The Writing Methodology of *Mi'yār al-'Ilm fī Fann al-Manṭiq*

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Abstract
Mi'yār al-'Ilm fī Fann al-Manṭiq of al-Ghazālī is the first book on Islamic logic. But the specific, comprehensive and exclusive study on the essence of its scientific contents and its significance in developing scientific thinking has never been done. Thus this study investigates the methodology of *Mi'yār* writing. This qualitative study uses content analysis method. The data which were collected using the documentation has been analyzed using the inductive, deductive, and comparative methods. The process of analysis of logic in *Mi'yār* be done using methods of textual analysis or textual content analysis and constant comparison. It is because of this study is a textual study. This study found that *Mi'yār* written by two objectives. Firstly; to provide an understanding on the methodologies of thinking and researching, and explain the rules of constructing syllogisms and analogies. Secondly; to review the matters which have been written in *Tahāfut*. The study also found that al-Ghazālī wrote *Mi'yār* using atleast 18 methodologies of writing. Therefore *Mi'yār* should be a fundamental source of learning logic and methods of thinking of Muslims either at high school or university. Hence the constant, thorough and deep study on the content of *Mi'yār* is very significant and has high impact. But the dissemination of the findings of this study is the next action that should be realized.

Keywords: al-Ghazālī, *Mi'yār al-'Ilm*, logic, Islamic logic, writing methodology

Introduction
This study was conducted to investigate, analyze and describe the identity of *Mi'yār al-'Ilm fī Fann al-Manṭiq*, a corpus of al-Ghazālī. This study also aims to disclose and highlight the importance of *Mi'yār* in the development of logic in the Islamic world of science. This is due to the corpus has not been studied specifically, comprehensively and exclusively. Hence this study is an attempt to uplift the status and to gain the benefit from the efforts of the earlier scholars in the field of logic, especially al-Ghazālī.

Miʿyār full title is *Miʿyār al-ʿIlm fī Fann al-Manṭiq* (The Criterion or Standard Measure of Knowledge in Logic). *Miʿyār* was written by al-Imām Zayn al-Dīn Ḥujjat al-Islām Muḥijjat al-Dīn Abū Ḥāmid Muḥammad bin Muḥammad bin Muḥammad b. Aḥmad al-Ghazālī al-Ṭūsī.[1] He was born in Dhū al-Qaʿidah 450/ December 1058 at the village of al-Ghazālah in the area of al-Ṭābarān, in the region of Ṭūs (nowadays: Meshed, Iran).[2] Al-Ghazālī died and buried at al-Ṭābarān on Monday morning, Jumādā al-Ākhirah 14, 505/ December 18, 1111, at the age of 55 Hegira years or 53 Christian years.[3] Lazarus-Yafeh described al-Ghazālī as the greatest Islamic thinker,[4] the most influential Islamic thinker,[5] and the most prolific Islamic writer.[6] This is due to the ideas of al-Ghazālī which were always looked very modern and expressed in a manner that is very convincing which is able to transcend the limitations of time and religion, and is able to incorporate deeper notions on any research into his writings.

Al-Ghazālī's prominence and knowledge were proved by the production of many corpuses. Al-Subkī has listed 58 corpuses of

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[1] Abū al-ʿAbbās Shams al-Dīn Aḥmad bin Muḥammad bin Abī Bakr Ibn Khallikān, *Wafayāt al-Aʿyān wa Anbāʾ Abnāʾ al-Zamān*, ed. Iḥsān ʿAbbās (Beirut: Dār al-Ṣādir, 1978), 4: 216.

[2] Henry Corbin, *Tārīkh al-Falsafah al-Islāmīyyah*, trans. Naṣr Murawwah & Ḥasan Qubaysī (Beirut: Manshūrāt ʿUwaydat, 1983, 3rd. ed.), 271; ʿUmar Riḍā Kaḥḥālah, *Muʿjam al-Muʾallifīn: Tarājim Muṣannifī al-Kutub al-ʿArabīyyah* (Dimashq: Maṭbaʿat al-Taraqqā, 1960), 11: 266; Muḥammad Murtaḍā bin Muḥammad al-Ḥusaynī al-Zabīdī, *Itḥāf al-Sādat al-Muttaqīn bi Sharḥ Asrār Iḥyāʾ ʿUlūm al-Dīn* (Beirut: Dār Iḥyāʾ al-Turāth al-ʿArabī, 1989), 1: 7; Ibn Khallikān, *Wafayāt al-Aʿyān wa Anbāʾ Abnāʾ al-Zamān*, 4: 216.

[3] This difference is due to differences in the number of days in a year. According to the Hegira calendar or lunar calendar, there are 354 or 355 days in a year. Meanwhile, according to the Christian calendar or solar calendar, there are 365 or 366 days in a year. See. Abī al-Qāsim ʿAlī bin al-Ḥasan bin Hibat Allāh Ibn ʿAsākir al-Dimashqī, *Tabyīn Kadhb al-Muftarī fī mā Nusib ilā al-Imām Abī al-Ḥasan al-Ashʿarī* (Beirut: Dār al-Kitāb al-ʿArabī, 1979), 296; Ṣalāḥ al-Dīn Khalīl bin Aybik al-Ṣafadī, *al-Wāfī bi al-Wafayāt* (Wiesbaden: Dār al-Nashr Franz Steiner, 1961, 2nd. ed.), 1: 277; Ibn Khallikān, *Wafayāt al-Aʿyān wa Anbāʾ Abnāʾ al-Zamān*, 4: 216.

[4] Hava Lazarus-Yafeh, *Studies in al-Ghazzālī* (Jerusalem: The Magnes Press, 1975), 3.

[5] Hava Lazarus-Yafeh, *Studies in al-Ghazzālī*, 3. Philosophical Terms as a Criterion of Authenticity in the Writings of al-Ghazzālī, In. *Studia Islamica*, (1966), 25: 111.

[6] Hava Lazarus-Yafeh, *Studies in al-Ghazzālī*, 9.

al-Ghazālī,[7] al-Wāsiṭī has listed of 98,[8] Ṭāshkubrā Zādah has listed of 80,[9] al-Zabīdī has listed of 82[10] and Badawī has listed of 457.[11] Some examples of the corpuses of al-Ghazālī are *al-Mankhūl min Taʿlīqāt al-Uṣūl* (jurisprudence), *al-Wasīṭ fī al-Madhhab* (Islamic legal), *Maʾākhidh al-Khilāf* (difference of opinion), *al-Muntaḥil fī ʿIlm al-Jadal* (debate), *Iljām al-ʿAwāmm ʿan ʿIlm al-Kalām* (theology), *Tahāfut al-Falāsifah* (philosophy), *Iḥyāʾ ʿUlūm al-Dīn* (sufism), and *Miʿyār al-ʿIlm fī Fann al-Manṭiq* (logic).[12] Thus a relatively large amount of his corpuses had attracted many researchers to study them from different angles.

Al-Ghazālī's Corpuses on Logic

The corpuses of al-Ghazālī are in various fields such as philosophy, politics, theology, Islamic law, jurisprudence, sufism, ethics and logic. In the diversity of scientific fields, researcher had purposely and intentionally chosen logic as a domain of study, logic of al-Ghazālī as a subject or field of study, and *Miʿyār* as the focus of analytical study.

In the field of logic, al-Ghazālī wrote three forms of corpuses. Firstly; the logic corpus which is a corpus of pure logic in the manner of Aristotle, namely *Maqāṣid al-Falāsifah* (The Aims of the Philosophers), which was completed in 487/1094.[13] He wrote

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7   Tāj al-Dīn Abū Naṣr ʿAbd al-Wahhāb bin ʿAlī bin ʿAbd al-Kāfī al-Subkī, *Ṭabaqāt al-Shāfiʿīyyah al-Kubrā*. ed. Muṣṭafā ʿAbd al-Qādir Aḥmad ʿAṭā (Beirut: Dār al-Kutub al-ʿIlmīyyah, 1999), 3: 434-435.

8   Ṭabaqah al-ʿAlīyyah, In. ʿAbd al-Amīr al-Aʿsam al-Wāsiṭī, *Al-Faylasūf al-Ghazzālī: Iʿādat Taqwīm li Munḥanī Taṭawwurih al-Rūḥī* (Beirut: Dār al-Andalus, 1981, 2nd. ed.), 180-186.

9   Aḥmad bin Muṣṭafā "Tāsh-kubrā Zādah", *Miftāḥ al-Saʿādah wa Miṣbāḥ al-Siyādah fī Mawḍūʿāt al-ʿUlūm* (2nd. ed., Hyderabad: Maṭbaʿat Majlis Dāʾirat al-Maʿārif al-ʿUthmānīyyah, 1980), 2: 341-342.

10 Al-Zabīdī, *Itḥāf al-Sādat al-Muttaqīn bi Sharḥ Asrār Iḥyāʾ ʿUlūm al-Dīn*, 1: 37 & 56-60.

11 ʿAbd al-Raḥmān Badawī, *Muʾallafāt al-Ghazālī* (Cairo: al-Majlis al-Aʿlā li Riʿāyat al-Funūn wa al-Ādāb wa al-ʿUlūm al-Ijtimāʿīyyah, 1961), 1-238.

12 Muḥammad ʿAqīl ʿAlī al-Mahdalī, *Madkhal ilā Dirāsat Muʾallafāt al-Ghazālī* (Cairo: Dār al-Ḥadīth, 1999), 14-19.

13 P. Bouyges, Chronologie de la Vie et Des Oeuvres de Gazālī, In. *Islamic Philosophy* (Frankfurt: Institute for the History of Arabic-Islamic Science at the Johann Wolfgang Goethe University, 1999), 53: 261; Jīrār Jihāmī, Sīrah al-Ghazālī al-Fikrīyyah, In. al-Ghazālī, *Tahāfut al-Falāsifah* (Beirut: Dār al-

this corpus in order to understand the sciences known by the philosophers, namely mathematics, logic, physics, and metaphysics, before he criticized their ideas, opinions and theories through his corpus of *Tahāfut al-Falāsifah* which was completed on 488/1095.[14] Secondly; the logic corpus which is a corpus of Islamic pure logic, such as *Mi'yār al-'Ilm fī Fann al-Manṭiq* (The Criterion or Standard Measure of Knowledge in Logic), *Miḥakk al-Naẓar fī al-Manṭiq* (The Touchstone of Proof in Logic), and *al-Qisṭās al-Mustaqīm* (The Just Balance). *Mi'yār* was completed in 488/1095, *Miḥakk* in 488/1095, and *al-Qisṭās* in 497/1103.[15] Thirdly; the logic corpus which is also a corpus in other fields of Islamic sciences that included and synthesized with elements of logic. The examples for this type of logic corpuses are *al-Mustaṣfā min 'Ilm al-Uṣūl* (The Essentials of Islamic Legal Theory) and *al-Iqtiṣād fī al-I'tiqād* (The Middle of Theology). *Al-Mustaṣfā* which was completed in 503/1109 is a corpus of jurisprudence.[16] While as *al-Iqtiṣād* which was completed in 489/1095 is a corpus of theology.[17] Al-Za'bī explained that al-Ghazālī wrote logic corpuses targeting the particular class or group of thinkers. *Mi'yār* was written specifically to the philosophers, *Miḥakk* and preamble of *Mustaṣfā* to the jurists, *al-Qisṭās* to the Batinites (*Baṭinīyyah*), and *al-Iqtiṣād* to the theologians.[18]

Among so many logic corpuses of al-Ghazālī, the researcher has chose *Mi'yār* to be the focus of analytical study. This choice

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Fikr al-Lubnānī, 1993), 9; 'Abd al-Raḥmān Badawī, *Mu'allafāt al-Ghazālī*, 10.

[14] Iysa A. Bello, *The Medieval Islamic Controversy between Philosophy and Orthodoxy: Ijmā' and Ta'wīl in the Conflict between al-Ghazālī and Ibn Rushd* (Leiden: E. J. Brill, 1989), 9; Mājid Fakhrī, Al-Muqaddimah, in. al-Ghazālī, *Tahāfut al-Falāsifah*, 7-35 (Beirut: al-Maṭba'ah al-Kāthūlīkīyyah, 1962), 10; George F. Hourani, The Chronology of Ghazālī's Writings, in. *Journal of the American Oriental Society* (1959), 79: 227.

[15] P. Bouyges, *Islamic Philosophy* (1999) 53: 261-262; Jīrār Jihāmī, In. al-Ghazālī, *Tahāfut al-Falāsifah*, 9.

[16] Mohd Fauzi Hamat, Penghasilan Karya Sintesis antara Mantik dan *Uṣūl al-Fiqh*: Rujukan kepada Kitab *al-Mustaṣfā min 'Ilm al-Uṣūl*, Karya Imām al-Ghazālī (m.505H/1111M), In. *Jurnal AFKAR* (2000), 1: 123-138; P. Bouyges, *Islamic Philosophy* (1999) 53: 262; Jīrār Jihāmī, In. al-Ghazālī, *Tahāfut al-Falāsifah*, 10; Mohd Fauzi Hamat, *Jurnal AFKAR* (2000), 1: 128.

[17] P. Bouyges, *Islamic Philosophy*, 53: 262.

[18] Anwar al-Za'bī, *Mas'alat al-Ma'rifat wa Manhaj al-Baḥth 'ind al-Ghazālī* ('Ammān: al-Ma'had al-'Ālamī li al-Fikr al-Islāmī, 2000), 43.

of *Mi'yār* is for three reasons. This is, firstly, because *Mi'yār* is the first corpus of al-Ghazālī in the field of Islamic pure logic. This is related to the fact that *Mi'yār* focuses on the discussion of the theories and methods of logic in the Islamic perspective and presents the applicative examples of each methods of logic from the fields of Islamic sciences such as jurisprudence and theology. This kind of approach has made the theories and methods of logic having Islamic elements and values, and of pragmatic, dynamic and practical or functional. Secondly; because the integration in the content of *Mi'yār*. After writing *Mi'yār*, al-Ghazālī wrote another corpus of Islamic pure logic, namely *Miḥakk*, but this corpus is not to be used as a focus of analytical study for *Mi'yār*'s content is more detailed, more comprehensive and deeper than the content of *Miḥakk*. Thirdly; because *Mi'yār* has became a mode or medium for the development of the methodologies and thoughts of logic, which has a chain of logic corpuses, and even can be called "a genealogy of logic corpuses" or "a study of genealogy of logic corpuses." This is proved by the writing of books such as *Miḥakk* (488/1095), *al-Iqtiṣād* (489/1095), *al-Qisṭās* (497/1103), and *al-Mustaṣfā* (503/1109) after the writing of *Mi'yār*. Hence after this study, it is advisable to do a thorough study on "the genealogy of al-Ghazālī's corpuses on logic".

A Special Reference to *Mi'yār al-'Ilm fī Fann al-Manṭiq*

In the field of logic, al-Ghazālī studied with al-Juwaynī (419-478/ 1028-1085) at Naysabur during 473-478/ 1080-1085.[19] However, the biographers of al-Ghazālī do not stated whose logical corpuses be his learning sources. But at that time, the corpuses of logic wrote by al-Fārābī and Ibn Sīnā were widely spread. Based on his study and research during his being lecturer in Madrasah Niẓāmīyyah (Niẓāmīyyah University), he had managed to write a couple of corpuses of logic. Among those corpuses are *Maqāṣid*,

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[19] Ḥusayn Amīn, *Al-Ghazālī: Faqīhan wa Faylasūfan wa Mutaṣawwifan* (Baghdād: Maṭba'at a-Irshād, 1963), 3 & 9-10; Iṣlāḥ 'Abd al-Salām al-Rafā'ī, *Taqrīb al-Turāth: (1) Iḥyā' 'Ulūm al-Dīn li al-Ghazālī* (Cairo: Markaz al-Ahrām, 1988), 21; 'Ādil Za'būb, *Minhāj al-Baḥth 'ind al-Ghazālī* (Beirut: Manshūrāt Mu'assasat al-Risālah, 1980), 13; al-Subkī, *Ṭabaqāt al-Shāfi'īyyah al-Kubrā*, 3: 418.

Mi'yār, and *Miḥakk*. In addition, among other corpuses related to logic are *al-Qisṭās*, *al-Mustaṣfā*, *Asās al-Qiyās* and *al-Iqtiṣād*.

In this study, *Mi'yār al-'Ilm* of al-Ghazālī has been chosen purposely and intentionally as the focus of analytical study. This is because *Mi'yār* is the logic corpus of al-Ghazālī that incorporated the elements of Islam in its content. Before writing *Mi'yār*, al-Ghazālī already wrote another corpuses of logic in the manner of Aristotle entitled *Maqāṣid al-Falāsifah* in order to understand the science of logic. Only then that he wrote successfully a corpus of Islamic pure logic entitled *Mi'yār al-'Ilm fī Fann al-Manṭiq*. According to Bisri, nowadays, the study on "the thought of the outstanding figure" through his corpus had became one of the interested fields of study that attracted the academicians in various institutions of higher education. Likewise, it is necessary to distinguish "the study on the figure" with "the study on the thought of the figure" so that the study will be more focused.[20]

Although *Mi'yār* is the earliest corpus of Islamic pure logic and is a model for logical thinking, logical theory, and curriculum of logic that are very relevant to be learned and applied, but its essence has not been analyzed and indeed need to be analyzed specifically, comprehensively, and exclusively, and then featured in contemporary yet simple terms.

This study was conducted by one issue. The issue is *Mi'yār* has never been studied, analyzed and described specifically, comprehensively and exclusively. Based on this issue and based on the problem statement of the study, the researcher formulated two research questions.

Firstly; the question of the writing background of *Mi'yār*. This mean that the questions of how was *Mi'yār* been wrote? Jihāmī stated that the trilogical corpus of al-Ghazālī, namely *Tahāfut*, *Maqāṣid* ("Preamble to *Tahāfut*") and *Mi'yār* ("Logical science of *Tahāfut*") are interlinked triad. This is because the content and the meaning of the terminologies in *Tahāfut* will be understood only by reading it together with *Maqāṣid* and *Mi'yār*.[21] Therefore, to understand *Tahāfut* must be with *Maqāṣid* and

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[20] Cik Hasan Bisri, *Model Penelitian Fiqh: Paradigma Penelitian Fiqh dan Fiqh Penelitian* (Bogor: Kencana, 2003), 188-189.

[21] Jīrār Jihāmī, in. al-Ghazālī, *Tahāfut al-Falāsifah*, 10-11.

Mi'yār as asserted by al-Ghazālī himself.[22] *Mi'yār* has never been analyzed specifically, comprehensively and exclusively. While as *Maqāṣid* was reviewed by Chertoff[23] and *Tahāfut*, of course, was always been the focus of study by many scholars. This fact shows the relevancy, urgency and significance of analysis on logic in al-Ghazālī's *Mi'yār*. However, the question arises: what is the objective of *Mi'yār* writing? Are those objectives consistent with the scope of *Mi'yār* content? How do they affect the structure of *Mi'yār* content? These are some of the questions that will be searched for the answer in this study. Secondly; the question of the writing methodology of *Mi'yār*. Dunyā pointed out that the discussion in the science of logic is usually a rigid and uninteresting discussion, even dull, just like discussion in mathematics. But the discussion on logic in *Mi'yār* is a lively, rich and enjoyable discussion.[24] Therefore, the questions arise here: what is the writing methodology of *Mi'yār*. What is so special about the writing methodology of *Mi'yār*. This is among the questions that will be searched for the answer in this study.

The problems and issue described above show that there are still many gaps of knowledge about al-Ghazālī's logic that requires study and elaboration. It is recognized by Suriasumantri who explained that the assessment of a matter that has been studied, including logic of al-Ghazālī, can still be studied further because there is no perfect product of human thought and a product of human thought in a particular period may not be appropriate at other times.[25] Lazarus-Yafeh has also explained that while many researches have been done on the thoughts and

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[22] Muḥammad bin Muḥammad al-Ghazālī, *Tahāfut al-Falāsifah*, ed. Maurice Bouyges (Beirut: al-Maṭba'ah al-Kāthūlīkīyyah, 1927), 45; Muḥammad bin Muḥammad al-Ghazālī l-Ghazālī, *Tahāfut al-Falāsifah*, ed. Sulaymān Dunyā (Cairo: Dār al-Ma'ārif, 1958, 3rd. ed.), 83.

[23] Gershon Baruch Chertoff, *The Logical Part of al-Ghazali's Maqasid al-Falasifa in Anonymous Hebrew Translation with the Hebrew Commentary of Moses of Narbonne, Edited and Translated with Notes and an Introduction and Translated into English* (Ph.D Thesis, Columbia University, 1952)

[24] Sulaymān Dunyā, In. al-Ghazālī, *Mi'yār al-'Ilm* (Cairo: Dār al-Ma'ārif, 1961), 23.

[25] Jujun S. Suriasumantri, Penelitian Ilmiah, Kefilsafatan, dan Keagamaan: Mencari Paradigma Kebersamaan, In. Mastuhu & M. Deden Ridwan, *Tradisi Baru Penelitian Agama Islam: Tinjauan Antar-Disiplin Ilmu Agama* (Bandung: Penerbit NUANSA, 1998), 43.

corpuses of al-Ghazālī, but some aspects of his thoughts and corpuses remain unanswered.[26] In conclusion, among the questions that need clarification in this study were, firstly; how is the writing background of *Mi'yār*? Secondly; what is the writing methodology of *Mi'yār*?

Based on the research problems that have been described, this study is generally carried out to investigate, analyze, and describe the identity and the essential content of *Mi'yār* wrote by al-Ghazālī. Based on this general objective of the study, this research is targeting two objectives as follow:

1. to review the writing background of *Mi'yār al-'Ilm*.
2. to analyze the writing methodology of *Mi'yār al-'Ilm*.

This qualitative study used content analysis. The data which were collected using the method of documentation have been analyzed using the inductive, deductive, and constant comparative methods. The process of analysis on logic in *Mi'yār* also has done using textual analysis or textual content analysis because this study is a textual study.

Literature on al-Ghazālī's *Mi'yār al-'Ilm*

In this study, the researcher had reviewed the literatures and have identified two main themes as the domain of study, namely "al-Ghazālī" as a figure of study, and "*Mi'yār*" as a subject of study. Through these two themes, the researcher reviewed the relevant literatures and made some notes and a brief summary accordingly.

The studies on the corpuses of al-Ghazālī were made by Gosche (1858), Macdonald (1899), Goldziher (1903), and Gairdner (1914).[27] Whileas the studies on the efficacy of the corpuses associated with al-Ghazālī were done for the first time by Palacios in 1934-1941 and then followed by Watt in 1952.[28] The chronology of the corpuses of al-Ghazālī have been compiled for the first time by Massignon in 1929[29] and followed by Palacios (1934), Watt (1952), Hourani (1959 & 1984), and Goldziher

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[26] Hava Lazarus-Yafeh, *Studia Islamica* (1966), 25: 111.
[27] 'Abd al-Raḥmān Badawī, *Mu'allafāt al-Ghazālī*, 9-10.
[28] 'Abd al-Raḥmān Badawī, *Mu'allafāt al-Ghazālī*, 11.
[29] 'Abd al-Raḥmān Badawī, *Mu'allafāt al-Ghazālī*, 10.

(1961).[30] Besides that, the list of corpuses of al-Ghazālī also been compiled in a book that prepared by Badawī and published in 1961.[31]

Besides that, the international website developed specially in conjunction with the commemoration of "the 900th Anniversary of Imam al-Ghazali's Death (1111-2011)" has listed 84 doctoral studies on al-Ghazālī. But only two studies related to the logic of al-Ghazālī. Those studies are the study of al-Sayyed Ahmad (1981) concerning *al-Ghazali's Views on Logic*, and the study of Chertoff (1952) on *The Logical Part of al-Ghazali's Maqasid al-Falasifa, in Anonymous Hebrew Translation with the Hebrew commentary of Moses of Narbonne, Edited and Translated with an Introduction and Notes and Translated into English*. However, both studies do not investigate specifically and comprehensively on *Mi'yār*.[32]

In the period of 1983 to 2012, there were 291 doctoral studies been done at the Academy of Islamic Studies, University of Malaya, Malaysia. However, only 4 studies related to al-Ghazālī. Those studies were conducted by Azmil (2011) on the *rubūbīyyah Allah*,[33] Laludin (2006) on the concept of *maṣlaḥah*,[34] Esa (2004) on the philosophy of science,[35] and Mohd Fauzi (2002) on the prominence of al-Ghazālī in the field of logic. Those studies did not examine *Mi'yār* specifically, comprehensively and exclusively.[36] However, the qualitative study of Mohd Fauzi

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[30] George F. Hourani, A Revised Chronology of Ghazālī's Writings, In. *Journal of the American Oriental Society* (1984), 104(2): 289-302; George F. H, A Revised Chronology of Ghazālī's Writings, *Journal of the American Oriental Society* (1959), 79: 225-233.

[31] 'Abd al-Raḥmān Badawī, *Mu'allafāt al-Ghazālī*, 3-550.

[32] Anon., http://ghazali.org/site/ dissert.htm (2011a) [18 Oct 2011].

[33] Azmil Zainal Abidin, "Wacana Rubūbīyyah Allah menurut al-Ghazālī dalam Menangani Dimensi Ghā'īyyah Filsuf Muslim: Terjemahan dan Analisis Teks Terpilih daripada Kitab Tahāfut al-Falāsifah" (Ph.D. Thesis, University of Malaya, 2011).

[34] Hayatullah Laludin, "The Concept of Maṣlaḥah with Special Reference to Imām al-Ghazālī and its Potential Role in Islamization of Sociology" (Ph.D. Thesis, University of Malaya, 2006).

[35] Esa Khalid, "Kajian Perbandingan antara Pemikiran al-Ghazālī dan Ibn Rushd dalam Falsafah Sains" (Ph.D Thesis, University of Malaya, 2004).

[36] Anon., http://www.diglibinum. edu.my/umtheses (2011b) [14 Nov 2011]; Anon., http://www.diglibinum. edu.my/umtheses (2012) [29 Nov 2012]; Anon., http://www.diglibinum. edu.my/umtheses (2013) [6 Jan 2013].

(2002) entitled *Ketokohan al-Ghazzālī dalam Bidang Mantik: Suatu Analisis terhadap Muqaddimah al-Kitāb dalam Kitab al-Mustaṣfā min 'Ilm al-Uṣūl* (The Prominence of al-Ghazālī in the Field of Logic: An Analysis of *Muqaddimah al-Kitāb* in *Kitāb al-Mustaṣfā min 'Ilm al-Uṣūl*) has been analyzed and interpreted the data using the method of documentation. The discussion in this study focused on the contribution of al-Ghazālī in the field of logic in connection with the jurisprudence through his corpus of *al-Mustaṣfā*. This study described the reasons that prompted al-Ghazālī to put the discussion of logic as a preamble to the discussion on jurisprudence in *al-Mustaṣfā*. Although *al-Mustaṣfā* is essentially a corpus of jurisprudence, but it is contributed greatly to the field of logic and recognized highly as conclusive evidence of al-Ghazālī's prominence and excellence in the field of logic.[37] Thus his corpus of pure logic, namely *Mi'yār*, also necessary and should be investigated to prove his prominence, capability and knowledgeability in the field of pure logic.

Whileas at the Faculty of Islamic Studies, Universiti Kebangsaan Malaysia, according to Siti Rugayah *et al.*, [38] in the period of 1979 to 2006, a total of 90 doctoral studies were conducted. However, there is only one study that examined on al-Ghazālī, namely a study of Kadar (2005) on the influence of the spiritual dimension.[39] This study also did not investigate on *Mi'yār*. Thus the gap of knowledge about *Mi'yār* is still existed and need an assessment and an elaboration.

In any case, as a further contribution to these literatures, in this study, the researcher discussed his findings in two discussions. Firstly; the writing background of *Mi'yār*. Secondly; the writing methodology of *Mi'yār*.

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[37] Mohd Fauzi Hamat, "Ketokohan al-Ghazzālī dalam Bidang Mantik: Suatu Analisis terhadap Muqaddimah al-Kitāb dalam Kitāb al-Mustaṣfā min 'Ilm al-Uṣūl" (Ph.D. Thesis, University of Malaya, 2002), iv-vi.

[38] Siti Rugayah *et al.*, *Abstrak Tesis Doktor Falsafah & Sarjana Fakulti Pengajian Islam* (Bangi: Fakulti Pengajian Islam, Universiti Kebangsaan Malaysia, 2008).

[39] Kadar Muhammad Yusuf, "Dimensi Rohani dan Pengaruhnya terhadap Perilaku Manusia menurut Ibn Sīnā dan al-Ghazālī: Suatu Kajian Analisis menurut Perspektif al-Qur'ān" (Ph.D. Thesis, Universiti Kebangsaan Malaysia, 2005).

The Writing Background of *Mi'Yār*

Al-Ghazālī had finished writing *Mi'yār* while he was at Baghdād in 488/1095, that is after writing *Tahāfut* in 488/1095 but before traveling to Damascus at the end of 488/1095.[40] However, al-Ghazālī actually started writing *Mi'yār* much earlier than *Miḥakk* but *Mi'yār* still unresolved and is still under revision and correction during finishing the writing of *Miḥakk*.[41] Al-Ghazālī wrote *Mi'yār* while doing his own reading and reviewing seriously and actively books on philosophy, including logic, in his spare time as a lecturer at Madrasah Niẓāmīyyah, Baghdād within 484-488/ 1091-1095. At first stage, al-Ghazālī planed to write *Mi'yār* as a part or the last part of *Tahāfut*, but eventually he made it as a separate book as stated by al-Ghazālī in *Tahāfut*.[42]

The study of al-Mahdalī found that al-Ghazālī wrote his works for four reasons. Firstly; answering the questions and responding to the requests of certain individuals. Secondly; discussing the nature of certain school of thought and refuting it. Thirdly; correcting, teaching and advising. Fourthly; formulating, developing or designing certain methodology and its application.[43] In this case, *Mi'yār* was written for the fourth reason, which is to formulate, develop or design certain methodology and its application. In this regard, al-Ghazālī explained in *Mi'yār* that the targeted reader of *Mi'yār* is the one who is limited of determination and desire to acquire knowledge, high ambition to unravel the mysteries of the mental facts, who work with hard and vigorous to discard the despised adornment and enjoyment of the world, and who still stand in the determination and resolve to achieve happiness with the knowledge and worship.[44] The targeted reader of *Mi'yār* is also described by al-Ghazālī in *Tahāfut*. He said that a person who do not understand anything in his words of

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[40] P. Bouyges, *Islamic Philosophy*, 53: 261-262; George F. Hourani, *Journal of the American Oriental Society*, 79: 227; Jīrār Jihāmī, In. al-Ghazālī, *Tahāfut al-Falāsifah*, 9; 'Ādil Za'būb, *Minhāj al-Baḥth 'ind al-Ghazālī*, 38.

[41] Abī Ḥāmid Muḥammad al-Ghazālī, *Miḥakk al-Naẓar*, ed. Rafīq al-'Ajam (Beirut: Dār al-Fikr al-Lubnānī, 1994), 162.

[42] Al-Ghazālī, *Miḥakk al-Naẓar*, 162. Al-Ghazālī, *Tahāfut al-Falāsifah,* 83 & 85.

[43] Muḥammad 'Aqīl 'Alī al-Mahdalī, *Madkhal ilā Dirāsat Mu'allafāt al-Ghazālī*, 35-38.

[44] Muḥammad bin Muḥammad al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, ed. Aḥmad Shams al-Dīn (Beirut: Dār al-Kutub al-'Ilmīyyah, 1990), 25.

objections against the philosophers in *Tahāfut* should start firstly by reading the book of *Mi'yār al-'Ilm*, which called "logic" in the eyes of the philosophers.[45] Therefore, the targeted readers of *Mi'yār* are those who have problems to understand the content of *Tahāfut*. This means that al-Ghazālī had developed and established that *Tahāfut* must be read together with *Mi'yār*. Before starting the discussion on logic in *Mi'yār* one by one, al-Ghazālī described the objectives or purposes of writing *Mi'yār* in the section of author's preface. In this regard, al-Ghazālī stated that the impetuses to the writing of the so-called "*Mi'yār al-'Ilm*" are two important goals. The first impetus is to provide an understanding the methodologies of thinking and researching, and explain the rules of constructing syllogisms and analogies. Whileas the second impetus is to review the matters which have been written in *Tahāfut*. This is because al-Ghazālī has been debated against the philosophers in terminological language and regulative terminologies which have been integrated into the logic. Thus the reader will be able to understand the meaning of the terminologies through *Mi'yār* because *Mi'yār* discuss the sources of knowledge, syllogisms and the types of syllogisms.[46]

The Writing Methodology of *Mi'Yār*

In this subheading the researcher focused his discussion on the issue of the writing methodology of *Mi'yār*. Farrukh states that al-Ghazali does not use one method only in his books. Sometimes he used various methods in a book or in the books.[47] This fact raised the question: is this statement also true in the case of *Mi'yār*? Therefore, before describing the writing methodology of *Mi'yār*, the researcher firstly talked about three things, namely (1) preparatory steps before writing *Mi'yār*, (2) the form of the writing order of *Mi'yār*, and (3) the writing structure or presentation style of *Mi'yār*.

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[45] Al-Ghazālī, *Tahāfut al-Falāsifah*, 83.

[46] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 25-27.

[47] 'Umar Farrūkh, Rujū' al-Ghazālī ilā al-Yaqīn, in. *Abū Ḥāmid al-Ghazālī fī Dhikrā al-Mi'awīyyah al-Tāsi'ah li Mīlādih: Mahrajān al-Ghazālī fī Dimashq* (Cairo: al-Majlis al-A'lā li Ri'āyat al-Funūn wa al-Ādāb wa al-'Ulūm al-Ijtimā'īyyah, 1962), 298.

According to al-Mahdalī, before writing any work, including *Mi'yār*, al-Ghazālī will firstly conduct a research using qualitative methods (*dirāsah maktabīyyah*) except for work in sufism field. This is because the work in sufism was written only after al-Ghazālī conducted a research using two methods, namely qualitative methods (*dirāsah maktabīyyah*) and field observation method (*dirāsah maydānīyyah*).[48] In this case, he used participation approach. This was stated by al-Ghazālī himself in *al-Munqidh*.[49] Therefore, al-Ghazālī took four steps in writing any work, including *Mi'yār*. Firstly; gathering required and necessary writing resources. Secondly; assessing the necessary resources to understand the nature of the title. Thirdly; revising the resources to ensure the validity of the information obtained and to seek and find things that have not been discovered by previous researchers. Fourthly; writing the wanted title.[50] In this regard, in writing *Mi'yār*, al-Ghazālī used his spare time in Madrasah Niẓāmīyyah, Baghdad about two years to read and a year to revise and look into his writing.

From the aspect of his writing composition, al-Ghazālī's work can be categorized into two categories, namely, treatise and books. Treatise or articels are available in two forms, namely small treatise and large treatise. Small treatise consisting of several pages. For instance, *Risālat al-Ṭayr* (4 pages) and *Iljām al-'Awāmm 'an 'Ilm al-Kalām* (43 pages). But the large treatise nearly identical to the size of the book. It can be found in three forms. Firstly; consists of several chapters (*abwāb*) without any clauses (*faṣal*) such as *Rawḍat al-Ṭālibīn wa 'Umdat al-Sālikīn* (90 pages) and *al-Ḥikmah fī Makhlūqāt Allāh* (90 pages). Secondly; consists of several clauses only as *Mi'rāj al-Sālikīn*. Thirdly; consists of a couple of important points or facts (*nuqāṭ*) only. Whereas the book consists of several important chapters, clauses, and points. In this case, there are three forms of the book of al-Ghazālī, namely a thin book like *al-Maḥabbah wa al-Shawq wa al-Uns wa al-Riḍā* (130 pages) and *Ma'ārij al-Quds fī Madārij Ma'rifat al-Nafs* (176 pages); medium-thick books such as *al-*

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[48] Al-Mahdalī, *Madkhal ilā Dirāsat Mu'allafāt al-Ghazālī*, 44-45.

[49] Al-Ghazālī, *Al-Munqidh min al-Ḍalāl wa al-Mūṣil ilā Dhī al-'Izzah wa al-Jalāl*, ed. 'Alī Bū Mulḥim (Beirut: Dār wa Maktabah al-Hilāl, 1993), 30.

[50] Al-Mahdalī, *Madkhal ilā Dirāsat Mu'allafāt al-Ghazālī*, 43.

Murshid al-Amīn ilā Maw'iẓat al-Mu'minīn min Iḥyā' 'Ulūm al-Dīn (290 pages), *Maqāṣid* (354 pages) and *Mi'yār* (381 pages); and thick books such as *al-Mankhūl* (500 pages), *al-Mustaṣfā* (2 volumes), *al-Wajīz* (2 volumes) and *al-Wasīṭ* (4 volumes). This fact indicates that al-Ghazālī know the methodology of writing earlier than Western scholars.[51] In this regard, in terms of the structure of this writing, *Mi'yār* is included in the category of medium-thick book. However, some parts of *Mi'yār* also named as "*kitāb*" (The Book). In summary, *Mi'yār* consists of author's preface (*muqaddimat al-muṣannif*) and four *kitāb*. These four *kitāb* are, firstly; the book of the premises of syllogism (*Kitāb muqaddamāt al-qiyās*). Secondly; the book of syllogism (*Kitāb al-qiyās*). Thirdly; the book of definition (*Kitāb al-ḥadd*). Fourthly; the book of the classifications and laws of existence (*Kitāb aqsām al-wujūd wa aḥkāmih*). Each of these four *kitāb* is then divided into several *fann* (techno) or *naẓar* (debate). *Fann* or *naẓar* subsequently subdivided into whether *qisim* (category), *ṣinif* (type), *mathār* (trigger), *faṣal* (clause), *qawl* (discourse), or *naw'* (specific type).[52]

From the aspect of writing structure or presentation style, the work of al-Ghazālī consist of four sections, namely the title (*mawḍū'*), introduction (*muqaddimah*), presentation ('*arḍ*), conclusion (*khātimah*).[53] The **first section**, namely the title, usually contains the name of the book, and the goal of writing the book.[54] In the title *Mi'yār* have written "*Mi'yār al-'Ilm fī Fann al-Manṭiq*." In fact, al-Ghazālī had indicated in *Tahāfut* that he would write a logic book entitled *Mi'yār al-'Ilm*.[55] Al-Ghazālī says:

> While their knowledge of logic is about a research on instrument or tool related to intelligibles (*ma'qulāt*); so that the matters that are not agreed by their opponents should be on their attention. Therefore, we will present in the book of *Mi'yār al-'Ilm* most of the matters that needed to understand the content of this book [*Tahāfut*]. *Inshā' Allāh*. [56]

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[51] Al-Mahdalī, *Madkhal ilā Dirāsat Mu'allafāt al-Ghazālī*, 42-43.
[52] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 25-334.
[53] Al-Mahdalī, *Madkhal ilā Dirāsat Mu'allafāt al-Ghazālī*, 46.
[54] Al-Mahdalī, *Madkhal ilā Dirāsat Mu'allafāt al-Ghazālī*, 46.
[55] Al-Mahdalī, *Madkhal ilā Dirāsat Mu'allafāt al-Ghazālī*, 54-55.
[56] Al-Ghazālī, *Tahāfut al-Falāsifa,* 85.

Besides that al-Ghazali also mentioned the title of this book [*Miʿyār*] in the preface of *Miʿyār* itself when he explained the impetuses that drove *Miʿyār* writing.[57] In addition, he (al-Ghazālī) also mentioned about *Tahāfut*.[58] This proved the validity of relating this book to al-Ghazālī.

The **second section**, namely the introduction section, usually includes *ḥamdalah* (the praise of Allah), *ṣalawāt* and *salām* (blessings and peace be upon the Prophet, his companions and his family); followed by the purpose of writing the book.[59] Al-Ghazālī organized the content of the introduction section in *Miʿyār* based on eleven items. Firstly; *basmalah* (). Secondly; *taḥmīd* (praise). Thirdly; *ṣalawāt* (blessings) and *salām* (peace). Fourthly; prayer. Fifthly; targeted audiences or readers. Sixthly; impetus and goal (in general). Seventhly; the scope of knowledge. Eighthly; methodology of writing and discussion. Ninthly; the goal (in detail). Tenthly; the content of the book. Eleventhly; a short list of the book's content.[60] However, in the introduction section of *Miʿyār*, after al-Ghazālī began his writing with *basmalah*, he did not continue with *ḥamdalah* significantly as usual in his other works. But he continues to (1) *ṣalawāt* (blessings) and *salām* (peace) be upon the Prophet, and (2) prayer. This has raised eyebrows and questions, "does'nt al-Ghazālī start writing with *ḥamdalah*?" While al-Ghazālī himself stressed in the introduction of *al-Wasīṭ* that *ḥamdalah* is the opening or advancement for each book and the closing for each talk (*fatiḥat kull kitāb wa khātimat kull khiṭāb*).[61] The same fact is also confirmed in the preface of *Fātiḥat al-ʿUlūm*.[62] But al-Ghazālī writes:

> In the name of Allah, the Most Gracious, Most Merciful. Blessings and peace be prayed for our leader, Muhammad PbUH, and his family. We pray: O Allah! Our Lord! Show us that the correctness is absolutely correct, and bless us so that

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[57] Al-Ghazālī, *Miʿyār al-ʿIlm fī al-Manṭiq*, 25-26.

[58] Al-Ghazālī, *Miʿyār al-ʿIlm fī al-Manṭiq*, 27.

[59] Al-Mahdalī, *Madkhal ilā Dirāsat Muʾallafāt al-Ghazālī*, 47.

[60] Al-Ghazālī, *Miʿyār al-ʿIlm fī al-Manṭiq*, 25-37.

[61] Muḥammad bin Muḥāmmad l-Ghazālī, *al-Wasīṭ fī al-Madhhab*, ed. Abū ʿAmrū al-Ḥusaynī bin ʿUmar bin ʿAbd al-Raḥīm (Beirut: Dār al-Kutub al-ʿIlmīyyah, 2001), 1: 39.

[62] Abū Ḥāmid Muḥammad al-Ghazālī, *Fātiḥat ʿUlūm* (Cairo: Maṭbaʿat al-Ittiḥād al-Miṣrī, 1902), 2.

we can follow it; and show us also that the falsehood is absolutely false and help us so that we can avoid it. Amen! Let our prayer.[63]

The above phrases show as if al-Ghazālī did not start writing with *ḥamdalah*. But when we read through along the phrases, then would be phrases which proved that al-Ghazālī did not ignore *ḥamdalah*, even started writing with *ḥamdalah*, but his lexical intelligence and diversity of styles allow him to diversify ways of expressing *ḥamdalah*. In this regard, al-Ghazālī writes:

In the name of Allah, the Most Gracious, Most Merciful. Blessings and peace be prayed for our leader, Muhammad PbUH, and his family. We pray: O Allah! Our Lord! Show us that the correctness is absolutely correct, and bless us so that we can follow it; and show us also that the falsehood is absolutely false and help us so that we can avoid it. Amen! Let our prayer. Be informed and realized, O men of boundless determination and desire to acquire knowledge; ... After *ḥamdalah* (the praise of Allah) presented in each affair of people who have a mind to praise, the blessings and peace be also applied for his apostle and servant.[64]

Besides that, this introduction section also describes the two most important objectives which motivated the writing of *Mi'yār*. Al-Ghazālī says:

Indeed, the impetuses to the writing of the book so-called "*Mi'yār al-'Ilm*" are these two important goals. The first impetus is to provide an understanding on the methodologies of thinking and researching, and explain the rules of generating syllogisms and analogies. … The second impetus is to review the matters which we have been written them in the book of *Tahāfut al-Falāsifah*.[65]

In the introduction of *Mi'yār* also stated the content of *Mi'yār*. Al-Ghazālī mentions:

Be informed that the content [of *Mi'yār al-'Ilm*] is teaching you how to transfer knowledge from the concepts arising in your mind to (new) things which are not on you. This is because this transfer has a particular shape and arrangement,

[63] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 25.
[64] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 25.
[65] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 25-27.

if you observe you will reach the desired goal. But if you ignore it you will be apart from the desired goal. The shape and arrangement of the right is very similar or identical to the shape and arrangement that is not right ... The contents of this book (of *Mi'yār al-'Ilm*) are: [1] identifying the principles of the clarifier word (*qawl shāriḥ*) for something to be described its concept, whether in the form of definition (*ḥadd*)) or description (*rasam*), and [2] identifying the principles of the argument or proof (*ḥujjah*) that lead or serve to assent (*taṣdīq*) either in the form of a syllogism (*qiyās*) or otherwise, besides paying attention to the terms of the validity of both, and the impetuses of fallacy in both ... So this is the content of this book [of *Mi'yār al-'Ilm*].[66]

Next, the **third section**, namely the presentation section, usually includes ideas presented in the book either in the system or layout of chapters and clauses, or of clauses only.[67] In the presentation section of *Mi'yār*, al-Ghazālī describes in detail the distribution or categorization of *Mi'yār*'s content:

If you want to know the content of the chapters, then be informed that we have divided the discussion of logic (*mi'yār al-'ilm*) into four books (*kitāb*), namely [1] the book of the premises of syllogism (*Kitāb muqaddamāt al-qiyās*), [2] the book of syllogism (*Kitāb al-qiyās*), [3] the book of definition (*Kitāb al-ḥadd*), and [4] the book of the classifications and the laws of existence (*Kitāb aqsām al-wujūd wa aḥkāmih*).[68]

The **fourth section**, namely the conclusion section, is a statement on the achievement of the book writing objectives and the proposed further action.[69] In the conclusion section of *Mi'yār*, al-Ghazālī writes:

Because of the happiness in this world and hereafter will not be achieved except by knowledge and good deed, and the real knowledge is something that has no physical reality, so it requires a standard (*mi'yār*) to identify its fact. Similarly, because of the good deed which is beneficial in hereafter resemble with incharitable deeds, so it requires a balance

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[66] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 35-36.
[67] Al-Mahdalī, *Madkhal ilā Dirāsat Mu'allafāt al-Ghazālī*, 47.
[68] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 37.
[69] Al-Mahdalī, *Madkhal ilā Dirāsat Mu'allafāt al-Ghazālī*, 48.

(*mīzān*) to identify its fact. Therefore, we have compiled a book about "the Balance of Deed" (*Mīzān al-'Amal*) as we have compiled the book about "the Standard of Knowledge" (*Mi'yār al-'Ilm*). Therefore we dissociated this book of *Mi'yār al-'Ilm* as a separate book (independent tract) because people who do not need this book had separated it apart. May Allah give guidance to those who examine these two books with the eyes of mind, not with the eyes of imitation. Indeed, Allah Almighty, the Assistant who support and substantiate. Amen! Let our prayer.[70]

Strictly speaking, *Mi'yār* was written based on the design as described in *Mi'yār* itself[71] and in the other books of al-Ghazālī.[72] The writing of *Mi'yār* reflected not only al-Ghazālī's knowledge in the field of pure logic but also his knowledge in authorship or scientific writing.

From the methodological aspects of *Mi'yār* writing, al-Ghazālī explains in the author's preface section by saying:

We also like to submit the debate method (*minhāj al-kalām*) in this book along with the applicative examples from the field of *fiqh* (*amthilah fiqhīyyah*), so that the benefit will covers thoroughly, as well as the scope and the results will include all categories of people. Hopefully the researcher who looked only with one eye and with a view to condemn and insult would deprive us of fraud or irregularities from customs in providing an understanding on the exact nature of dialectic matters (*'aqlīyyāt qaṭ'īyyah*) using the applicative examples that are alleged knowledge of Islamic legal (*amthilah fiqhīyyah ẓannīyyah*). Hence that an extreme criticism and humiliation is sufficient enough, while his own ignorance about the rules of generating analogy (*tamthīl*) and its benefits has been proven. This is because of the analogy is generated only to give an understanding on the hidden matters, which can only be known by a clever person, so he could compare what he did not know yet (*majhūl*) with

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[70] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 334.
[71] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 25-27.
[72] Al-Ghazālī, *Tahāfut al-Falāsifah*, 83 & 85.

matters that he already knew (*maʿlūm*). Thus he can identify the unknown matters to himself.[73]

According to al-Shimali, the writing methodology used by al-Ghazālī in his works is to present a description of the sects or schools of thought then discuss them one by one. These presentations and discussions were done using *khiṭāb* (conversation) approach, with help by stories, examples, and the verses of the Qurʾan, and based on the style of literary language. The aim of this method is to avoid boredom and to dominate the psychological tendencies of the audiences before they turn to the consideration of the mind.[74] Accordingly, based on his research on the writing style or methodology of *Miʿyār*, the researcher had discovered and identified 18 methods applied by al-Ghazālī in writing *Miʿyār*. These methods are (1) method of *khiṭābī* (conversation) or method of question and answer, (2) method of rendering the scope of the book, (3) method of starting every "*kitāb*" (book) part with preface, (4) method of strengthening the argument by verses of the al-Qurʾan, (5) method of strengthening the argument by *hadīth*, (6) method of explanation by declarative analogy, (7) method of proposing the theory of logic, (8) method of submitting the applicative examples, (9) method of submitting the applicative examples of logical problems of mental (*ʿaqliyyat*), (10) method of submitting the applicative examples of logical problems of faith (*ʿaqidiyyat*), (11) method of submitting the applicative examples of logical problems of Islamic legal (*fiqhiyyat*), (12) method of submitting the applicative examples of logic using symbols or letters, (13) method of submitting the incorrect applicative examples of logic, (14) method of not submitting any applicative example of logic, (15) method of submitting the difference between the logical terms in *Miʿyār* with the terms in other fields, (16) method of referring certain sections in *Miʿyār*, (17) method of formulating the formula, and (18) method of "*Allāh aʿlam bi al-ṣawāb*". A brief explanation of these methods of *Miʿyār* writing are as follow:

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[73] Al-Ghazālī, *Miʿyār al-ʿIlm fī al-Manṭi,* 28.

[74] ʿAbduh al-Shimālī, *Dirāsāt fī Tārīkh al-Falsafah al-ʿArabīyyah al-Islāmīyyah wa Āthār Rijālihā,* 5th ed (5th ed Beirut: Dār Ṣādir, 1979), 486.

Method 1 is the method of *khiṭābī* (conversation) or method of question and answer.[75] In *Mi'yār*, al-Ghazālī has chose to use *khiṭābī* method (conversation) or question and answer method. This method is a method of writing an explanation and an elaboration using an approach of question-and-answer conversation basis. In this method, al-Ghazālī wrote his explanation as if he were speaking directly with his audiences. This fact shows that the development of ideas and elaboration of discussion content in *Mi'yār* are based on questioning. Based on this brief explanation, the researcher concluded that the work written using the *khiṭābī* method or approach is very concerned about two-ways communication between author and audiences, and give priority to the transfer of knowledges, informations, and understandings to the audiences. These are the advantages and features of *Mi'yār*'s privileges which made its discussion attractive and interested, although it uses the terminology of logic and fits in with heavy essence of discussion. The chosing of *khiṭābī* approach as a method of delivery of information or material which may be categorized as heavy and difficult is very brilliant, accurate, and appropriate because it can avoid feelings of satiety, the brain fatigue, and loss of interest and focus.

Method 2 is method of rendering the scope of the book. This method is a method of submitting a basic framework of discussion at the very beginning section of *Mi'yār*.[76] Al-Ghazālī always practiced this method at the beginning in most of his works such as *Maqāsid*,[77] *Tahāfut*,[78] *Miḥakk*,[79] *al-Mustasfā*,[80] *al-Iqtisād*,[81] *Shifā*',[82] *Jawāhir al-Qur'ān*[83] and *Ihyā*'.[84] This method of writing

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[75] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 160.

[76] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 37.

[77] Ibid., *Maqāṣid al-Falāsifah*, ed. Sulaymān Dunyā, 2nd. ed. (Cairo: Dār al-Maʿārif, 1960), 31-32.

[78] Al-Ghazālī, *Tahāfut al-Falāsifah*, ed. Jirār Jihāmī (Beirut: Dār al-Fikr al-Lubnānī, 1993), 37-38.

[79] Al-Ghazālī, *Miḥakk al-Naẓar*, 68.

[80] Al-Ghazālī, *al-Mustaṣfā min 'Ilm al-Uṣūl*, ed. Muḥammad Sulaymān al-Ashqar (Beirut: Mu'assasat al-Risālah, 1997), 1: 35.

[81] Al-Ghazālī, *al-Iqtiṣād fī al-I'tiqād*, ed. Anas Muḥammad 'Adnān al-Sharafāwī (Beirut: Dār al-Minhāj, 2008), 68-70.

[82] Al-Ghazālī, *Shifā' al-Ghalīl fī Bayān al-Shabah wa al-Mukhīl wa Masālik al-Ta'līl*, ed. Ḥamd 'Ubayd al-Kubaysī (Baghdād: Maṭba'at al-Irshād, 1971), 11-16.

is reinforced by the assertion of al-Ghazālī at the beginning of *al-Mustasfā* that every knowledge which students do not master its entire scope and basic framework since the beginning of the study, its students will not be interested, excited and rush to know its mysteries and objectives (*mabāghī*).[85] Thus this is truly a method and strategy to attract readers to *Mi'yār*.

Method 3 is method of starting every "*kitāb*" (book) part with preface. This method is a method of introducing the "*kitāb*" (book) part by submitting a preliminary or introduction for each major part of *Mi'yār* which named "*kitāb*" (book). Hence al-Ghazālī applied this method of writing in four places because *Mi'yār* consist of four books.[86]

Method 4 is method of strengthening the argument by verses of the Qur'an. This method is a method of submitting verses of the al-Qur'an as the anchor of fact, the example clarifiers or applicative examples of logical rules. In this method, al-Ghazālī was quoted 23 verses from 19 chapters in 26 places for three purposes. These purposes are (1) to strengthen his opinion, (2) to become an example clarifier, and (3) to demonstrate the application of the rules of logic. Based on this explanation, the researcher concluded that al-Ghazālī does not ignore the role of the Qur'an in strengthening the scientific and theoretical understanding of logic, so that logic could be more practical, pragmatic, and dynamic. Thus it is proved that al-Ghazālī had been trying to fill *Mi'yār* logic with elements that are Islamic and had been strengthening the role of Islam and Muslims in developing and sustaining the knowledge of logic.[87]

Method 5 is method of strengthening the argument by hadith. This method is a method of presenting the excerpts of Hadith generally as evidences or arguments' stiffeners. In *Mi'yār*, al-Ghazālī used eleven quotes of hadith for four objectives. These objectives are (1) to strengthen the opinion, (2) to prove equality before the law, (3) to be an example of the application of rules in logic, and (4) to strengthen the definitions of terms used in the

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[83] Al-Ghazālī, *Jawāhir al-Qur'ān* (Beirut: Dār al-Āfāq al-Jadīdah, 1973), 1-8.

[84] Al-Ghazālī, *Iḥyā' 'Ulūm al-Dīn* (Cairo: Dār al-Ḥadīth, 1998), 1: 11-13.

[85] Al-Ghazālī, *al-Mustaṣfā min 'Ilm al-Uṣūl*, 1: 34.

[86] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 41-42, 109-110, 251, & 303.

[87] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 31-32, 58-59 & 99.

discussion of logic. Thus, the researcher concluded that al-Ghazālī does not ignore the role of Hadith in strengthening the knowledge of logic as he entered ten quotes of Hadith in *Mi'yār* logical discussion. This shows that the works of al-Ghazālī is a complete efforts which completing islamicity of logic field.[88]

Method 6 is method of explanation by declarative analogy.[89] In *Mi'yār*, al-Ghazālī used the "declarative analogy" or "demonstrative analogy" to explain something. According to Mundiri, declarative analogy is the method to describe something that is not known or still vague with something already known.[90] In conclusion, al-Ghazālī is understood that the discussion in *Mi'yār* is heavy and difficult. Thus he seeks to facilitate the understanding of the audiences using various declarative analogies.

Method 7 is method of proposing the theory of logic.[91] In this study, "theory of logic" was defined loosely as the content of the discipline of logic. Thus, "theory of logic" is the result of thinking that was becoming a systematic theory in the field of logic. In this study, the essence of *Mi'yār* is considered as a logical theory of al-Ghazālī.[92] Thus in *Mi'yār*, al-Ghazālī proposed a theory of logic by classifying his general theory based on four basic theories of logic, namely [1] the theory of syllogistic premises (3 theories), [2] the theory of syllogism (4 theories), [3] the theory of definition (2 theories), and [4] the theory of existence (2 theories). So, the total is eleven general theories of logic. In submitting each of these eleven general theories, al-Ghazali would firstly classify these theories based on certain categories. Then he explained the meaning or the definition of those theories. Finally, he submitted their applicative examples either in the logic of mental, the logic of Islamic legal, or the logic of faith. In conclusion, al-Ghazālī submitting every theory of logic by explaining its meaning, classification, and applicative example.

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[88] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 32, 159, 171 & 282-283.

[89] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 26

[90] Mundiri, *Logika* (Jakarta: PT Raja Grafindo Persada, 1994), 137.

[91] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 43.

[92] Syukriadi Sambas, *Mantik: Kaidah Berpikir Islami,* 2nd. ed. (Bandung: PT Remaja Rosdakarya, 1997), 8.

Method 8 is method of submitting the applicative examples.[93] A theory is only valuable if it can be applied. So, almost all logical theories put forward by al-Ghazālī in *Miᶜyār* were included with the applicative examples. From the aspect of the essence of the discussion, al-Ghazālī categorize his applicative examples of logical problems into two categories, namely logical problems of mental (ʿ*aqlīyyāt*) and logical problems of Islamic legal (*fiqhīyyāt*). This is because logic is associated with the sense of thinking, and Islamic legal (*fiqh*) is a prominent field and a tendency for people of his time. Submitting an example of logical problems of Islamic legal in this book is to help the jurists in understanding the logic and receiving the entry of logic into the arena of Islamic scholarship. This fact is based on al-Ghazālī's statement in *Miʿyār*.[94] However, the researcher has identified the applicative examples of logical problems in *Miʿyār* and found that they can be categorized in detail into three forms, which is logical problems of mental (ʿ*aqlīyyāt*), logical problems of faith (ʿ*aqīdīyyāt*), and logical problems of Islamic legal (*fiqhīyyāt*). In conclusion, logic can be applied not only in the problems of mental, faith, and Islamic legal, but in whatever sciences that require the use of reason (ʿ*aql*), but the role of this reason must be guided by Quran and Hadith.

Method 9 is method of submitting the applicative examples of logical problems of mental (ʿ*aqlīyyāt*).[95] In *Miʿyār*, al-Ghazālī submit applicative examples for almost all his logic theories. As a field of study related to reasoning, logic in *Miʿyār* still submit the applicative examples for logical problems of mental (ʿ*aqlīyyāt*), just like the other books of logic, but it always maintained and monitored so it will not come off the boundaries of faith and Islam. In conclusion, the existence of the applicative examples of logical problems of mental is a condition that qualify logic to be included in the category of theoretical sciences (ʿ*ulum* ʿ*aqlīyyah*).

Method 10 is method of submitting the applicative examples of logical problems of faith (ʿ*aqīdīyyāt*). In *Miʿyār*, al-Ghazālī did not state clearly that he will present logical problems of faith (ʿ*aqīdīyyāt*) as well as logical problems of Islamic legal, so that

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[93] Al-Ghazālī, *Miʿyār al-ʿIlm fī al-Manṭiq*, 81-82.
[94] Al-Ghazālī, *Miʿyār al-ʿIlm fī al-Manṭiq,* 27-28, 134 & 250.
[95] Al-Ghazālī, *Miʿyār al-ʿIlm fī al-Manṭiq,* 142, 147, 148 & 154.

sometimes al-Ghazālī said that he would present logical problems of mental (*'aqlīyyāt*) but the essence of the logical problems of mental is related to the field of faith. This is because the applicative examples of logical problems of mental, eventhough it is basically related to the field of faith but it requires a deep and thorough understanding of thought to understand. Thus researcher categorize it as logical problems of faith and not a logical problems of mental as applicative example of pure logical problems of mental is simple and pretty much known. However, the applicative examples of logical problems of faith can be detected and identified by the essence of the applicative examples given. Hence, the applicative examples of logical problems can be categorized into logical problems of mental (*'aqlīyyāt*), logical problems of faith (*'aqīdīyyāt*), and logical problems of Islamic legal (*fiqhīyyāt*). In conclusion, the presence of the applicative examples of logical problems of faith (*'aqīdīyyāt*) in connection with the Islamic faith is among the features that distinguish pure logic discussion in *Mi'yār* with the other works of pure logic before it. It is also a peg that ensconcing the Islamic characteristics in Islamic pure logic. With its existence, it is unreasonable to accuse logic as a science of non Islamic nature.[96]

Method 11 is method of submitting the applicative examples of logical problems of Islamic legal (*fiqhīyyāt*). The presence of the applicative examples of logical problems of Islamic legal is among the features that distinguish pure logic discussion in *Mi'yār* with the other works of pure logic. In addition, it is also an element which qualify *Mi'yār* to be included in the category of Islamic pure logic work. In conclusion, the present of the applicative examples of logical problems of Islamic legal is a outstanding proof that al-Ghazālī had attempted to include logic into the mainstream of the development of Islamic scholarship in his time, although he realized that the original framework of logic came from the Greek civilization and many scholars would not give him blessing for his action.[97]

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[96] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq,* 237.
[97] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq,* 27-28, 91, 97-98, 115, 146, 150, 232, 234 & 248.

Method 12 is method of submitting the applicative examples using symbols or letters.[98] In the modern books of logic, there is discussion about the symbolic logic (*al-mantiq al-ramzi*) which was developed by George Boole (1815-1864) in the 19th century. The symbolic logic is "the method of representing logical expressions through the use of symbols and variables, rather than in ordinary language. This has the benefit of removing the ambiguity which normally accompany ordinary languages, such as English, and allow easier operation".[99] Mohd Fauzi also noted that the symbolic logic is a kind of logic which uses certain signs or notations to replace certain concepts, theories, claims, derivations, and so on, used in everyday speech. The use of symbols [in] logic can facilitate a person to determine whether the argument format is 'valid' or 'invalid'. Authenticity and accuracy of the derivation process also can be tested easily with the use of logical symbols.[100] In fact, the use of the symbols in explaning logic is not a new one. It has actually been practiced since the time of al-Ghazālī. In *Mi'yār*, al-Ghazālī also use symbols or letters in presenting applicative examples of logic. In conclusion, the usage of symbols in the applicative examples of logic has certainly been thought by many pioneer thinkers of logic, earlier than George Boole.

Method 13 is method of submitting the incorrect applicative examples of logic. This method means that al-Ghazālī submit incorrect applicative examples of logic as well as correct applicative examples of logic. In this regard, al-Ghazālī will present correct applicative examples of logic, and then followed with incorrect applicative examples of logic. This is done so that the incorrect applicative examples of logic will not happen and can be avoided. In conclusion, the application of logic can be described by submitting incorrect applicative examples of logic besides correct applicative examples of logic.[101]

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[98] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq,* 105 & 121.

[99] Anon., http://www.philosophy-index.com/logic/symbolic/ (2014) [9 Jan 2014].

[100] Mohd Fauzi Hamat, Metod Pendalilan *al-Burhān* dalam Pemikiran Logik dan Kepentingannya dalam Pembangunan Ummah Berfikiran Kritis, In. Mohd Fauzi Hamat *et al*., *Pemikiran Islam dan Cabaran Semasa* (Kuala Lumpur: Jabatan Akidah dan Pemikiran Islam, Akademi Pengajian Islam, Universiti Malaya, 2006), 57.

[101] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 96-99.

Method 14 is method of not submitting any applicative examples of logic. Besides of submitting applicative examples of logic, al-Ghazālī also used the method of not submitting any applicative examples of logic. This method means that al-Ghazālī describe the logical theory without submitting any applicative examples of logic whether logical problems of mental, logical problems of faith, or logical problems of Islamic legal. The researcher concluded that al-Ghazālī did not submit any applicative example of logic in some of his theories that he has put forward for four reasons. Firstly; the applicative examples of logic that have been mentioned are a reminder of matters that are not mentioned. Secondly; the applicative examples of logic in certain matters, such as mental matters, are so many which are hard and need a long time to quantify. Thirdly; the discussed matters do not require the applicative examples of logic of Islamic legal as most jurists' views are based on certain logical methods, namely the method of examination and division (*sabr wa taqsim*). Fourthly; this book is unable to list them out, or explain the knowledges in detail. This is because the matter will not be highlighted or disclosed except with thorough research for a long time.[102]

Method 15 is method of submitting the difference between the logical terms in *Mi'yār* with the terms in other fields. This method means that al-Ghazālī explained the difference between logical terms in *Mi'yār* with terms that applied in other fields such as the fields of grammar, Islamic legal and theology. Some of these terms is "*kalimah*" (word), "*lawāzim*" (necessaries), "*fasal*" (clause), "*mawḍū'*" (logical subject), "*maḥmūl*" (logical predicate), "*qaḍīyyah sharṭīyyah munfaṣilah*" (disjunctive conditional proposition), "*qiyas sharṭī munfaṣil*" (disjunctive conditional syllogism), "*tamthīl*" (analogy), "*burhan al-lim*" (demonstration of the cause), "*burhan al-inn*" (demonstration of the fact) and "'*illah*" (cause).[103] The researcher concluded that al-Ghazālī always ensure that any logic term used in his book must be understood by the readers of his book based on the context of the discussion. Thus, the content of his book will be easily understood and sustainability of his knowledge will be

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[102] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 142-145, 193, 207, 246, 250 & 268.
[103] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 50, 66, 73, 82, 84, 142, 154, 232, 238 & 247.

successfully realized. Likewise, for al-Ghazālī, the usage of difference terms should not be debated because each party has a different term for their respective fields.[104]

Method 16 is method of referring certain sections in *Mi'yār*. This method means that al-Ghazali refers to certain sections in *Mi'yār* either parts or titles that have been discussed or will be discussed. This means that there are two forms of reference, namely referring to the part that will be discussed, and referring to the parts that have been discussed. The researcher concluded that either al-Ghazālī refers to certain parts that have been discussed or will be discussed, the reference is really happening and can be found and identified.[105]

Method 17 is method of formulating the formula. The method of generating or formulating the formula means that al-Ghazālī formulate theories of logic in the form of a formula that is easy to remember. In conclusion, in some difficult but necessary discussions, al-Ghazālī tried to make it easier by proposing creatively a solution formula.[106]

Method 18 is method of "*Allāh a'lam bi al-ṣawāb*". The method of "*Allāh a'lam bi al-ṣawāb*" is the method of declaration and submission to the broadness knowledge of Allah, as well as drawbacks and limitations of oneself knowledge. In this regard, the researcher found that al-Ghazālī frequently uses the expression "*Allāh a'lam bi al-ṣawāb*" (Allah Knows the right better) in *Mi'yār*. The usage of this phrase in the work of logic, eventhough logic is definite and decisive judgment based on the power of reason, describes that al-Ghazālī still held and stick to the stand saying that the capability of reason is limited, weak, and subjected to the power of Allah, and Allah knows what is best and true. This stand should be held by each muslim logician. That's also the behaviour of muslim scholars when talking about any science. This expression is used at the end of the discussions.[107] In conclusion, no matter how resourceful is the ingenuity and how precise is the methodology of one's thinking, it is still weak and widely exposed to an error. Thus, the recognition of the weakness

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[104] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 305.

[105] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 27 & 28.

[106] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 79.

[107] Al-Ghazālī, *Mi'yār al-'Ilm fī al-Manṭiq*, 80, 105, 142, 166, 198 & 231.

of one's reason would signify his wisdom and understanding about the ability of reason and his logical thinking methodology. An understanding on the ability to think logically, will make the logical method more accurate and secure.

Based on the discussion of the issue of writing methodology of *Mi'yār*, the researcher had found that *Mi'yār* was wrote based on careful planning, complete preparation of knowledge, and various methodologies of writing explanation. All of these were done with the intention to facilitate the delivery and understanding of logic and to ensure the continuity and sustainability of logic.

Conclusion

Mi'yār is a genuine corpus of al-Ghazālī in the field of Islamic pure logic. Its writing methodology is in line with the methodology of modern scientific writing. Its content is compiled systematically. The essence of *Mi'yār* content can give an understanding upon the thinking and research methodology, and explain the rules of constructing syllogisms and analogies. The existence of various scientific editions of *Mi'yār* signifies the importance of the theory and application of pure logic in the development of scientific thought. Specifically, this study was able to make an impact and new knowledge to the study of logic which can definitely be applied in all fields of knowledge.

References

Al-Ghazālī, Muḥammad bin Muḥammad. *Al-Iqtiṣād fī al-I'tiqād, ed. Anas Muḥammad 'Adnān al-Sharafāwī*. Beirut: Dār al-Minhāj, 2008.

_____. *Al-Munqidh min al-Ḍalāl wa al-Mūṣil ilā Dhī al-'Izzah wa al-Jalāl,* ed. 'Alī Bū Mulḥim. Beirut: Dār wa Maktabah al-Hilāl, 1993.

_____. *Al-Mustaṣfā min 'Ilm al-Uṣūl, ed. Muḥammad Sulaymān al-Ashqar*. Beirut: Mu'assasat al-Risālah, 1997.

_____. *al-Wasīṭ fī al-Madhhab,* ed. Abū 'Amrū al-Ḥusaynī bin 'Umar bin 'Abd al-Raḥīm. Beirut: Dār al-Kutub al-'Ilmīyyah, 2001.

_____. *Fātiḥat 'Ulūm*. Cairo: Maṭba'at al-Ittiḥād al-Miṣrī, 1902.

_____. *Iḥyā' 'Ulūm al-Dīn.* Cairo: Dār al-Ḥadīth, 1998.

_____. *Jawāhir al-Qur'ān.* Beirut: Dār al-Āfāq al-Jadīdah, 1973.

_____. *Miḥakk al-Naẓar,* ed. Rafīq al-'Ajam. Beirut: Dār al-Fikr al-Lubnānī, 1994.

_____. *Shifā' al-Ghalīl fī Bayān al-Shabah wa al-Mukhīl wa Masālik al-Ta'līl, ed. Ḥamd 'Ubayd al-Kubaysī.* Baghdād: Maṭba'at al-Irshād, 1971.

_____. *Tahāfut al-Falāsifah*, ed. Jirār Jihāmī. Beirut: Dār al-Fikr al-Lubnānī, 1993.

_____. *Mi'yār al-'Ilm fī al-Manṭiq,* ed. Aḥmad Shams al-Dīn. Beirut: Dār al-Kutub al-'Ilmīyyah, 1990.

_____. *Tahāfut al-Falāsifah,* ed. Maurice Bouyges . : al-Maṭba'ah al-Kāthūlīkīyyah, 1927.

_____. *Tahāfut al-Falāsifah,* ed. Sulaymān Dunya, 3rd. ed. Cairo: Dār al-Ma'ārif, 1958.

Al-Mahdalī, Muḥammad 'Aqīl 'Alī. *Madkhal ilā Dirāsat Mu'allafāt al-Ghazālī.* Cairo: Dār al-Ḥadīth, 1999.

Al-Rafā'ī, Iṣlāḥ 'Abd al-Salām. *Taqrīb al-Turāth: (1) Iḥyā' 'Ulūm al-Dīn li al-Ghazālī.* Cairo: Markaz al-Ahrām, 1988.

Al-Ṣafadī, Ṣalāḥ al-Dīn Khalīl bin Aybik. *Al-Wāfī bi al-Wafayāt*, 2nd. ed. Wiesbaden: Dār al-Nashr Franz Steiner, 1961.

Al-Shimālī, 'Abduh. *Dirāsāt fī Tārīkh al-Falsafah al-'Arabīyyah al-Islāmīyyah wa Āthār Rijālihā*, 5th ed. Beirut: Dār Ṣādir, 1979.

Al-Subkī, Tāj al-Dīn Abū Naṣr 'Abd al-Wahhāb bin 'Alī bin 'Abd al-Kāfī. *Ṭabaqāt al-Shāfī'īyyah al-Kubrā*, ed. Muṣṭafā 'Abd al-Qādir Aḥmad 'Aṭā. Beirut: Dār al-Kutub al-'Ilmīyyah, 1999.

Al-Wāsiṭī, Ṭabaqah al-'Alīyyah, In. 'Abd al-Amīr al-A'sam, *Al-Faylasūf al-Ghazzālī: I'ādat Taqwīm li Munḥanī Taṭawwurih al-Rūḥī*, 2nd. ed. Beirut: Dār al-Andalus, 1981.

Al-Za'bī, Anwar. *Mas'alat al-Ma'rifat wa Manhaj al-Baḥth 'ind al-Ghazālī.* 'Ammān: al-Ma'had al-'Ālamī li al-Fikr al-Islāmī, 2000.

Al-Zabīdī, Muḥammad Murtaḍā bin Muḥammad al-Ḥusaynī. *Itḥāf al-Sādat al-Muttaqīn bi Sharḥ Asrār Iḥyā' 'Ulūm al-Dīn.* Beirut: Dār Iḥyā' al-Turāth al-'Arabī, 1989.

Amīn, Ḥusayn. *Al-Ghazālī: Faqīhan wa Faylasūfan wa Mutaṣawwifan*. Baghdād: Maṭba'at a-Irshād, 1963.

Anon., http://ghazali.org/site/ dissert.htm (2011a) [18 Oct 2011].

Anon., http://www.diglibinum. edu.my/umtheses (2011b) [14 Nov 2011]; Anon.,

Anon., http://www.philosophy-index.com/logic/symbolic/ (2014) [9 Jan 2014].

Azmil Zainal Abidin, "Wacana Rubūbīyyah Allah menurut al-Ghazālī dalam Menangani Dimensi Ghāʾīyyah Filsuf Muslim: Terjemahan dan Analisis Teks Terpilih daripada Kitab Tahāfut al-Falāsifah". Ph.D. Thesis, University of Malaya, 2011.

Badawī, ʿAbd al-Raḥmān. *Muʾallafāt al-Ghazālī.* Cairo: al-Majlis al-Aʿlā li Riʿāyat al-Funūn wa al-Ādāb wa al-ʿUlūm al-Ijtimāʿīyyah, 1961.

Bello, Iysa A. *The Medieval Islamic Controversy between Philosophy and Orthodoxy: Ijmāʿ and Taʾwīl in the Conflict between al-Ghazālī and Ibn Rushd*. Leiden: E. J. Brill, 1989.

Chertoff, Gershon Baruch. "The Logical Part of al-Ghazali's Maqasid al-Falasifa in Anonymous Hebrew Translation with the Hebrew Commentary of Moses of Narbonne" edited and translated with notes and an introduction and translated into English. Ph.D Thesis, Columbia University, 1952.

Cik Hasan Bisri. *Model Penelitian Fiqh: Paradigma Penelitian Fiqh dan Fiqh Penelitian*. Bogor: Kencana, 2003.

Corbin, Henry. *Tārīkh al-Falsafah al-Islāmīyyah*, trans. Naṣr Murawwah & Ḥasan Qubaysī, 3rd. ed. Beirut: Manshūrāt ʿUwaydat, 1983.

Dunyā, Sulaymān. In. *al-Ghazālī, Miʿyār al-ʿIl*. Cairo: Dār al-Maʿārif, 1961.

Esa Khalid. "Kajian Perbandingan antara Pemikiran al-Ghazālī dan Ibn Rushd dalam Falsafah Sains". Ph.D Thesis, University of Malaya, 2004.

Fakhrī, Mājid. Al-Muqaddimah, in. *al-Ghazālī, Tahāfut al-Falāsifah, 7-35*. Beirut: al-Maṭbaʿah al-Kāthūlīkīyyah, 1962.

Farrūkh, ʿUmar. Rujūʿ al-Ghazālī ilā al-Yaqīn, in. *Abū Ḥāmid al-Ghazālī fī Dhikrā al-Miʾawīyyah al-Tāsiʿah li Mīlādih: Mahrajān al-Ghazālī fī Dimash.* Cairo: al-Majlis al-Aʿlā li Riʿāyat al-Funūn wa al-Ādāb wa al-ʿUlūm al-Ijtimāʿīyyah, 1962.

Hava Lazarus-Yafeh, Studies in al-Ghazzālī, 9.

Hayatullah Laludin, "The Concept of Maṣlaḥah with Special Reference to Imām al-Ghazālī and its Potential Role in

Islamization of Sociology". Ph.D. Thesis, University of Malaya, 2006.

Hourani, George F. A Revised Chronology of Ghazālī's Writings, In. *Journal of the American Oriental Society* (1984), 104(2): 289-302;

Hourani, George F. A Revised Chronology of Ghazālī's Writings, Journal of the American Oriental Society (1959), 79: 225-233.

Hourani, George F. The Chronology of Ghazālī's Writings, in. *Journal of the American Oriental Society* (1959), 79: 227.

http://www.diglibinum. edu.my/umtheses (2012) [29 Nov 2012]; Anon., http://www.diglibinum. edu.my/umtheses (2013) [6 Jan 2013].

Ibn ʿAsākir al-Dimashqī, Abī al-Qāsim ʿAlī bin al-Ḥasan bin Hibat Allāh. *Tabyīn Kadhb al-Muftarī fī mā Nusib ilā al-Imām Abī al-Ḥasan al-Ashʿarī*. Beirut: Dār al-Kitāb al-ʿArabī, 1979.

Ibn Khallikān, Abū al-ʿAbbās Shams al-Dīn Aḥmad bin Muḥammad bin Abī Bakr. *Wafayāt al-Aʿyān wa Anbā' Abnā' al-Zamān*, ed. Iḥsān ʿAbbās. Beirut: Dār al-Ṣādir, 1978.

Jihāmī Jīrār. Sīrah al-Ghazālī al-Fikrīyyah, In. *al-Ghazālī, Tahāfut al-Falāsifah*. Beirut: Dār al-Fikr al-Lubnānī, 1993.

Jujun S. Suriasumantri. *Penelitian Ilmiah, Kefilsafatan, dan Keagamaan: Mencari Paradigma Kebersamaan, In. Mastuhu & M. Deden Ridwan, Tradisi Baru Penelitian Agama Islam: Tinjauan Antar-Disiplin Ilmu Agama.* Bandung: Penerbit NUANSA, 1998.

Kadar Muhammad Yusuf. "Dimensi Rohani dan Pengaruhnya terhadap Perilaku Manusia menurut Ibn Sīnā dan al-Ghazālī: Suatu Kajian Analisis menurut Perspektif al-Qur'ān". Ph.D. Thesis, Universiti Kebangsaan Malaysia, 2005. .

Kaḥḥālah, ʿUmar Riḍā. *Muʿjam al-Muʾallifīn: Tarājim Muṣannifī al-Kutub al-ʿArabīyyah.* Damascus: Maṭbaʿat al-Taraqqā, 1960.

Lazarus-Yafeh, Hava. *Studies in al-Ghazzālī.* Jerusalem: The Magnes Press, 1975..

Maqāṣid al-Falāsifah, ed. Sulaymān Dunya, 2nd. ed. Cairo: Dār al-Maʿārif, 1960.

Mohd Fauzi Hamat. "Ketokohan al-Ghazzālī dalam Bidang Mantik: Suatu Analisis terhadap Muqaddimah al-Kitāb dalam Kitāb al-Mustaṣfā min ʿIlm al-Uṣūl". Ph.D. Thesis, University of Malaya, 2002.

Mohd Fauzi Hamat. "Metod Pendalilan al-Burhān". Dalam Pemikiran Logik dan Kepentingannya dalam Pembangunan Ummah Berfikiran Kritis," In. Mohd Fauzi Hamat et al., *"Pemikiran "Islam dan Cabaran Semasa".* Kuala Lumpur: Jabatan Akidah dan Pemikiran Islam, Akademi Pengajian Islam, Universiti Malaya, 2006.

Mohd Fauzi Hamat. Penghasilan Karya Sintesis antara Mantik dan Uṣūl al-Fiqh: Rujukan kepada Kitab al-Mustaṣfā min 'Ilm al-Uṣūl, Karya Imām al-Ghazālī (m.505H/1111M), In. *Jurnal AFKAR* (2000), 1: 123-138; .

Mundiri, *Logika*. Jakarta: PT Raja Grafindo Persada, 1994.

Muṣṭafā, Aḥmad bin. *"Tāsh-kubrā Zādah", Miftāḥ al-Sa'ādah wa Miṣbāḥ al-Siyādah fī Mawḍū'āt al-'Ulūm*, 2nd. ed. Hyderabad: Maṭba'at Majlis Dā'irat al-Ma'ārif al-'Uthmānīyyah, 1980.

 P. Bouyges, Chronologie de la Vie et Des Oeuvres de Gazālī, In. *Islamic Philosophy*. Frankfurt: Institute for the History of Arabic-Islamic Science at the Johann Wolfgang Goethe University, 1999.

Philosophical Terms as a Criterion of Authenticity in the Writings of al-Ghazzālī, In. Studia Islamica, (1966), 25: 111.

Siti Rugayah et al., "Abstrak Tesis Doktor Falsafah & Sarjana Fakulti Pengajian Islam". Bangi: Fakulti Pengajian Islam, Universiti Kebangsaan Malaysia, 2008.

Syukriadi Sambas, Mantik: Kaidah Berpikir Islami (Bandung: PT Remaja Rosdakarya, 1997, 2nd. ed.), 8.

Za'būb, 'Ādil. *Minhāj al-Baḥth 'ind al-Ghazālī*. Beirut: Manshūrāt Mu'assasat al-Risālah, 1980.