FINANCING RISK MEASUREMENT WITH MAQASHID AL-SHARIA QUALITATIVE RISK¹

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ABSTRACT - Measurement of financing risk has been dominated by quantitative methods, which insufficiently pay attention to the detailed causes of default risk. So far, the concept of mafsadah in maqashid al-sharia has never been applied in risk management. Thus, the aim of this study is to measure the risk of financing with the qualitative risk assessment method based on magashid al-sharia by proposing the use of the mafsadah matrix. This research applies qualitative method equipped with a phenomenological approach as observed in Islamic financial institutions in Makassar. Data collection was carried out by observation and interviews with the branch heads, credit analysts, and staff of the Islamic financial institutions. Data analysis and interpretation technique are in line with Miles and Huberman analysis with three stages, namely data reduction, data presentation, and data verification. This study found that there were seventeen risk events with the level of mafsadah tahsiniyyat as many as four events, mafsadah hajiyyyat as many as four events, and mafsadah dharuriyyat as many as nine events. In addition, this research reveals that customers, in deed, fail to pay due to their bad characters and moral hazards (mafsadah dharuriyyat) resulting in liquidity problems in Islamic financial institutions. This is due to misappropriation of credit committee approval and unresponsive handling of bad financing (mafsadah dharuriyyat) resulting in delays in Islamic financial institutions to further process financing proposals (mafsadah dharuriyyat).

Keywords: Financing Risk, Qualitative Risk Assessment, Maqashid al-Sharia, Mafsadah Concept.

ABSTRAK – Pengukuran Risiko Pembiayaan dengan Maqashid al-Syariah Qualitative Risk. Pengukuran risiko pembiayaan telah didominasi metode kuantitiatif yang kurang memerhatikan penyebab terjadinya default risk secara detail. Selama ini, konsep mafsadah dalam maqashid al-syariah belum pernah diaplikasikan dalam aspek manajemen risiko. Maka, tujuan penelitian ini adalah untuk mengukur risiko pembiayaan dengan metode qualitative risk assessment yang berbasis magashid alsyariah dengan menggunakan matriks mafsadah. Penelitian ini adalah penelitian kualitatif dengan pendekatan fenomenologi pada lembaga pembiayaan syariah di Makassar. Pengumpulan data dilakukan dengan observasi dan wawancara terhadap kepala cabang, credit analyst, dan staf karyawan lembaga pembiayaan syariah. Teknik analisis dan interpretasi data menggunakan analisis Miles dan Huberman dengan tiga tahapan, yaitu reduksi data, penyajian data, dan verifikasi data. Penelitian ini menemukan terdapat tujuh belas peristiwa risiko dengan tingkatan mafsadah tahsiniyat sebanyak empat peristiwa, mafsadah hajiyat sebanyak empat peristiwa, dan mafsadah dharuriyat sebanyak sembilan peristiwa. Selain itu, penelitian ini mengungkap bahwa peristiwa nasabah gagal bayar karena karakter buruk dan moral hazard (mafsadah dharuriyat) mengakibatkan masalah likuiditas pada lembaga pembiayaan syariah. Hal ini disebabkan kekeliruan persetujuan pembiayaan oleh credit committee dan penanganan yang tidak responsif atas pembiayaan macet (mafsadah dharuriyat) berakibat keterlambatan lembaga pembiayaan syariah memeroses pengajuan pembiayaan (mafsadah dharuriyat).

Kata Kunci: Risiko Pembiayaan, Pembiayaan Macet, Qualitative Risk Assessment, Maqashid al-Syariah, Konsep Mafsadah

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¹ This paper has been presented on International Seminar on Islamic Economics and Business, Faculty of Islamic Economics and Business, UIN Sunan Kalijaga, November, 14-15, 2018, Yogyakarta.

INTRODUCTION

Globally, the Islamic financial industry shows rapid development with a growth of 15 to 20 percent every year (Agha & Sabirzyanov, 2015). Based on the report of the Indonesian Financial Services Authority-OJK (2017), the assets of the world Islamic financial industry have increased from around USD150 billion in 1990 to around USD2 trillion at the end of 2015 and are predicted to reach USD6.5 trillion in 2020. Particularly, Indonesia is the ninth largest Islamic financial assets country in the world. Therefore, the need for hedging tools to reduce certain risks is needed. This is in line with Islamic jurisprudence stated that in every benefit there will be a risk in it) (*al-ghunmu bi al-ghurmi*) and income is a compensation of the risk taken (*al-kharaj bi al-daman*) (Shaharuddin, 2016; Dusuki, 2014). Thus, the risk is always involved in all economic activities.

For the past two to three decades, the financial institutions are often faced with credit and market risks (Swartz, 2013). To anticipate these risks, the conventional financial framework develops risk management broadly and deeply. However, this is less developed in Islamic finance due to limited resources, high costs and lack of technology to assess and monitor risks in time. Therefore, some literature such as Nurhafiza (2015), and Sari & Abdullah (2016) revealed that Islamic finance faces important challenges in improving both in the broad risk management strategy and in the depth of product sophistication.

Jorion (2007) stated that credit risk is the main cause of bank bankruptcy. A survey conducted by Skins (2011) found that credit risk is also the biggest risk faced by microfinance institutions. Thus, to measure potential financing risks for Islamic financial institutions, an independent method is needed. The measurement of credit or financing risk has several methods, such as expert systems, neural networks, rating systems, credit scoring systems, and newer models (Saunders & Allen, 2002). Four methods, except newer models, are traditional credit risk measurements. Moreover, the expert system is replaced with the t credit analyst nowadays. Altman & Saunders (1997) stated that 38 years ago most financial institutions relied on subjective analysis or called "expert" bankers to assess credit risk for corporate loans. Basically, financial institutions utilize 5 C principles to subjectively assess the potential customer in deciding loan agreement (Ibrahim, 2014).



Some of the argument provided by Saunders & Allen (2002) that expert systems have left behind because of several arguments. Firstly, it was difficult to develop. In addition, the massive increase in corporate bankruptcy was caused by credit risk. Finally, companies employed the risk return trade-off theory in competing in profit margins by providing loan to customer easily (Ibrahim & Rahmati, 2017). Thus, the financial institutions shifted gradually away from the expert system for the last 39 years towards a more objective system.

Newer models try to offer an internal model approach to measure credit risk. In the current generation of the credit risk model, the company uses one of two conceptual definitions of credit loss, the default mode paradigm (DM) or the market to market (MTM) paradigm such as Credit Scoring Models, Credit Risk +, Credit Metrics, and KMV Models. These models are used by credit rating agencies as a corporate hedging tool in mitigating credit risk. Obaidullah (2005) developed a credit rating method for Islamic financial institutions with aspects of sharia compliance using a qualitative approach. In Malaysia, several rating agencies were established, such as the Malaysian Rating Agency (RAM) and Malaysian Rating Corporation Berhad (MARC) (Radzi & Lonik, 2016).

Soares, Joaquim, Pina, Ribeiro, & Catalao-Lopes (2011), have a different opinion in measuring credit risk by proposing a multicriteria model. This model is based on the ability of the company in assessing qualitative of the loan. They argued that the multi criteria have four criteria in assessing the loan: i.e. information about commercial relationship between the company and the client through its track record. Second is information about the nature of company's finance, which is assessed quantitatively through several indicators. Three, information related to company management, and finally information that lower the credit risk (collateral and other guarantees, in the context of Basel I and Basel II).

The multi criteria proposed by Soares et al., (2011) shows the combination of both quantitative and qualitative in measuring credit risk. The third criterion regarding information related to company management has exceeded the method of measuring credit risk, the expert system. The information consists of management experience and behavior towards stakeholders and society in general. Generally, market and management criteria are qualitative, and the most common procedure performed by company analysts is to assess



customers according to the 5C principles: capacity, character, capital, collateral, and conditions.

Agha & Sabirzyanov (2015) discuss a broad perspective on risk and its management which is manifested in *maqashid al-sharia* to protect human welfare. Al-Ghazali (n.d.) describes *maqashid al-sharia* as the welfare of mankind that is maintaining their faith (*din*), their self (*nafs*), their intelligence ('aql), their offspring (*nasl*) and their wealth (*mal*). Islam provides detailed instructions for managing various types of risks in a broader sense, i.e. criminal risks, disease risks, investment risks, business risks and others. Interestingly, Islam also commands to manage the types of spiritual risks such as avoiding adultery, idolatry, apostasy and other types of sin (Agha & Sabirzyanov, 2015).

The *maslaha* approach in *maqashid al-sharia* is widely used in measuring the performance of companies and banks (Jazil & Syahruddin, 2013; Bedoui, 2012; Firdaus & Yusuf, 2016; Rusydiana & Sanrego, 2018), and tried to result new formula. However, these studies do not cover risk management issues. The existence of risk management will influence companies' operational activities, by auditing employees in accordance with standard operating procedures (SOP) in each activity.

Risk in *the maqashid al-sharia* concept is often discussed in broad risk management by analyzing what is the essence of the risk in an Islamic perspective, but do not discuss about risk measurement, as can be seen from research conducted by Abdullah (2012) who discussed *takaful* in the *maqashid al-sharia* perspective, as well as research by Mohd Noor, Ismail, & Muhammad (2018). This needs a new study where the *maqashid al-sharia* does not only discuss the achievement of advantage (*maslaha*) but also discusses the prevention of damage (*mafsadah*). The determination standard of *mafsadah* can be seen from various perspectives, when *mafsadah* is categorized; general (*'ammah*) or specific (*khas*); *rajih* or *marjuhah*; or even including *mafsadah daruriyyat*, *hajiyyat*, and *tahsiniyyat* (Ridzwan, 2008). The concept of *mafsadah* is still in the qualitative concept and the proper methodology is needed to measure it, particularly in the scope of Islamic financial institutions.

This research aims to assess risk faced by Islamic financial institution. Moreover, we try to develop risk assessment qualitatively, combined with



Islamic prudential concept, namely *Maqashid al-sharia*-based Qualitative Risk Assessment.

The limitation of this research, however, is this is a study case research on a financing company only. Hence the findings will different when the research is conducted on a specific industry (i.e. banking industry), as the factors affecting the financing risk will vary.

LITERATURE REVIEW

Qualitative Risk Assessment

According to Radu (2009) qualitative risk assessment is used to identify risks as it is detailed, has simple and quick assessments. This assessment is often used when numerical data is inadequate or unavailable, and resources are limited (budget or expertise). The qualitative risk assessment model is often favored by professionals because risk assessment is purely qualitative. Qualitative assessment does not require the determination of possible data, only estimates of potential losses. Korombel and Tworek (2009) call qualitative risk assessment with a risk rating matrices, this method identifies risk and places it in a coordinate system, where one axis shows the value of possible risk events and the other axis shows the outcomes that can occur in a company. By placing each risk separately in the coordinate system, we must determine the size of the possibilities and outcomes.

a. Event Identification

To apply the risk management process, at the initial stage it must accurately identify risks by recognizing and understanding all existing risks (inherent risks) and those that may arise from a new business, including the risks originating from related companies and other affiliates (Rifai, Veithzal, & Idroes, 2007). The process of identifying risk analysis is at least on the risk characteristics inherent in the company based on the company's loss experience that has occurred (Rustam, 2013). Risk identification relates to the process of understanding the nature and impact of risks on the institution's activities now and in the future. The main objective of the identification process is to identify the main causes that lead to risk events. The main causes that contribute to the occurrence of risk events are people, processes and systems. Any weaknesses or shortcomings that arise from a person's inability,



inadequate processes of or ineffective systems can lead to events that can trigger risks (Hassan et al., 2017).

b. Risk Assessment

After identifying risk accurately, the next step is measuring risk. Risk measurement is an important step in carrying out audit activities (Radu, 2009). By doing so, risk exposures inherent in its business activities can be calculated, so as to estimate the impact on capital that should be maintained in order to support business activities. Measurement and quantification of risks will heavily depend on the characteristics of the risk (Hanafi, 2014; Ibrahim & Kamri, 2013). Risk measurement with a qualitative approach can be measured by evaluating the value of risk resulting from the probability and the impact. To measure risk, the following formula can be used (Godfrey,

1996): Risk= likelihood x consequence

Technically, likelihood is the probability of a risk event occurring which is usually expressed in the form of the number of events in the specified time span. The second dimension is in the form of impact, namely the level of gravity that occurs when the risk faced is really occurred. The higher the impact of a risk, the more need to payt special attention. Conversely, the lower the impact of a risk, the lower the interest of management in allocating resources to deal with the risks faced. From both dimensions, a matrix of multiplication of impact and probability is made, as shown in Figure 1 below, where the matrix is then divided into four categories according to the level of priority or level of priority risk handling.

L I	5	Undesirable (5)	Undesirable (10)	Unacceptabl e (15)	Unacceptable (20)	Unacceptable (25)
K E	4	Acceptable (4)	Undesirable (8)	Undesirable (12)	Unacceptable (16)	Unacceptable (20)
L	3	Acceptable (3)	Undesirable (6)	Undesirable (9)	Undesirable (12)	Unacceptable (15)
I H	2	Negligible (2)	Acceptable (4)	Undesirable (6)	Undesirable (8)	Undesirable (10)
O O	1	Negligible (1)	Negligible (2)	Acceptable (3)	Acceptable (4)	Undesirable (5)
D		1	2	3	4	5

IMPACT Figure 1. Risk Mapping Matrix (Source: Godfrey, 1996)



The picture above shows four levels of risk acceptance, those are unacceptable, undesirable, acceptable, and negligible. The first level is unacceptable. Unacceptable is the highest risk because it has a significant influence that is detrimental to the company and has a domino effect in the long term. For this level of risk, the management needs to pay heavily attention as it is a top priority. The main response in controlling this risk is avoided or be transferred. The second level is undesirable. Undesirable is a risk that must be supervised because it has exceeded the tolerance of the company and has a significant effect on the company. The response in controlling this risk is avoided and be reduced. The third level is acceptable, which includes acceptable-risk activities. This risk has an impact on the company but is still within tolerance limits so that it can still be overcome. The response in controlling this risk is not taking any action (just accepting) or reducing the possibility of risk (if possible). The fourth level is negligible. Negligible is a rare risk and if it occurs it has a relatively small impact on company. The effect of this risk can be reduced, but the costs can exceed the risk impact. In this case, it might be better to accept the effect of the risk (Godfrey, 1996).

c. Risk Response

Responses to risk events are analyzed from the results of risk mapping, literature studies, and discussions with the risk management division. Risk response is analyzed descriptively and divided into different responses: accept, reduce, share (transfer), and avoid responses. Accepting risk means that the company cannot do much to the risk but can adjust it. Reducing risk means that risks continue to occur, but the company takes actions that minimize the impact of risk. Sharing risk means not eliminating risk but transferring risk to other parties such as insurance. Avoiding risk means that the company performs anticipatory activities in advance, for example a contract/agreement is made in advance in avoiding these risks (COSO, 2004).

Maqashid al-Sharia

The etymology of *maqashid al-sharia* consists of two words, namely *maqashid* and *sharia*. *Maqashid* is a plural form of the word *maqsid* which means the goal to be achieved from mediating mankind activities. The *sharia* means the road to the source of water or it can be said by way of going towards the source of life (Ati, 2007). 'Izzuddin (1996) stated the word of



maqashid, which means al- hikmah (wisdom), there are also those who call ma'na (meaning), 'illat, munasabah (conformity), and some call it maslahah or interest. Al-Ghazali (n.d.) defines it as al-maslahah, which is a fundamental explanation of something, whether it brings benefits value or disappears harm, by maintaining the five basic objectives of the sharia, maintaining din (religion), nafs (soul), 'aql (reason), nasl (offspring) and mal (property).

Al-Syatibi (2005) concluded that *maqashid al-sharia* is the goal of maintaining the objectives of the *sharia* which is revealed to mankind, it is summarized in three basic interests, namely *daruriyyat*, *hajiyyat* and *tahsiniyyat*. Allah creates something aiming to preserve the value of present time and hereafter welfare. The *daruriyyat* aspect is known as the terminology *ad-daruriyyat al-khamsah* (five very important things), which are maintaining religion, soul, mind, offspring and guarding property. Etymologically, *hajiyyat* means secondary needs, which are something is needed by humans to ease daily life. It does not threaten life, if these needs do not materialize, mankind will experience difficulties. *Tahsiniyyat*, etymologically, means things that improve life as this level of need is complementary needs. If this need is not met, it will not threaten nor cause difficulties.

Mafsadah Concept

Detail discussion about the concept of *mafsadah* is very rare done by scholars, but it does not necessarily mean that the concept is not important. This is because the concept of *mafsadah* has discussed within the concept of *maslaha* (Sarif & Ahmad, 2017). This topic is inseparable from the rules of jurisprudence of *al mafasid muqaddam jal ala jalb al masalih*, that is promoting damage prevention is a principle of Islamic teachings. Al-Gazali and al-Syatibi argued that to achieve *maqashid al-sharia*, *maslaha* and *mafsadah* must go along with and cannot be separated. Every act is accompanied by both of these two things, so that the problem between *maslahah* and *mafsadah* will be determined which one is the stronger (*rajih*) and can achieve the sharia-intended purpose Salam (n.d.). Therefore, to achieve the essential of *maslaha*, it is needed to achieve *maslaha* and reject *mafsadah* which are complementary rather than mutual reciprocity. If the negation of *mafsadah* is carried out then *maslaha* is realized or manifests *maslaha*, means the lack of *mafsadah* (Sarif & Ahmad, 2017).



Etymologically, mafsadah is from the word of al-fasad which means al-lahwu (joke) and al-la'bu (games), for example having properties by wrongdoing (Yasu'i, n.d.). Ibn Manzhur said that the meaning of mafsadah is an antonym of maslaha. Mafsadah also means darar which means something that leads to damage (Hubaib, 1993). Although mafsadah is the opposite of maslahah, but its existence is very close to maslahah so it is difficult to understand by comparing the meaning between the two Salam (n.d.). However, if we combine between the two in the rules of mafasid muqaddam 'ala jalb al masalih, it will produce the essential of maslaha (Sarif & Ahmad, 2017). Furthermore, Al-Ghazali (n.d.) stated that mafsadah is something that is contrary to the maqasid (goal) of shara'. So it can be said, that things that can eliminate al-ushul al-khamsah (al din, nafs, 'aql, nasl, and mal) are called mafsadah and prevent them is a form of maslahah.

Table 1. The rule of Figh La Dharar wa La Dhirar

	1		
Tł	ne order: prevents before the occurrence of mafsadah		
Prophetic Hadith			
	"La dharar wa la dhirar"		
	Not to endanger yourself and may not harm others		
	Elimination after the occurrence of mafsadah		
	General Rules: al dharar yuzalu		
	Harm should be removed		
	al dharar la yuzalu bi al-mitsli		
General rule	A harm cannot be removed with similar harm		
requirements	al dharar la yuzalu bi al-dharar		
	A harm cannot be eliminated by harm		
Procedure for	Al-dhararu yudfa'u bi al qadri al-imkan		
implementation	Harm is removed as much as possible		
	Al-dharar a- asyad yuzalu bi al-dharar al-akhaf		
	Large harm (really bad) may be removed with a small (mild) harm		
	Yahtamil al-dharar al-khas li man'I al-dharari al 'am		
	Personal harm is available to prevent the loss of community		
Rule	Iza ta'aradh mafsadatani ru'iya ʻazdhamahuma dararan bi irtikabi		
Two: Mafsadah	akhafuhuma		
	With the presence of two harm, great harm is avoided by doing		
	small ones		
	Yuhtaru ahwanu syarraini		
	Smaller harm can be accepted		
The prioritization	dar u al-mafasid muqaddam ʻala jalb al-masalih		
of mafsadah			
rather than	Rejecting the harm is prioritized to achieve benefits		
maslahah			
C : 1 1			

Source: compiled by authors

Discussion about *mafsadah* is inseparable from the *fiqh kubra*, that is *la dharar wa la dhirar*, this rule has derivatives on the rules of *mafasid*



muqaddam 'ala jalb al masalih. Because dar'u al-mafasid is a harm that must be eliminated in order to survive from it, and also contrary to the purpose of the syara 'itself (Al-Suyuthi, 1987). The derivative rules of la dharar wa la dhirar can be seen in the table 1.

The hadith of *la dharar wa la dhirar* is the general rule in Majalla, article 19. Imam Malik narrated this hadith in his book of *Muwattha*, and Daraqutni wrote it in his *sunan*. Although this hadith is considered as weak, but is still categorized as 'hasan'. This rule is used in the principle of Islamic law methodology for the prevention of *mafsadah* and guarantees the principle of *maslahah* which is the basis of the principle of *istislah*. Therefore, this principle is one of the basic principles of Islam. This rule has changed over time depending on the evaluation of the Islamic school of thought. For example in the application of economic activities, public administration of market regulations, urban schemes, asymmetric information, externalities, and market failures can be considered in this context (Esen, 2017).

As Esen (2017) stated and Rukminastiti & Firdaus, (2015) applied the rules of al-dhararu yudfa'u bi al-qadri al-imkan in their criticism that Islamic government should not be involved in any activity that will cause long-term damage to society. For example in the field of public financial management such as budget formulation, budget execution, procurement of goods and services and inspections must be free from corruption. Or in the case of government policy in regulating the clove trade system to increase the income of the clove farmers, it turns out that the impact of tobacco demand is decreasing caused the decreasing of income of tobacco farmers. Then the policy taken must be considered carefully the benefits and costs so as not to harm the community. This is clearly related to the rules of al-dharar al-asyad yuzalu bi al-dharar al-akhaf (Rukminastiti & Firdaus, 2015).

Previous Studies

Sundararajan (2007) suggested that the credit risk measurement in Islamic financial institutions is not much different from conventional ones where the measurement can be done using traditional methods and the Value at Risk (VAR) ones. The use of online applications is a form of the development of traditional methods where the development is combined with expert systems that are known in the term information technology nowadays. In this paper, there are two terms expert systems, the first expert system in measuring



traditional credit risk that has long been outdated and replaced with the credit analyst, the second ones. Both terms of expert system are application system that uses computer science, facts, and thought in decision making techniques to solve problems (Sundararajan, 2007).

Qualitative risk measurement of companies internal auditing and measuring risk has been studied by Oktavina, Maharesi, and Haryanti (2014). This study resulted in an expert system application to detect the risk in the internal audit department of the Islamic finance industry. The study was divided into four stages: context determination, risk identification, risk analysis and evaluation, expert system design. The Composite Risk Index (CRI) technique is utilized to assess risk of the Islamic financial industry. Identification is carried out on all risk variables both inside and outside the organization. There are 10 assessment variables and 54 risk indicators, consisting of 17 types of risk indicators for the internal audit process of the Islamic finance industry. System design and software using ASP are used in java script language. Research of Nosratabadi, Nadali, and Pourdarab, 2013 did the same thing, as well as the research of Malhotra and Malhotra (2002). Their results show that there is a good impact in internal auditing and measuring the risks.

The advantages of qualitative method in measuring risk are also stated in the research of Soares et al., (2011). They argued that, using in depth analysis, the average qualitative criteria are more important than quantitative ones. According to Munteanu (2006) the qualitative method is also very easy to apply, as it is easy to understand and has low cost. Măzăreanu (2007) also argued that the human aspect (all related aspects, i.e. professionalism, skills, abilities, and psychological) is heavily required in risk measurement. However, Munteanu (2006) addressed that both qualitative and quantitative approaches cannot be separated from subjective judgments. In quantitative approaches, he argued, subjective judgments of researcher are found to assess the value of assets, value of competitive assets, software costs, and software-protection costs.

RESEARCH METHOD

The research method applied is qualitative approach. Disclosure of risks is carried out through identifying financing risks in each process and answering how the risks are managed. Data utilized is secondary data, i.e. clients' financing data of Islamic financial institution. Data collected through direct



observation and by interviewing the head of branch office, credit analysts, and staff of PT XYZ as one of Islamic financial institutions in Makassar.

Data analysis

Data is obtained from interviews, field research notes, and documentation, then it is selected grouped into categories needed (Sugiyono, 2009). This research refers to Miles & Huberman (1992) approach to analyze data, namely: data reduction, data presentation, and conclusion to evaluate *maqashid al-sharia*-based qualitative risk assessment. In data reduction/selection process, we focus on simplifying, abstracting, and transforming rough data from the field. Then we present filtered data. Finally, we verify and draw conclusion, to ensure the validity and reliability of our findings.

Maqashid al-Sharia-based Qualitative Risk Assessment

Maqashid al-Sharia-based Qualitative Risk Assessment is to identify risk events in the perspective of mafsadah (the loss of the five principles – al-usul al-khamsah) by measuring the mafsadah in a simple way and relating it to the fiqh principles. The process is initiated by identifying the risks that may occur in a single financing activity by arranging possible risk events in which financing risk may happen. The identification techniques may include interviews, questionnaires, and collecting historical data from PT XYZ. After the identification, the risk events are measured which may cause financing risks. Risk measurement with a qualitative approach can be conducted by looking at the result of the risk value from the probability and its impact. To measure the risk, the following formula can be used (Godfrey, 1996): Risk = likelihood x consequence. Likelihood is technically the probability of a risk event occurring which is usually expressed in the form of the number of events in the specified time span. The time span used in this study is one month; as can be seen in the table below:

Table 2. Measurement of Risk Event Probability

Score	Frequency	Description
1	Occurring once per month	Extremely rarely occur
2	Occurring 2-10 times per month	Rarely occur
3	Occurring 11-20 times per month	Sometimes occur
4	Occurring > 21 times per month	Often occur

Source: compiled by authors



Different literatures have their own variety of sizes in looking at the probability of these risk events. Godfrey (1996) suggested calculating risk events with frequency on annual basis. Kirchsteiger (1999) and Wiryani, Achsani, and Baga (2013) used these criteria by calculating the number of risk events in one year. Wiryono and Suharto (2008) did the same but chose a larger range of risk events between one to five years. This article takes size in a one-month range, which is believed to provide a maximum and controlled audit performance so that a better risk culture is created. The prophet's *hadith* said "ahabbu al a'amal ila Allah ta'ala adwamuha wa in qalla" (The most loved deeds by Allah Almighty are routine practices even though just a few) (Muslim, n.d.). Although this hadith discusses fadail a'amal (additional good deeds) on night prayers but we can take lessons from the word "daimah" (routine or continuous) which is an Islamic principle and how to apply it in risk management aspect, particularly auditing employees is a favorable way to create a good risk management strategy.

The second dimension is in the form of impact, which is the level of emergency that occurs when the risk faced is really happened. The higher the impact of a risk, the more need to get special attention. Conversely, the lower the impact of a risk, the lower the interest of management in allocating resources to deal with the risks faced. In this paper the impact dimensions are divided into five categories as shown in the table 3.

Classifying the level of risk with the *mafsadah* lens requires a highly in-depth analysis. What is needed in order to determine the level of risk in the *mafsadah* matrix is a risk analyst whose expertise is to closely identify *shigah al-nahy* (forms of restrictions in the Sharia). Al-Syatibi (2005) explained the purpose of *sharia* would be achieved by identifying the '*illat* (reason) because '*illat* is related to the mandatory command (*awamir*), permissibility (*ibahah*) and *mafasid* or damage related to restrictions (*nawahi*). The concept of Islam in managing risks prioritizes prevention rather than handling, so the level of risk in the *mafsadah* matrix eliminates *mafsadah dharuriyyat* and *hajiyyat*, and tolerates *mafsadah tahsiniyyat*. Why is protective action on *mafsadah hajiyyat* needed? *Mafsadah hajiyyat* causes difficulties in the fulfillment of *al-ushul al-khamsah*, as clearly defined in the following principle of *fiqh*, "*li al-wasail hukm al-maqashid*" (for every intermediary has *maqashid* rule), or the principle of "*yughtafaru fi al-washail ma la yughtafaru fil maqashid*." In



accordance, everything which may possibly bring financial institutions to experience difficulties must be stamped out or eliminated as much as possible in order to obtain convenience afterwards. For example in the dimension of *mafsadah hajiyat*, it is forbidden to do dishonesty as stated in the following *hadith*, "*inna al-kadziba yahdi ila al-fujur*, *wa inna al-fujura yahdi ila al-nar*" (Indeed lying will plunge into immorality and immorality will plunge into hell) (HR. Muslim). Employees cheating customers by providing fictitious reports will benefit themselves, but if such action is continuously repeated, it will result in bankruptcy of the institution itself.

Table 3. Measurement of the Impact of Risk Events

Score	Impact Scale	Dimension	Risk Response
		Cause small problems that can be overcome by routine management such as negligence, lack of	1. al dharar al asyad yuzalu bi al dharar al akhaf. (Large harm (really bad) may be removed with a small (mild) harm)
1	Mafsadah Tahsiniyyat	thoroughness, and work skills.	2. Iza ta'aradh mafsadatani ru'iya 'azdhamahuma dararan bi irtikabi akhafuhuma (With the presence of two harm, great harm is avoided by doing small ones)
			3. Yuhtaru ahwanu syarraini (Smaller harm can be accepted)
		Cause the company cannot achieve its objectives within	1. <i>al dharar yuzalu</i> (Harm should be removed)
2	Mafsadah Hajiyyat	a certain period, such as dishonesty, injustice in transactions, and incurring mafsadah (akhaffu, khaas, dan majaziy).	2. Al dhararu yudfa'u bi al qadri al imkan (Harm is removed as much as possible)
		Eliminating <i>al-usul al-</i> <i>khamsah</i> (religion, soul,	al dharar yuzalu (Harm should be removed) with criteria:
3	Mafsadah Dharuriyyat	offspring, intelligence, and wealth), resulting in mafsadah (al asyaddu, aam ',	1. al dharar la yuzalu bi al mitsli (A harm cannot be removed with similar harm)
	77	al aktsar and haqiqi) and causing bankruptcy of financial institutions.	2. al dharar la yuzalu bi al dharar (A harm cannot be eliminated by harm)

Source: compiled by authors

Mafsadah tahsiniyyat is a risk event by which if it occurs will not cause difficulties. Factors related to this *mafsadah* such as forgetfulness, because someone sometimes thought it is *mafsadah* but in fact it is *mafsadah*. Errors can occur due to misunderstanding something or because of misperception on something (Salam, n.d.). It is also based on the hadith of the Prophet saw:



'kullu bani Adam khattaun, wa khaira khattain tawwabun' (Every child of Adam must do sin and the best sinner is the one who repents (Yazid, n.d.)

L I	4	Mafsadah Dharuriyyat (4)	Mafsadah Dharuriyyat (8)	Mafsadah Dharuriyyat (12)
K E	3	Mafsadah Dharuriyyat (3)	Mafsadah Dharuriyyat (6)	Mafsadah Dharuriyyat (9)
L I	2	Mafsadah Hajiyyat (2)	Mafsadah Dharuriyyat (4)	Mafsadah Dharuriyyat (6)
H O	1	Mafsadah Tahsiniyyat (1)	Mafsadah Hajiyyat (2)	Mafsadah Dharuriyyat (3)
D		1	2	3

IMPACT
Figure 2. Matrix of Mafsadah
(Source: compiled by the authors)

The interesting fact in the *mafsadah* matrix is that it has a more stringent on preventive and protective level than the previous (conventional) matrices. As seen in Figure 3, it shows short range of impact scale, i.e. from one to three, and from one to four on the likelihood scale. Unlike conventional matrix provided by Godfrey (1996), this matrix *mafsadah* has more 'unacceptable risk' (*mafsadah dharuriyyat*), as undesirable risks, are considered urgent as unacceptable ones. It is a signal for the company to pay heavily attention on these areas (red area). Furthermore, for acceptable risks, as compatible with *mafsadah hajiyyat* in Figure 3, it occurs at least twice a month. This is in line with the Prophet's hadith: *La yuldag al mu'min min hujr wahid marratain* (Sahih Muslim, no. 2998) (*a believer does not fall in the same hole twice*). (Nawawi, n.d.) explained it in his book *Syarah Nawawi a la Muslim*, that is if someone gets *dharar* which can be avoided, it should not happen the second time.

RESULT AND DISCUSSION

Non-performing financing can cause some losses to the company, such as loss of margin income, loss of profit sharing and balance of principal, decreased profitability, and loss of business opportunities. Furthermore, company will also experience a negative reputation for the company, incurring additional costs for lawyers and debt-collectors, loss of personnel such as time, energy and morals, as well as a decrease in the solvency/capital of the company. Identifying risks that occur at PT XYZ can be done through field observations and interviews with internal parties. Broadly speaking, the risk of PT. XYZ examined in this study was divided into two groups, i.e. internal and external



factors. Internal factors are factors caused financing risk from operational risk aspects while external risks include factors that are generally influenced by external parties (outside the company, in this case from clients, as one factor).

Potential risks at the stage of the financing process at PT XYZ can be explained as follows; 1) Financing Submission. The risk that may occur in this stage is the data falsification and dishonesty of the customers when they apply for financing and complete the requirements. Another risk is the lack of customers/clients' knowledge upon the product and the principle of Islamic financing which potentially lead to falsely choose the suitable financing they need. 2) Financing Analysis. At this stage, the risk contained is that the company fails or is less thorough in analyzing the aspects of five C (Character, Capacity, Capital, Condition, and Collateral) of the customers. 3) Approval and Binding. At this stage, the potential risk which may be identified is the flaws in approving financing among the credit committee which can later lead to a customers' default due to granting an unauthorized customer approval. 4) Disbursement. The risk contained is the delay of the company in processing customer financing proposals and the emergence of procedural fault in carrying out a series of financing processes. 5) Guidance and Supervision, The risk that may occur at this stage is the lack of follow-up from the company to customers who are given financing so that it can cause loss of control and delay in installment payments. Another risk is that there is a delay in the company handling the troubled financing. This is highly critical because troubled financing can hamper the company's financial and performance turnover so that it requires special handling. 6) Repayment. Not all customers have finished paying all installments on time. In some cases, customers may delay to return financing or even experience default. The risk of default can occur due to several things, such as customers' bad character and moral hazard, they undergo bankruptcy or the customers' business experiences crop failure or due to natural disaster.

The second identification is the risk of human resources (HR). HR risks can result from malfunctioning of internal and human error. The non-functioning of internal functions occurred at PT. XYZ, for instance the delay in disseminating information from top management to employees or lower management, and the negative perception of the community towards the company. In addition, there are human errors that can occur in each part of the company, both intentionally or unintentionally. Human error can be caused by some factors such as lack of knowledge of employees regarding sharia



financing principles and practices, errors in recording transactions, moral hazard actions (corruption, collusion, forgery), and loss of files and archives. Lack of communication skills and work culture that are not in accordance with company SOPs (Standard Operating Procedures) can also be a risk. A summary of risk identification can be seen from the table below:

Table 4. Score of Financing Risk Measurement Results

Risk event	Risk Events	Risk Impact	Prob Scores	Impact Score	Total Score	Level of Risk
	1. There is data fraud and dishonesty of customers	Dishonesty and data forgery will cancel the financing process	1	2	2	Mafsadah Hajiyyat
Financing proposal	2. Lack of customer knowledge about products and principles of Islamic financing	Cause mistakes in type of financing needed	4	1	4	Mafsadah Dharuriyyat
	3. The company is less careful in analyzing the Character aspects	Bad character will make it difficult to pay off	1	2	2	Mafsadah Hajiyyat
Financing analysis	4. The company is less thorough in analyzing the aspect of capacity	Employees are less careful and customers without character can lead to default risk	1	2	2	Mafsadah Hajiyyat
	5. The company less thorough in analyzing the aspects of capital	Employees are less careful and customers do not have sufficient capital can lead to default risk	1	3	3	Mafsadah Dharuriyyat
Financing approval	6. There was a mistake in the financing approval	Misappropriation of financing approvals results in default risk	3	3	9	Mafsadah Dharuriyyat

Risk event	Risk Events	Risk Impact	Prob Scores	Impact Score	Total Score	Level of Risk
Disbursement	7. Delays by the company in processing financing proposals	Generating a bad reputation for the company	4	3	12	Mafsadah Dharuriyyat
Cooching	8. Lack of follow-up from the company to customers who are given financing	The financing process is hampered	1	1	1	Mafsadah Tahsiniyyat
Coaching	9. Delays by the company in handling non- performing financing	Can cause mafsadah aam and raise the possibility of corporate bankruptcy	2	3	6	Mafsadah Dharuriyyat
	10. Customers experience defaults risk due to bad character and moral hazard of customers	Resulting in mafsadah mal so that disrupted company liquidity	3	3	9	Mafsadah Dharuriyyat
Repayment	11. Customers experience default risk because bankruptcy or customer laid off	Resulting in mafsadah mal so that disrupted company liquidity	2	3	6	Mafsadah Dharuriyyat
	12. Customer experience default risk because of a fire / natural disaster	Resulting in mafsadah mal so that disrupted company liquidity	1	3	3	Mafsadah Dharuriyyat
Human Resource Risk	13. Corruption, collusion and falsification of data by employees	Financial and systemic losses that can cause mafsadah aam'	1	2	2	Mafsadah Hajiyyat



Risk event	Risk Events	Risk Impact	Prob Scores	Impact Score	Total Score	Level of Risk
	14. Lack of knowledge of company employees regarding Islamic financing products	Non-fulfillment of interests of intelligence ('aql)	1	3	3	Mafsadah Dharuriyyat
	15. An error occurred in recording transactions / posting	Messing up the recording system	1	1	1	Mafsadah Tahsiniyyat
	16. Lost files and archives	Lack of data and information	1	1	1	Mafsadah Tahsiniyyat
	17. Lack of communication and work culture among employees	Disruption of work relations and conflicts	1	1	1	Mafsadah Tahsiniyyat

Source: compiled by authors

The risks that have been previously identified are then assessed by a measurement standard which becomes an indicator of risk measurement. Furthermore, the results of the likelihood of risk and its impact are then converted into scores based on the level of risk event. After that, each probability score and the impact score on the risk event are multiplied to obtain the risk score, and then grouped according to the risk level category. After risk classification, then mapping the risks is carried out. Risk mapping is classified into three levels of risk consisting of levels of *mafsadah tahsiniyat*, *mafsadah hajiyat*, and *mafsadah dharuriyat*. Risk mapping results are shown in Figure 3.

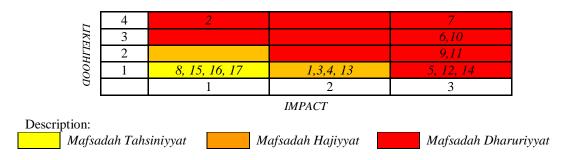


Figure 3. PT XYZ Financing Risk Mapping Matrix (Source: compiled by the authors).

The process of protecting daruriyyat which was developed by Al-Syatibi (2005) in his al-Muwafaqat runs that if daruriyat is maintained, then it is necessary to maintain hajiyyat. Furthermore, if hajiyat is maintained, then tahsiniyat has to be maintained as well. For this reason, the maqashid alsharia implementation in the risk management strategy is to prevent the occurrence of mafsadah tahsiniyyat in safeguarding the mafsadah hajiyyat and preventing mafsadah hajiyyat for the sake of safeguarding mafsadah daruriyyat. Less risky activities or those with little impact if they are often carried out, they will increase in the mafsadah hajiyyat activities. Conducting regular checks in supervising financing employees is very important to fulfill the achievement of maslahah. This concept as illustrated in Figure 4 explains the protective form in the layer of risk, if the defense of the mafsadah tahsiniyyat is broken, it will have an impact on the defense of the mafsadah hajiyyat. For this reason, the assaults to the mafsadah daruriyyat will be safeguarded by other layers (mafsadah hajiyyat, and mafsadah tahsiniyyat).

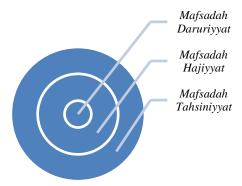


Figure 4. Risk Management Concept-Mafsadah Perspective (Source: compiled by the authors)

From risk classification and mapping, the *mafsadah* concept can be applied to PT XYZ. It can be concluded that the company is already at the *mafsadah* daruriyyat. This can be explained with the three levels risk as follows:

Mafsadah Tahsiniyyat

At this level, type of risk is risks rarely occur and if they occur have a relatively small impact and can be overcome by routine management. These risks are displayed in table 5.



Risk Number **Risk Events** Risk Response Risk Mitigation Lack of follow-up from the al dharar al Routine inspection 8 company to customers who asyad yuzalu bi al and control by are given financing dharar al akhaf internal audits in An error occurred in Iza ta'aradh each activity and 15 recording transactions / mafsadatani ru'iya the implementation a 'azdhamahuma of SOP explicitly dararan bi irtikabi 16 Lost files and archives by providing early akhafuhuma Lack of communication warning in the Yuhtaru 17 and work culture among event of such risk ahwanu syarraini employees

Table 5. Risk Response on Mafsadah Tahsiniyyat

Source: compiled by authors

From Table 5 above, it shows that, type of risks are rare-occurred risks, include the employees' professionalism risk. Based on field observation, the company has carried out a good risk culture with the correct standardization of SOP.

Mafsadah Hajiyyat

Mafsadah hajiyyat is a risk that must be watched out because it has exceeded the company's tolerance limit and has a significant effect on the company. Response in controlling this risk is avoided and reduced in accordance with the rules set before. These risks are compiled in table 6.

Table 6. Risk Response on Mafsadah Hajiyyat

Risk Number	Risk Events	Risk Response	Risk Mitigation
1	There is data fraud and dishonesty of customers		Clarify the data to customers and create good relations with them.
3	The company is less careful in analyzing the Character aspects	 al dharar yuzalu al dhararu yudfa'u bi al qadri al imkan 	Re-survey as an act of collecting initial data on the bad character of the customer to obtain additional information. Routine checks and controls by internal audits in each activity and the implementation of SOPs explicitly by providing warning letters
4	The company is less thorough in analyzing the aspect of capacity		A force-majeure event, the rescheduling action (all or part of the liabilities) of the customer is needed.

Risk Number	Risk Events	Risk Response	Risk Mitigation
13	Corruption, collusion and falsification of data by employees		Provide warning letters to the suspected-employees, give awards to those who report the employees-misconduct, and conduct strict supervision by installing CCTV in the office.

Source: compiled by authors

The risk of counterfeiting data from customers has a big impact and will harm the company. For example, a fake address will make the collector difficult to charge, fake data can make the legal contract defective and many other possibilities. For the risk of counterfeiting data by customers, credit committee may immediately reject the proposal submission and marketing sales are to clarify the data to the customer. For treating the customers who experience default risk due to disasters such as fires and floods, PT XYZ tries to contact the customers and provides rescheduling (rescheduling all or parts of the obligation) on the financing. This remission is taken due to the belief that to relieve those who are in debt will get a divine reward as stated in QS. al-Baqarah/2: 280 "and if (the debtor) is in trouble, then let there be postponement until he is in ease; and that you remit (it) as alms is better for you, if you knew." God puts justice in the debts, when the owner of the money experiences a loss from the bankrupt borrower then Allah gives another benefit, namely the reward in the hereafter.

Events of corruption, collusion and falsification of data by employees of financial institutions contribute to non-performing financing. Marketers often commit violations by falsifying customers' data to pursue targets of the company. To mitigate these risks, the company applied a modified online SAPS program to manage SOP Software. It carried out on financing guidelines, systems and work procedures. Manual book of financing is collected from regulations, procedures and work management that govern everything related to financing activities. In order for management control to run smoothly, a work system and procedures are required which consists of guidelines or instructions for financing employees if they face some difficulties, and quick information if there is a deviation in executing the task.

Mafsadah Dharuriyyat

Mafsadah Dharuriyyat is the highest risk that can have a substantial influence that is detrimental to the company and has a domino effect in the long run so



it must get top priority. The main actions in controlling this risk is avoided or transferred in accordance with the rules set.

Table 7. Risk Response on Mafsadah Dharuriyyat

Risk Number	Risk Events	Risk Response	Risk Mitigation
2	Lack of customer knowledge about products and principles of Islamic financing		Provide an explanation to customers about sharia financing products and principles
5	The company less thorough in analyzing the aspects of capital	-	Regular audit and control by internal audit unit in every activity and the implementation of SOP explicitly by providing early warning in the event of such risk.
6	There was a mistake in the financing approval		The board of directors evaluates the branch head
7	Delays by the company in processing financing proposals	al dharar yuzalu with limitation: 1. al dharar la yuzalu bi al mitsli 2.al dharar la yuzalu bi al dharar	Provide strict early warning to employees of financial institutions
9	Delays by the company in handling non-performing financing		Provide a clear warning letter to employees
10	Customer experience default risk due to bad character and moral hazard of customers		Conduct regular guidance and supervision by directly visiting customers
11	Customer experience default risk because of bankruptcy or customer is laid off		Combining rescheduling, reconditioning, restructuring financing to customers.
12	Customer experience default risk because of fire/natural disaster		Conduct rescheduling (all or part of liabilities) to customers
14	Lack of knowledge of company employees regarding Islamic financing products		Carry out training or training on risk culture on a regular basis and carry out routine checks and controls by internal audits in every activity and the implementation of SOPs explicitly by providing early warning in the event of such risks

Source: compiled by authors

The risk of lack of customer knowledge upon the products and the principles of *sharia* financing is the most common risk among existing risks. Indeed, this risk does not have a negative impact on the company but seeing from its urgency, this risk is the main cause of financing risk from the aspect of character. Lack of knowledge of the product does not become a problem in the future, while a lack of knowledge of the principle of social interest will fall into being astray. This problem was discussed by Ali ibn Talib with his statement, "man ittajara qabla an yatafaqahu fi al-din, faqad irtathama fi riba, tsumma irtathama, tsumma irtathama, ya'ni gariqa fihi" (whoever commits commerce before understanding the religion (muamalah) he will fall into usury, then he will fall, then he will fall, i.e. being drowned in it).

Ali ibn Abi Talib emphasized for business people to explore knowledge about *muamalah*. Lack of knowledge about the principle of *muamalah*, like cheating, procrastinating debt payments, lying, and so on that are clearly elements of bad character. As narrated in the Qur'an QS. Al-Baqarah /2:168, is clearly states the command to consume halal and good food. Related to financing, the example includes when the customers need to fulfill the obligation (to pay their financing debt). The negligence of the customer will prevail against the company, especially if this risk becomes systemic, then it is possible to harm both company and other customers.

The risk of lack of customers' knowledge upon *sharia* principles is an obstacle for the marketers in attracting more customers. The company then provides training for the employees to improve their skills in product promotion. One of the findings of this research is regarding customers' knowledge. As Kotler (in Nitisusastaro, 2012) suggests that buying decisions are influenced by customers' knowledge. In the case of PT XYZ, however, what happened was that the customers lodged applications because they were influenced by the price.

The risk of company delays in handling non-performing financing often occurs. This risk is caused by the number of bad customers and difficulties in identifying the residence of the customer, so that debt-collectors often struggle to deal with it. A lot of non-performing, result in delaying processing financing proposals. Those are several reasons cause this event. First, employees delay in following up to financing dealers. Second, due to huge default risks arrears, so the company experiences liquidity problem or financial distress in meeting the short-term obligations. As a result, when a



potential customer wants to do financing, the process of disbursing to the dealer to be late, due to lack of funds. This worsens the company's reputation before the customers. Mitigation actions carried out by PT XYZ when the main cause is employees' performance is to evaluate employees' performance in following-up financing to dealers. Moreover, for the second cause of this risk is due to the company's liquidity, the risk mitigation is carried out by evaluating the debt-collector's performance in collecting receivables.

In addition to the two factors above, the dominant cause of financing risk is poor customer character and moral hazard. The moral hazard here relates between the financing company and the debtors, where the company only knows little about the borrower's ability and willingness to pay compared to the knowledge of the borrowers themselves (Tazwan, 2009). The risk response by PT XYZ is by conducting periodic guidance and supervision to the customers, if the customers are unable to fulfill their obligation, the unit car is recalled. The risk of customers experiencing default due to bankruptcy or layoffs, the risk response taken is by rescheduling, reconditioning, or restructuring financing for customers. Different handling will be taken to default customers who experience natural disasters with possibility of having reserve assets in banks or other investments. For customers who experience business bankruptcy and layoffs, and have no more capital to pay, rescheduling and the conditions given by the company are reviewed if the customer has a good intention to continue the repayment. The risk of misappropriation in the financing agreement is caused by the branch head who decides the financing agreement. This situation is highly critical for the company is in need to evaluate the performance of the branch head in meeting the target given by the company. This incident in PT XYZ has carried out a risk mitigation action by replacing the position of the branch head in 2015, this replacement is done so that the company remains in principle that is to uphold the principles of GCG.

CONCLUSIONS

This study concludes that there are seventeen risk events with the level of mafsadah tahsiniyyat as many as four events, mafsadah hajiyyat as many as four events, and mafsadah daruriyyat as many as nine events. In addition, this study reveals that default risk occurred due to bad character and moral hazard of customers (mafsadah daruriyyat). This is resulting in liquidity problems in Islamic finance institutions. This is due to misappropriate



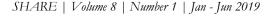
approval of credit committee and unresponsive handling of bad financing (mafsadah daruriyyat) resulting in delays in Islamic finance institutions processing financing proposals (mafsadah dharuriyyat). The limitation in this paper is topic discussed is limited to risk measurement only. For further research, it is expected to incorporate this method into the Enterprise Risk Management as a whole. This can assess risk management more in depth by looking at the risk appetite, internal environment and risk culture of financing companies.

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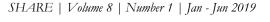
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