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Measuring Sharīʿah Risk: Proposal for A New Sharīʿah Risk Rating Model for Islamic Banks and Allocation of Capital for Sharīʿah Risk under Basel III

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Abstract. Customers interested in the Islamic banking Industry continue to put a question that whether the bank they wish to do business with is practically implementing Sharīʿah rules and guidelines despite being registered as an Islamic bank and having *fatwá* from the competent authority. This paper proposes a set of 14 rating factors that measure the risk of Sharīʿah non-compliance at an Islamic bank. These factors are used as an input to develop Sharīʿah Risk Rating Model, which can be used by the customers of the Islamic banking industry, the management of an Islamic bank, and the central banks to measure the degree of Sharīʿah compliance at an Islamic bank. The paper also suggests a methodology towards allocating capital charge against the risk of Sharīʿah non-compliance under Pillar 2 of Basel III accords. The main strengths of this model are simplicity and relevance towards assessing the Sharīʿah non-compliance risk because input factors are based on the information derived from published financial statements only. Another key strength is that the end rating can be used on a standalone basis or as an extension to the conventional rating models provided by external agencies such as Fitch, Moody's, S&P etc. Development of this model is aimed at motivating the banking customers, management of Islamic banks, and central banks to improve the implementation of Sharīʿah guidelines and hence contribute towards accelerated growth of the Islamic finance industry. The model was applied on three selected banks on unsolicited basis and results reflect discriminating power of the input factors in order to gauge the Sharīʿah risk.

***Keywords*:** Sharīʿah Non-Compliance Risk, Basel III, Rating Models, Islamic Banking Industry, Sharīʿah Supervision.

KAUJIE Classification: I51, L12, L28, L32.

1. Introduction: Islamic Finance Industry and Sharīʿah Compliance

Islamic banking customers continue to pose a major challenge to the industry by asking a highly relevant question, i.e. is the bank labeled as an "Islamic bank" really Islamic? Customers continue to have some level of skepticism towards Sharīʿah compliance of Islamic banking business. According to Volker Nienhaus (2013, p. 40), "Islamic Finance as it is practiced today is not so well received by the average Muslim". Islamic banks have made efforts to address this question by way of putting up a rationale that *fatwá* from the competent authority suffices to remove the doubts on Sharīʿah compliance of an Islamic bank. In practice, *fatwá* alone has not proven enough for the banking customers to switch their business from conventional banks to Islamic banks and pay a premium for switching to Sharīʿah compliant transactions. It is also argued that the Sharīʿah compliance cannot be contained to an absolute answer as Yes or No, but it should be extended with a degree of achievement such as highly compliant, less compliant etc. This argument is supported with a commercial perspective that the banks having a higher level of Sharīʿah compliance should be able to fetch premium by way of having a better rating and hence having a better market positioning in Islamic financial markets. Banking customers, therefore, continue to search for additional level of comfort for shifting their business to an Islamic bank.

The above question motivates the authors to find a better answer in order to accelerate the growth of the Islamic finance industry globally. Although the Islamic banking industry has grown at a faster pace as compared with the conventional banking industry during the last decade, its share remains less than 2.5% of the global financial system whereas the wealth of the OIC countries forms around 15.7% of global wealth as per Wealth Accounting data publicshed by the World Bank (2016). Therefore, Islamic banking business has a significant potential to grow if the skepticism towards Sharīʿah compliance can be addressed in a more satisfying form and customers are more willing to pay a premium for switching to Islamic finance transactions.

The answer to this question has many dimensions such as standardizing Sharīʿah interpretations, forming primary markets of Islamic banks, establishing global Islamic liquidity centers, adding width and depth to the range of Islamic banking products, implementation of AAOIFI and IFSB Standards, strengthening the regulatory and legal environment etc. The Islamic finance industry has tried to address all these areas, but quantifying the Sharīʿah risk and allocating an adequate level of capital charge to mitigate this risk remains limited whereby a standardized Sharīʿah risk rating model is not available for Islamic banks to compare their level of Sharīʿah compliance.

2. Objective and Scope

The objective of this paper is to propose a methodology to measure the Sharīʿah risk in a quantified form by developing a Sharīʿah Risk Rating Model so that the above question is addressed via a common platform. This will potentially convince a large set of customers that are still skeptical about the Islamic banking industry. For the purpose of this research, "Sharīʿah Risk" is defined as the risk of Sharīʿah Non-Compliance.

Further, measuring Sharīʿah risk alone is not enough as a bank can be highly Sharīʿah compliant but can have a very high level of credit/counter party risk due to its poor financial position. Therefore, it is important for a customer/individual to get two separate pieces of information i.e. financial strength/credit rating of the bank and Sharīʿah risk rating of the bank.

The scope of this paper is therefore limited to reviewing the existing risk rating models with respect to their relevance towards measuring Sharīʿah risk, coming up with a more relevant Sharīʿah risk-rating model, testing the model on Islamic banks for its accuracy, and finally, providing a risk score that represents Sharīʿah and financial risk of an Islamic bank. This score can be used by customers to evaluate the level of Sharīʿah compliance, and by the bank itself to determine an adequate amount of capital that should be allocated to mitigate this risk.

3. Review of Existing Rating Models and Guidelines

Existing market practices to evaluate banking sector risk and Sharīʿah compliance revolve around three areas, i.e. conventional risk rating models, ratings by Islamic International Risk Rating Agency (IIRA), guidelines issued by IFSB, and research work by other scholars.

a) Conventional Rating Agencies

The Islamic banking industry continues to mainly rely on existing rating models developed by three major rating agencies, i.e. Fitch, Moody's and Standard & Poor's. The rating models of these three rating agencies are aimed at assessing the financial strength of the bank towards meeting its local currency and foreign currency obligations. The financial strength of a bank is arrived by way of measuring risk factors that fall in any of these three broad categories mentioned below:

I. Standalone financial strength of a bank is determined based on its liquidity position, leverage, capital adequacy levels, asset liability gaps, sensitivity to interest rates etc.

II. Macro level factors are used to adjust the standalone rating by way of analyzing the trend for GDP growth, inflation, foreign exchange reserves, devaluation risk, demand for credit, performance of industries etc.

III. Parent and supervisory support is incorporated to estimate the willingness and capacity of the major shareholders to support the bank in case of need. Systemic importance of the bank in the domestic market or global financial system adds another weight to the overall scoring of the bank.

These three rating agencies do not differentiate between conventional vs Islamic banking models and apply the same models when it comes to measuring the financial risk. The Sharīʿah related risk factors are not built into these models and are not taken into account separately. Therefore, these models are not relevant for measuring the Sharīʿah risk but remain important for a large number of stakeholders to evaluate the financial strength of the banks. It is therefore recommended that these models continue to be used by Islamic banks exclusively to measure financial strength/counter party risk of the bank from a conventional perspective. Adjustment to their risk rating is however required to incorporate the impact of Sharīʿah risk calculated by way of the proposed model.

b) IFSB Guidelines

Islamic Financial Services Board (2005), Guiding Principles on Sharīʿah Governance (GPSG), mainly focus on improving the Sharīʿah governance via improving competence, independence, oversight and ensuring consistency of the procedures. These guidelines are primarily aimed at strengthening the structures and processes which include: (a) fit and proper criteria applied to appoint a board member (b) at least a three member board is formed (c) it is ensured that Sharīʿah rulings are implemented at the bank (d) rulings be communicated to stakeholders (e) annual internal review and audit systems are in place (f) Sharīʿah advisory team functions independently (g) product design and development process is endorsed and (h) the board works as per prescribed ethical code of conduct.

IFSB guiding principles are aimed at management and supervisory aspects of Sharīʿah compliance. These guidelines do not consolidate to produce a single benchmark that can be used by the customers to evaluate Sharīʿah compliance score or rating of an Islamic bank and compare it with other banks. In summary, IFSB guidelines on Sharīʿah governance and risk are internally focused rather than having an external focus for usability by the customers. Therefore, it is difficult for a customer to evaluate whether IFSB standards have been implemented in their letter and spirit despite the confirmation from the Sharīʿah boards and auditor's certificate. This gap is highlighted mainly because an IFSB document is a guideline rather than a quantitative model of compliance and hence, its interpretation would be different across jurisdictions, countries and banks.

c) International Islamic Rating Agency (IIRA)

IIRA has come up with an approach to provide two sets of ratings mentioned in IIRA Rating Methodology (2013). The first set of ratings is similar to the rating methodology of the other top three rating agencies whereby end-rating scores reflect financial strength of a bank. The second set contains methodology for Sharīʿah Quality Rating, which ascertains level of Sharīʿah compliance at an Islamic bank by looking into factors such as: (a) procedures for authenticating products and services by Sharīʿah advisors (b) quality of Islamic finance related disclosures (c) implementation of AAOIFI and IFSB related standards (d) code of ethics.

IIRA rating methodology is dependent on the availability of information provided by the management of the bank on its internal policies and procedures. Sharīʿah Quality under the IIRA approach, therefore, cannot come up with a Sharīʿah risk rating based on the publicly available information about the bank. Further, IIRA rating models calculate financial strength score which overlaps with the methodology used by the other three conventional rating agencies. The financial industry at large continues to accept the rating of the three major conventional rating agencies for measuring financial strength of banks whereby the predictive power of these three major rating models have improved over the years while IIRA has limited historical data to improve predictability of its financial rating models.

d) Review of Existing Research towards Measuring Sharīʿah Non Compliance Risk

The existing research towards measuring the Sharīʿah non-compliance risk has mainly followed an audit-based approach. Ahmed (2014) "Islamic Banking and Sharia Compliance" has taken an in-depth view of product development process in an Islamic bank. However, this audit-based approach is difficult to be followed by an average banking customer to evaluate the level of Sharīʿah compliance at an Islamic bank. Shafii et al. (2010), "Management of Shariah Non-Compliance Audit Risk in the Islamic Financial Institutions via the Development of Shariah Compliance Audit Framework and Shariah Audit Programme" had also subscribed to the audit-based approach which requires access to internal documents of a bank to measure the level of Sharīʿah compliance. Oz et al. (2016), "Sharīʻah Non-Compliance Risk in The Banking Sector" had categorized Sharīʿah non-compliance risk as part of operational risk under the Basel III framework. Authors are of the view that Sharīʿah non-compliance is an additional dimension, which is not comparable with the operational risk of conventional banks, and should be treated as an additional risk under Pillar II of Basel III framework.

e) Relevance of Existing Rating Models and the Research Work

The existing research work has highlighted the areas to measure the Sharīʿah non-compliance risk but has not come up with a numerical quantification of this risk. The existing rating models from all three conventional rating agencies and from IIRA continue to highlight the gap over measuring the Sharīʿah risk of an Islamic bank especially from the perspective of Islamic banking customers. Rating agencies mainly focus on measuring the financial counter party risk rather than measuring Sharīʿah compliance risk. A bank rated AAA can be financially very strong and can have very low credit risk but it can be Sharīʿah non-compliant as well. Similarly, a fully Sharīʿah compliant bank can have a rating of C or D by Fitch or Moody's. As a result, these rating agencies are not effectively incorporating Sharīʿah risk rating into their risk rating systems, which highlights the need to formulate new risk rating factors that are important for Islamic banks in order to arrive at their overall credit score along with the Sharīʿah score.

4. A Proposed Methodology for Measuring Sharīʿah Risk

The proposed methodology is aimed at adopting the best practices when it comes to evaluating the financial strength of a bank, and building a new model for measuring Sharīʿah Risk. Therefore, this Rating Model comes up with two parts i.e. a Sharīʿah Risk Score and an Overall Counter Party Risk Score. The financial score part is taken from the rating of conventional rating agencies, while the new element of the model calculates Sharīʿah risk score only. The combined rating is reported in the format of a financial rating part and a Sharīʿah rating part. For example, a rating of AAA-SSS indicates that the bank is financially very sound and its Sharīʿah standards are the best in the industry. AAA – S will translate into a financially sound bank but having a low level of Sharīʿah compliance while B – SSS will translate into a financially weak bank but having high standards of Sharīʿah compliance. The financial strength range comprises of C to AAA as per Moody's rating methodology or equivalent in terms of S&P and Fitch rating methodology, while Sharīʿah risk rating range comprises of four grades i.e. SN (Sharīʿah Non-Compliance), S- (Weak Compliance), S+ (Satisfactory Compliance) and SSS (Highly Sharīʿah Compliant).

a) Proposed Sharīʿah Risk Rating Factors

This model proposes five areas of measuring the Sharīʿah risk: Regulatory Support, Sharīʿah Supervision, Business Structure, Width and Depth of Products, and Capital Adequacy. These are the main areas through which Sharīʿah risk emerges in banking operations and product offerings. These are further sub-divided into 14 risk-rating factors. These 14 factors are not captured by the conventional risk rating agencies from a Sharīʿah compliance perspective. These factors give a detailed insight into the Sharīʿah risk of an Islamic bank and hence can provide a valuable feedback to the customers/individuals on Sharīʿah risk of Islamic banks. Summary of these 14 factors is as follows:

Table (1) Proposed Sharīʿah Risk Rating Model

	Regulatory Support					**Weight[1]**
1	**Legal Support**	Separate Islamic Banking Law in the Country	Single Law covering Islamic and Conventional Banks	Weak Legal Support for Islamic Contracts	No Legal Support for Islamic Contracts	
	Score	10	6	3	1	XX
2	**Central Bank Support**		Independent Supervisory Board conducting Sharīʿah Audit.	Sharīʿah Board with Advisory function without Audit	No Sharīʿah Board at Central Bank	
	Score		10	8	3	XX
	Quality of Sharīʿah Supervision					
3	**Independence of Sharīʿah Supervisory Function**	Sharīʿah Advisory Board reporting to Board of Directors	Single Sharīʿah Advisor Reporting to the Board	Sharīʿah Advisory Committee Reporting to CEO.	No Sharīʿah Committee/Advisor	
	Score	10	6	3	0	XX
4	**Opinion of the Sharīʿah Supervisory Committee/ Advisor**	Full Compliance with Sharīʿah (Unqualified)	Qualified (Some Exceptions)	Disclaimer (no Opinion)	Adverse (non Sharīʿah Compliant)	
	Score	10	5	0	-150	XX
	Business Structure					
5	**Legal Identity of Islamic Banking Business**	Separate Legal Entity	Separately Incorporated Legal Subsidiary of a Conventional Bank	Division with Separate pool of funds of a Conventional Bank	Branch Operation of a Conventional Bank with mixed pools of funds.	
	Score	10	8	7	3	XX
6	**Numbers of Years in Islamic /Sharīʿah Compliant business**	10+ Years	3 - 5 years	1-3 Years	Less than 1 year	
	Score	10	7	2	1	XX
7	**Compliance with AAOIFI and IFSB Standards**	Regulatory and Individual Full Compliance	No Regulatory Requirement but Individual compliance	Partial Individual Compliance	No Compliance	
	Score	10	8	5	3	XX
8	**Profit Equalization Reserve**			Yes	No	
	Score			10	0	XX
9	**Charity Fund**		Separate and Independently expensed	Separate but not Independent	No Charity Fund in place	
	Score		10	7	0	XX
	Width and Depth of Products					
10	**Equity Based Products (*Mushārakah*, *Muḍārabah* and *Ijārah* based Assets**	More than 50% of Total Assets	10% to 25% of Total Assets	Less than 10% of Total Assets	No *Mushārakah* /*Muḍārabah* based Assets	
	Score	10	8	5	0	XX

(1) The model allocates different weights to each section as discussed in the subsequent sections. Note: Model software can be downloaded from https://drive.google.com/open?id=0B1N97nI_wNIaYm1sX3MtMUpRR0U.

11	**Width of Asset Products**	10 or more financing products	5 to 10 financing products	2 to 5 Financing Products	1 to 2 Financing products	
	Score	10	8	5	2	XX
12	**Debt based Products (*Murābaḥah* and *Tawarruq* as % of total Financing**	Less than 10%	10% to 33%	33% to 66%	Above 66%	12
	Score	10	6	4	2	XX
13	**Structure of Deposit**		Separate Deposit Pools under *Muḍārabah* / *Mushārakah* Partnership	*Murābaḥah* based Deposit	Current/Saving Deposit) Contracts under *Qarḍ*	
	Score		10	6	5	XX
Capital Adequacy Standards (IFSB)						
14	**IFSB CAR Ratio (Capital/ RWA - RWA(PSIA)**	2% above the Basel CAR	Equal to Basel CAR	Less than Basel CAR	Not Available	
	Score	10	1	-10	1	XX

These 14 factors are considered relevant to measure the Sharīʿah risk of an Islamic bank based on the following rationale.

I. Regulatory Support

An Islamic bank must be supported by the laws and regulations of the country for its Islamic contracts, e.g. whether *murābaḥah* transactional documents will be given due consideration in the courts of law? Many of the countries provide little support to the Islamic contracts. Therefore, Islamic banks that get support from the laws and regulations of the country are in a better position to conduct Islamic banking business. In case of dispute, customers have confidence that laws and regulations of the country will uphold Islamic transactional documents. This regulatory support is captured in the scorecard through two sub-factors:

- *Legal Support:* Whether Islamic banking laws exist as a separate law or as a part of the conventional banking law or do not exist at all.

- *Central Bank Support:* Whether the central bank has effective oversight/audit of the Sharīʿah related aspects of Islamic banks.

These factors are important as input to measure the Sharīʿah risk but they are not captured in the existing rating methodologies. The model proposed here is aimed to be applicable at a global level across different jurisdictions. From banking customer's perspective, usefulness of this factor is applicable only for international and cross-border investors. However, this score will be pertinent for regulators and management of the bank to contribute towards improving the regulatory framework in support of Islamic finance. It can be modified to include further sub-factors to capture the growth in legal and regulatory support.

II. Quality of Sharīʿah Supervision

A bank with a single Sharīʿah Advisor reporting to the CEO is likely to compromise on Sharīʿah standards as compared with a bank having a full-fledged Sharīʿah Board, which independently reports to the Board of Directors. Therefore, this framework effecttively captures independence of the Sharīʿah supervisory function at a bank.

Sharīʿah Opinion is the most weighted factor in order to measure Sharīʿah risk. If a bank has adverse Sharīʿah opinion in its annual report, the negative weight will simply turn the Sharīʿah compliance score of a bank into an overall negative score.

III. Business Structure

- *Legal Incorporation:* A separately incorporated and publicly limited bank gets more weight than the branch operations of a conventional bank having mixed pool of funds as it can manage and implement Islamic banking laws in a better way when it comes to segregation of funds.

- *Years in Islamic Business:* Fitch and Moody's capture total number of years in business but do not capture the total number of years in Sharīʿah compliant business. Therefore, this scorecard gives additional marks to the length of tenor for which a bank has operated under Sharīʿah compliant modes of doing business.

- *AAOIFI and IFSB Standards:* Implementation of these standards at a bank adds to the Sharīʿah compliance score and therefore are rewarded with a higher rating. However, the scope of measurement is limited to the disclosure (Auditor's Certification) that the bank is following IFSB and AAOIFI standards whereby check on the practical compliance is outside the domain of the end user (customer). This is not applicable only to AAOIFI or IFSB but to other standard-setting bodies in the Islamic finance industry as well.

- *PER:* Formation of Profit Equalization Reserves (PER) is not captured by the conventional risk rating systems. Some Islamic banks are using this reserve in order to minimize the volatility of returns to the depositors. Although PER belongs to investment account holders and adds stability to their returns by mitigating Displaced Commercial Risk, from a Sharīʿah perspective, it adds to the Sharīʿah compliance score because a bank has to develop different deposit and asset pools and follow a Sharīʿah compliant profit sharing ratio mechanism in order to apply PER. Therefore, chances of Sharīʿah compliance are higher for a bank having PER arrangement than a bank that is operating without PER.

- *Charity Fund:* The proper use of charity funds reflect the level of Sharīʿah compliance at an Islamic bank. Islamic banks having documented Charity Policy and an independent committee that spends the Charity Fund gets a higher score. This factor is particularly important whereby some banks continue to rollover their bad loans without taking income into charity. Further, some banks have started to use charity funds as promotional funds by using the money for advertising purposes.

IV. Width and Depth of Deposit Products

- *Equity Based Products:* A bank that uses participation and profit/loss sharing based products gets a higher score as compared to a bank that simply relies on *murābaḥah* based products. Existence of a significant proportion of equity based products reduces Sharīʿah non-compliance risk by reducing the need for debt rollover or need for borrowing in stress. However, the nature of Sharīʿah non-compliance risk changes if partnership rules are flouted thus increasing this risk.

- *Width of Asset Products:* A bank having a larger number of products is much likely to diversify its Sharīʿah risk than banks that continue to rely on a single product (such as *murābaḥah*) and hence, get a lower score under this model.

- *Debt Based Products:* A bank which is mainly relying on debt-based products is likely to rollover the credit deals and hence is exposed to high level of Sharīʿah risk.

- *Structure of Deposit:* Many Islamic banking businesses working as windows of conventional banks do not maintain separate deposit pools and hence are not fully Sharīʿah compliant as compared with those Islamic banks that maintain separate deposit pools and hence qualify for a higher Sharīʿah compliance score.

V. Capital Adequacy Standards

External rating agencies calculate Capital Adequacy Ratio (CAR) as per the Basel definition and therefore penalize Islamic banks especially when they have solicited deposit on profit/loss sharing basis and can pass the loss to the depositors rather than charging it into the equity. This scoring model calculates CAR as per IFSB standards and adjusts the CAR premium/ discount into the scoring according to the result.

b) Allocation of Weights

Weights have been assigned to each Sharīʿah risk-rating factor based on their importance towards

Sharīʿah compliance. Sharīʿah opinion gets the highest weight followed by regulatory and supervisory support. These weights have not been published but are allocated in the model based on the expert judgment keeping in view the importance of each factor towards Sharīʿah compliance(2). These initial weights are subject to further calibration as a large volume of data is made available and tested with this model and adjustments are made to improve the accuracy of the model.

c) Sources of Information – Model Input

This Sharīʿah Scoring Model uses the following sources of information:

- General information about the legal system of the country i.e. does it support Islamic contracts in a court of law (yes/no)?

- Information on central bank laws for the banking industry i.e. do separate Islamic banking laws exist or not?

- Published Audited Financials of the Islamic banking businesses.

Therefore, all of the sources of information required as an input for this model are based on publicly available information. This flexibility in the model makes it easy for any individual/customer to apply this model and get the Sharīʿah compliance score.

d) Interpretation of the Sharīʿah Risk Rating Model Score – Model Output

A bank can earn a maximum risk-weighted score of 150 and a minimum score of -138 under this Sharīʿah risk rating model as per following:

- A higher score indicates higher degree of Sharīʿah compliance

- A lower score indicates a low degree of Sharīʿah compliance.

- A negative score means that the bank is not Sharīʿah compliant.

Rating is awarded based on the Sharīʿah score divided into five categories as shown below in Table 2.

The final achieved score is turned into a percentage of the maximum possible score. A bank having a risk-weighted score of above 80% is considered as highly Sharīʿah compliant and hence gets SSS rating. S+ rating is wide enough and represents a bank meeting most of the Sharīʿah compliance standards. S- Rating is awarded to those banks which are just barely meeting Sharīʿah standards and require significant improvement in implementing the Sharīʿah guidelines into their day to day business dealings. An SN rating stands for Sharīʿah non-compliant bank. The Sharīʿah rating score can be sub-divided into further categories for more granular interpretation but this adds complexity for banking customers. Banks may, however, add additional tiers for more refined monitoring of the Sharīʿah risk.

5. Testing of the Sharīʿah Risk Rating Model: Three Case Studies

The newly developed Sharīʿah Risk Rating Model was applied to three selected banks on an unsolicited basis to evaluate the degree of Sharīʿah compliance of each bank. A summary of the results is shared below.

(2) Weights have been allocated based on author's own judgement. This judgemental approach has its precendence in conventional finance rating practices. Top rating agencies had started building their models by allocating judgmental weights and have refined these weights over a period of time through statistical back testing. Historical data is not available at this point in time on Sharīʿah non-compliance risk to test these models on statistical basis.

Table (2) Interpretation of Sharīʿah Risk Rating Scores

Category		Maximum Achievable Weighted Score	Minimum Score
Regulatory Support		30	6
Sharīʿah Supervision		20	-150
Business Structure		50	7
Product Width and Depth		40	9
CAR IFSB		10	-10
Model Output Score		150	-138
% Degree of Sharīʿah Compliance	Actual Achieved Score (weighted) / Maximum Achievable Score (Weighted).		
Achieved Degree of Compliance	**Rating Table**		
80% and Above	SSS	High Sharīʿah Compliance	
50% to 80%	S+	Satisfactory Compliance	
0% to 50%	S-	Weak Compliance	
Negative Score	SN	Sharīʿah Non-Compliant	

a) Bank Alfalah: Islamic Banking Division (Pakistan)

Bank Alfalah Ltd Islamic Banking Division was launched in the year 2001 when the State Bank of Pakistan encouraged conventional banks to open Islamic banking operations. Alfalah Islamic operates as a division of the conventional bank. This division was allocated a separate pool of funds, which were treated as equity of the Islamic banking business. Its funds were managed separately from the conventional pools of funds. Alfalah Islamic has a range of Islamic banking products and does not allow *tawarruq* as a mode of financing. *Murābaḥah* rollover is not allowed which is a practice at other Islamic banks in Pakistan. The Sharīʿah supervisor of the bank does not report to anyone within the bank and this renders his opinion under a service contract. His recommendations are sent to the Group Head of the Islamic banking business and to the CEO of the bank. The bank has a good width and depth in its Islamic banking products. It was a pioneer in introducing *salam* and *istiṣnāʿ* modes of finance in the Islamic banking sector of Pakistan. However, legal laws of the country provide limited support to Islamic banking contracts. Further, this bank does not have a full-fledged Sharīʿah supervisory board. The bank continues to operate as a division of the conventional bank and did not graduate to becoming a legally independent business entity although its asset base was much larger than many Islamic and conventional banks operating in the country.

Table (3) Bank Alfalah Ltd – Sharīʿah Rating Score

Category	Weighted Achieved Score	% Achieved	Max Achievable Score	Minimum Score
Regulatory Support	21	70%	30	6
Sharīʿah Supervision	13	65%	20	-150
Business Structure	29	58%	50	7
Product Width and Depth	32	80%	40	9
Capital Adjustment	0	0%	10	-10
Sharīʿah Compliance Score	**95**		150	-138
Risk Weighted Degree of Sharīʿah Compliance		**95/150 = 63%**		
Rating Awarded to Bank Alfalah				
External Rating	AA (PACRA Pakistan)			
Sharīʿah Rating	S+			
Rating Awarded	**AA S+ (PACRA INCEIF)**			

Alfalah Islamic: Interpretation of the Sharīʿah Score of 95/150

Bank Alfalah - Islamic banking business has achieved 95/150 points, which translates into 63.3% Sharīʿah compliance score and maps to a rating of S+. The bank on a stand-alone basis has a large number of Sharīʿah compliant products on the asset and deposit sides. Further, the bank has regulatory support from the central bank, has an active Sharīʿah supervision framework and has a clear Sharīʿah auditor's report. However, further improvement in rating would require: (1) the government to formulate a separate legal support for Islamic banks (2) central bank's Sharīʿah Advisory Committee to conduct Sharīʿah audit of banks (3) status of the Islamic banking business to be changed to a separate legal entity (4) and recommendations of the Sharīʿah supervisory committee to be changed from CEO to the Board of Directors. These steps, if achieved, will improve the rating of the bank to an SSS category.

b) Bank Aljazira (Saudi Arabia)

Bank Aljazira was established in 1975 as a conventional bank and was later converted into a full-fledged Islamic bank. The bank operates under Saudi laws, which are termed as Sharīʿah laws but do not differentiate between Islamic contracts and conventional loan agreements when disputes are taken to the court. Legally, promissory notes continue to supersede an Islamic banking *murābaḥah* contract in Saudi courts of law. The central bank continues to work under a single banking law whereby there is no Sharīʿah supervisory council at the level of the central bank and there is no Islamic banking law in the country. Bank Aljazira is a public limited entity and is financially sound due to its large asset base, ample liquidity ratio, adequate CAR but continues to operate mostly under *tawarruq* and *murābaḥah* modes of financing.

Table (4) Bank Aljazira – Sharīʿah Rating Score

Category	Achieved Score	% Achieved	Maximum Score	Minimum Score
Regulatory Support	13.5	45%	30	6
Sharīʿah Supervision	13	65%	20	-150
Business Structure	30	60%	50	7
Product Width and Depth	9	23%	40	9
CAR IFSB	1	10%	10	-10
Sharīʿah Score	**66.5**		150	-138
Degree of Sharīʿah Compliance		**66.5/150 = 44%**		
Rating Awarded				
External Rating	A3- Moody's			
Sharīʿah Rating	S-			
Rating Awarded	**A3 S-**			

Bank Aljazira: Interpretation of the Sharīʿah Score of 66.5/150

Bank Aljazira has achieved a score of 66.5/150, which translates to S- rating i.e. Weak Sharīʿah Compliance. Sharīʿah risk rating benefits from the full-fledge separate legal entity of the bank, some support from the regulators, establishment of a Sharīʿah board that has issued a clear Sharīʿah audit report. However, the bank scores low in the areas of product width and depth, independence of the Sharīʿah board, and does not get Supervisory Review from the central bank with regards to Sharīʿah compliance. In order to improve the Sharīʿah compliance score, the following steps are required to be taken (1) add asset and liability side Sharīʿah compliant products such as *muḍārabah* deposit, *ijārah*, *mushārakah* etc. (2) change the reporting line of the Sharīʿah advisor to the board (3) formation of Sharīʿah Supervisory Board at the central bank (4) legal support from Islamic banks by the regulators (5) and adoption of AAOIFI and IFSB standards on reporting.

c) Bank Islam Malaysia Berhad (Malaysia)

Bank Islam Malaysia Berhad (a public listed company) was established in 1983 and its 100% shareholding resides with BIMB holdings. The bank operates in Malaysia where legal support for the Islamic banking industry is available through a separate Islamic banking law. The central bank governs through a National Sharīʿah Supervisory Council, which provides guidelines to Islamic banks with regards to Sharīʿah compliance. Therefore, Bank Islam Malaysia Berhad operates in a more Islamic finance friendly macro environment as compared to the other two cases studies.

Table (5) Bank Islam Malaysia – Sharīʿah Rating Score

Category	Achieved Score	% Achieved	Maximum Score	Minimum Score
Regulatory Support	30	100%	30	6
Sharīʿah Supervision	20	100%	20	-150
Business Structure	33	66%	50	7
Product Width and Depth	29	73%	40	9
CAR IFSB	10	100%	10	-10
Sharīʿah Score	**122**		150	-138
Degree of Sharīʿah Compliance		**122/150 = 81%**		
Rating Awarded				
External Rating	A1 (RAM Rating)			
Sharīʿah Rating	SSS			
Rating Awarded	**A1 : SSS**			

Bank Islam Malaysia Berhad: Interpretation of the Sharīʿah Score of 122/150

Although the bank is not as financially strong as Bank Aljazira of Saudi Arabia, it has earned a high score in the area of Sharīʿah compliance due to the following strengths:

1. Legal structure of the country and central bank support is available for Islamic banking business.

2. Sharīʿah Supervisory Council is headed by a chairman and includes five other members. Oversight of Sharīʿah Supervisory Council is independent which can take unilateral action towards debiting the income account and charging it to charity.

3. Bank has good width and depth of products as it has five trading products at the treasury level, four Sharīʿah compliant derivative products, and more than seven commercial credit products.

4. *Tawarruq* and *bayʿ al-ʿīnah* form 46.41% of total advances, which is better than many other Islamic banks where this ratio goes up to 80%.

5. Deposits are solicited mainly under *muḍārabah* contract rather than the *qarḍ* contract.

Bank Islam Malaysia Berhad needs to take the following steps in order to further improve on its Sharīʿah Risk Rating.

1. Implement Profit Equalization Reserve, which is not being maintained at present.

2. Implement AAOIFI and IFSB Standards in addition to MFRS and IFRS standards.

3. Decrease dependence on *tawarruq* and *bayʿ al-ʿīnah* which forms 46% of total advances.

4. Improve the share of *mushārakah* and *ijārah* based financing from the low level of 1.18% to at least 10% of the total advances.

6. Treatment of Sharīʿah Risk under Basel III

The methodology for allocation of capital charge for Sharīʿah risk varies across the Islamic banks studies. Some banks treat Sharīʿah risk as part of the operational risk under Pillar 1 of Basel III accords while others allocate capital charge under Pillar 2 for the Sharīʿah risk. It is proposed that this risk should be considered as Pillar 2 risks because considering Sharīʿah risk as part of operational risk will not allocate additional capital by Islamic banks, while this risk is additional to capital charge allocated for operational risks by conventional banks especially under the Basic Indicator Approach.

It is suggested that capital charge for Sharīʿah risk should be based on two inputs (a) the Sharīʿah risk rating calculated through the proposed model and (b) the average charity amount collected in 3 years as a percentage of banks' average operating income for 3 years vis-à-vis the average industry charity amount as a percentage of industry operating income for 3 years on average.

For the purpose of this application, a charity fund is defined as the funds transferred by the bank from the Income Account to the Charity Account purely because the earned income was not Sharīʿah compliant. Operating Income is defined as income of the bank arrived at by taking gross profits on assets and deducting profit/return paid to depositors, plus the fee income earned by the bank.

The underlying objective is that a bank having a low level of Sharīʿah compliance should allocate higher capital charge when compared with the average charity amount kept by the industry as a percentage of its operating income. Similarly, a bank having a high level of Sharīʿah compliance when compared with the industry should allocate capital charge that is less than the average charity amount of the industry.

The 3 years average charity amount allocated by the top 10 Islamic banks globally (asset wise) was calculated as 0.22% of their annual operating income for 3 years. It is suggested that the Islamic banks should allocate capital charge under Pilar 2 of Basel III for Sharīʿah risk as per the following formula:

Table (6) Capital Charge for Sharīʿah Risk under Basel 3

Sharīʿah Risk Rating	**Recommended Capital Charge**
Sharīʿah Rating : SSS (Score 80% and above) : Proposal is to allocate Sharīʿah Risk charge in line with the industry average of Charity as % of Operating Income	0.22% of annual operating income (average of 3 years)
Sharīʿah Rating : S+ (Score 50% to 80%) : Proposal is to allocate Sharīʿah Risk charge as 1.25 times of the Industry Average of the Charity as % of Operating Income	0.275% of annual operating income (average of 3 years)
Sharīʿah Rating : S- (Score 0% to 50%) : Proposal is to allocate Sharīʿah Risk charge as 2.0 times of the Industry Average of the Charity as % of Operating Income	0.44% of annual operating income (average of 3 years)
Negative Score: SN- : A bank striving to become Sharīʿah Compliant but holds the report of Sharīʿah advisor/supervisor/regulator as Non Sharīʿah Compliant Bank should charge 5 times Industry Average of the Charity as % of Operating Income.	1.10% of annual operating income (average of 3 years)
Sharīʿah Non-Compliant Bank : Annual report of Sharīʿah Advisor, Sharīʿah Board, or Supervisory Sharīʿah Authority has announced the bank to be non Sharīʿah compliant.	Entire Operating Income earned for the current year should be transferred to the Charity Account.

It may be noted that 0.22% is not a fixed figure and is a moving 3 years average. Similarly, the multiple applied due to the level of Sharīʿah non-compliance remains open to the discretion of central banks as it may be reset based on the weight allocated by the central bank to Sharīʿah risk while evaluating the performance of an Islamic bank.

7. Conclusion

The Sharīʿah Risk Model has worked effectively to calculate Sharīʿah risk score for all three banks based on the reasoning provided in the interpretation of the Sharīʿah risk score calculated by this proposed model. This indicates that 14 Sharīʿah risk rating factors are important and relevant in order to determine Sharīʿah compliance of an Islamic bank. This model can be used by individuals and public in order to check the Sharīʿah compliance score of any bank. The weightages assigned on the judgmental level were correct to the extent that the end score calculated at each bank has clearly highlighted strengths and weaknesses of each bank. Further research in this area will require that all Islamic financial institutions are fed into this Sharīʿah Risk Rating Model and Sharīʿah risk scores are calculated, which are made available to the public for better decision making. This rating will also introduce a healthy competition among Islamic banks to comply with Sharīʿah laws and regulations.

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قياس مخاطر عدم الالتزام بالشريعة الإسلامية
مقترح نموذج جديد لتصنيف مخاطر عدم الالتزام بالشريعة الإسلامية للبنوك الإسلامية وتخصيص رأس المال للمخاطر الشرعية حسب قواعد اتفاقية بازل ٣

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المستخلص. هناك تساؤلاً من قبل العملاء الراغبين في التعامل مع المؤسسات المالية الإسلامية، مفاده ما إذا كانت البنوك الإسلامية ملتزمة فعلاً بتطبيق قواعد الشريعة، بغض النظر عن رخصتها الرسمية كبنك إسلامي وعن الفتاوى الصادرة عن هيئاتها الشرعية. بناء على ذلك يقترح هذا البحث ١٤ معيارا لقياس مخاطر عدم الالتزام بالشريعة، وتعتبر هذه المعايير مهمة في تطوير نموذج تصنيفي يوضح مستوى مخاطر عدم الالتزام بالشريعة في بنك إسلامي ما، والذي يمكن استخدامه من قبل عملاء المؤسسات المالية الإسلامية والبنوك المركزية. كما يقترح البحث منهجية لوضع مخصصات مالية تتعلق بمخاطر عدم الالتزام بالشريعة الإسلامية حسب متطلبات بازل ٣. وتكمن قوة هذا النموذج المقترح في سهولة الحصول على المعلومات اللازمة والتي تستعمل كمداخل لقياس مخاطر عدم الالتزام بقواعد الشريعة الإسلامية، والتي تعتمد في أساسها على التقارير السنوية التي تصدرها البنوك الإسلامية. هناك ميزة أخرى لهذا النموذج، وهو أنه يمكن أن يستخدم كمنهج مستقل أو يمكن أن يكون امتدادا للمناهج التقليدية الأخرى المستخدمة من قبل وكالات التصنيف الرئيسية الثلاث المختصة مثل فيتش، موديز، وستاندرد آند بورز. إن هدف تطوير هذا النموذج هو تشجيع العملاء وإدارة البنوك الإسلامية والبنوك المركزية في تحسين أداء البنوك الإسلامية في التزامها الكامل بقواعد الشريعة الإسلامية مما يساهم في تطوير الصناعة المالية الإسلامية. وقد تم تطبيق النموذج على البنوك الثلاثة المختارة في الورقة على أساس غير ملتمس وتعكس النتائج قوة تمييزية لمدخلات النموذج المقترح .

الكلمات الرئيسية: مخاطر عدم الالتزام بالشريعة، بازل ٣، نماذج التصنيف، الصناعة المصرفية الإسلامية، الرقابة الشرعية.