

SOCIAL SCIENCE RESEARCH METHODS AND STATISTICS FROM AN ISLAMIC PERSPECTIVE

ALIZI ALIAS

*Department of Psychology
International Islamic University Malaysia
53100 Kuala Lumpur
Malaysia
03-20565096
alizi@iiu.edu.my*

Abstract: The objective of this paper is to provide an Islamic perspective on social science research methods and statistics. This is a theoretical paper based on reviews of primary sources (*al-Qur'an* and *Hadith*) and secondary sources (books and papers) of Islamic and social science (particularly psychology) literature. First, the paper will provide an Islamic overview of the concept of social science research in Islam and compare it with the concept of research in Islamic discipline such as *'aqidah*, *fiqh*, and *akhlaq*. Second, the paper will outline the objectives of social science research including both basic and applied research and their relation to our existence as human being. Third, the paper will evaluate some of the social science research methods and evaluate them from both scientific and religious Islamic perspective. The methods reviewed in this paper are experimental method, correlational method, survey method, case-studies method, natural observation and a few lesser known qualitative methods. Fourth, a related research issue called sampling is also discussed together with some evidence from Islamic literature especially the issue of representativeness in sampling. Fifth, the dilemma faced by researchers in ethical issue will also be discussed with input from Islamic perspective. Finally, a brief description of the importance of statistics in Islam is given to show its basic roles such as organizing knowledge, and applied role such as making decision. All Islamic evaluation will be based on *Al-Qur'an*, *Hadith*, Biography of Prophets, various Islamic disciplines, and practices of early Muslim scholars. Finally, the paper concludes that social science research method can help us fulfil our role as servants of Allah (*'ibadah* role) and as vicegerents of Allah (*khilafah* role).

Keywords: research methods, research ethics, statistics, Islamic perspective, experimental method, correlational method, survey methods, sampling, social science, psychology.

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INTRODUCTION

The objectives of this paper are: (1) to provide an Islamic overview on the concept of research, (2) to evaluate contemporary social science research methods from an Islamic perspective, (3) to evaluate various research issues (sampling, ethics, and statistics) from an Islamic perspective, and (4) to integrate social science research methods with Islamic research methods. The paper presupposes that the audiences have a working knowledge of social science research methods and statistics, or will be using this paper in conjunction with social science research methods textbooks. Therefore, this paper will focus more on the evaluation of the research methods than the description of those methods.

ISLAMIC OVERVIEW OF SOCIAL SCIENCE RESEARCH METHODS AND STATISTICS

Al-Qur'an is revealed to us as a book of *hidayah* (divine guidance). There are two ways of gaining *hidayah*. First, by studying *ayat al-maqrū'ah* (the readable signs) which are the Qur'an (and its interpretations in the Sunnah) – also known as *ayat qawliyah* (the verbal signs). Second, by studying *ayat al-manzurah* (the observable signs) which are the physical and social phenomena – also known as *ayat kawniyyah* (the natural signs). Knowledge from the Qur'an (as well as the *Sunnah*) is of course superior to other sources of knowledge. Naturally, as in other religious sciences such as *'aqidah*, *fiqh*, *akhlaq*, *tafsir* and *hadith* studies, and *da'wah*, social sciences should uphold *Al-Qur'an* and *Al-Sunnah* as the ultimate sources of knowledge. This does not make social sciences rigid and dogmatic because even in religious sciences, *ijtihad* (independent reasoning) is allowed as long as it follows the general rulings of the two ultimate sources and does not touch upon definitive issues which are really not that many. In fact, the present paper will attempt to show that some modern scientific research methods are not at all new in the Islamic tradition, at least in its general sense. Similarly, social scientists have all the freedom to “find out” about the human world as long they follow the general rulings of the two ultimate sources, and do not go against definitive issues in the Qur'an and Sunnah such as *al-ghaybiyyat* (the unseen) and general rulings which are unchangeable such as *salat*, *zakat* (alms-giving), and *sawm* (fasting) – which are not that many actually. In fact, Islam has always considered the psychosocial aspects of man when making exceptions for certain rulings. As for the rest, social scientists are free to explore questions about human being.

In fact, Al-Qur'an itself encourages human beings to study on our own both physical and social phenomena. Allah said in the Qur'an, “*Soon We will show them Our signs in the (furthest) regions (of the earth), and in their own souls/selves until it becomes clear to them that this is the Truth.*” (41: 53). The word “*afaq*” which literally means horizons mean anything that can be perceived by our senses and it is in the realm of physical, natural, and exact sciences such as physics, chemistry, biology, zoology, botany, and physical geography. The word “*anfus/nafs*” which literally means souls/selves mean anything that relates to human being and it is in the realm of social or

human sciences such as psychology, sociology, anthropology, political science, communication, economics, laws, and human geography. The same encouragement can be found in another Qur'anic verse, "*On the earth are signs for those of assured faith. As also in your own souls/selves, will you not then see?*" (51: 20-21). The study of "earth" is referring to the natural sciences whereas the word "souls/selves" is referring to the social sciences.

Although Al-Qur'an talks about social phenomena, – in brief or in details – it is not meant to be a textbook of social science. It is, as mentioned before, a book of *hidayah* (divine guidance). Thus, to receive *hidayah* (in addition to reading the Qur'an), one needs to conduct research on his own to study various phenomena, gain insight of them, appreciate the beauty of the human being as Allah's creation, and eventually receive constant *hidayah*. In fact, there is a verse in the Qur'an specifically encouraging the study of the souls/selves without pairing it with the physical world "*Do they not reflect in their own souls/selves?*" (QS 30: 8). However, Al-Qur'an does not give specific types of research methods to use to study the social phenomena. This provides flexibility for human being to design our own methods and feasibility for different people who have different capabilities of studying the social phenomena. After all, *hidayah* from Allah is eligible for all human being, not just academicians. Al-Qur'an was revealed first to the Arab world where most of them are simple-minded illiterate Bedouin! As for those who have higher academic abilities, naturally they need a more sophisticated research method to search deeper the essence of Allah's creation to gain a higher level of *hidayah*. Thus, we can see the development of various social science research methods such as naturalistic observation, case-studies, survey, correlational study, experimental study, and some new emerging qualitative methods.

OBJECTIVES OF SOCIAL SCIENCE RESEARCH

As with any science, the objectives of social science research are to describe, predict, explain, and control social phenomena. But, as a Muslim researcher, we should link all these objectives with the objective of receiving *hidayah*. Description, prediction, and explanation should lead us to accept *hidayah* whereas control should allow us to help other people receive *hidayah*. Specifically, the objective of basic or pure social science research should help us in understanding human behaviour and mental processes and at the same time to receive *hidayah* – mission of *'ibadah* or social scientists as servants of Allah. Conversely, or complementarily, the objective of applied social science research should enable us to help solve human problems so that they will receive *hidayah* – mission of *khilafah* or social scientists as representatives of Allah in this world. Being scientific is actually being Islamic, as long we do not subscribe to total positivistic and deterministic perspectives. In fact, al-Qaradawi (1992) believes that we should even be scientific in the field of *da`wah*, and Islamic discipline usually perceived as an arts rather than a science. If we conduct a scientific research in any applied social science discipline with the aim solving human problem, it can be considered as *da`wah*, and thus fulfilling the mission of *khilafah*.

EVALUATION OF SOCIAL SCIENCES RESEARCH METHODS FROM AN ISLAMIC PERSPECTIVE

The topic of research methods from an Islamic perspective has received considerable amount of attention from the scientific community. Several books touched upon this topic in general (cf. Ali, 1995; Safi, 1996), specifically in the social sciences (cf. Amziyan, 1991; IIIT, 1992), and even more specific to psychology (cf. Rendra K., 2000). The references mentioned above are either focusing more on the philosophical and epistemological issues or touching upon the research method issues in general. The present paper aims to provide an overview of research methods in general and evaluate each major research methods in particular so that the paper can be used in parallel with most research method textbooks. The paper's topical approach will hopefully integrate Islamic perspective in the teaching of research methods course rather than appending the Islamic perspective in the beginning or at the end of the course. Research methods that will be evaluated are: experimental method, correlational method, survey method, case-studies method, naturalistic observation method, and other qualitative methods. In addition to that other research issues such as sampling, ethics, and statistics will also be evaluated.

Experimental Method

The philosophy behind experimental method, which seeks out the “causes” of human behaviour, is that, behaviours are both objectively specifiable and caused by equally specifiable events – a very deterministic and positivistic view about human nature (Davis, 1995). The basis of a simple true experiment is that “one variable is manipulated while all others are held constant” (Coolican, 2004, p. 55). In its simplest form, two groups of subjects are treated in exactly the same way except one (the experimental group) is manipulated and any observed difference between the groups is then attributed to the different treatment (Davis, 1995). The use of experimental method is not new during the Prophet Muhammad (SAW) era and during the Golden Era of Knowledge in Islam of Abbasid caliphate.

Al-Najati (1989) mentioned a *hadith* about a practice that can conceptually be called an experiment conducted during Prophet Muhammad (SAW) era. Talhah ibn Abdillah (RA) narrated that Prophet Muhammad (SAW) was passing by a date palm-plantation where he asked what the planters were doing. He was told that the planters were performing cross-fertilisation (*independent variable*) to increase the production of dates (*dependent variable*). When Prophet Muhammad gave his personal opinion that the activity was unbeneficial, they *withdrew* the *treatment*. Since the *experimental result* showed that the production of dates decreased, Prophet Muhammad commented by saying that “you know better your own worldly (non-religious) matter” (narrated by Muslim). Although it was not a highly controlled and systematic experiment by today's standard (they were 7th century Arab Bedouin!), this *hadith* shows the importance of manipulation and measurement of variables which are the basic elements of modern experimental methods. And since most topics in social sciences (except the philosophical

parts about human nature) are of worldly matters, surely we are encouraged to use experiment to study ourselves.

Experimental methods are also not alien among early Muslim scholars during the Golden Era of Islam (Al-Balagh, 2005). Al-Biruni had conducted experiments on laws of gravity, momentum, and motion. Ibn Sina had conducted a lot of experiments in Bait al-Hikmah (House of Wisdom), a famous university in Baghdad. One of the most interesting experiments conducted during that time was done by Al-Razi. He tried to find out the most hygienic place in Baghdad to build a hospital by hanging chunks of meat in different places. The place where the meat decayed the least over a period of time was the place where the new hospital would be built. One might say that all the experiments mentioned above are in the realm of natural science rather than social science.

However, Khaleefa (1999) had reported that Ibn al-Haytham actually conducted psychological experiment in the fields of psychophysics especially on sensation and perception. One can still argue that Ibn al-Haytham experimental focus much on the “natural science” part of psychology such as sensation and perception rather than the “social science” part of psychology such as social, developmental, and personality psychology. This can mean two things: it is preferable to use experimental methods in the fields of natural sciences or part of social sciences that share the subject matter with natural sciences such physiological psychology, sensation/perception, and behavioural genetics, or not enough literature review has been conducted to find out whether early Muslim scholars had used experimental methods to study social phenomena.

Experimental method is not a new method – definitely not an unIslamic method – in Islam and has been practised long before the emergence of modern social sciences. Why experimental method is seldom used in the social sciences may be due to the awareness of early Muslim scholars on the weaknesses of experimental method. Modern social sciences have raised the issues of artificiality (lack of ecological validity), demand characteristics, experimenter expectancy bias, sampling bias, and ethical problem of deception in social scientific experiments that do not usually occur when conducting experiments in natural science. Moreover, guidance on how to behave is usually taken directly from the *Qur'an* and *Hadith* – and the Islamic scholars interpretations –, thus decreasing the needs to use experiment to study behavioural phenomena.

From cross-cultural perspective, bearing in mind the weaknesses of experimental method, it is unIslamic to use a theory developed based on experiments conducted in the West filled with all these various biases mentioned before to explain Muslim behaviours or to solve Muslims social problems. From philosophical perspective, adopting the deterministic and positivistic view (which is the underlying assumption of experiment) while conducting an experiment may bias the researchers' interpretations because human being, from an Islamic perspective, has free-will and is governed by both body and spirit. Even in the West, social science researchers disagree with this reductionistic and mechanistic view of human being. This leads to the “new paradigm,” “feminist,” or “qualitative” research movements (cf. Coolican, 2004; Hayes, 2000) to compensate the weaknesses of experimental and quantitative approach to study human behaviour.

This is not to say, however, that experimental method should be discarded in social science. Rather, experimental methods should be used as a complement to other research methods in social sciences. Even in the traditional “mechanical” Islamic discipline such as *fiqh*, the importance of using multi method to arrive at the best rulings/fatwa is used if the *Qur'an* and *Sunnah* do not provide direct evidence on the rulings. We have to also understand that early Muslim scholars live in the era when philosophy (a Greek-originated discipline) is the dominant discipline and logic is the main research method. Therefore, it is quite advanced for them to use experimental method to study natural science and social science (which is natural science oriented) when logic is the more preferred method.

Correlational Method

Correlation is sometimes considered as a method and sometimes as a statistical technique (Coolican, 2004). As a method, correlation can show some sort of relationship between two (or more) variables (that occur naturally) but does not permit us to make causal inference. Although Islam does not have a special method that can be labelled as a correlational method, the underlying philosophy of correlation is not alien in Islam. For instance, *khalwah* (illicit privacy between member of the opposite sexes) is considered *haram* (prohibited) because it correlates, and thus *predict* the occurrence of *zina* (adultery) based on an *Usul Fiqh* method called *sadd al-dhara'i'* (blocking the means) (Kamali, 1991). Allah says in the *Qur'an* “Don’t you go NEAR zina” (17: 31), instead of “don’t you PERFORM zina” to show that any activities that such as *khalwah* can predict zina and thus is haram.

Just like scientists warn not to make causal inference based on correlational studies, so does Islamic scholars such as al-Qaradawi (1992) warns us not to rely heavily on *sadd al-dhara'i'* to make rulings until it become difficult to practice Islam. For example, unnecessary separation between the two sexes, based on the idea that communication between the two sexes may lead to *zina*. An Islamic country even prohibits women from driving based on this principle! It is more important, according to al-Qaradawi, to find the true cause and change it through education before enforcing the law. It seems that education is more important because the “soul,” an element rejected in Western social science is the most basic and powerful cause of any human behaviour.

Theoretically, however, Islamic scholars of *Usul Fiqh* have been very scientific and careful in outlining the process of making a ruling/fatwa based *sadd al-dhara'i'*. That is why Islamic scholars have conceptually differentiated various variables or means (*dhara'i'*) into four types (Kamali, 1991):

- (1) Means which definitely lead to evil or perfect correlation between the mean and the end.
- (2) Means which are most likely to lead to evil and is rarely, if ever, expected to lead to a benefit. This can be said that there is high correlation between the mean and the end.
- (3) Means which frequently leads to evil, but in which there is no certainty, nor even a dominant probability, that this will be the case. This can be said that the mean and the

end has moderate correlation, or high correlation but moderated, mediated, or caused by other variables.

(4) Means which are rarely expected to lead to evil and are most likely to lead to a benefit or low correlation between the mean and the end.

It seems that the early *fiqh* scholars had outlined before us the conceptual categorisation among various naturally occurring natural and social variables in order to be more accurate in their rulings. As social scientists, perhaps we can use those categorisations as a conceptual starting point to build social scientific theories based on our own operationalisation of variables using correlational statistical techniques. In addition to that, correlational research methods can also be used to help Islamic scholars in *fiqh* to give different (more accurate) rulings according to different operational variables.

Survey Method

Some research method books do not use the term “survey” as one of the methods. Instead, they use the label interview and questionnaire method (cf. Coolican, 2004; Hayes, 2000). This is one of those methods that can adopt either quantitative or qualitative approach (Fife-Schaw, 1995). The survey method (in its general sense) had been used to form an Islamic ruling in the absence of clear *dalil* (religious evidence) from the Qur’an and Hadith on *‘ibadah* issue. Imam Shafi’i (RH), for example, collected data on a *sample* of Muslim women during his time on the duration of menstruation period. Based on the data, he made a *generalisation* that (all) women’s menstruation period is between one day and 15 days (Zaidan, 1997). This method is called *istiqla’ naqis* and originated from the discipline called *‘ilm al-mantiq* (knowledge of logic) (Muda & Ali, 1997) and fit the characteristics of modern survey research method.

As with current criticism of the generalisability of the survey result, early Muslim scholars also have reservation on the ruling of menstruation. Imam Ahmad (RH), for example, preferred to be flexible with identification of the minimum and maximum days of the menstruation period (Zaidan, 1997). He asserted that menstruation period depends on the climate and culture where the woman is in. This shows his advanced understanding of the concept of generalisability and cross-cultural validity! This is not to say that survey method should not be used in the field of *fiqh*. On the contrary, Imam Shafi’i’s data are most probably very accurate during his time. It is the job of modern social scientists to help Islamic scholars to determine the correct duration of menstruation period – and any other *fiqh* issues – for a particular society or country.

Case Studies Method

Case study involves detailed description and analysis of a single individual or a group usually and it usually entails more than one research method (Hayes, 2000). The Qur’an provides an example of a somewhat *detailed description and analysis* of a single individual such as the Pharaoh (Fir’aun) exemplifying bad personalities and Moses or Musa (AS) – or any other Prophets (ASS) for that matter – exemplifying good personalities.

The descriptions of these personalities are scattered throughout the Qur'an in different chapters together with the analysis of their behaviour and mental processes.

From a scientific point of view, case-studies lack in its generalisability. The same thing can be said about the case-studies in the Qur'an which are meant more for giving *hidayah* on human behaviour rather than a label to generalise to other people. It is not appropriate at all to give a conceptual label of "*Fir'aun*" to other people without considering the operational variables or without considering other more significant variables. Al-Qaradawi (1991) mentioned how Imam al-Ghazali narrated a story about a man who came upon Khalifah al-Ma'mun and started to "advise" him about vice and virtue in a rough and crude manner without considering his status the caliph. Al-Ma'mun said to the man, "Speak more kindly. Remember that Allah has sent someone better than you to a ruler worse than me, and commanded the former to speak mildly; he has sent Musa (AS) and Harun (AS), who were better than you, to Pharaoh, who was worse than me." This is not to say that case-studies method is useless. Just like we have learned a lot from the stories of Musa and Fir'aun to guide our behaviour, we may also learn a lot from a detailed description of the behaviours and mental processes of a specific individuals or groups in our society. Some rulings/*hukms* in *fiqh* are actually based on specific case-studies such as the rulings on *zihar* (injurious assimilation) in marriage based on the case of Khawlah bint al-Tha'labah (RA), a female companion of the Prophet.

Naturalistic Observation Method

There are numerous *Qur'anic* verses that observation as a mean to receive *hidayah*. A quick look at any Arabic index of the *Qur'an* (for example *Mu'jam Mufahras li Alfaz al-Qur'an*) will show that the word "observe" such as *basara* (and its derivation), *ra'a* (and its derivation), *nazara* (and its derivation), and *shahida* (and its derivation) are mentioned many times. For example, in addition to the three verses that are mentioned in the introduction section of this paper, *Al-Qur'an* also mentions, "*Do they not travel through the earth, and observe what the end result of those before them was?*" (30: 9). This verse not only talks about observing per se, but also mentions the possibility of inferring cause-effect relationship if conducted longitudinally.

Why does *Qur'an* mention observation many times over other research methods for humans to receive *hidayah*? Firstly and generally, in any social science research methods, behaviour is being "observed" (Coolican, 2004). Therefore, it is appropriate that Qur'an uses the term "observation" liberally to inform us the importance of conducting research using any kind of methods. Secondly, observation as a specific method is the simplest form of research method that even a 7th century Arab Bedouin can conduct to study natural and social phenomena surrounding them for example studying camels by observing them. Allah says in the *Qur'an* "*Do they not observe the camels, how they are created?*" (88: 17). Thirdly, what is al-Qur'an but a book of *hidayah* (divine guidance) (Qur'an 2: 2). Since *hidayah* is meant for all people regardless of their intelligence, or whether they are scientists or non-scientists, it is understandable why observation received more emphasis in the Qur'an than any other methods. We have to

bear in mind that al-Qur'an is neither a book of social science nor it is a book of research methods. That is why *Qur'an* emphasises on observational method to gain *hidayah* more than any other method.

Other Qualitative Methods

Methods such as survey, case-studies, and naturalistic observation can actually be called quantitative or qualitative methods depending on the approach used in data collection, data analysis, and especially the way the researchers perceive the subjects (Coolican, 2004). Coolican (2004) and Hayes (2000) have listed other methods that use qualitative approach such as grounded theory, interpretive phenomenological analysis (IPA), discourse analysis (DA), thematic qualitative analysis, conversational analysis, discourse analysis, protocol analysis, vignette analysis, repertory grid analysis, ethnography, and action research.

This paper does not intend to describe the above-mentioned methods in detail. Suffice to say that the emerging interest in qualitative approach to studying human being should be welcomed from the Islamic perspective because man is very different from matter, molecules, vegetation, or even animals. Using the quantitative approach to study man (who is created from both body and spirit) may lead to artificiality (taking people out of their social context), inaccuracy (lacking in ecological validity) and can even be inhumane (reducing behaviours into numbers) (Coolican 2004; Hayes, 2000). This is not to say that quantitative methods should be discarded. A combination of both approaches will perhaps give a balanced and better picture of human being. Allah mentioned in the *Qur'an* that everything in this world is created according to its precise (divine) quantitative measure (*Qur'an* 25: 2; *Qur'an* 54:49). But since we are created with spirits breath unto us (*Qur'an* 15: 29) and we are not given the complete knowledge about the world of spirit for us to measure it precisely (*Qur'an* 17: 85), a qualitative approach is needed to compensate for the deficiency of the quantitative approach.

OTHER ISSUES IN SOCIAL SCIENCE RESEARCH

The Importance of Sampling

It has been mentioned before that Imam Shafi'i (RH) conducted a survey, and naturally a sample is needed before he can make inference on the population. It is more realistic to conduct a study on a selected group of people rather than on a whole population. The best sample should be one that is representative of the population.

The importance of representativeness in sampling can be seen during the time of Prophet Muhammad (SAW) (before his appointment as a Prophet) at Makkah when the *Hajar al-Aswad* (the Black Stone) was dislocated from its original location due to a flood. The people of Makkah were arguing on the issue of who among them would be given the honour to put the stone back in its original location. When Prophet Muhammad (SAW) was consulted, he selected a *representative* from each tribe. Then, he put the stone on his own scarf and asked the *sample* to hold the sides of the scarf and carry it

together. After that, the Prophet (SAW) himself took the stone and put it back in its original location. In this example, members of the tribes were satisfied with the practical solution of the Prophet (SAW) because the sample represents all the tribes. Similarly, from social scientific perspective, the representativeness of the sample when a researcher conducted a research will lead to the satisfaction of other researchers with the inferences made by him.

Although Prophet (SAW) did not use simple random sampling (which is considered the best sampling method), he nevertheless achieved the objective of representativeness of the sample by conducting what social scientists called today as stratified sampling. That, from today research standards, is already very advanced!

Ethical Issues in Research

From an Islamic perspective, researchers should avoid placing any physical or psychological distress to human beings without valid reason. A *hadith* which is also a *qa'idah fiqhiyyah* (Islamic legal maxim) states "One should not give harm to others or do harmful things to oneself." Al-Qaradawi (1997b) mentioned some of the actions that can harm to others – and thus prohibited. These include relieving oneself in stagnant water, in the shade where people shelter, in the roads, or in reservoirs of water (based on a hadith narrated by Abu Dawud and Ibn Majah and another hadith narrated by Ahmad and Muslim). Al-Qaradawi also mentioned some other actions such as the need to cover the vessel (if it contains food or drink) and water skins, the need to close the doors, and the need to extinguish the lamps (at night before sleep) (based on a hadith narrated by Muslim and Ibn Majah). All these evidences show Islam's emphasis on avoiding physical or psychological stress to other human being.

Sometimes, however, placing distress to others is allowed when something important is to be learned or to be studied. For example, Prophet Yusuf or Joseph (AS) created distress among his brothers by accusing their younger brother Bunyamin or Benjamin of stealing in order to simulate and re-experience again the feelings of losing a brother and its effect on their father Prophet Yaaqub or Jacob (AS) (Qur'an 12: 58-93). But of course, Prophet Yusuf (AS) conducted some sort of *debriefing* session after that by explaining the reason for his deception and ensuring that the distress is alleviated (Qur'an 12: 69, 90 & 93). The decision whether a research is deemed ethical is still very subjective and needs thorough discussion from both social scientists and Islamic scholars.

Islam is also concerned about the welfare of animals while conducting research. There is a famous *hadith* stating that a prostitute entered paradise because she gave a dog a drink whereas a noble woman entered hellfire because she abused her cat (narrated by Bukhari). In addition to that, Prophet Muhammad (SAW) said "*Whosoever killed a bird without rights, then on the Day of Judgement, Allah will bear him responsible...*" (narrated by Ahmad).

Islam has a general rule on weighing between two *maslahah* (benefits) or two *mudarah/mafsadah* (harms), which are applicable to the issue of both research with

humans and animals. There are several *qawa'id fihiyyah* (Islamic legal maxims) mentioned by al-Qaradawi (1992) pertaining to this issue:

- (1) “*preventing mafsadah is better than promoting maslahah. If there is a conflict between the two, we should give priority to preventing mafsadah,*”
- (2) “*mudarah cannot be erased by introducing another mudarah,*” and
- (3) “*when two mafsadah occur simultaneously, pay more concern to the major mudarah by choosing the minor one.*”

These maxims show that Islam dislikes inflicting harms to our own selves or to others. Social scientists can help Islamic scholars to operationalise the concept of harm to help them in giving a more valid ruling on various issues. On the other hand, Islamic scholars can help social scientists in conceptualising the term “harm” from religious perspective. Perhaps it is not too much to suggest that social scientists should be included as the Fatwa Council members whereas Islamic scholars should be included in the social science research board committee member to foster integration of knowledge and practice.

The Importance of Statistics

There are two types of statistics used in social science research: (1) descriptive statistics, and (2) inferential statistics. Al-Qaradawi (1992) reported a hadith narrated by Bukhari mentioning that Prophet Muhammad (SAW) had asked several Companions (RAA) to collect descriptive data of Muslims at Medina. This data collection and analysis processes, according to Al-Qaradawi, are done in a careful and valid manner. These data prove useful in organising knowledge of the strengths and weaknesses of the new Islamic state and help in mobilising the Muslims at Medina to face the idolators of Quraysh during the war of Badr in the second year of *Hijrah*. This is in line with the practice of modern social science to conduct a preliminary need assessment study before introducing any intervention to solve social problems.

Inferential statistics involve significance testing, probability, and confidence interval to ensure high level of confidence on the inference researchers made from the data. This practice, at its conceptual level, has been practised in the field of Science of Hadith when Islamic scholars try to define *hadith mutawatir*. *Hadith mutawatir* is a *hadith* that reach the highest level of confidence that the wordings has been said the behaviours had been performed by the Prophet (SAW). Siddiqi (1993) has defined *hadith mutawatir* as a *hadith* that “has been transmitted throughout the first three generations of Muslims by such a large number of narrators that the possibility of fabrication must be entirely discarded” (p. 110). To use statistical terms, it can be said that *hadith mutawatir* is “a *hadith* that has been transmitted throughout the first three generations of Muslims by a *significantly* large number of narrators that the *probability* of fabrication is entirely discarded.” In other words, it is *statistically* impossible for the Muslims in all three generations to make a pact to lie against the Prophet (SAW).

There is no agreed upon operational definition of “a large number of narrators” but four, five, seven, ten, twelve, forty, and seventy have been suggested as the minimum

number required at all three generations of narrators (Hasan, 1994). The disagreement depends on how strict a particular scholar of *hadith* is or depends on the importance of the *hadith* content. This disagreement is not new in the field of social sciences when different operationalisation is given for a single concept. In fact, different social scientists may disagree on the most suitable confidence level we should use to make a meaningful inference (i.e. at 0.05, 0.01, or 0.001 levels). This crude concept of inferential statistics in the field of science of *hadith* had helped scholars in deciding on the authenticity of a *hadith* and the usability of various *hadith* according to its various levels of authenticity. This is similar to the concept of inferential statistics in helping social scientists to decide the strength of their inferences and decide on the usability of such inferences for different research or applied situations.

CONCLUSION

On the basis of these Islamic evaluations, it is safe to say that current social science research methods are not new in Islam. In fact, it has been used in Islamic tradition to study religious and social issues. Studies of both religion and social science are should actually be perceived as a single integrated and unified knowledge aimed to receive and spread *hidayah*. After all, the job of social scientists is to understand the behaviour whereas the job of Islamic scholar is to guide behaviour. Both are needed for us to receive guidance in this world. It is suggested that Islamic discipline, with the help of social scientists, should make use of various social sciences methods to help them operationalise various concepts in religious studies. In addition to that, social scientists can help in collecting data to help Islamic scholars understand religious issues. This is particularly important in the process of deriving new *fatwa* in *fiqh* discipline, or solving social problems in *da`wah* discipline.

To be fair to the scholars of Islamic studies, social scientists should, on the other hand, adopt *al-Qur'an* and *al-Sunnah* as their first and foremost sources of knowledge. *Al-Qur'an* and *al-Sunnah* should be the guiding principles before embarking in our quest for knowledge in understanding social phenomena (scientific objective) and to solve social problems (practical objective). In short, conducting an academic research should lead us to receive *hidayah* and conducting applied research should lead us to spread *hidayah*.

Understanding social phenomena should increase our *iman* (faith) towards Allah. On the other hand, application of the knowledge should either increase other people's *iman* towards Allah (for Muslims), or to increase their probability to accept *iman* towards Allah (for non-Muslims) As mentioned earlier, basic research should be conducted to fulfil our role as servants of Allah whereas applied research should be conducted to fulfil our role as vicegerents of Allah. Thus, religious and scientific knowledge should work side-by-side in harmony, leading to a prosperous life in this world and the hereafter.

Since the theme of the conference is about empowerment of organisation intelligence, it is suggested that Islamic organisations which aim to call people to Islam should make use of social science research methods to ensure the effectiveness of their

da`wah work. They should ask for help from social scientists to conduct basic and applied research to study not only people in the society (the target of *da`wah*), but also people in the organisation (the caller to Islam themselves) to optimise their success. However, it is not the aim of this paper to describe organisational research methods in details. Readers are advised to refer to books written by Brewerton and Millward (2001), Schmitt and Klimoski (1991), and Schwab (2005), or edited by Cassell and Symon (1994), and Symon and Cassell (1998) to study the practical aspects of conducting both quantitative and qualitative research methods in organisations.

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