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ENHANCING SHARIAH GOVERNANCE: THE KEY RISK INDICATORS FOR MANAGING SHARIAH NON-COMPLIANCE RISK IN ISLAMIC FINANCIAL INSTITUTIONS

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ABSTRACT

The whole process of Shariah compliance in Islamic financial institutions (IFIs) needs adequate attention. This is because Shariah non-compliance risk (SNCR) may cause not only unrecognition of income, but also contribute to the implications on the existing risk profiles. The objective of this study is to propose selected key risk indicators (KRIs) for SNCR. At first, it is necessary to review the implications of SNCR on existing risk profiles in order to examine to what extent the relationship between risks may give some ideas in determining KRIs for SNCR. This study is conducted through a literature review of existing academic journals, related reports, and statutes. The methodology began with addressing the criteria for good KRIs for risks. This study suggests the selected KRIs for SNCR, in the level considered in a stress testing programme for Shariah risk management. This study also suggests several KRIs for SNCR such as number of new Shariah-related complaints and the amount of impure income as a percentage of total income. Overall, this study has several implications to the Islamic finance industry, and can be a reference for IFIs in structuring their own comprehensive risk management to enhance the effectiveness of the Shariah governance practice.

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1. INTRODUCTION

Shariah risk or Shariah non-compliance risk (SNCR) has been the most concerning aspect in Islamic finance. Instead of the first one, most of the studies give better attention to the second terminology in explaining the meaning. Both terminologies are often defined as the risk that arises from the bank's failure to comply with rules and principles determined by the relevant Shariah regulatory councils (IFSB, 2016). In 2010, the regulatory body, Bank Negara Malaysia (BNM), established the Shariah Governance Framework (2010) to provide a comprehensive guideline for Islamic banking institutions to deliberate their activities and operations under Shariah principles. This framework has superseded the guidelines on the Governance of Shariah Committee for the IFIs that regulates the governance of Shariah committee of an IFI in 2004. In 2019, BNM has again issued the most recent guideline, the Shariah Governance Policy Document, which came into force in April 2020 to replace the Shariah Governance Framework (2010). Thus, it was found that the Shariah risk management is an important Shariah function to ensure effective risk management of Shariah non-compliance (Ariffin, 2022).

Shariah compliance is the core element and the most predominant aspect in the business operations of the IFIs. Failure to adhere to Shariah principles and values in carrying out the financial activities, business, and operations may lead the IFI to be exposed to the risk of non-compliance. This includes the risk of voidable contracts in IFIs due to non-compliance with Shariah principles and requirements. The other Shariah non-compliance events may include poor governance, a lack of Shariah-qualified officers, and inadequate control mechanisms (Oz et al., 2016; Omar & Hassan, 2019). In addition to the financial impact, risk includes non-financial implications, which affect the image and reputation of IFIs as well as not receive blessings from Allah SWT. Therefore, it is responsible for IFI to ensure that all businesses, operation affairs and activities are Shariah compliant (Islamic Financial Services Act 2013 (IFSA 2013). If the entire Shariah compliance process is not given sufficient attention, SNCR may cause not only unrecognition of income, but also contribute to implications on the existing risk profiles in IFIs such as credit risk, market risk, reputational risk, and legal and compliance risk (Ginena, 2014; Ginena & Hamid, 2015; Hassan, 2016; Bhatti, 2019; Ariffin, 2022). Therefore, SNCR needs effective risk management to minimise the risk exposure that may cause such implications.

After the financial crisis in 2007 to 2008, stress testing appeared as one of the tools for risk management practicing among institutions. It is a kind of risk mitigation measure begun in 2009 as a means to ensure that U.S. banks had sufficient capital in the wake of the losses from the 2008 financial crisis (Schneider et al., 2023). Since then, more emergence developments and evolutions have taken place on the stress testing due to some factors such as sophistication of supervisory stress testing and the increased emphasis of supervisors on the effectiveness of banks' own capital planning process. In the presence of SNCR, there is little guidance on how to select and use risk indicators in relation to the risk for the purpose of stress testing. It is an area that has been believed to be particularly challenging for many supervisors in addressing SNCR in stress testing programmes. Hence, there is a need for further guidance in this area. As far as Islamic banking institutions are established, the supervisor (except in Malaysia) does not consider the SNCR as part of the stress testing programme (IFSB, 2016). Therefore, the present study attempts to address ideas from the relationship between SNCR and the existing risk profiles and hence, provides selected key risk indicators (KRIs) for SNCR for the purpose of stress testing programme. Specifically, the objective of this study is to reach a consensus of which and how many KRIs are good for SNCR.

The rest of this study is organised as follows. Section two (below) provides a review of the implications of SNCR on the existing risk profiles. Section three points out the material risks in relation to operational and Shariah while section four underlies criteria of good KRIs for risk. Section five summarises the selecting KRIs for SNCR and section six gives an example of stress testing in the presence of SNCR. Section seven then gives some concluding remarks.

2. A REVIEW OF SHARIAH NON-COMPLIANCE RISK AND THE EXISTING RISK PROFILES

Contracts that originate from violations of Islamic law, or Shariah, may be void. There will be far-reaching consequences, such as participant disappointment, financial loss, and potential legal or regulatory action against the IFIs business (Aziz & Rahman, 2023). Other risks' incidence and management are probably going to be impacted as well. Besides the unrecognition of income and the loss incurred by IFIs, SNCR may also give impact to the existing risk profiles. The implications of SNCR on credit risk, market risk, reputational risk, as well as legal and compliance risk are addressed in the following discussions.

View 1: SNCR and credit risk
SNCR in IFIs, if not catered well, may reduce the confidence of customers, shareholders, depositors, and employees as stakeholders. This is because they realise that the institution is not living up to its commitments (IFSB, 2014). This may result in few implications, for example, customers breaching their financing contracts with the IFI will result in credit risk. There might be three reasons for customer unwilling to meet their obligations and breaching the contract; the belief that the contract that they entered into has been avoided on Shariah grounds, non-confidence in the institution's practices, or the feeling of being betrayed by the institution (Ginena & Hamid, 2015). If the contract is nullified due to Shariah violations, then this would lead to the emergence of impermissible income and the exclusion of the corresponding transaction's profits from the bank's income (AAOIFI; Ginena, 2014). Furthermore, breaching the trust and confidence of investors/depositors can lead to dire consequences, including withdrawal and insolvency risk (Swartz, 2013).

View 2: SNCR and market risk
SNCR may also have an interaction with market risk in some cases. For instance, if an IFI owns investment in stocks and they are found to be non-Shariah compliant for some reasons such as the debt-to-market capitalisation ratio exceeding 30%, then, the IFI is under an obligation to liquidate these equities. This case may occur at a time when the equities are valued at less than

the price of purchase, which leads to losses (Ginena, 2014). While some Shariah supervisory board members may allow a limited time period for market conditions to improve in order to minimise the losses, such a period may not be sufficient especially during an economic downturn (Ginena & Hamid, 2015; Bhatti, 2019).

View 3: SNCR and reputational risk
Reputational risk is "the risk arising from negative perception on the part of customers, counterparties, shareholders, investors or regulators that can adversely affect an IFI's ability to maintain existing, or establish new, business relationships, and continued access to sources of funding." (IFSB, 2014). IFIs' activities involve the general public to a great extent. Therefore, earning and preserving their trust and confidence is crucial for an institution's success. IFIs cannot lose their credibility of governing Shariah in their operations and transactions because such credibility is at the core of their business (Omar & Hassan, 2019; Ginena & Hamid, 2015, Bhatti, 2019; Hanefah et al., 2020).

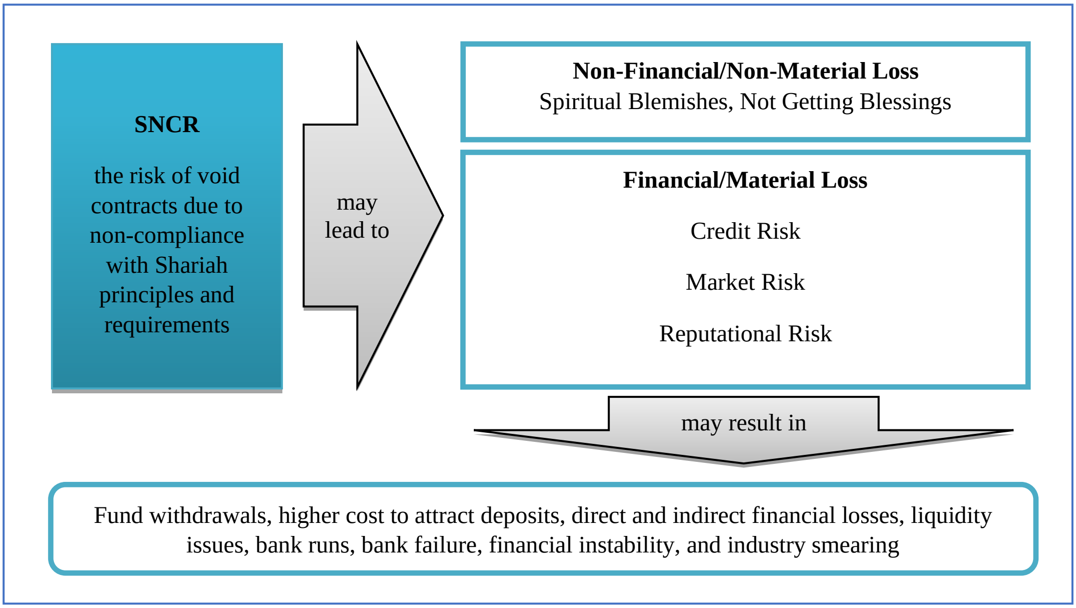
View 4: SNCR and legal and compliance risk
SNCR can also lead to legal and compliance risk. The Basel Committee on Banking Supervision (BCBS) defines legal risk as "the possibility that lawsuits, adverse judgements or contracts that turn out to be unenforceable can disrupt or adversely affect the operations or condition of a bank." An IFI that claims in its memorandum or/and articles of association that it adheres to the tenets of Shariah, yet fails to deliver the claims may find itself facing lawsuits from stakeholders disgruntled with the false advertising. It likely shows the non-commitment of the institution to its claims. One of the examples of SNCR leading to legal risk can be seen from the case in the UK, in which making false statements about provision of services is an offence under the Trade Descriptions Act of 1968. Likewise, making misleading or untrue representations of products or services in order to make money is an offence under the Fraud Act of 2006. Other examples include uncertainty in interpreting certain Shariah clauses in courts and the possible unenforceability of Shariah contracts in secular law jurisdictions, which negatively affects market discipline (DeLorenzo & McMillen, 2007). On the other hand, SNCR can also lead to compliance risk.

BCBS defines compliance risk as "the risk of legal or regulatory sanctions, material financial loss, or loss to reputation a bank may suffer as a result of its failure to comply with laws, regulations, rules, related self-regulatory organisation standards, and codes of conduct applicable to its banking activities." BNM defines compliance risk as "the legal and regulatory risk arising from noncompliance to legal and regulatory requirements." For example, an IFI that fails to set up prudent internal Shariah governance arrangements even though it is required by the regulator to do so. In such cases, the IFI may be fined for its contraventions or even lose its licence to operate. In the case of Malaysia, IFSA 2013 requires IFIs to comply with the Shariah principles at all times.

The relationship between the above-mentioned risks to each other depends on the IFIs. Every IFI shows a different relationship between reputational risk, credit risk, market risk, and legal and compliance risk (Htay & Salman, 2013). This may be due to the fact that different IFIs may have a different approach in measuring the risks. For many reasons, market and credit risk have often been treated as if they are unrelated sources of risk; the risk types have been measured separately, managed separately, and economic capital against each risk type has been assessed separately in both historical and practical (BCBS, 2009). Based on the above discussions, SNCR as part of operational risk is found to have significant implications to the risk profiles i.e. credit risk, market risk, reputational risk, and legal and compliance risk.

Furthermore, SNCR may even result in other various implications to the Islamic banking industry as a whole such as fund withdrawals, higher costs to attract deposits, direct and indirect financial losses, liquidity issues, bank runs, bank failure, and financial instability (Ali, 2003; Ginena, 2014). These implications, however, depend on the size of the Islamic banking industry in the respective country. Not only that, it may also tarnish the reputation of the industry, which is driven by the trust of stakeholders. From that, the designed model of the possible implications of SNCR is illustrated as in Figure 1.

Figure 1: Possible Implications of Shariah Non-Compliance Risk on Islamic Banking Industry



Source: Modified from Ali (2003), Ginena (2014), and Omar & Hassan (2019)

3. MATERIAL RISKS IN RELATION TO OPERATIONAL AND SHARIAH

SNCR falls under operational considerations and is relevant to ensure 'operations are executed in adherence to the applicable Shariah rules and principles as per the fatwa, policies and procedures approved by the institutions offering Islamic financial services (IIFS)'s Shariah Board' (IFSB, 2005). Before the KRIs for SNCR are selected, it is necessary to identify matters relating to the SNCR. Therefore, the material risks include the events that result in the risk. The loss of income and asset value may be potentially affected by both the internal and external events. An IFI is influenced by the developments of the external environment in which it is called to operate, as well as by its internal procedures and processes (Hanefah et al, 2020). Both events may create an operational risk and SNCR. The external events may be created by a wide range of different events ranging from power failures to floods or earthquakes to terrorist attacks. The events can have a major impact on an IFI. Therefore, IFI should be aware that both expected and unexpected changes to its operations can be major sources of operational risk (Ginena & Hamid, 2015; Bhatti, 2019). It should have in place appropriate arrangements, having regard to the nature, scale, and complexity of its operation, to ensure that it can continue to function and meet its regulatory obligations in the event of an unforeseen interruption. These arrangements should be regularly updated and tested to ensure their effectiveness.

Meanwhile, the internal events may arise due to the failures or inadequacies in any of the IFI's people, processes and systems (e.g. the information technology, risk management or human resources management processes and systems), or those of its outsourced service providers. Operational risk arising from human resources management may refer to a range of issues such as mismanaged or poorly trained employees; the potential of employees for negligence, wilful misconduct; conflict of interests; fraud; and rogue trading (Chaudhury, 2010). Therefore, the emergence of mistrust, failure to communicate, low morale, and cynicism among staff members, as well as increased turnover of staff, should be regarded as indicative for potential increase in operational risk (Abdullah et al., 2011). Operational risk differs from other Islamic banking risks in that it is typically not directly taken in return for an expected reward, but exists in the natural course of corporate activity, and this affects the risk management process. The internal events also include legal risk such as exposure to fines, penalties, or punitive damages resulting from supervisory actions, as well as private settlements (Karimah, 2022). SNCR is one of the risks that arise due to internal events.

As a publicly licensed institution and operating as a business entity, Islamic banks including its directors, management, and staff must operate in compliance with Shariah laws, rules, regulations, and industry standards. Hence, SNCR is also familiar with the risk to earnings or capital that result from violations or non-conformance with the Shariah rules and principles, regulations, or prescribed practices, industry practices, or ethical standards determined by the Shariah supervisory council (IFSB, 2005). The Shariah non-compliance matter has recently become more significant by being explicitly tied to important Islamic banking legislation, such as IFSA (2013). Section 28 (3) of the Act sets out clearly the obligations and responsibilities of a financial institution in the case of Shariah non-compliance, and the subsequent reporting and disclosure process.

Compliance violations expose the IFI to regulatory sanction, fines, and civil money penalties. For example, in Malaysia, under Section 245 of the Act, the Central Bank can impose a penalty on Islamic bank for failing to comply with: any provision of the Act, regulations made under the Act, any order made, or any direction issued under the Act by the Central Bank or any standards, condition, restriction, specification, requirement under the Act. Penalties and consequences of not following Shariah non-compliance reporting procedures can be severe. Directors and officers may also be personally liable for compliance failures. Compliance violations may result in the loss of an Islamic bank's "rating", causing damaging consequences, such as the loss of its full-fledged Islamic banking status.

Since, IFIs deal with the contractual features of a product or services. The valid (sahih) contract arises if: (i) the pillars and conditions of the contract are fulfilled and (ii) establish the legal implications (for example the transfer of ownership) that Shariah has assigned. The contract becomes invalid (ghayr sahih) if both could not be fulfilled upon the execution. The invalid contract can be divided into irregular (fasid) or void (batil). There are several elements that lead towards a fasid contract, namely insufficient information with respect to the subject matter (asset), the price and the delivery time, and the existence of an invalid condition, (for example purchase undertaking in a mudarabah contract and capital providers are guaranteed of their capital). There are several forms that a contract becomes batil, which include selling impure items such as pork and wine; and a sale contract with excessive uncertainty i.e. selling something non-existent and something undeliverable (birds in the sky) (Zuhayli, 1996, 2001; Mansuri, 2006; Ayub, 2007; Najeeb, 2014).

However, there are treatments associated with respective categories of invalid contracts. Neither contracting party can recognise the income realised from the invalid contract. Income must be purified. First, if the contract fails to satisfy one or more pillars of the contract. The income should be returned to its owner. Second, if the underlying asset employed in the contract is an item prohibited by Shariah such as wine, pork, and interest. The income should be channelled to public benefit (Dusuki et al., 2012, 2013). It shows that the Shariah non-compliance would affect the income either it would be returned to its owner or to charity organisation.

Therefore, SNCR which are considered as part of operational risks affect the capital requirement. The treatment of this risk in relation to capital requirements is a new departure that was introduced in Basel II. In applying a capital adequacy framework, the international standards have used "proxies", such as gross income or a "business indicator", to calculate the operational risk capital charge on the banking industry (Oz et al., 2016). However, the use of gross income as the basic indicator for operational risk measurement could be misleading in IFIs. This is because a large volume of transactions such as in commodities and the use of structured finance raise operational exposures that will not be captured by gross income. The standardised approach that allows for different business lines is better suited, but still requires adaptation to the needs of IFIs. In particular, SNCR due to the features of the contract, all need to be explicitly considered for risk measurement. Currently, the indicators for SNCR are missing.

4. CRITERIA OF GOOD KEY RISK INDICATORS (KRIs)

KRIs are measurable metrics or indicators that track exposure or loss. Anything that can perform the same function can be considered as a risk indicator (Wicaksono & Wijayati, 2023). According to Bank Negara Malaysia (BNM), "Key Risk Indicators" or "KRIs" refer to information that will provide insight into the operational risk exposure and are used to monitor the main drivers of exposure associated with the key risks. KRIs help in defining the likelihood of unfavourable situations that could impact an institution's business continuity (Cernisevs et al., 2023). There is no consensus about which and how many criteria must be present in order to select the KRIs (Davies et al., 2006; Davies & Haubenstock, 2002; Hoffman, 2002; Finlay, 2004; Scandizzo, 2005). However, most of the studies believe that the ideal features of KRIs are that they are effective in tracking the risk, they are comparable within and outside IFI, and they are practical and easy to use (Mouatassim & Ibenrissoul, 2015). In Europe, Van Den Brink and Leipoldt (2022) suggest that, to become more relevant, KRIs should be recast as predominantly business (first line of defence) driven and made practical rather than theoretical. KRIs should have certain characteristics before they can be used as a risk management tool (Young, 2012; Liu, 2023). Table 1 provides some criteria for assessing indicators against these three objectives.

Table 1: Criteria for Good KRIs

Criteria	Indicators should
Relevance	• relevance to what is being monitored (risk exposure, control effectiveness indicators and measure performance). • be linked to an IFI's SNCR. • be able to provide management with both a quantum as to current levels of exposure and the degree to which such exposures are changing over time.
Comparable	• be numbers or counts (number of days, employees, etc.), monetary values, percentages, ratios, time duration or a value from some pre-defined rating set (such as that used by a credit rating agency), monitor risk. • be comparable over time. • be reported with primary values. • be meaningful without interpretation to some more subjective measure.
Predictable	• be able to provide a leading, lagging, or current perspective of an IFI's SNCR exposure.
Easy to Monitor	• reflect two characteristics – (i) data used for the indicator should be simple and relatively cost effective to collect and quantify; (ii) assure and distribute - data should be relatively easy to interpret, understand and monitor.
Auditable	• be easy to understand and use. • sources of indicators should be properly documented.

Source: Author's summary based on Davies et al. (2006); Mouatassim & Ibenrissoul (2015); Hassan et al. (2017); Ariffin (2022); Liu (2023)

However, each criteria is believed to have its own shortcoming. **First,** the relevance of an indicator is the relevance that can change over time and can also change when there is an emergence of new and existing exposures, whether they are mitigated or no longer cause a consequence. One technique that can be used to check and maintain the relevance of selected indicators is to link updates to the indicator programme with the completion of risk and control self-assessments, drawing on the experience, knowledge and understanding that IFI's business entities/areas (such as business units and functions, Shariah control function, management, Shariah committee, board and other parties) have of their SNCR exposures and associated indicators. In this manner, it may be useful to think of potential indicators from the following perspectives: Does it help identify existing risks? Does it help quantify or measure the risk? Does it help monitor the exposure? Does it help manage the exposure and its consequences?

The roles of different IFI's business entities/areas or individuals within the IFI should also be taken into consideration when determining relevance. In many cases, the business entity/area that can provide data for some specific indicator may have a different perspective on associated SNCR exposures to those business entities that use the data for exposure monitoring purposes in which the relevance of the indicator and its data over time should focus on the following errors or factor. (i) Operational error, which refers to an operational error in the offering of a Shariah compliant product that invalidates the Shariah contract being used for the product. Among the potential causes of operational error could be: lack of Shariah understanding; lack of Shariah related operational guidelines; system issues/errors; and human error; (ii) Documentation error, which refers to an error in the documentation of a Shariah compliant product that invalidates the Shariah contract being used for the product. Among the potential causes of documentation error are: failure to comply with the specific Shariah pre-requisites for a valid contract or transaction; and the existence of non-Shariah compliant term(s) in the relevant documents that may invalidate the transaction; (iii) External factor, which refers to an external factor, for example on impure income for Securities and Fund Services (SFS)'s institutional clients. It happens when certain securities belonging to the clients that were initially Shariah compliant, have been re-classified as Shariah non-compliant. As a result, the income from those particular securities is considered as impure income and will be channelled to charity.

Second, when implementing a new indicator, the measurement technique should be agreed amongst the stakeholders to ensure that everyone agrees with what the value represents, how it is calculated, what is included or excluded, and how variances in the values will be handled.

Third, indicators can provide a leading, lagging, or current perspective of an IFI's SNCR exposure. However, it is important to bear in mind that the indicator data collection process itself almost invariably implies a historical perspective – by the time the data is collected, quality assured and distributed, time has elapsed, and hence the data is "lagging". In reality, many indicators are both lagging and current. For example, the number of unresolved customer complaints in which such complaints relate to issues that have already occurred (the lagging aspect), but still needs to be addressed (the current aspect). Lagging and current indicators can also have a leading element to them that may need to be considered. In the case of unresolved customer complaints, an IFI's failure to address these could give rise to a costly lawsuit at some point in the future and or bad publicity, leading to reduced sales.

Truly leading indicators are rare and are usually related to causal drivers within the business environment within which the IFI operates; they tend to be measures of the state of people, process, technology and the market that affects the level of risk in a particular IFI. A leading or preventative indicator can be something as simple as the number of limit breaches on market or risk exposures, or cash movements, or the average length of delays in executing particular activities. In themselves, such occurrences may not be loss events in their own right, but if their value starts to increase this may point to the potential for a higher frequency or severity of operational loss events. In the case of fully predictive indicators, which predict what is going to happen, rather than simply infer that something is changing, single indicators by themselves are of little use, as they need context in order to become predictive.

Fourth, a crucial aspect relating to the data collection process is quality assurance. The collection cycle needs to incorporate specific deadlines for submission and should be auditable in terms of data sources and collection channels. There should also be an independent quality control process to ensure that erroneous or misleading data is not sent to management.

5. CHARACTERISTICS OF KRIs FOR SHARIAH NON-COMPLIANCE RISK – THE CASE IN MALAYSIAN ISLAMIC FINANCIAL INSTITUTIONS

Having a good understanding of the desirable characteristics of a KRI, it comes to the stage where they must be selected and bundled into a programme for a business area or unit or the organisation overall. Accordingly, the construction of a KRI programme ideally starts with an individual business unit. Based on the Shariah governance framework in Malaysia (Shariah Governance Framework, 2020) and BNM Operational Risk Integrated Online Network (ORION) (2021), there are five important components involved in selecting KRIs. The selection of the KRIs should become the agenda of the business unit, Shariah Control Officer (SCO), management, Shariah committee, and board. Each component has specific responsibilities relating to the risk.

First, the business unit. This component is a segment of the organisational structure of an IFI. It represents a specific business function and a definite place on the organisational chart, under the domain of a manager. A business unit may also be referred to as a department, division or a functional area (such as treasury, compliance and internal audit) within an IFI or of any other IFIs entity which are working along with them. Second, the Shariah Control Officer is referred to as the employee of an IFI. SCO tries to ensure that the Shariah principles, rules, standards and regulations as provided by the Shariah Committee and Shariah Advisory Council (SAC) at the Central Bank or other regulatory bodies resolutions are observed by IFI while offering Islamic finance products and services.

Third is the management of an IFI responsible for managing the business on a daily basis. The management is also responsible for observing and implementing Shariah rulings and decisions made by the SAC and the Shariah Committee respectively. Besides, the management is expected to provide information and disclosure that are complete and accurate to the Shariah Committee in a timely manner, and shall be transparent on any areas that need clarification by the Shariah Committee to enable the Shariah Committee to discharge its duties effectively. Hence, it is the responsibility of the management to allocate adequate resources and manpower to support the Shariah governance framework that commensurate with the size, complexity, and nature of the IFI's business.

Fourth, Shariah Committee means the Shariah Committee (SC) consisting of minimum five learned and qualified Shariah scholars appointed as the SC members of an IFI by the board and approved by the regulator. The committee shall be responsible and accountable for all its decisions, views and opinions related to Shariah matters. They also shall be responsible to review and advise the board on the scenarios and key assumptions regarding risks unique to Shariah contracts and Shariah non-compliance used in the stress testing programme. Lastly is the board which is a body of elected or appointed members who jointly oversee the activities of an IFI. It is ultimately accountable and responsible for the overall Shariah governance framework and Shariah compliance of the IFI, by putting in place the appropriate mechanism to discharge the responsibilities.

Since KRIs are supposed to track key SNCR, the first step in KRI selection is to identify the area of highest SNCR for the business unit in question. It is important to have a consistent and comprehensive approach to this analysis. And this can be done by risk mapping or profiling each business unit, or leveraging risk-and-control self-assessment (RCSA) or profiling contractual assessment programmes that are already in place. The analysis should focus on component processes or business functions within each business, considering how they work, and where a material loss has been or could be experienced.

Once high-risk areas are identified, businesses should consider existing indicators or metrics that could be leveraged or new ones created to help anticipate a loss, monitor an exposure, measure the SNCR, manage the exposure or loss, or report on the SNCR and its implications. An inventory of existing KRIs as suggested in Column 2, Table 2, as well as the identification of the high SNCR for which there are not currently KRIs in place, is often a good first step in this process. Then, a gap analysis is done. Having identified the gaps, it is important to consider a variety of KRIs against each source of SNCR. Each source of SNCR is reported in Column 1, Table 2. Each KRI reflects the specific causal element, which may come into play if a loss occurs. Ultimately, however, to keep the number of KRIs being monitored to a manageable number, it is necessary to select the few that best reflect the business unit's collective understanding of the root causes of each potential problem. This selection should also be guided by consideration of the quality of the potential indicators against the effectiveness, comparability, and ease-of-use criteria discussed above, as well as their contribution to the goal of obtaining a reasonable mix of leading, current, and lagging indicators. This is an art rather than a science at the moment, but, in the hands of experienced practitioners in the business, should represent a reasonable start. Of course, fine-tuning the KRIs will naturally occur over time as the business learns and gains experience with these relationships.

Once selected, each indicator needs to be defined and specified as reported in Column 3, Table 2, to ensure clarity of interpretation and implementation. For example, complaints that have been lodged by customers pertaining to Shariah non-compliance aspects of Islamic contracts are included in transparency and proper implementation of Islamic contracts by IFIs (such as legal documents were not properly signed).

The next step is to establish bands of acceptance that essentially codify SNCR appetite, and triggers for escalation and/or some other form of action. For example, on a monthly basis, Shariah non-compliance matters should be escalated to the Shariah Control Officer and Shariah Committee Meeting for further clarity or guidance. Then, indicators are assessed on an ongoing basis against this framework of reference.

In the case of high-frequency, low-impact exposures, it is often useful for managers to think about different ranges of indicator value as calling for different kinds of action: low-risk range: no action required; medium-risk range: some action required; and high-risk range: issue to be escalated to management and board; other actions required urgently to mitigate damage.

Thresholds can be set to define each range and trigger each kind of response. After a threshold is breached, actions taken by managers to accept or mitigate the risk should be recorded. Thresholds and escalation triggers are important risk management tools. KRI thresholds will vary from IFI to IFI, depending on management's risk appetite, as well as strategy and ability. For

SNCR the thresholds may be quite high and others lower. They can also change over time, if there is a strategic decision to manage risk down (or sometimes up). Managers will become more experienced at setting the appropriate level of threshold over time. This is where art meets science as there can be no one-size-fits-all approach or algorithm for thresholds. It is subjective and based upon the managers' risk appetite and experience, and that of their peers within the institutions.

The question is what is a reasonable number of KRIs? Many financial institutions have a very large number. This may be justified by the heterogeneity of operational risks and complexity of financial services and products. It is believed that a large diverse institution would reasonably use between several hundred and a few thousand indicators in middle management. Of course, these cannot all be reported to senior levels of management. Accordingly, it is very important to have an appropriate strategy for reporting and aggregating KRIs to senior management and the board.

Table 2: Key Risk Indicator for Shariah Non-Compliance Risk

Sources	**Key Risk Indicators (KRIs)**	**Description**	**KRI Programme**					
			Business Units & Functions	Shariah Control Officer	Management	Shariah Committee	Board	Other parties
Internal Research/ ORMS	Number of new Shariah-related complaints	Complaints lodged by customers on potential non-compliance with Shariah requirements in product implementation, legal documentation, product brochures, transparency, etc.	√	√	√			
Legal cases	Legal cases/dispute filed in in court and arbitration on the basis of Shariah matters (in number)	Leading indicators to uncover emerging Shariah issues and potential impact to the institution and industry	√	√				

Shariah Supervisory Council (SSC)	Shariah approval not on unanimous basis (Number of instances)	Potential Shariah issues that may pose SNCR to Islamic bank and industry	√	√		√	
SSC	Percentage of cases where proposal for product/ documentation/ material was rejected by internal Shariah Committee and regulators	Leading indicators in determining inadequacies in processes in Shariah support and research		√		√	
Internal Research/ ORMS	Number of Resignation/ termination/ transferred of Shariah Qualified (Shariah Degree) personnel to perform Shariah function (research and review)	Leading indicators to prompt that there is inadequate qualified Shariah background personnel to handle crucial aspect of Shariah research and review			√		√
Internal Research/ ORMS	Number of new appointments of Shariah Qualified Personnel	Leading indicators to prompt that there are inadequate qualified Shariah background personnel to handle crucial aspect of Shariah research and review			√		√
Internal Research/ ORMS	Number of resignation/ termination/transferred of Shariah Trained (training in *fiqh Muamalat*) Personnel to perform Shariah support function (audit and risk)	Leading indicators to prompt that there is inadequate Shariah trained personnel to handle crucial Shariah support functions i.e. SNCR and audit			√		√
Internal Research/ ORMS	Number of new appointments of Shariah Trained Personnel	Leading indicators to prompt that there is inadequate Shariah trained personnel to handle crucial Shariah support functions i.e. SNCR and audit			√		√
Internal Research/ ORMS	Percentage of number of incidences that papers or proposals submitted to the Shariah Committee not in accordance with the stipulated submission time	Leading indicators as a triggering mechanism that the proposal or paper submitted to the Shariah Committee expose to higher risk of human error.			√		√

	frame as specified in the internal charter. (i.e. new product proposal - 2 weeks, product legal documentation - 3 weeks, brochure - 5 days)					
Internal Research/ ORMS	Number of instances of Shariah approval being done via circulation to committee members	To monitor the trend as approval done outside the meeting may pose risk of error or non-holistic Shariah decision	√		√	
External research/ news	An amount of impure income as a percentage of total income	To measure the income realised from the invalid contract				√

Source: Author’s summary based on BNM Key Risk Indicators Taxonomy (Operational Risk Integrated Online Network (ORION) Policy Document)

Note: Operational Risk Management System (ORMS) such as Operational Risk Integrated Online Network (ORION) which was introduced by Bank Negara Malaysia on 3 May 2017. There are two requirements on monthly reporting required by BNM to be reported via ORION, i.e. on (i) Litigation and (ii) Complaints.

6. CONCLUSION AND DIRECTIONS FOR FUTURE RESEARCH

SNCR may cause not only unrecognition of income, but also contribute to the implications on the existing risk profiles such as credit risk, market risk, reputational risk, and legal and compliance risk. In order to mitigate SNCR, this study tries to reach a consensus of which and how many characteristics must be presented. Previous studies have no consensus about which and how many characteristics must be present in order to select KRIs for SNCR. However, the study reached the ideal characteristics of KRIs such as effective in tracking the risk, comparable within and outside IFI, and practical as well as easy to use. Subsequently, this study has suggested several KRIs for SNCR to be considered in a stress testing programme, such as number of new Shariah-related complaints and the amount of impure income as a percentage of total income. The results will be great ideas and become a reference for IFIs in structuring their own comprehensive risk management and internal control system.

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