

On Reliability of Data: An Application of Mantiq Instrument in Islamic Research Methodology

Shahir Akram Hassan¹

Centre for Islamic Development Management Studies (ISDEV)
Universiti Sains Malaysia
Pulau Pinang

Abstract

This paper intends to examine the level of reliability of data according to mantiq (Islamic logic) and its application in Islamic Research Methodology. Reliability of data plays an important role in conducting research. It influences the assessment of the data and determines the confidence of the results of the research. The question is, can the method of reliability in conventional research measures and analyzes the reliability of data in Islamic-related research? Or is there any instrument derived from the knowledge of Islam itself that can be used to measure the reliability of data? Does mantiq actually have any instrument to measure the reliability of data? To answer these questions, this paper focuses on two discussions. First, the identification of the reliability of data according to mantiq. Second, the analyzation and application of the reliability of data in accordance to the mantiq in Islamic Research Methodology. This paper uses library research and content analysis. It finds out that in mantiq, there are four main instruments that could determine the level of reliability of data. They are Yaqin, Zann, Shakk and Batil. Out of these four, Yaqin is the highest, followed sequently by Zann, Shakk and Batil. The level of reliability of data is based on evidences. The stronger the evidence, the higher is the level of reliability. According to the mantiq's reliability of data instruments, a data can be in the level of Yaqin if the source is from al-Qur'an and hadith even without empirical evidence. In contrary, Zann and Shakk only rely on either theoretical or empirical evidences or both, while batil does not has any evidence at all. All four levels of mantiq's reliability of data explain that research on Islam and Muslim consider both, the al-Qur'an and the hadith which contains tangible and intangible evidences and empirical proofs which contains tangible evidences. This paper also suggests that all four levels of mantiq's reliability of data instrument can be considered as a basis to build an Islamic measurement scale.

Keywords: Reliability, Mantiq, Social Research, Islamic-related Research, Islamic Research Methodology

Introduction

The purpose of this paper is to discuss the reliability of data and the application of mantiq instruments in Islamic Research Methodology. The discussion regarding reliability of data is actually derived from a discussion on measurement. Measurement in research is a method to correlate an abstract concept to an empirical evidence (Chua Yan Piaw, 2006). It is a method to realize an abstract concept into specific evidences that can be precisely analysed and described. In research, every single abstract concept can be realized by using a specific evidence that can be measured. These concepts are called variables. Variables are something that can be replaced by numbers that represent different values (Blaikie, 2009). According to common research practice, variables are usually measured in four different scales which are nominal, ordinal, interval, and ratio. The determination of these variables measurement is what brings about questions regarding reliability of data. Reliability of data is a concept that refers to the consistency and stability of measurements or measuring instruments in a research or a survey (Sabitha Marican, 2005).

¹ Shahir Akram Hassan is a Senior Lecturer of the Centre for Islamic Development Management Studies (ISDEV), Universiti Sains Malaysia. He obtained his PhD and M. Soc Sci. (Islamic Development Management) from Universiti Sains Malaysia, Penang, Malaysia and B.A (Hons) Usuluddin from Al AlBayt University, Mafraq, Jordan. His research interests are in Islamic Research Methodology, Mantiq (Islamic Logic), Falak, Human Development and Al-Qur'an and Al-Sunnah for Development Management.

Usually, reliability is measured according to the ability of a research in achieving similar values with repeat measurements. If the measurements are repeated twice, thrice, and so on, and the values measured are the same, then the research is said to have a high reliability (Chua Yan Piaw, 2006). The question is, how does this reliability of data measure and analyse the reliability of data in researches related to Islam? Are there other instruments based on Islamic knowledge that can be used to measure reliability of data according to Islam that can be applied in Islamic Research Methodology? In order to answer these questions, this paper will be divided into two different parts of discussions. The first part is a discussion on the methodology of yaqin, zann, shakk and batil according to mantiq. While the second part is an analysis of the application of reliability instrument according to mantiq in Islamic related researches. The discussion around the method of yaqin, zann, shakk and batil in relation to mantiq is carried out in order to understand the basis of reliability and measurement according to the mantiq. Once the basis of data and measurement reliability based on mantiq is understood, the application of reliability of data instruments in Islamic related researches can then be analysed.

The Method of Yaqin, Zann, Shakk and Batil According to Mantiq

According to mantiq, there are at least four instruments in measuring something. Firstly, yaqin. Secondly, zann. Thirdly, shakk. Fourthly, batil. Yaqin is achieved when the researcher is certain that what he knows is the same as the reality. It is also based on strong evidences. According to Mantiq, strong evidence is whether an argument can be divided into two; Naqli and 'Aqli arguments. Naqli argument is an argument based on al-Qur'an and al-Sunnah (Ahmad Damanhuri, 2006). While 'Aqli argument is an argument based on human thoughts. Zann is approaching yaqin until there is almost nothing that can oppose it. For example, in matters involving justice or rewards. Shakk is a stage where there are equal probabilities to be right or wrong. Right cannot overcome wrong. While wrong cannot diminish what is right. Batil is that which does not reach the level of yaqin, zann and shakk.

In general, every matter can be classified into these four instruments, whether it is yaqin, zann, shakk, or batil. Although according to al-Habannakah (1993), there are two types of zann which are zann al-rajih, and zann al-marjuh. Zann al-rajih is a zann that is close to yaqin. Zann al-marjuh is a zann that is rejected by zann al-rajih. Its position falls beneath shakk. All four of these instruments show that every statement or knowledge in Islam is firstly classified according to its stage. It is clear that their positions at a particular stage can establish the strength and position of a statement or knowledge. As a result the extent to accept or reject a statement or knowledge will be clear.

A representation of yaqin, zann, shakk and batil according to mantiq as discussed above can be illustrated in figure 1.

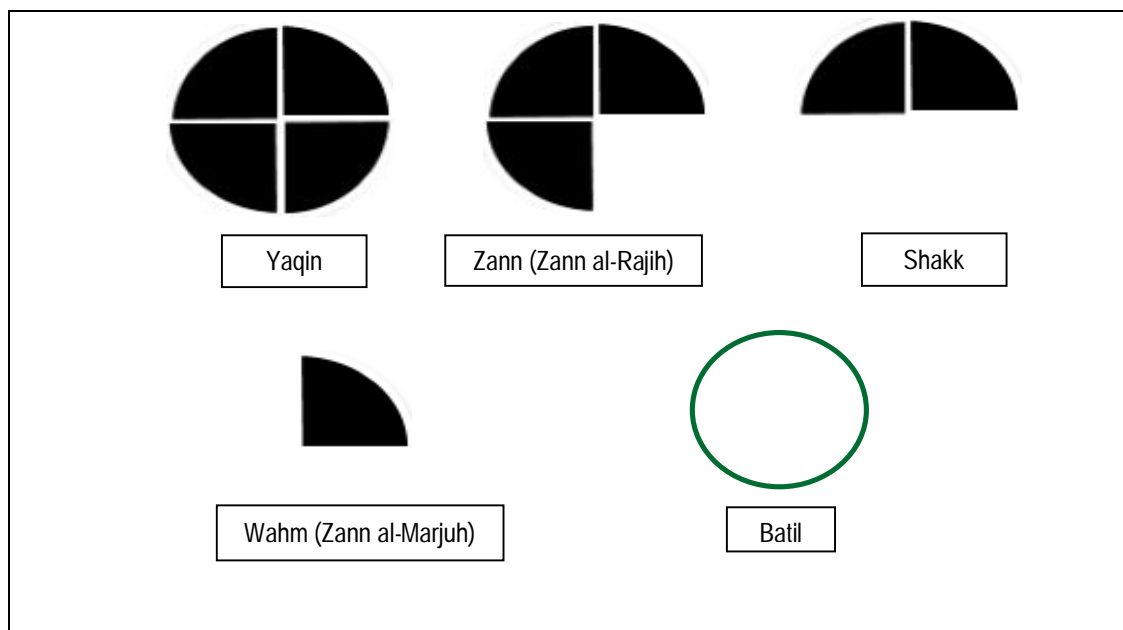


Figure1: Yaqin, Zann, Shakk and Batil According to Mantiq

Figure 1 shows that yaqin is a manifestation of a full conviction. An intermediate conviction is named shakk, representing half-conviction and half-falsehood. Whereas Batil shows that there is nothing that needed to be said and there is no argument that can be given. While Zann is divided into two. Zann al-rajih is closer to yaqin while zann al-marjuh is in between syakk and batil, below zann al-rajih. Zann al-marjuh is also known as wahm.

The Analysis of the Application of Reliability Instrument According to Mantiq in Islamic Related Research

In Islam, beside an emphasis on the method of reasoning, the method of measuring and reliability of data is also taken into account. There are at least four instruments used in Islam which are yaqin, zann, shakk and batil. It is important in every research to determine a measuring standard for each variable. In other words, which information can be determined as yaqin, which can be said to be at the stage of zann, and which one is reaching the level of shakk? From there on, batil information can then be identified. These instruments in Islamic related research is a foundation that has to be used to ensure there is no disagreements after research results are discovered. These instruments can also be used in the research itself in order to filter or measure the reliability of collected data as well as to help in the data analysis process. Method of measurement in mantiq shows that at the very least every matter can be placed in one of the five level of reliability of data which are yaqin, zann al-rajih, shakk, zann al-marjuh and batil. Each part has its own effect. Islam in general only accepts information that is yaqin and zann al-rajih in nature. This is based on the verse from Allah SWT which means: "O you who have believed, when the believing women come to you as emigrants, examine them. Allah is most knowing as to their faith. And if you know them to be believers, then do not return them to the disbelievers" (Surah al-Mumtahanah, 60:10)

In the verse above, Allah SWT commands that those believing women to be tested. According to al-Habannakah (1993), the knowledge obtained from the test is only zann al-rajih in nature. From this, a basis is formed where at the very least an information or knowledge has to be zann al-rajih for it to be accepted as a fact. Although the best is yaqin. As stated by Abdul Rahman Abdullah (2005) Islamic scholars deduced that yaqin has three stages. First, *ilmul-yaqin*. Second, *'ainul-yaqin*. Third, *haqqul-yaqin*. *Ilmul-yaqin* is a rational conviction or one that is sourced from the human mind as decreed by Allah SWT in his verse:

"No! If you only knew with knowledge of certainty (*ilmul-yaqin*)" (Surah al-Takathur, 102:5)

Whereas *'Ainul-yaqin* is an empirical conviction i.e. one that is sourced from the senses, especially the sight. Allah SWT said:

"You will surely see the Hellfire. Then you will surely see it with the eye of certainty." (Surah al-Takathur, 102:6-7)

Regarding *haqqul-yaqin*, it is an absolute conviction, without error and doubt since it is from the Revelation from Allah SWT as He said:

"And indeed, it (al-Qur'an) is the truth of certainty." (Surah al-Haqqah, 69:51)

So, measurement in Islam does not merely take into account the aspect of rational knowledge or empirical evidence. Islamic knowledge recognizes evidences from the Revelation in al-Qur'an and Hadith. In fact, according to Islamic epistemology, al-Qur'an and authentic Hadith are accepted as information or knowledge that are true and yaqin. Hence, according to mantiq, only data that can reach the level of yaqin and zann al-rajih can be accepted. The sources for the data that can reach yaqin and zann al-rajih is either Naqli or 'Aqli arguments. Naqli arguments are al-Qur'an and al-Sunnah which is the main source for the Revelation. However, there are those who included *ijmak* and *qiyas* as naqli arguments with a requirement that the *ijmak* and *qiyas* are directly in referred from al-Qur'an and al-Sunnah.

'Aqli arguments require a lengthier discussion (Ahmad Damanhuri, 2006). Under 'aqli arguments, there are five sources which are *burhan*, *jadal*, *khitabah*, *sya'r* and *sufastah* arguments (al-Shanqiti, 2007). However, only *burhan* arguments can achieve the levels of yaqin and zann al-rajih

'Aqli *burhan* argument is a *qiyas* that is established from premises that are proven true (H. Syukriadi Sambas, 2003). 'Aqli *burhan* argument is an argument that has reach the degree of yaqin and there are six ways to obtain 'Aqli *burhan* argument.

The six ways to obtain it are Auliyyat (Axiom), Musyahadat (Empirical), Mujarrobat (Experimental), Mutawatirat (Reported), Hadsiiyyat (Hypothesis) and Mahsusat (Intuition). (Ahmad Damanhuri, 2006).

For the level of shakk, it is a stage where the argument of a party is balanced out by the argument of the other party. At this stage, no party can acclaim their own argument or falsify others, not to mention if they both have arguments that can be accepted. Zann al-marjuh is a level that was initially a Zann, however, when a Zann argument clash with another Zann argument, the party with a better argument will ascend to a level above Shakk, which is Zann al-Rajih while the losing argument will descend to a level beneath shakk which is Zann al-Marjuh. The lowest level is a level with no argument or evidence. This is the level known as batil since the reliability of this level is cancelled out by other evidence based or convincing data (al-Habannakah, 1993). From the discussions regarding the levels of reliability of data according to mantiq, and proving sources for the level of yaqin and zann al-rajih, it is found that in mantiq, there are four main instruments that can determine the level of reliability of data. They are Yaqin, Zann, Shakk and Batil. Out of these four, Yaqin is the highest, subsequently followed by Zann, Shakk and Batil. The level of reliability of data is based on evidences. The stronger the evidence, the higher the level of reliability. According to mantiq's reliability of data instruments, data can be at the level of Yaqin if the source is from al-Qur'an and hadith even without empirical evidence. In contrary, Zann and Shakk only rely on either theoretical or empirical evidences or both, while batil has no evidence at all. All four levels of mantiq's reliability of data explain that researches on Islam and Muslim consider both the al-Qur'an and the hadith which contains tangible and intangible evidences, and empirical proofs which contains tangible evidences.

In Islamic related researches, other than studying tangible matters, the intangibles are also taken into account. Understanding the intangibles leads to a holistic understanding from the Islamic perspective. This causes the data obtained to not only be based on visible matters. For example, an economic research. If a research is focussed solely to logics and empirical matters, the result will incline towards material needs. Concurrently, since it cannot be proven scientifically, spiritual needs will be ignored. In this case, the community will be indoctrinated with artificial needs which will not help in understanding human beings in a holistic manner (Suat Yildirim, 2007:116). Thus, at the very least a social study should balance scientific aspects with the aspect of humanity. This is where data sources and reliability play their parts.

Researches related to Islam and Muslims should be carried out from the perspective of Naqli and 'Aqli arguments which include tangible and intangible matters. In Islam, even though a data does not have empirical evidence, if it is mentioned in al-Qur'an and al-Sunnah, then it is considered as a reliable data, in fact, it reaches the level of yaqin. For example, through Revelation, there are matters that do not require observation or empirical evidence. It is sufficient to oblige on what is decreed upon from the Revelation. As an example, one of the ways to be cured in Islam is through the act of charity² (Abu Dawud,1986). To date, the effect of charity cannot be proven empirically. In fact, there is no logical explanation of the correlation between disease, charity, and recovery. But the reality is that is an effect of the guidance of Revelation. Although there is no empirical correlation, the effect brings about a win-win situation. Patients acquire support in terms of an emotional tranquillity and a spiritual contentment. The money spent for charity will aid those who are in need in the community. With the blessing from Allah SWT, the sick will be cured and his properties will grow. Not only that, in fact his faith will increase and strengthen. In actuality, this is the aspect that cannot be proven through logic and empirical evidence in social study. This is what is meant in Islam where there are data that is reliable even though there is no empirical evidence, but because of the strong support of Naqli arguments, it remains highly reliable in Islamic research methodology.

With the differences in perspective, reliability of data measurement, and reliable source of data, it affects the method of measurement and reliability of data measurement according to Islam. As an example, all four instruments according to mantiq are practically used in daily life. For instance in the matter of determining prayer times. If through his own observation a person is yaqin that the prayer time has begun based on available evidences, then he may perform his prayer. Likewise if he is zann or inclined towards yaqin. He may also pray. In contrary, if he has doubts (shakk) that the prayer time has begun, he is required to search for other evidences before he can perform his prayer.

² This is as reported by Hassan Al-Basri: "Cure those who are sick among you with charity", (Hadith Riwayat Abu Dawud: Hadith No 105).

It can be seen from this example that with different levels of reliability of data in an individual observation, different rulings and actions arose. This shows that there is a need for a basis in measuring the levels of reliability of data in carrying out researches related to Islam by following the measuring method according to mantiq, the method of yaqin, zann, shakk and batil. The method of measuring the levels of reliability of data is seen to be able to coordinate discoveries from Islamic related researches for fiqh assessments. Discoveries related to Islam and Muslims that reaches the level of yaqin will help stages of Islamic legal pronouncement (fatwa) process. Even if a study only obtains results at a level of zann, at least it is a result of a study performed in accordance to the method of fiqh that enables it to be noted and considered. However, it should be emphasized that the methodology and the study related to Islam and Muslims should primarily follow Islamic reasoning methodology accordingly until this Islamic measuring methodology can be followed.

Conclusion

From the discussion above, the methodology for measuring reliability of data according to the instruments of mantiq has a huge influence in an Islamic related research. This reliability measuring method should also be applied in Islamic Research Methodology. It is based on three important bases. Firstly, in mantiq, there are four main instruments that could determine the level of reliability of data. They are Yaqin, Zann, Shakk and Batil. Out of these four, Yaqin is the highest, subsequently followed by Zann, Shakk and Batil. The level of reliability of data is based on evidences. The stronger the evidence, the higher is the level of reliability. Secondly, according to mantiq's reliability of data instruments, a data can be in the level of Yaqin if the source is from al-Qur'an and hadith even without empirical evidence. In contrary, Zann and Shakk only rely on either theoretical or empirical evidences or both, while batil does not have any evidence at all. All four levels of mantiq's reliability of data explain that research on Islam and Muslim consider both the al-Qur'an and the hadith which contains tangible and intangible evidences, and empirical proofs which contains tangible evidences. Thirdly, this paper also suggests that all four levels of mantiq's reliability of data instrument can be considered as a basis to build an Islamic measurement scale. Thus with the existence of this method of measuring the levels of reliability according to mantiq, researches related to Islam and Muslims can be measured precisely and reliably. Likewise, data obtained out of a precise measurement will assist in a more suitable and precise analysis for Islam and Muslims.

Acknowledgement

This paper is part of the various output from the research entitled The Art of Reasoning in Islamic Research Methodology [(RUI)1001/CISDEV/816207] and was funded by Research University Individual (RUI) Grant, Universiti Sains Malaysia.

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