A Preliminary Analysis of The Classical views of the Concept of Integration of Knowledge

W. Mohd Azam Mohd Amin

Department of Usul al-Din and Comparative Religion,
Kulliyyah of Islamic Revealed Knowledge and Human Sciences,
International Islamic University Malaysia

Abstract

This paper analyzes classical discourse on the integration of knowledge by Muslim scholars. This includes terminology offered in the *jima' al-'ilm* and *al-qiyas* of Muhammad Idris al-Shafi'i (d. 204/820); the *ihya'* of Abu Hamid al-Ghazali (d. 505/1111); the *'ilm al-sana'i'* of Ibn Khaldun (d.806/1406); and the *funun* of al-Dihlawi (d.1176/1762) that pertain to the concept of the integration of knowledge. In-depth analysis of their writings reveals that they have already proposed the framework for knowledge integration that emphasizes the concept of soul, *ma'rifah,* and their practical aspects. Their discussion of this framework has guided modern scholars to continue their noble efforts. Terms like Islamization (*Aslamat al-ma'rifah*), Islamicization (*Islamiyyat al-ma'rifah*), and the integration (*al-takamul*) of human knowledge have been proposed by modern Muslim scholars whose aim is to continue the efforts made by their predecessors.

Keywords: Islamic epistemology, integration of knowledge, Islamic spirituality, ethics.

Abstrak

Kajian ini menganalisis wacana klasik terhadap integrasi ilmu pengetahuan oleh ulama Islam. Ini termasuk istilah digunakan dalam *Jima 'al-'ilm* dan *al-qiyas* oleh Muhammad Idris al-Syafi'i (d 204/820); *ihya* oleh Abu Hamid al-Ghazali (d 505/1111); *'Ilm al-sana'i'* oleh Ibn Khaldun (d.806/1406); dan *funun* oleh al-Dihlawi (d.1176 /1762) berkaitan dengan konsep integrasi ilmu pengetahuan. Analisis terperinci daripada penulisan mereka telah mencadangkan rangka kerja untuk menintegrasikan pengetahuan yang menekankan konsep jiwa, ma'rifah, dan aspek-aspek praktikal. Perbincangan dalam rangka kerja ini telah menjadi paduan kepada ulama moden untuk meneruskan usaha murni mereka. Terma seperti pengislaman (*Aslamat al-ma'rifah*), Islamisasi (*Islamiyyat al-ma'rifah*), dan integrasi (*al-takamul*) pengetahuan manusia yang telah dicadangkan oleh sarjana Islam moden bertujuan untuk meneruskan usaha-usaha yang dibuat oleh ulama terdahulu.

Kata Kunci: Epistemologi Islam, integrasi pengetahuan, kerohanian Islam, etika.

Introduction

The word integration connotes the idea of blending or uniting one thing with something else so that both work together as a functioning unit. The concept of revelation in Islam—comprising the Qur'an and Sunnah of the Prophet—is the best extent example of the concept of knowledge integration for the Muslim *ummah*. The integration is seen here in terms of the

*Corresponding author: WMohd Azam Mohd Amin
Dept. of Usul al-Din and Comparative Religion
Kulliyyah of Islamic Revealed Knowledge and
Human Sciences
International Islamic University Malaysia
Email: wmazam@iium.edu.my*

Sunnah as practical evidence of the doctrines and teachings of the Qur'an. Since both are considered sources of knowledge in Islamic epistemology, the Islamic nature of knowledge is therefore integrated with revealed and intellectually based knowledge. However, this contradicts the view of scholars from other religions who propose that knowledge in Islam is of two categories; sacred and profane. Sacred refers to knowledge derived from revealed sources (i.e. the Qur'an and Sunnah), while profane refers to knowledge that is deduced by man from the universe using his power of reasoning. For such scholars, both types of knowledge may work alongside one another but cannot be integrated due to their differing natures and values. Hence, they assumed a segregation of knowledge that allowed for the development of

intellectual sciences apart from religious ethical values.

In Islamic epistemology, Allah, the ultimate source of knowledge, has revealed guidelines and principles for mankind's life in His revelation. It is therefore incumbent upon man to read, understand, deduce and systematize these revealed guidelines and principles in order to integrate them with his daily activities; all of which cover the knowledge of this world. Sciences derived from man's effort to deduce these revealed guidelines and principles for living is referred to as revealed-based sciences. Sciences consequent to man's intellectual efforts to understand and develop the universe are normally called intellectually-based sciences. Both categories of science are included under acquired knowledge (*'ilm al-husuli* or *kasbi*). Classical Muslim scholars have developed many terms that refer to the integration of knowledge. Such terminologies are the *al-Qiyas* (religious analogy) of al-Shafi'i; the *Ihya'* (revivification) of al-Ghazali; *'ilm al-sana'i* (crafts) of Ibn Khaldun; the *funun* (arts) of Shah Wali Allah al-Dihlawi and others. (al-Ghazali, 1982; Ibn Khaldun, 1996; al-Dihlawi,1996) It is worth mentioning that, as in line with al-Faruqi (1982) and M.Aslam's (2009) views that there were flaws in classical methodologies, this paper will investigate the epistemological inquiry into al-Shafi'i, al-Ghazali, Ibn Khaldun and al-Dihlawi's concept integration of knowledge instead of following a narrowed-down methodology of certain disciplines such as *usul al-fiqh*, Sufism, *hadith* and others.

Acquired Knowledge (*'Ilm al-Husuli*)
Scholars like al-Ghazali, Ibn Khaldun and al-Dihlawi unanimously agreed that the definition of human knowledge is 'to know something' (*ma'rifat al-shay'*) or the attaining within one's soul of the concept of something (*husul surah al-ma'lum, al-shay'*) not known before as it 'really is'. They also believed that the intellect (*al-'aql*), which stimulates the power of reasoning, is one of the faculties of man's soul.(al-Ghazali,1982; Ibn Khaldun, 1996; al-Dihlawi,1970;1974) When dealing with revelation (i.e. the Qur'an and Sunnah), man's power of reasoning is limited to understanding, deducing and systematising principles and guidelines from revealed knowledge. Hence, this led to the birth of several sciences termed revealed-based knowledge; sciences such as *'ulum al-Qur'an* (Sciences of the Qur'an), *'ulum al-Hadith* (Sciences of *hadith*), *Tafsir* (Qur'anic exegesis), *Fiqh* and *Usul al-fiqh* and others.

By contrast however, man's power of reasoning may be more fully utilized in comprehending the universe and its contents so as to discover new knowledge and sciences without the limitations incumbent with revealed knowledge. Consequently, these efforts led to the use of the term 'intellectually-based' knowledge and sciences. Yet we may safely say that all sciences falling under either revealed-based or intellectually-based knowledge are acquired by man through his power of reasoning (*qiyas*).

Al-Shafi'i (1993) classified acquired knowledge into *'ilm al-din* (religious knowledge) and *'ilm al-dunya* (worldly knowledge). He further sub-classified religious knowledge into common knowledge (*'ilm al-'amm*) and specialized knowledge (*'ilm al-khas*). Common knowledge is that which every sane, mature, adult Muslim knows and of which ignorance is impossible. That this is a category which all Muslims must acquire to fulfil their religious obligations was made evident by al-Shafi'i's term, *kullifa al-'ibad* (individually obligatory). This category mostly comprises the five articles of Islam (*arkan al-Islam*). As for specialized knowledge (*'ilm al-khass*), Al-Shafi'i refers to the details of the common knowledge (*'ilm al-'ammah*) that are subsidiary duties and specific rulings (*furu' al-fara'id, khass al-ahkam*) from God to mankind. Here we find, for example, detailed laws regarding the five daily prayers, fasting, *zakat*, pilgrimage and others. Al-Shafi'i (1993) claimed that most of these rulings are not textually (*nassan*) mentioned in the two major sources of revelation but are deduced by the practice of religious analogy (*al-qiyas*). The same applies to worldly knowledge (*'ilm al-dunya*), although Al-Shafi'i did not speak much on the latter. Al-Shafi'i was, however, of the opinion that the legal value of acquiring this type of knowledge is a collective obligation (*fard fi hi qasad al-kifayah*).

Al-Ghazali was one of the Shafi'ites who developed many terms and schemes for acquired knowledge such as *'ilm al-husuli* (acquired knowledge), *'ilm al-mu'amalah* (science of behavioral conduct), *'ulum al-akhirah* (other-worldly sciences), *'ulum al-dunya* (worldly sciences) and others (al-Ghazali, 1982; Osman, 1992). Interestingly, based on al-Shafi'i's framework, al-Ghazali modified and developed a new scheme for the classification of acquired knowledge as follows: *fard 'ayn* (individual obligation), *fard kifayah* (collective obligation), *mubah* (permissible sciences) and *al-madhmumah* (blameworthy sciences). As for sciences coming under individual obligation (*fard 'ayn*), he broadened al-Shafi'i's scope of common knowledge. In addition to knowledge of the five articles of Islam listed by Al-Shafi'i as common knowledge, added the science of the heart (*'ilm al-qulub*). Furthermore, he employed a new term for this kind of knowledge, *'ilm fard 'ayn*

(individual obligation), which renders the same connotation as does the *'ilm al-'amm* (common knowledge) of al-Shafi'i.(al-Shafi'i, 1993; al-Ghazali, 1982; Osman 1992)

The same applies to al-Shafi'i's approach to specialised knowledge (*'ilm al-khass*) whose legal ruling is a 'collective obligation' (*fard fi hi qasad al-kifayah*). Al-Ghazali amended this category by adding subdivisions: revealed-based (*shar'i*) and intellectually-based (*ghayr al-shar'i*) sciences. Each sub-division holds two sub-topics: *al-mahmudah* (praiseworthy sciences) and *al-madhmumah* (blameworthy sciences). Al-Ghazali also appears to have shortened the phrase employed by Al-Shafi'i (i.e., *fard fi hi qasad al-kifayah*) to *fard kifayah* (collective obligation) (Al-Shafi'i, 1993; al-Ghazali, 1982; Osman, 1992).

Another scheme that was not made clear in al-Shafi'i's discourse but was further developed by al-Ghazali was the categorization of the permissible (*mubah*) sciences (al-Ghazali, 1982; Osman, 1992). A complete analysis shows that this category included most contemporary sciences, including Greek Philosophy. Most sciences studied at that time came under this category on condition that they sought after knowledge with the right intention and means and did not contradict Islamic values. Nonetheless, prohibited sciences were also defined and came under a new category in Al-Ghazali's scheme. These were called the blameworthy (*al-madhmum*) sciences and included the practice of magic, the use of talismans, sorcery, divination and others (al-Ghazali, 1982; Osman, 1992).

Ibn Khaldun (1996) was of the opinion that human knowledge is acquired (*muktasab*) via two types of human perception (*idrak*): senses (*ihsas*) and taste (*dhawq*). He divided acquired knowledge into two categories, traditional revealed-based (*'ilm al-naqliyyah al-wad'iyyah*) knowledge and the rational sciences (*'ilm al-hikmiyyah al-'aqliyyah*). He acknowledged that man's power of reasoning (*qiyas*) is natural and that its function is limitless when exploring the universe. With regard to revelation however, he wrote that man's reasoning power is limited to understanding and deducing the guidelines and principles of living from it. As such, inferred that revealed knowledge led to other tasks for man's reasoning, including the systematization and compilation of guidelines for living in the form of a body of knowledge he called *'ilm al-naqliyyah al-wad'iyyah* (Ibn Khaldun, 1996; Zaid, 2003).

The most interesting contribution of Ibn Khaldun to Islamic epistemology was his treatment of *'ilm al-sana'i'* (the science of crafts), which is a practical manifestation of the two integrated categories of knowledge (Ibn Khaldun, 1996; Zaid, 2003). Craft referred to those habits (*malakah*) of a man who tried to interact and familiarize himself with the disciplines of this world during Ibn Khaldun's time. Although this discussion is absent in Al-Ghazali's works, the science of crafts fits into Al-Ghazali's category of permissible knowledge. Like al-Ghazali, Ibn Khaldun regarded sorcery, talisman use and witchcraft as illegal sciences (al-Ghazali, 1982; Ibn Khaldun, 1996).

As one who paid high regard to al-Shafi'i, al-Dihlawi (1970; 1974) classified acquired knowledge into two categories; *al-manqulat* (transmitted-based or revealed-based knowledge) and *al-ma'qulat* (intellectually-based knowledge). His categorisation of knowledge is similar to the *al-shar'i* and *ghayr al-shar'i* of al-Ghazali whom he highly esteemed. The interesting point in al-Dihlawi's discourse was his categorization of arts (*funun*) and skills. (al-Dihlawi,1996) Such arts and skills are the disciplines of home management (*fann tadbir al-manzil*), of social transaction (*fann al-mu'amalat*), and of practical economy (*fann adab al-ma'ash*). This category is similar to that of Ibn Khaldun's concept of crafts (*sani'ah*) and may be included under al-Ghazali's *ghayr al-shar'i* and permissible sciences (al-Ghazali, 1982; Ibn Khaldun, 1996; al-Dihlawi, 1996).

The Integration of Knowledge: A Classical Framework.
The concept of the integration of knowledge stems from the very idea of revelation as introduced by Al-Shafi'i (1993) as *jima' al-'ilm* in his *al-Umm*. He traced this concept back to Revelation - al-Qur'an and al-sunnah - the sources of knowledge given to mankind. Both sources are intentionally introduced and discussed by Al-Shafi'i as the comprehensive nature of the knowledge of God in the form of its revelation as given to the Prophet. These two sources also comprise the principles and guidelines that allow man to achieve felicity in the life of this world and in the hereafter.

Basically, classical Muslim scholars emphasized the concept of man in Islam in their discourse on the integration of knowledge. This discourse covered three important relationships: the spiritual, intellectual and moral aspects of man that align with the Islamic world-view, consisting of faith (*'aqidah*), Islamic practice (*shari'ah*), and Islamic ethics (*akhlaq*) (Mohammed, 2013). One of the most salient of features in the framework of this classical discourse is that of the spiritual aspect of man in which man and

his soul are emphasized. Al-Ghazali (1982) underscored the concept by stating that it is an individual obligation (*fard 'ayn*). Hence, it followed that the purification of the soul and its faculties: *al-qalb* (the heart), *al-'aql* (the intellect) and *al-nafs* (the lower lust), should succumb to religious injunctions so that salvation in this world and in the hereafter may be achieved. Following Al-Ghazali's framework, to and for which they paid high regard, Ibn Khaldun (1996) and al-Dihlawi (1970) elaborated the concept of 'soul' in greater detail, especially the intellect (*al-'aql*) and its power of reasoning; inferring that its task is to integrate the sciences based on the principles and guidelines drawn from revelation.

After the issue of purifying the soul and its faculties, the second major issue was that of the intellectual aspect in which emphasis was given to the relationship between man and acquired knowledge consisting of revealed and intellectual sciences. Equally important was the methodology employed by man to deal with the Sources—i.e. how to understand, deduce, systematise and compile knowledge derived from them. On the same token, in order to live in this world man must deal with and discover its practical knowledge. According to Al-Shafi'i (1993) and al-Ghazali (1982), the legal status of revealed and intellectual sciences is that of a collective obligation (*fard al-kifayah*) placed upon man. Moreover, Ibn Khaldun (1996) believed that human knowledge is a natural phenomenon of man acquired through the perception of two sources of knowledge, revelation and the universe.

The third major issue is the method of integrating compiled guidelines and principles with the intellectual sciences. For this, Al-Shafi'i (2009) proposed the religious analogy (*al-qiyas*) as a method, mainly to extrapolate new legal rulings for cases absented from the Sources. This methodology aimed to integrate Revealed principles and guidelines with new intellectually based sciences and was based on man's intellect as employed by many Muslim scholars, especially Shafi'ites like al-Ghazali, and al-Dihlawi of the Hanafite school. As mentioned above, in order to accommodate the discoveries of new sciences in their time, al-Ghazali, Ibn Khaldun and al-Dihlawi had to further extend their knowledge categorization schemes to include the permissible (*mubah*) and blameworthy (*madhmum*). In order to deal with the outcomes and products of the several sciences, Ibn Khaldun and al-Dihlawi went a step further to propose the concept of the science of craft ('*ilm al-sani'ah*) and arts (*funun*), respectively, as additions to the process of knowledge integration.

The Spiritual Aspect

God constituted man with two major components, these being body (*jasad*) and spirit (*ruh*); which integration gives rise to the human soul (*nafs al-insan*) or human nature (*fitrah*). After undergoing certain processes, the soul that receives the 'meaning' of some 'thing' in its actual form is said to be in a state of possessing knowledge. This concept actually derives from several Qur'anic verses that mention the words *nafs* (desire), *qalb* (heart), '*aql* (intellect) and *ruh* (source of strength) (al-Dihlawi, 1970; 1996). The Qur'an informs us that the *nafs* (lower lust) is of different category depending on the degree of one's faith (*iman*) in God. At its lowest level, the *nafs* is called *nafs al-ammarah bi al-su'* (the soul which commands to evil) (al-Qur'an, 12:53) and gradually it ascends to higher levels of *nafs al-lawwamah* (the soul which blames)(al-Qur'an, 75:2) and *nafs al-mutma'innah*, (the peaceful soul)(al-Qur'an, 89:27) in accordance with the observance of *ihsan* in one's devotional acts ('*ibadah*).

The Qur'an also talks about the changeable condition of a man's heart (*qalb*) as dependent on several levels of God consciousness that lead man to firm faith. A number of phrases such as 'in their hearts are diseases' (*fi qulubihim marad*)(al-Qur'an, 47:16), 'their hearts hardened' (*qasat qulubukum*)(al-Qur'an, 2:74), 'blind hearts' (*ta'ma al-qulub*)(al-Qur'an, 22:46), 'hearts wherewith they cannot understand' (*qulub la yafqahun*) (al-Qur'an,7:179), 'God-fearing hearts' (*taqwa al-qulub*)(al-Qur'an, 22:32), 'content hearts' (*tatma'in al-qulub*)(al-Qur'an, 13:28) 'with sound heart' (*bi qalb salim*)(al-Qur'an, 26:89) and others, are used by the Qur'an to refer to the heart's changeable nature. In addition, the word '*aql* (intellect) is also used in its verbal form such as *ya'qilun* (they are thinking), *la ta'qilun* (they do not think) and other forms with regards to the issue of man's differentiation between truth and falsehood. The discourse on the concept of man's nature (*fitrah*) and soul (*nafs al-insan*) therefore falls into the realm of spirituality as both are related to the inner dimension of man's servitude or lack thereof towards God.

According to the Qur'an, man's soul has positive and negative qualities depending on his relationship with the Creator who is the Truth (*al-haqq*). If the soul acknowledges sincerely that God is his Creator, and then serves Him at the level of *ihsan*, that soul will attain further levels such as god-fearing (*taqwa*), contentment and tranquility (*mutma'innah*). To the contrary, if the soul rejects the truth (*al-haqq*), default levels bearing negative qualities much like physical diseases (*amrad*) inevitably harden (*qasiah*) the soul.

Since al-Qur'an deliberately highlights these terms, they were further explored and developed by Muslim scholars under the heading of spiritual education (*tarbiyyah al-ruhiyyah*).

According to Ibn Khaldun (1996), man's soul in its original nature is the same as that of an angel; this is to say, in so far as it originated from the spiritual world ('*alam al-arwah al-mala'ikah*). It is thus free of any corruption and can easily perceive knowledge. But due to bodily influences as derived from the sensory world ('*alam a-hiss*), it becomes corrupted. With regard to prophets and messengers, Ibn Khaldun (1996) opines that they are able to hinder influences from the human condition (*ahwal al-bashariyyah*) because they were chosen (*istafa*) by God and as such their soul can change (*insilakh*) from the human to the angelic nature in accordance with their power of will. This change is given as 'inevitable' for them because they need to understand the knowledge (*al-wahy*) given by God and then disseminate it to mankind thereafter. To some extent, an ordinary man's soul may also ascend to the spiritual world provided it is purified from diseases (*amrad*) of the heart that originate from the world of senses. According to al-Ghazali (1988), Ibn Khaldun (1996) and al-Dihlawi (1970; 1974), in order to purify the soul some methodologies as mentioned in Qur'an and the Sunnah of the Prophet Muhammad are required.

Al-Ghazali (1988) suggested that his science of ethics ('*ilm al-akhlaq*) would meet the purpose of soul purification by following the sunnah of the Prophet (*ittiba'al-sunnah*) with the goal of attaining happiness (*al-sa'adah*) in this world and in the hereafter. He gave many names to his ethical system such as science of the path of the hereafter ('*ilm al-tariqah al-akhirah*), science of the pious predecessor ('*ilm al-salaf al-salih*), and the science of behavioral conduct ('*ilm al-mu'amalah*). According to him (1982), the stabilized state of the human soul (*hay'ah al-nafs al-rasikhah*) manifests (*tasdur 'anha*) good or bad actions without thought and deliberation (*min ghayr fikr wa rawiyyah*). Al-Ghazali (1982) believed that since knowledge is the attainment of the conception of something 'as it is' (*ma'rifat al-shay' 'ala ma huwa bihi*) within the soul, it is therefore the soul that channels such knowledge to either a positive or negative side. This is because knowledge, which is the quality or attribute of the soul, will be in an accord with the latter just as a vehicle follows the driver's command.

Following the teachings of Greek philosophers like Plato and Aristotle, and previous Muslim philosophers and ethicists such as al-Farabi (d.950), Ibn Miskawayh (d.1030) and Ibn Sina (d.1037), al-

Ghazali (1982) said that the soul also contained four faculties (*quwwat*): (1) the intellect (*al-'aql*), (2) the heart (*al-qalb*), and (3) desire (*al-nafs*). The intellect (*al-'aq*l) in its stable state produces wisdom (*al-hikmah*), the heart produces courage (*al-shaja'ah*), and desire produces temperance (*al-'iffah*), all of which collectively give rise to the fourth faculty, (4) that of justice (*al-'adalah*). Ibn Khaldun (1996) was in full accord with al-Ghazali whom he praised for refining Greek philosophy and integrating it with the Islamic sciences ('*ulum al-din*).

In addition to Al-Ghazali's framework, al-Dihlawi (Hermansen, 1982; Hussain,2002) developed the theory of ascension levels for the 'rational soul' (*nafs al-natiqah*) which proposed spiritual centers (*lata'if al-barizah*) such as the lower soul (nafs) or mold (*qalab*), the heart (*qalb*), the soul (*ruh*), the intellect (*'aql*) and a hidden power (*sirr*). When the lower soul is constantly purified by the observation of Islamic regulations (*shari'ah*), the heart attains what is called the 'mystical state' or *ruh* in which the knowledge of unveiling is effused by God. Meanwhile, the intellect attains the state of 'mystery' or *al-sirr* in which it establishes contact with the world of ideas ('*alam al-mithal*)—especially the angelic world ('*alam al-malakut*) or exalted assembly (*al-mala' al-a'la*) (Hermansen, 1982; Husain, 2002).

All of these scholars agreed on the dual reality of the human soul as either praiseworthy or blameworthy. The praiseworthy or noble qualities are such as repentance (*tawbah*), patience (s*abr)*, gratitude (*shukr*), hope (*raja'*), fear (*khawf*), asceticism (*zuhd*), surrender (*tawakkul*), contentment (*rida*), love (*mahabbah*) and others. These qualities lead to salvation (*al-munjiyat*) and should be attained in order to replace blameworthy qualities (*akhlaq al-madhmumah*) that lead to perdition (*al-muhlikat*). The root of vices such as gluttony, sexual excess, excessive speech (*sharah al-kalam)*, cursing (*la'n*) and false promises (*al-wa'd al-kadhib*) stem from hypocrisy (*nifaq*), lying (*kidhb*), slander (*namimah*), backbiting (*ghibah*), strong anger (*shiddat al-ghadb*), rancor (*hiqd*), envy (*hasad*), love of the world (*hubb al-dunya*), love of wealth (*hubb al-mal*), miserliness (*bukhl*), love of fame (*hubb al-jah*), ostentation (*riya'*), pride (*kibr*), conceit ('*ujb*) and others.

The soul should therefore undergo certain process of purification in order to control vices leading to perdition (*muhlikat*) and for the equipage of good character traits leading to salvation (*munjiyat*). In order to purify the soul, al-Ghazali suggested the method of *mujahadah* (self mortification) and *riyadah al-nafs* (self training). This process begins with repentance (*tawbah*) and ends with love of God

(*mahabbat Allah*), both of which he considered stations (*maqamat*) along the path of Sufism. Prior to the achievement of these stations he suggested that one practices devotional acts (*'ibadah*) that are of two kinds; obligatory devotional acts and supererogatory devotional acts. The purification of the soul and its science falls under individual obligation (*fard 'ayn*) as per Al-Ghazali's (1982) classification of knowledge.

He further suggested that the most important thing in his system of ethics is to associate oneself with the Qur'an and Sunnah because they comprise guidelines from God. For this purpose, al-Ghazali deliberately discussed the classification of sciences derived from the Qur'an and their importance in his *Ihya' 'ulum al-din* (1982) and *Jawahir al-Qur'an* (2005). The importance of practicing the Sunnah was also highlighted by al-Ghazali (1988) in *Kitab al-Arba'in fi usul al-din*. Details regarding his method of purifying the soul can be seen in his theory of Islamic ethics (*akhlaq al-Islamiyyah*), which is also a part of his philosophy. Although discussion of the human soul is absent in al-Shafi'i's writings, al-Ghazali, Ibn Khaldun and al-Dihlawi paid high regard to Al-Shafi'i for his excellent spiritual life.

Despite the fact that al-Ghazali's theory of spirituality, especially the *Ihya' 'ulum al-din* which draws criticisms from many scholars for containing more than nine hundred unauthentic *hadith*, Ibn Khaldun and al-Dihlawi remained in full accord with him. Detailed analysis of his works reveals that the use of unauthentic *hadith* only refer to the topic of Sufism and are not often quoted in other fields such as *fiqh* (Islamic jurisprudence) and *usul al-fiqh* (Principle of Islamic Jurisprudence), philosophy, *kalam* and others. Furthermore, detailed analysis of the *hadith* in Al-Ghazali's works reveal that most were quoted verbatim from his predecessor, Abu Talib al-Makki (d. 386/996), who wrote *Qut al-qulub* and *'ilm al-qulub*. Al-Makki (1964) distinctly mentioned that he preferred weak traditions to the use of reasoning (*ra'y*) and analogy (*qiyas*) in all aspects. He wrote as follows:

> "… and weak tradition (*al-hadith al-da'if*), to my mind is preferable to reasoning and analogy. Such an opinion is in accordance with the view of al-Imam Abu 'Abd Allah Ahmad b. Hanbal, may Allah be pleased with him." (al-Makki,1964)

Under the concept of *tatbiq*, al-Dihlawi (1996) did emphasize the need for reliance on authentic tradition when dealing with Islamic spirituality.

Al-Ghazali's concept of revivification (*ihya'*) of the sciences can be initially viewed as the process of integrating various sciences of acquired knowledge with Islamic sciences (*'ulum al-din*). This process begins with the person involved who undergoes disciplined training for the purification of the soul that then leads to a comprehensive understanding of the science of the heart so as to achieve the qualities (levels) of god-fearing (*taqwa*), sincerity (*ikhlas*) and *ihsan* toward Allah; all of which thus enable him to integrate acquired knowledge from various sciences with that of revealed knowledge.

The method of integrating the principles and guidelines that transpire via revelation into daily activities in this life was treated by Al-Shafi'i (2009) in his methodology as religious analogy (*al-qiyas*). Through the effort of *ihya'* or the revivification of Islamic sciences, al-Ghazali (1982) further developed this methodology by adopting a few techniques from Greek logic, most of which Shafi'ite jurists then employed in their undertakings thereafter. Al-Shafi'i's methodology of *al-qiyas* and efforts made by al-Ghazali to integrate the subject of Aristotle's logic were praised by Ibn Khaldun (1996) who further elaborated the concept of crafts (*sani'ah*) in his classification of knowledge. Using the methodology of *al-qiyas* and placing emphasis on the role of the science of *hadith* in his undertaking, al-Dihlawi (1970; 1974; 1996), a Hanafite continued al-Ghazali's effort to integrate Greek philosophy with Islamic sciences.

Intellectual Aspects

In order to integrate the principles and guidelines of revelation with the acquired sciences, classical scholars made every effort to achieve this goal. The role of reason (*'aql*) in this regard is of the greatest importance as it can be fully utilized when dealing with this world. Some guidelines and principles of revelation deduced from the Qur'an and Sunnah are systematized and compiled in revealed-based knowledge by classical Muslim scholars in accordance with their respective fields. They have already derived frameworks and applied them in their undertakings. This is best exemplified by the *al-qiyas* of Al-Shafi'i and the *ihya'* of al-Ghazali in which the purification of Greek Philosophy was done (Al-Ghazali, 1987). Under the ambit of permissible (*mubah*) sciences, Al-Ghazali (1982) classified Philosophy — part of foreign science (*'ilm al-awa'il*) — into four major subjects: Geometry and Arithmetic (*al-handasah wa al-hisab*); Logic (*mantiq*); Divinity (*ilahiyyat*); and some branches of Physics (*tabi'iyyat*). However, these become blameworthy when intention (*niyyah*) and means (*wasa'il*) are incorrectly applied (al-Ghazali, 2006). Al-Ghazali reiterated that

sciences such as *Kalam,* Debate, Medicine, Linguistics, Poetry, Syntax and others were of no use or became blameworthy when the intention of study and use were not for the sake of God (Al-Ghazali, 1982; 2006).

In his analysis, al-Ghazali (1997) praised efforts made by Greek philosophers who used the power of reasoning to the utmost to achieve a great civilization. He raised three main features of philosophers that differed from others; the first was that they liked to use many terms to describe the essence of God and their method of using words and sentences. The second was that they liked to discuss Geometry, Arithmetic and Physics consisting of mathematical theories, calculations and formulas that leave no room for doubt when drawing conclusions or making decisions. The third was that they talked about metaphysics, which covered the aspect of divinity that contradicted religious principles such as the doctrine of eternity of the world, the denial of the resurrection of the human body in the hereafter and others.

He contended that he had no objection to the first and second as very useful because they lead to certainty in human knowledge. The only problem lay with the subject of divinity in which there were some doctrines that went against Islamic faith (al-Ghazali, 1997). Consequently, using the technique of Syllogism as practiced by the philosophers, al-Ghazali rebutted their arguments in many famous writings. In his concept of *ihya',* al-Ghazali purged the subject of philosophy that covered Logic vis-à-vis Greek divinity and systematized it for the defense of the Islamic faith. After purging them of Greek divinity, he changed the legal status of logic and divinity from *mubah* (permissible) to collective obligation (*fard kifayah*) (al-Ghazali, 1982). The changes in legal status for logic and divinity were due to their usefulness in guarding the laymen's faith against innovations of philosophic disputes and the erroneous views of theologians. For this reason, Ibn Khaldun (1996) praised al-Ghazali for pioneering reforms in methodology and acknowledged him as the first scholar of the later period (*'ulama' al-muta'akhkhirun*). It can be assumed therefore that any science that significantly contributes to the aspects of Islam's faith, its laws and ethics is included under Islamic sciences (*'ulum al-din*).

Some important rebuttals by al-Ghazali against philosophers in which syllogisms are used efficiently may be deduced from Al-Ghazali's works. This method of reasoning is widely used in the field of philosophy as well as in applied sciences and theology. However, according to al-Ghazali, this method can only be applied to physical and sensible worlds but not to metaphysical realms (*sam'iyyat, ghaybiyyat*). Al-Ghazali (1980) goes on to demonstrate the weaknesses of syllogism as a method, especially when it involves metaphysical issues. He referred to his polemics with the Mu'tazilites on issues like God having a body, God's justice (*al-'adalah al-ilahiyyah*) and others, which fall under the heading of Metaphysics (*al-ilahiyyah*). He demonstrates his position by criticizing deductive[1] and inductive [2] proofs used by Mu'azilites (al-Ghazali, 1980).

In the issue of divine justice, al-Ghazali rebuts arguments made by Mu'tazilites that it is obligatory on God to do the best for His servants. They were unable to substantiate their arguments except for the use of personal opinions (*ra'y*). According to al-Ghazali, this was due to their incorrect comparison (*qiyas*) of the Creator with His creation, and of God's knowledge with their knowledge. Al-Ghazali posed the argument as follows:

"If the best were obligatory on God, He would do it. But it is known that He has not done it; so [that] proves that it is not obligatory; for He does not omit the obligatory." (al-Ghazali, 1980).

If Mu'tazilite doctrine as inferred from the incorrect analogy were accepted, it would lead to the corruption of faith as it preempts the Absolute Power of God.

It can be assumed therefore that man's reasoning power is used to the utmost so as to discover new disciplines such as the *al-qiyas* of al-Shafi'i, and to purify it so as to reform existing sciences as was the case with Al-Ghazali's treatment of logic and others.

Morality and Craft

The salient feature of Ibn Khaldun (1996) and al-Dihlawi's (1996) classification of knowledge is that they developed a new nomenclature, the science of crafts (*'ilm al-sani'ah*) and arts (*funun*), respectively. These are scientific habits that manifest the integration of knowledge in man's soul as he deals with certain disciplines in this world. According to Ibn Khaldun (1996), the rational soul (*al-nafs al-natiqah*), which exists in man can be potentially transformed into actuality by new sciences and perceptions that are derived from *sensibilia* (*al-mahsusat*) and speculative power (*al-quwwah al-*

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[1]   Every agent-maker has a body. God is the agent-maker,
[2]   The agents-makers, like weavers, cuppers, shoemakers, tailors, carpenters etc., have bodies. Thus, every   agent has a body. God is the agent-maker, therefore, God has a body.

nazariyyah). The craft is therefore a scientific habit by which the rational soul expedites the process of transforming potentiality to actuality as it concerns *sensibilia*. Furthermore, craft may also lead to the obtainment of new scientific norms that are consequent to the habit. Thus, additional qualities may be added to the rational soul. It can be assumed therefore that Ibn Khaldun and al-Dihlawi may have suggested the nomenclature for the science of craft on the basis that one's soul has been purified and equipped with noble characteristics as proposed by their predecessors such as al-Ghazali and others.

The habit of craft differs from memorized knowledge and the spiritual ethics of al-Ghazali (1982; 1988) because it combines man's understanding and creativity when dealing with this world. Unlike Al-Ghazali's ethics, which deal with the hereafter and how to achieve felicity in it, Ibn Khaldun (1996) and al-Dihlawi's (1996) scientific ethics deal with this world and how to build it. Although both theories emphasized the stable state of the human soul as a central focal point, the science of craft aims at building this world ('umran) in accordance with Islamic principles and guidelines. Furthermore, this craft can be learned and taught to others in turn. Ibn Khaldun (1996) listed more than ten established crafts during his time, including agriculture, architecture, carpentry, weaving and tailoring, midwifery, medicine, calligraphy, singing and others.

The Science of Craft (*al-sani'ah*)

Craft is a habit (*malakah*) made manifest from knowledge, science and thoughts perceived by the soul, which later, through repeated practice, become its quality. Ibn Khaldun (1996) observed: "A habit (*malakah*) is a firmly rooted quality acquired by doing a certain action and repeating it time after time, until the form of (that action) is firmly fixed." Since craft is tangible, corporeal and perceptible (*jismaniy mahsus*), it concerns the transformation of one's ideas into actions that can be continuously practiced in this world. This definition is in line with definitions of *al-akhlaq* made by many Muslim scholars like al-Ghazali and others who equate it with habit. *Akhlaq* or habit is a "stable state of soul from which manifests the action without thought and deliberation".(Miskawayh, 1968; al-Ghazali, 1982) The only difference being that craft refers to specific actions and scientific habits dealing with this world whereas the *akhlaq* is a general quality of the soul which does not necessarily deal with this world.

Moreover, craft (*al-sani'ah*) also connotes vocation and can be transferred from one person to another through teaching. In addition to acquiring information, craft also involves a method of personal observation in which all senses are used. The teacher instructs his student to practice certain crafts until the latter acquires the qualities that correspond with the former. According to Ibn Khaldun (1996), craft is natural in a man's life and their status is neutral towards nature. It is man's intention and the manner of performance that determines the value of his craft. In other words, the science of craft comprises habits that teach man those systems and products of cumulative achievements that are consequent to his discovery of the universe.

There are simple and composite crafts that correspond to various levels of living. Simple craft is normally acquired through necessity, especially in uncomplicated life ways. Composite crafts are acquired as luxuries pursuant to sedentary life styles, especially in the cities of great civilizations. The teaching of craft should begin with those that are simple. The first to exist were necessary crafts such as agriculture, architecture, tailoring, carpentry and weaving due to needs for staple food, shelter, and clothing. Man further developed these crafts into composite skills pursuant to sedentary life styles in towns and cities where there are many types of houses and buildings. All crafts are necessary when building civilization ('umran).

There are also necessary noble crafts such as midwifery, writing, book production, singing, and medicine for example; all of which are necessary for the growth and survival of civilization. The importance of one of the latter was highlighted by Ibn Khaldun (1996) who discussed a decline in the art of writing throughout Morocco and Egypt where many records became incomprehensible due to corrupted scripts and clerical errors during the process of documentation. Consequent to this degeneration of craft and due to the ensuing ignorance and inability to access authentic sources, disunity arose among the followers of certain schools of Islamic jurisprudence (Ibn Khaldun, 1996).

Another important craft that flourished during Ibn Khaldun's time was the art of singing which concerns "the setting of poems into music" as it produces pleasure for mankind (Ibn Khaldun, 1996). Music is a kind of harmonious sound produced by the systematic performance of musical instruments such as wood-winds (*al-mizmar*) and strings (*al-awtar*). Although there were disagreements on the legal status of applying melodies to Qur'anic recitation, Qur'anic readers do modulate their voices systematically so that their recitations exert impacts on the emotions of an audience (Ibn Khaldun, 1996).

Methodology: The *al-qiyas* of al-Shafi'i

The practice of analogical reasoning existed during the time of the Prophet but the first to apply it systematically was said to be Imam Abu Hanifah (d.148/767). It is also said that semi-technical use of the term *qiyas* is found in a letter from the second Caliph, 'Umar al-Khattab (d.23/644) to Abu Musa al-Ash'ari (d.42/672), regarding the issue of determining the minimum dowry (*mahr*) (Daud, 1994).

In order to integrate the principles and guidelines from revelation into worldly activities that include the knowledge of this world ('*ilm al-dunya*), Al-Shafi'i developed the methodology of *al-qiyas* most likely after seriously plumbing the depths of Malik's methodology or '*amal ahl al-madinah*, as well as the personal preferences (*al-Istihsan*) of Abu Hanifah. Al-Shafi'i's analogy can best be understood as deducing the cause ('*illah*) of the legal value (*hukm*) found in the Qur'an and *ahadith* (i.e. the *asl*), and then applying the *hukm* to a new case (*al-far'*) (al-Shafi'i, 2009). This is commonly practiced in the field of *fiqh* since the absence of legal values (*hukm*) in both sources demands that man use his faculty of reason. In other words, the scope of al-Shafi'i's analogy is narrower as it only treats the *hukm* of new cases (*al-far'*) not presented in the Qur'an and *Sunnah*. Al-Shafi'i and his followers introduced the mechanism of *qiyas* which was based exclusively on the *masalik al-'illah* (path to the cause) (A. Hassan, 1986). These are: (i) *takhrij al-manat* (derivation of the basis for rulings); (ii) *tanqih al-manat* (refinement of the basis for rulings); and (iii) *tahqiq al-manat* (the verification or ascertainment of the basis for rulings).(Kamali,1999) However, Al-Shafi'i's analogy does not involve the discovery of new formulae as does pure and applied scientific research on the laws of nature.

As discussed above and as based on al-Shafi'i's framework, al-Ghazali (1982) further developed the methodology of *al-qiyas* by applying it in his own classification of knowledge. He classified acquired knowledge ('*ilm al-mu'amalah*) as *shar'i* (revealed based sciences) and *ghayr shar'i* (non-revealed or intellectually based sciences), and then suggested four schemes that are applicable to ethical-legal strata comprising individual obligation (*fard 'ayn*), collective obligation (*fard kifayah*), permissible (*mubah*), and blameworthy (*madhmum*). In order to integrate principles and guidelines derived from revelation with acquired knowledge, he used the term '*ihya*' (the *revivification*) of Islamic sciences ('*ulum al-din*).

In a similar vein, Ibn Khaldun (1996) placed high regard on the role of natural human reasoning (*qiyas*) in his concept of civilization ('*umran*) in general, and further mentioned reasoning methods such as demonstration (*burhan*), debate (*jadl*), poetry (*shi'r*), rhetoric (*balaghah*) and sophistry (*safsatah*). He also specifically praised al-Shafi'i's methodology of *al-qiyas* (religious analogy). This is so because man's knowledge is acquired from those perceptions that stimulate thought activity. Thus, in line with al-Ghazali (1982), Ibn Khaldun (1996) classified knowledge into traditionally transmitted sciences and intellectual sciences. The same applies to al-Dihlawi (1970) who classified acquired knowledge as the transmitted (*al-manqulat*) and intellectually based (*al-ma'qulat*) sciences.

Besides major methodology, in the effort to integrate knowledge classical Muslim scholars emphasized the study of revealed sciences (*shar'i* or *manqulat*). These are sciences directly related to revelation such as the science of the Qur'an ('*ulum al-Qur'an*), the science of *hadith* ('*ulum al-hadith*) and the Arabic language that were given much emphasis because they lead to a greater comprehension of revelation. Al-Ghazali classified the Arabic language under auxiliary (*muqaddimat*) science, and the sciences of the Qur'an and *Hadith* under supplementary (*mutammimat*) science as they enhance the understanding of the sources. Other sciences in this category are the biographical history of the Prophet (*sirah*), Quranic exegesis (*tafsir*) and jurisprudence (*fiqh*). There are many sciences and crafts that originated with the Arabic language such as the science of Arabic syntax (*I'rab*), the science of reading (*qira'at*) and the science of pronunciation (*alfaz*).(al-Ghazali,2005) Ibn Khaldun (1996) summarized these sciences under four categories: (i) the sciences of the Qur'an and *Hadith*; (ii) *Fiqh* and *usul*; (iii) Speculative theology; (iv) Sufism.

As for intellectual knowledge (*ghayr shar'i, al-ma'qulat* and '*ulum al-hikmiyyah al-falsafiyyah)*, major subjects such as Logic, Philosophy, Physics, Metaphysics, Mathematics, Geometry, Music and Astronomy were listed by al-Ghazali and Ibn Khaldun. Many crafts grew out of these subjects such as Logical debate (*mantiq*); Medicine (*al-tibb*), Midwifery (*al-tawlid*) and Agriculture (*al-filahah*) from Physics. The mathematical sciences ('*ulum al-'adadiyyah*) manifest the craft of calculation (*sani'ah al-hisab*) like the sciences of Arithmetic (*al-aritmatiqi*), Algebra (*al-jabr*), Business arithmetic (*al-mu'amalat*) and Inheritance laws (*al-fara'id*) and Astronomy (*al-hay'ah*) (Ibn Khaldun, 1996; Zaid, 2003). Al-Dihlawi (1996) added a few arts (*funun*)

that can be studied such as management of the house (*fann tadbir al-manzil*), the discipline of social transaction (*fann al-mu'amalat*), and the discipline of practical economics (*fann adab al-ma'ash*). There were many other sciences and crafts listed by those scholars that were taught and learned by people during their time.

Their discussion of the framework for the integration of knowledge lit the pathway for modern scholars to continue their noble efforts. Terms like Islamization (*Aslamat al-ma'rifah*), Islamicization (*Islamiyyat al-ma'rifah*), integration (*al-takamul al-ma'rifah*) of human knowledge have been proposed by modern Muslim scholars to embark on and continue the efforts made by their predecessors. S. M. Naquib al-Attas (1978) and Isma'il R. Al-Faruqi (1982) employ the term '*Islamization*' to describe the effort of isolating and purging human sciences that lack religious values born of secular Western society. They also try to re-inculcate and integrate Islamic principles and guidelines with the human sciences. Yusuf al-Qaradawi employs the term '*al-takamul*' (integration) to describe the relationship between religious and intellectual sciences as complementary (al-Qaradawi, 1995; 2004). M. Kamal Hassan (2009; 2010; 2013) employs the term '*Islamicisation*' to describe the need for *Islamicising* and reforming humanly acquired knowledge that covers revealed knowledge and human sciences so that they align with the principles and guidelines of Islam and better accommodate society's needs. In suggesting their various frameworks, all modern scholars, to some extent, refer to the theoretical framework of the classical Muslim scholars cited above, especially al-Ghazali (Al-Attas, 1978; al-Qaradawi, 2004; Kamal, 2009).

Conclusion

Classical Muslim scholars have offered us the framework for the integration of knowledge in their several discourses on the subject. They commenced with the concept of man who is of dual nature; spiritual and physical with the spiritual component being the human soul, which is central to their discussion as it pertains to the manifestation of habits and activities. It is the soul that has both the spiritual and intellectual qualities that can integrate the principles and guidelines of revelation with humanly acquired knowledge. The integration process that subsequently takes place in the soul will manifest in forms of actions and crafts as was made evident by Al-Ghazali's discourse of ethics concerning religious actions and their relation to salvation in the hereafter. Ibn Khaldun and al-Dihlawi went a step further to

suggest the science of crafts in building the world's civilizations. In summary, diverse and discursive frameworks presented by classical Muslim scholars concerned the spiritual, intellectual and moral aspects of man. Ibn Khaldun and al-Dihlawi further developed the concept of morality, which included the concept of crafts (*al-sani'ah*) and arts (*funun*) and their vocational aspects.

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