, <https://halalmui.org/memahami-fatwa-mui-tentang-kadar-etanol-pada-produk-makanan-dan-minuman/>.

⁷² Atabik and Muqtada, "Maqashid Quran's Critical View on Indonesian Ulama Council's Fatwa on Halal Certification of COVID-19 Vaccine," 1–6.

⁷³ Abdulla Galadari, "Science vs. Religion: The Debate Ends," *The International Journal of Science in Society* 2, no. 2 (25 October 2011): 1–10.

⁷⁴ Nidhal Guessoum, *Islam dan Sains Modern*, trans. Maufur (Bandung: Mizan Pustaka, 2014), 289–90.

⁷⁵ Khaled Abou El Fadl, *Speaking in God's Name: Islamic Law, Authority, and Women* (Oxford: Oneworld, 2001), 11.

⁷⁶ A Kadir Yildirim, "The New Guardians of Religion: Islam and Authority in the Middle East" (Unpublished, 2019), 9.

⁷⁷ Wael B. Hallaq, *An Introduction to Islamic Law* (Cambridge: Cambridge Univ. Press, 2009), 27.

efforts to carry out progressive *ijtihad*.⁷⁸ The deductive model emphasises the authority of Islamic scholars in determining fatwas, while the inductive model gives more weight to scientists. Scientific experts' opinions interpret normative provisions from revelation by considering possibilities for extension, exception, or change in the law. The inductive approach does not ignore normative provisions but offers new interpretations based on contemporary realities. The combination of deductive and inductive models makes MUI's fatwas not only sources of knowledge but also practical guides to life.⁷⁹

The MUI's fatwa on medical matters shows the Islamic scholars' efforts to carry out scientific *ijtihad*. Scientific findings are a reality that cannot be denied, along with developments and advances in technology in the medical field. This scientific reality examines the responsiveness and the Islamic scholars' responsibility in determining the law, even though the MUI's fatwas does not have legal force.⁸⁰ From the Islamic law perspective, this new reality examines the flexibility and adaptability of Islamic law in responding to the civilization's progress. Therefore, collective *ijtihad* is needed,⁸¹ which involves all competent and interested parties; the Islamic scholars, the Government, and Scientists. Islamic scholars are positioned as experts who understand *naşş* or sources of Islamic law, and the government is a competent party in setting policies. At the same time, Scientologists have the authority to explain scientific findings.

Medical fatwa as the scientific *ijtihad* should fulfil the *ijtihad* provision. In this context, MUI can integrate among *naşş*, Islamic legal maxims, the Islamic scholars' opinions, and scientific findings. This integration is based on science paradigm, employing a multidisciplinary approach in legal determination.⁸² It can also conceptualise Islamic law through the fatwa's decisions about the halal status. Scientific findings have resulted in three models of change in MUI fatwas; providing legal relaxation (*rukhsah*), cancelling previous fatwa provisions (*nasakh*), and refining the provisions of previous fatwas (*takmil*).⁸³ Furthermore, MUI indicates that Islamic law can solve the challenge of time. It accommodates the results of reasoning (*ra'y*) as the basis for establishing law. Scientific findings are still supported by *naşş*, Islamic legal maxims, or the Islamic scholars' opinions.

The use of science in determining law is a form of human reasoning. These factors influence the relationship between religion and science: the time period in question, the

⁷⁸ Sholeh, "Towards a Progressive Fatwa," 281–98.

⁷⁹ Zelfeni Wimra et al., "The Living Fiqh: Anatomy, Philosophical Formulation, and Scope of Study," *JURIS (Jurnal Ilmiah Syariah)* 22, no. 1 (29 June 2023): 185–98.

⁸⁰ M. Ridho Ilahi et al., "Fatwa Institutions in Handling Religious Blasphemy Crimes in Indonesia and Malaysia," *Al-Ahkam* 34, no. 1 (20 March 2024): 33–62.

⁸¹ Pauzi M., Darul Hipni, and Anwar M. Radiamoda, "The Importance of the Ijtihad Jama'i Method in Contemporary Fiqh Formulations," *Al-Risalah: Forum Kajian Hukum dan Sosial Kemasyarakatan* 23, no. 1 (16 June 2023): 13–20.

⁸² Junaidi Abdillah, Mahdaniyah Hasanah Nuriyyatiningrum, and Nafila Inarotussofia Miftahunnaja, "Unity of Sciences (UoS) as a Paradigm for Indonesian Islamic Family Law Reconstruction," *Al-Adalah* 19, no. 1 (20 June 2022): 99–122.

⁸³ Muhammad Rasyid et al., "Science and Its Role in Changes in Islamic Legal Thought (An Analysis of Changes in the Fatwa of the Indonesian Ulama Council Due to Recent Scientific Findings)," *Syariah: Jurnal Hukum dan Pemikiran* 23, no. 2 (2023): 120–37.

religion of interest, and the views of certain individuals.⁸⁴ The relationship between Islamic law and science can be mutually dependent, leading to complex interactions.⁸⁵ Determining the benefits and harms of a rule involves reasoning, particularly in interpreting texts and reality. The texts are static and silent; their application as legal rules require interpretation, which is a human authority.⁸⁶ This interpretation creates harmony between revelation and reason,⁸⁷ as well as between divine and human authority. Revelation represents belief, while reasoning represents knowledge.⁸⁸ Islamic law, as reflected in the MUI's fatwa on medical matters, is a blend of belief and knowledge, an integrating the divine and human-made law.

Conclusion

In issuing medical fatwas, the MUI designs scientific *ijtihad* by involving the Islamic scholars, scientific experts, and the government. MUI adheres to the fatwa determination procedures outlined in the organisation's guidelines. This is evident in the integration of revelation and science in medical-related fatwas, namely deductive-falsifying and inductive-verifying methods. For fatwas that guide Muslims, the MUI employs deductive methods (*istidlāl*) while rejecting conflicting scientific products. Problems with existing legal provisions form the basis for rejecting scientific products that contradict the text. The MUI maintains legal continuity due to the clarity of the governing text. For new issues requiring expert scientific information, MUI uses an inductive-verification integration model. Laboratory test results and scientific products are assessed for conformity with the general provisions of the text. In determining laws, the MUI applies the principle of prudence (*iḥtiyāt*) and performs legal reforms based on benefit. In certain situations, the MUI employs the concept of emergency (*ḍarūrah*) to allow legal exceptions. The functional paradigm helps the MUI harmonise textual provisions in *naṣṣ* and Islamic scholars' opinions with the evolving contextual realities in society. The MUI fatwa on science reflects its responsibility and responsiveness as a forum for Islamic scholars, leaders, and intellectuals.

Bibliography

- A Kadir Yildirim. "The New Guardians of Religion: Islam and Authority in the Middle East." Unpublished, 2019. <https://doi.org/10.13140/RG.2.2.34141.26087>.
- Abdillah, Junaidi, Mahdaniyal Hasanah Nuriyyatiningrum, and Nafila Inarotussofia Miftahunnaja. "Unity of Sciences (UoS) as a Paradigm for Indonesian Islamic Family Law Reconstruction." *Al-'Adalah* 19, no. 1 (20 June 2022): 99–122. <https://doi.org/10.24042/adalah.v19i1.10189>.

⁸⁴ Ryan T. Cragun, "Science and Religion," in *International Encyclopedia of the Social & Behavioral Sciences* (Elsevier, 2015), 172–75.

⁸⁵ Muhammad Hasan, "The Interaction of Fiqh and Science in the Dynamics of Determining the Beginning of the Hijri Month in Indonesia," *Journal of Islamic Law* 4, no. 2 (31 August 2023): 237–57.

⁸⁶ H. Chad Hillier, "Muhammad Iqbal on *al-Fiqh*: Towards a Natural Law Jurisprudence," *Journal of Islamic Law and Culture* 12, no. 3 (October 2010): 258–83.

⁸⁷ Mohammad Hashim Kamali, *Principles of Islamic Jurisprudence*, 3rd Edition (Cambridge: Islamic Texts Society, 2005), 474.

⁸⁸ Emma Gallegos, "Reason in Islamic Law," *Macalester Islam Journal* 1, no. 1 (11 April 2006): 48–53.

- Abdullah, M. Amin. "Religion, Science, and Culture: An Integrated, Interconnected Paradigm of Science." *Al-Jami'ab: Journal of Islamic Studies* 52, no. 1 (8 June 2014): 175–203. <https://doi.org/10.14421/ajis.2014.521.175-203>.
- Abou El Fadl, Khaled. *Speaking in God's Name: Islamic Law, Authority, and Women*. Oxford: Oneworld, 2001.
- Alkahtani, Theeb, Khaldoun Algerian, Bartholomew Golding, and Sakher Alqahtani. "Forensic Science in the Context of Islamic Law: A Review." *Journal of Forensic and Legal Medicine* 34 (August 2015): 179–81. <https://doi.org/10.1016/j.jflm.2015.04.017>.
- Amin, Abd Rauf Muhammad, Abdul Syatar, Mayyadah Mayyadah, Achmad Abubakar, and Islamul Haq. "Problematic Fatwa: An In-Depth Sociological Investigation of MUI's Fatwa on Supporting Palestine's Struggle." *El-Usrah: Jurnal Hukum Keluarga* 7, no. 1 (1 July 2024): 237–52. <https://doi.org/10.22373/ujhk.v7i1.22020>.
- Arion, Alexandru-Corneliu. "Relationship between Faith and Science in the Major World Religions." *ICOANA CREDINTEI. International Journal of Interdisciplinary Scientific Research* 4, no. 7 (2018): 51–66.
- Arsyad, Azhar. "Integration Tree and the Interconnectivity of Science and Religion." *Kalimah: Jurnal Studi Agama dan Pemikiran Islam* 14, no. 2 (30 September 2016): 115–38. <https://doi.org/10.21111/klm.v14i2.608>.
- Atabik, Ahmad, and Muhammad R. Muqtada. "Maqashid Quran's Critical View on Indonesian Ulema Council's Fatwa on Halal Certification of COVID-19 Vaccine." *HTS Teologiese Studies/Theological Studies* 80, no. 1 (20 March 2024): 1–6. <https://doi.org/10.4102/hts.v80i1.9050>.
- Bagir, Zainal Abidin, ed. *Integrasi Ilmu dan Agama: Interpretasi dan Aksi*. 1st ed. Bandung: Mizan, 2005.
- Baihaki, Egi Sukma. "Preacher and Scientist: Integration of Science in Law Determination." *Jurnal Kaunia* 14, no. 1 (2018): 1–4. <https://doi.org/10.14421/kaunia.1323>.
- Barbour, Ian G. *Juru Bicara Tuhan: Antara Sains dan Agama*. Translated by E. R. Muhammad. Bandung: Mizan, 2002.
- Cragun, Ryan T. "Science and Religion." In *International Encyclopedia of the Social & Behavioral Sciences*, 172–75. Elsevier, 2015. <https://doi.org/10.1016/B978-0-08-097086-8.84049-0>.
- Galadari, Abdulla. "Science vs. Religion: The Debate Ends." *The International Journal of Science in Society* 2, no. 2 (25 October 2011): 1–10.
- Gallegos, Emma. "Reason in Islamic Law." *Macalester Islam Journal* 1, no. 1 (11 April 2006): 48–53.
- Guessoum, Nidhal. *Islam dan Sains Modern*. Translated by Maufur. Bandung: Mizan Pustaka, 2014.
- Hakim, Muhammad Lutfi, Zaenuddin Hudi Prasajo, Muhammed Sahrin bin Haji Masri, Muhammad Fauzinudin Faiz, Fuad Mustafid, and Busro Busro. "Between Exclusivity and Inclusivity of Institutions: Examining the Role of the Indonesian Ulema Council and Its Political Fatwa in Handling the Spread of Covid-19." *Khazanah Hukum* 5, no. 3 (31 December 2023): 230–44. <https://doi.org/10.15575/kh.v5i3.30089>.
- Hallaq, Wael B. *An Introduction to Islamic Law*. Cambridge: Cambridge Univ. Press, 2009.

- Hasan, Muhammad. "The Interaction of Fiqh and Science in the Dynamics of Determining the Beginning of the Hijri Month in Indonesia." *Journal of Islamic Law* 4, no. 2 (31 August 2023): 237–57. <https://doi.org/10.24260/jil.v4i2.1433>.
- Hasyim, Syafiq. "Prioritizing Life over Religion in Indonesia's Covid-19 Fatwas: The Fatwas of NU, Muhammadiyah, and MUI." *Studia Islamika* 30, no. 3 (2023): 407–38. <https://doi.org/10.36712/sdi.v30i3.32732>.
- Haught, John F. *Perjumpaan Sains dan Agama: Dari Konflik ke Dialog*. Translated by Fransiskus Borgias. Bandung: Mizan, 2004.
- Heryani. "Memahami Fatwa MUI tentang Kadar Etanol pada Produk Makanan dan Minuman", 11 November 2021. <https://halalmui.org/memahami-fatwa-mui-tentang-kadar-etanol-pada-produk-makanan-dan-minuman/>.
- Hillier, H. Chad. "Muhammad Iqbal on *al-Fiqh*: Towards a Natural Law Jurisprudence." *Journal of Islamic Law and Culture* 12, no. 3 (October 2010): 258–83. <https://doi.org/10.1080/1528817X.2010.618022>.
- Ilahi, M. Ridho, M. Nurul Irfan, Kamarusdiana Kamarusdiana, Hidayatulloh Hidayatulloh, and Eva Achjani Zulfa. "Fatwa Institutions in Handling Religious Blasphemy Crimes in Indonesia and Malaysia." *Al-Ahkam* 34, no. 1 (20 March 2024): 33–62. <https://doi.org/10.21580/ahkam.2024.34.1.18624>.
- Iqbal, Muhammad. "Metode Talfiq Manhaji MUI dalam Fatwa." *Al-'Adl* 13, no. 2 (25 April 2020): 149–64. <https://doi.org/10.31332/aladl.v13i2.1873>.
- Iskandar, Rizky Fauzi. "Kedokteran Kontemporer Perspektif Hukum Islam: Studi Kasus Fatwa MUI tentang Vaksin." Thesis, UIN Syarif Hidayatullah, 2020. <https://repository.uinjkt.ac.id/dspace/handle/123456789/51774>.
- Johari, Johari, Maghfirah Maghfirah, Ahmad Maulidizen, and Habiburrahman Rizapoor. "Istihsān Method and Its Relevance to Islamic Law Reform: Content Analysis of Fatwa of Majelis Ulama Indonesia on Corneal Transplant." *De Jure: Jurnal Hukum dan Syar'iah* 15, no. 1 (4 July 2023): 1–20. <https://doi.org/10.18860/j-fsh.v15i1.18442>.
- Kamali, Prof Mohammad Hashim. *Principles of Islamic Jurisprudence*. 3rd Edition. Cambridge: Islamic Texts Society, 2005.
- Legare, Cristine H., and Aku Visala. "Between Religion and Science: Integrating Psychological and Philosophical Accounts of Explanatory Coexistence." *Human Development* 54, no. 3 (2011): 169–84. <https://doi.org/10.1159/000329135>.
- M., Pauzi, Darul Hipni, and Anwar M. Radiamoda. "The Importance of the Ijtihad Jama'i Method in Contemporary Fiqh Formulations." *Al-Risalah: Forum Kajian Hukum dan Sosial Kemasyarakatan* 23, no. 1 (16 June 2023): 13–20. <https://doi.org/10.30631/alrisalah.v23i1.1322>.
- Majelis Ulama Indonesia. "Database Fatwa Majelis Ulama Indonesia." Accessed 13 January 2024. <https://fatwamui.com/data-fatwa>.
- . "Pedoman Dasar dan Rumah Tangga Majelis Ulama Indonesia Hasil Musyawarah Nasional IX MUI Tahun 2015." Sekretariat Majelis Ulama Indonesia, 2015.
- . "Pedoman Dasar dan Rumah Tangga Majelis Ulama Indonesia Hasil Musyawarah Nasional (MUNAS) MUI VI Tahun 2000." Sekretariat Majelis Ulama Indonesia, 2000.

- Mashuri, Mashuri, Iffatin Nur, and Muhammad Ngizzul Muttaqin. “Maqāṣid Sharī’ah Flexibility to Overcome COVID-19 in Indonesia: From Government Policies to Fatwā of Council of Indonesian Ulama (MUI), Nahdlatul Ulama (NU), and Muhammadiyah.” *De Jure: Jurnal Hukum dan Syar’iah* 13, no. 2 (31 December 2021): 240–63. <https://doi.org/10.18860/j-fsh.v13i2.13280>.
- Maulana, Diky Faqih, and Abdul Rozak. “Istihsan as a Finding Method of Progressive Islamic Law in the Industrial Revolution Era 4.0.” *El-Mashlahah* 11, no. 2 (23 December 2021): 127–45. <https://doi.org/10.23971/elma.v11i2.2981>.
- Mudzhar, M. Atho. *Fatwa-Fatwa Majelis Ulama Indonesia: Sebuah Studi tentang Pemikiran Hukum Islam di Indonesia 1975-1988*. Ed. dwibahasa. Seri INIS 17. Jakarta: INIS, 1993.
- Mufid, Fathul. “Islamic Sciences Integration.” *QIJIS (Qudus International Journal of Islamic Studies)* 2, no. 2 (20 August 2016): 144–60. <https://doi.org/10.21043/qijis.v2i2.1565>.
- Muhibbuddin, Muhammad. “Ijtihad Scientific dalam Hukum Islam (Refleksi Metodologis Penemuan Hukum Islam).” *Ahkam: Jurnal Hukum Islam* 3, no. 1 (1 July 2015): 1–18. <https://doi.org/10.21274/ahkam.2015.3.1.1-18>.
- MUI Fatwa No. 1 of 2010 on the Use of Microbes and Microbial Products in Food Products.
- MUI Fatwa No. 001/MUNAS X/MUI/XI/2020 on the Use of Human Diploid Cells for the Production of Drugs and Vaccines.
- MUI Fatwa No. 2 of 2021 on Covid-19 Vaccine Products from Sinovac Life Sciences Co. Ltd., China, and PT Bio Farma (Persero).
- MUI Fatwa No. 4 of 2016 on Immunization.
- MUI Fatwa No. 6 of 2010 on the Meningitis Vaccine.
- MUI Fatwa No. 12 of 2019 on Transplantation from Deceased Donors.
- MUI Fatwa No. 13 of 2019 on Transplantation from Living Donors.
- MUI Fatwa No. 14 of 2017 on Influenza Vaccine Products from Hualan Biological Bacterin Co. Ltd., Xinxiang, China.
- MUI Fatwa No. 14 of 2020 on the Implementation of Worship During the Covid-19 Pandemic.
- MUI Fatwa No. 14 of 2021 on AstraZeneca’s Covid-19 Vaccine Products.
- MUI Fatwa No. 23 of 2021 on the Law of Swab Tests for Covid-19 Detection While Fasting.
- MUI Fatwa No. 27 of 2021 on Covid-19 Vaccine Products from Sinopharm.
- MUI Fatwa No. 30 of 2013 on Medicine and Treatment.
- MUI Fatwa No. 33 of 2018 on the Use of MR (Measles-Rubella) Vaccine by Serum Institute of India for Immunization.
- MUI Fatwa No. 35 of 2013 on Genetic Engineering and Its Products.
- MUI Fatwa No. 40 of 2018 on the Use of Alcohol/Ethanol in Medicine.
- MUI Fatwa No. 45 of 2018 on the Use of Blood Plasma for Medicinal Purposes.
- MUI Fatwa No. 48 of 2021 on Pfizer’s Covid-19 Vaccine Products.

- MUI Fatwa No. 53 of 2021 on Covid-19 Vaccine Products from Anhui Zhifei Longcom Biopharmaceutical Co., Ltd.
- Muslimin, JM, Rizky Fauzi Iskandar, and Yulia Fatma. "Islam and Medicine: A Study on the Fatwa of Indonesian Ulama Council on Vaccines." *Al-Istinbath: Jurnal Hukum Islam* 6, no. 1 May (25 May 2021): 85–106. <https://doi.org/10.29240/jhi.v6i1.2496>.
- Mustaqim, Abdul. *Epistemologi Tafsir Kontemporer*. 1st ed. Yogyakarta: LKiS, 2010.
- Nahdi, Maizer Said, and Eka Sulistiyowati. "Bioethics and Islamic Values: Assisted Reproductive Technology in the Context of Indonesia." *Studia Islamika* 24, no. 1 (30 April 2017): 69–98. <https://doi.org/10.15408/sdi.v24i1.2209>.
- Rasyid, Muhammad. "Integrasi Islam dan Sains dalam Fatwa Majelis Ulama Indonesia (Tinjauan Fatwa MUI No. 02 Tahun 2004 tentang Peranan Hisab dan Rukyah dalam Penetapan Awal Bulan)." *Proceeding Antasari International Conference* 1, no. 1 (2019): 347–71.
- Rasyid, Muhammad, Muhsin Aseri, Sukarni, Akh Fauzi Aseri, and Muhammad Syazwan Faid. "Science and Its Role in Changes in Islamic Legal Thought (An Analysis of Changes in the Fatwa of the Indonesian Ulema Council Due to Recent Scientific Findings)." *Syariah: Jurnal Hukum dan Pemikiran* 23, no. 2 (2023): 120–37. <https://doi.org/10.18592/sjhp.v23i2.11361>.
- Regulation of the Indonesian Ulema Council No. 12/PO-MUI/II/2018 on Guidelines for Issuing Fatwas by the Indonesian Ulema Council.
- Rosyid, Maskur. "Merealisasikan Kemaslahatan; Membaca Ulang Metodologi Fatwa MUI." In *Peran Fatwa MUI dalam Berbangsa dan Bernegara, Pandangan Akademisi terhadap Fatwa MUI*, edited by M. Asrorun Ni'am Sholeh, 41–78. Jakarta: Komisi Fatwa MUI, 2018.
- Sanda, Dragos Constatin, Luana Alexandra Smarandoiu, and Costea Munteanu. "The Dialogue between Science and Religion: A Taxonomic Contribution." *Religions* 8, no. 3 (March 2017): 35. <https://doi.org/10.3390/rel8030035>.
- Sholeh, M. Asrorun Ni'am. "Towards a Progressive Fatwa: MUI's Response to the COVID-19 Pandemic." *AHKAM: Jurnal Ilmu Syariah* 20, no. 2 (30 December 2020): 281–98. <https://doi.org/10.15408/ajis.v20i2.17391>.
- Shukriya, Alvi Jauharotus, and Hayyun Durrotul Faridah. "Science and Technology Studies of the Causes of Prohibited Foods in Islamic Law." *Journal of Halal Product and Research (JHPR)* 2, no. 1 (2 June 2019): 44–50. <https://doi.org/10.20473/jhpr.vol.2-issue.1.44-50>.
- Supena, Ilyas. "Konstruksi Epistemologi Fikih Pandemik: Analisis Fatwa-Fatwa MUI." *Al-Manahij: Jurnal Kajian Hukum Islam* 15, no. 1 (11 June 2021): 121–36. <https://doi.org/10.24090/mnh.v15i1.4203>.
- Syaukani, Ahmad Zaky. "Fatwa-Fatwa Kesehatan dan Kedokteran Majelis Ulama Indonesia Tahun 2005-2010 (Studi Pendekatan Ushul al-Fiqh)." Thesis, Institut Ilmu Al-Qur'an (IIQ), 2015.
- Thahir, A. Halil. "Towards the Multidimensional Ushul Al-Fiqh: A Study of the Integration of Science in the Fatwa of Majelis Ulama Indonesia." *Samarah: Jurnal Hukum Keluarga dan Hukum Islam* 8, no. 2 (7 May 2024): 687–705. <https://doi.org/10.22373/sjkh.v8i2.19686>.

- Wimra, Zelfeni, Yasrul Huda, Mahlil Bunaiya, and Abdul Rahim Hakimi. "The Living Fiqh: Anatomy, Philosophical Formulation, and Scope of Study." *JURIS (Jurnal Ilmiah Syariah)* 22, no. 1 (29 June 2023): 185–98. <https://doi.org/10.31958/juris.v22i1.9491>.
- Zaluchu, Sonny E., and Jacob D. Engel. "When Do Religion and Science Meet in Uncertainty?" *Verbum et Ecclesia* 43, no. 1 (14 April 2022): 1–7. <https://doi.org/10.4102/ve.v43i1.2489>.
- Zubaidi, Saifuddin. "Cigarette Fatwas, Contestation of Religious Authority and Politics in Indonesia." *Ijtihad: Jurnal Wacana Hukum Islam dan Kemanusiaan* 20, no. 1 (10 June 2020): 61–78. <https://doi.org/10.18326/ijtihad.v20i1.61-78>.