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The effect of liquidity risk, financing risk, and operational risk toward Indonesian Sharia Bank's financing with bank size as a moderating variable

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A B S T R A C T

Islamic banking is growing rapidly in Indonesia, so it needs to be done a lot of studies on sharia banking especially about the influence of risks to sharia financing. The purpose of this study is to analyze of the influence of liquidity risk, financing risk, and operational risk with bank size as moderating variable. This research uses financial statement of Sharia Commercial Bank for 2012-2016 period. By using purposive sampling method, 12 Sharia Commercial Bank were chosen as samples in this study. The data use in this study is panel data. Those data was collected from Sharia Commercial Bank's website. Data analyzed by using moderated regression analysis. The result shows liquidity risk, financing risk, and operational risk significantly influence the financing of Indonesian sharia banking with bank size as a moderating variable with positive results.

A B S T R A K

Perbankan syariah sedang bertumbuh pesat di Indonesia, sehingga perlu dilakukan banyak kajian mengenai perbankan syariah terutama dari pengaruh risiko terhadap pembiayaan syariah. Tujuan dari penelitian ini adalah untuk menganalisis pengaruh risiko likuiditas, risiko pembiayaan, dan risiko operasional dengan ukuran bank sebagai variabel pemoderasi. Penelitian ini menggunakan laporan keuangan Bank Umum Syariah periode 2012-2016. Dengan menggunakan metode purposive sampling, 12 Bank Umum Syariah dipilih sebagai sampel dalam penelitian ini. Penggunaan data dalam penelitian ini adalah data panel. Data tersebut dikumpulkan dari situs Bank Umum Syariah. Data dianalisis dengan menggunakan analisis regresi yang dimoderasi. Hasil penelitian ini menunjukkan bahwa risiko likuiditas, risiko pembiayaan, dan risiko operasional memiliki pengaruh yang signifikan terhadap pembiayaan bank syariah dengan ukuran bank sebagai variabel pemoderasi yang positif.

1. INTRODUCTION

Shariah and conventional banks jointly run such activities in order to support the mobilization of wider public funds to improve financing capabilities of the national economic sectors (OJK, 2015). The *Qur'an* and *Sunna* are the main sources of Islamic sharia law. In addition to these two concepts, there are other sources that can be made in the concept of sharia law that is the sayings and actions of the Prophet Muhammad which is spread both orally into the form of *Hadith* (the story of the *hadith* of the prophet). Yet not all include the questions facing the contradictory Muslim community so that there are other needs that use the law of secondary sources such as Islamic jurisprudence (*fiqh*), based on the experts' interpretation (*ijtihad*) in particular cases with deductive reasoning (*qiyas*) and on the various expert consensus flow of thought (*ijma*).

Riba is a major prohibition of sharia banks. This concept of prohibition according to the *Qur'an* and *Hadith* literally means *ziyadah* or it can be said to be additional or can also be defined as "premium" to be paid by the borrower to who has provided the loan with the principal amount or capital as a condition of maturity or expiration the loan peri-

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od. Then, the prohibitions of *Gharar* and *Maysir* where *gharar* is a form of doubt, deceit, or all manner of actions can harm others. So from some meanings the word is referred to as *gharar* is all buying and selling actions that contain elements of vagueness, fights, or gambling (*maysir*) in it.

In "Act of the Republic of Indonesia Number 21 of 2008 Concerning Sharia (Islamic) Banking" 2008) issued on July 16, 2008 stated that there are three forms of sharia banking in Indonesia, namely Sharia Commercial Bank (*Bank Umum Syariah/BUS* in Bahasa), Sharia Business Unit (*Unit Usaha Syariah/UUS* in Bahasa), and Sharia Rural Bank (*Bank Perkreditan Rakyat Syariah/BPRS* in Bahasa). The consolidation between consolidation, convention and business line increase will boost the assets of sharia banks (Ernayani, Robiyanto, & Sudjinan, 2017). According to Rose and Kolari (1994), the factors that influence the income of financial institutions are two factors, external factors and internal factors. Technological changes in service delivery, competition from other financial institutions, laws and regulations on financial institutions, and government policies affecting economic and financial systems are external factors. While efficient use of resources, cost control, tax management policies, the proportion of liquidity, and risk positions are internal factors.

Islamic banking is already practiced in countries such as the United States, Europe and Asia as well as in Africa there are also several sharia banks that have grown since the 1990s. Saudi Arabia, Iraq, United Arab Emirates, Kuwait and Qatar are the top five countries, as well as some of Southeast Asia's most important countries in Malaysia for most Islamic banking markets. Indonesia entered into the top 10 which has the largest asset that is ranked 9th with total assets of USD35.629 millions. While Islamic financial instruments have some similarities with conventional banks but have certain distinguishing characteristics that are in highlighting the issue of risk, the risk is related to sharia financing.

Based on research ever conducted by Diallo, Fitrijanti, and Tanzil (2015), sharia banking in Indonesia has been emerge from year to year and transformation also occurs between BUS, UUS, and BPRS. Other study abou sharia banking in Indonesia also done by Wahyudi, Nofendi, Robiyanto, and Hersugondo (2018), which focussed on return on deposit. Diallo et al. (2015) only test the direct influence of liquidity risk, financing risk, and operational risk toward sharia bank financing, while Wahyudi et al. (2018) by using the multiple regression method, test the factors that influences the return on deposit. Since the number of sharia banks that have sprung up in Indonesia and tend to grows, so this study will scrunitize bank size as a moderating variable also. None of previous study in Indonesia has used this method, eventhough size is considered as important variable. In this study, each risk will be measured using the Financing to Deposit Ratio (FDR) for liquidity risk so that it can be seen with the source of funds obtained from third parties whether it can meet the necessary funds (cash flow) required by the bank to cash at any time the community requires a loan or credit from a sharia bank. Nonperforming Finance (NPF) ratio used to measure credit risk that will be experienced by sharia banks when giving loans to the public would not be far from potential delays and even failure of the community in returning or paying the loan amount when the maturity is set. The third risk is operational risk as measured by Operational Expense to Operational Revenue (BOPO) ratio.

This study aims to analyze the effect of liquidity risk, financing risk, and operational risk to Indonesian sharia banking financing and to determine the effect of liquidity risk, financing risk and operational risk by using Sharia Commercial Bank as its moderating variable.

2. THEORETICAL FRAMEWORK AND HYPOTHESES

Sharia Bank Financing

According to "Act of the Republic of Indonesia Number 10 of 1998 Concerning Banking" 1998), it is stated that the financing based on sharia principles is the provision of money or claims based on agreement or agreement between the bank and the borrower who must return the money or the bill after the period in exchange or profit sharing in accordance with the mutual agreement. Meanwhile, according to Antonio (2001) explains that the financing is one of the principal tasks of banks that provide funding facilities to meet the needs of parties that are the unit deficit.

Banks are basically is the entity to collect funds obtained from the public in the form of financing or can be said to perform the financial intermediation function. Banking in Indonesia has two kinds of banking operational systems, namely conventional banks and sharia banks. It is also in accordance with the "Act of the Republic of Indonesia Number 21 of 2008 Concerning Sharia (Islamic) Banking" 2008) which states that sharia bank is a bank conducting business activities based on sharia princi-

ples, or principles that fulfill Islamic law with the rules contained in the fatwa of Ulama Council of Indonesia (*Majelis Ulama Indonesia/MUI* in Bahasa), such as the principle of justice and equilibrium (*'adl wa tawazun*), benefit (*maslahah*), universalisme (*alamyah*), and does not contain elements of *ghahar*, *maysir*, *riba*, unjust and *haram* objects. In the Islamic Banking Law also mandates the sharia bank to carry out social functions by implementing functions such as *baiyul mal* institutions, which are institutions that function to channel funds derived from *zakat*, *infak*, alms, grants, or other social funds and then channel them to *wakaf* (*nazhir*) in accordance with what is desired by the *wakaf* (*wakaf*).

Sharia Risk Management Rules

Based on "Regulation of Bank Indonesia 11/25 PBI/2009 ") dated 1 July 2009 stipulated by Bank Indonesia; Sharia banks should be as minimum as possible, applying risk management into four types of risk, including (a) credit risk, (b) market risk, (c) liquidity risk and (d) operational risk. In addition to the above risks, sharia banking is expected to address other risks, such as the rate of return risk, stock investment risk, non-compliance risk, unhealthy commercial risk, and inventory risk.

Hypothesis Development

The Effect of Liquidity Risk on Financing of Indonesian Sharia Banking with Bank Size as Moderating Variable

Idris et al. (2011) said that liquidity risk is the possibility of loss due to the inability of the bank to fulfill its responsibilities or in funding the increase in assets due to maturity without incurring unwanted costs or losses. The IFSB (2017) defines the liquidity risk as a potential result of the losses suffered by Islamic banks due to its inability to meet its matured liabilities or it can be said of the inability of Islamic banks to fund its asset increase at a relatively low cost and without loss means. According to Bauer and Ryser (2004), in the case of taking bank hedging decisions against risks depends on the ratio of initial debt, measures of liquidity costs, regulatory restrictions, the volatility of risky assets between non-risk interest rates and deposit rates.

Mushtaq and Siddiqui (2017) in his research found that Islamic banks residing in Pakistan can make better asset returns so as to improve risk management while maintaining the liquidity of these banks to keep them within safe limits. According to previous research conducted by Diallo et al. (2015) there is a significant influence of liquidity risk relationship to financing in Syariah banking in Indonesia for 2007-2013 period. A study by Ahmed, Akhtar, and Usman (2011) on liquidity risk management between sharia banks and conventional banks in Pakistan has resulted in the finding that the size of the firm has a positive but insignificant relation to the liquidity variables in conventional banks and sharia banks. While Iqbal (2012) obtained the result that Bank's Size is positively and significantly related to liquidity. Thus the first proposed hypothesis is as follows:

H1: Liquidity risk affects the financing of Indonesian sharia banking with bank size as its moderating variable

The Effect of Financing Risk on Financing of Indonesian Sharia Banking with Bank Size as its Moderating Variable

Arunkumar and Kotreshwar (2006) states financing or credit risks can account for 70 percent of the total risks faced by banks, while another 30 percent are divided into markets and operational risks. Meanwhile, according to McNeil, Frey, and Embrechts (2005) changes in financing or credit due to changes in the portfolio, the shift that occurred is not expected in the credit quality of the issuer or it can also be called trading partners that is referred to as credit risk. In addition, Khan (2003) stated that in the risk of financing there is a source of uncertainty in the banking system. While further studies conducted by Abedifar, Ebrahim, Molyneux, and Tarazi (2013) have investigated and conducted liquidity risk and credit risk analysis which in its findings shows that profitability and liquidity management in conventional banking can run better than sharia banking.

However, if viewed from credit risk management in solvency maintenance, sharia performance can be better than conventional banking sector. Then, according to previous research conducted by Diallo et al. (2015) there is a significant influence of financing risk relationship to financing in sharia banking in Indonesia for the period 2007-2013. The larger the size of the bank, the higher the volume of loans lent by banks to customers. So that will affect the risk of financing or credit that will be faced by the bank. Sharia banking will face a greater credit risk than conventional banks, as it has to look at the basics of sharia principles and profit-sharing systems undertaken with bank involvement in taking risks.

Abedifar et al. (2013) investigated the risk and stability in shariah banking during the period 1999-2009. The findings of this study indicate that insolvency risk, small sharia banks appear to be more

stable; however, the quality of Islamic banks' lending is less favorable to domestic interest rates when compared to conventional banks. Hence the second hypothesis appears as follows:
H2: The risk of financing affects the financing of Indonesian sharia banking with bank size as its moderating variable

Effect of Operational Risk on Financing of Indonesian Sharia Banking with Bank Size as its Moderation Variable

Operational risk is a type of risk that can cause direct or indirect losses, because it can be caused by inadequate or ineffective internal, human, technological or external events. Al-Tamimi (2009) found that in sharia banks will face similar credit risks and operational risks such as conventional banks. Meanwhile, according to Ray and Cashman. (1999) shows that operational risks can affect in decision making in different ways. Abdullah, Shahimi, and Ismail (2011)argues that in operational risk in sharia banking is significant and can occur more complex than conventional banking where the features of the contract and the legal environment are unique. The next study analyzed the risk and correlation efficiency. Ariffin, Archer, and Karim (2009) conducted a survey of 28 sharia banks from 14 countries by requesting the cooperation of risk management teams of these banks relating to the risks faced by sharia banks each country compared with conventional banking. This study found that Islamic banks face the same risks as conventional banks but in techniques of risk measurement less good than conventional banks. According to the IFSB (2017), risks can occur when the overall material that may affect the bank's operational activities, such as: the risk of losses due to incapacity or process error, human resources, and external systems and events. Operational risk can occur in the Islamic banking in large and small scale. Thus the third proposed hypothesis is as follows:
H3: Operational risk affects the financing of Indonesian sharia banking with bank size as its moderating variable

3. RESEARCH METHOD

Population and Sample

The population of this study are all Sharia Commercial Bank (BUS) in Indonesia in the period of research year 2012-2016. The technique used to determine the sample in this study using purposive sampling method with the intent and purpose to get the sample in accordance with the purpose of this study. The criteria used are the annual financial statements of each BUS year 2012-2016. Based on this criteria, obtained a sample of 12 BUS.

Types and Sources of Research Data

The type of data in this study is panel data is a combination of time series and cross section because this research will analyze risk-risks such as liquidity risk, financing risk, and operational risk to sharia banking financing with bank size as moderate variables of 12 Sharia Commercial Banks with period of 5 years. The secondary data sources used for this study were collected from the audited financial statements of 12 Indonesian Sharia Commercial Banks operating within the country. Source of data can be seen in Table 1.

Operational Definition of Variables

To measure the liquidity risk, financing risk, and operational risk of this research use the ratio where the bank conducts self assessment based on Bank Indonesia regulation. Measurement of these risks using the ratios as shown in Table 2.

Table 1
BUS's Name and Data Source

No	BUS's Name	Data Source
1	PT Bank Aceh Syariah	http://www.bankaceh.co.id
2	PT Bank Syariah Muamalat Indonesia	http://www.bankmuamalat.co.id
3	PT Bank Syariah Mandiri	http://www.syariahmandiri.co.id
4	PT Bank Syariah Mega Indonesia	http://www.megasyariah.co.id
5	PT Bank Syariah BRI	http://www.brisyariah.co.id
6	PT Bank Syariah Bukopin	http://www.syariahbukopin.co.id
7	PT Bank Panin Syariah	https://www.paninbanksyariah.co.id
8	PT Bank Victoria Syariah	http://bankvictoriasyariah.co.id
9	PT BCA Syariah	http://www.bcasyariah.co.id
10	PT Bank Jabar Banten Syariah	http://bjbsyariah.co.id
11	PT Bank Syariah BNI	http://www.bnisyariah.co.id
12	PT Maybank Indonesia Syariah	http://www.maybanksyariah.co.id

Table 2
Operational Definition of Variables

No	Variable	Variable Definition	Mesurement
1	Liquidity Risk	Comparison of financing provided by banks with third party funds	FDR (Financing to Deposit Ratio)
2	Financing Risk	Potential payment failure when due	NPF (Nonperforming Finance)
3	Operational Risk	Comparison of total expenses with total operating income	BOPO (Operational Expense to Operational Revenue)
4	Sharia Financing	Provision of sharia funds	Sharia Financing
5	Bank Size	The size of the company is seen from the total assets.	*Size* = LnBank Size

Analysis Technique

This study uses moderating testing where the model used to analyze the independent variables that can strengthen or weaken the relationship between independent variables with the dependent variable. This research analyzes moderating variable with independent variable more than 1 that is 3 which consist of liquidity risk, credit risk, and operational risk with bank size as its moderating variable. Classical assumption tests has been done, and the findings shows that no violation of classical assumptions.

4. DATA ANALYSIS AND DISCUSSION

Descriptive Statistics Analysis

At this stage will be presented descriptive statistics consisting of dependent variable and independent variable. The descriptive statistical analysis presented in Table 4 is the basic statistic that includes the mean, standard deviation, minimum, and maximum. The discussion starts from the dependent variable first, which is the financing of sharia banking. The independent variables are discussed consecutively from FDR, NPF, and BOPO. Descriptive statistics table is presented in Table 3.

Table 3
Descriptive Statistics

Variable	Mean	Standard Deviasi	Minimum	Maximum
FDR	0.9615	0.19801	0.73	1.98
NPF	0.0230	0.1619	0.00	0.05
BOPO	0.9320	0.21969	0.48	1.93
Sharia Funding	29.2597	1.30517	26.94	31.65

Source: Data processed

This study uses panel data with 60 samples. The minimum value in FDR variables is in Bank Victoria Syariah 2012 of 0.73 while its maximum value is at Maybank Indonesia Syariah 2012 amounted to 1.98. The minimum value of NPF variables is in BCA Syariah in 2013 at 0 while the maximum value is at Bank Syariah Mandiri in 2014 of 0.05. The minimum value in BOPO variables is in Bank Panin Syariah in 2012 of 0.48 while its maximum value is in Maybank Indonesia Syariah in 2015 of 1.93. The minimum value of financing variables is in Maybank Indonesia Sharia in 2014 of 26.94, while the maximum value is at Bank Syariah Mandiri 2013.

Bank Syariah Mandiri shown in NPF variable and financing has maximum value, so it can be interpreted that Bank Syariah Mandiri has credit risk as measured by NPF is high enough and has maximum value in variable financing and reinforced by total assets owned by Bank Syariah Mandiri have value the highest amount of Rp 66,940,000,000,000. While Maybank Indonesia Syariah indicated on variable of FDR and BOPO has maximum value, so it can be interpreted that Maybank Indonesia Syariah have risk of failure rate of return of its liabilities when maturity high enough with FDR as its size. In addition, operational risks will also affect the failure due to the average total assets owned by Maybank Indonesia Syariah is quite low at Rp 1,960,000,000,000.

Result of Liquidity Risk Regression to Financing of Indonesian Sharia Banking with Bank Size as Moderating Variable

Based on the research problems formulated to determine the effect of liquidity risk on the financing of Indonesian syariah banking with bank size as a moderating variable, the results of regression testing for FDR variables and bank size to financing are shown in Table 4.

Table 4
Result of Regression Test of Liquidity Risk and Bank Size on Sharia Financing

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(constant)	-0.021	1.515		-0.014	0.989
	FDR	-0.244	0.312	-0.037	-0.782	0.438
	Bank Size	0.991	0.050	0.934	19.849	0.000

a. Dependent Variable : Sharia Financing

Table 4 shows that bank size proved significantly to the financing of Indonesian sharia banking. Then, it tested the interaction between bank size and FDR with test results as shown in Table 5.

Table 5
Result of Regression Test of Liquidity Risk and Bank Size as Moderating Variable on Sharia Financing

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(constant)	30.019	0.363		82.701	0.000
	FDR	-28.249	1.760	-4.268	-16.055	0.000
	Bank Size*FDR	0.922	0.056	4.338	16.318	0.000

a. Dependent Variable : Sharia Financing

The second test result by looking at the beta resulting from the influence of bank size interaction multiplied by FDR to Financing, after the moderation regression test obtained positive and significant results. So the result of regression test on first hypothesis included in Pure Moderator criterion because result from first test of bank size significant to finance but FDR is not significant.

The result indicating that liquidity risk proved significantly to sharia bank financing with bank size as its moderating variable. This study is in accordance with the research conducted by Ahmed et al. (2011) that the liquidity risk in sharia banking shows the size of the bank has a positive but not significant correlation to the liquidity variable and is contradictory to Iqbal (2012).

Result of Financing Risk Regression to Financing of Indonesian Sharia Banking with Bank Size as Moderating Variable

The next research issue is to know the effect of financing risk to the financing of Indonesian sharia banking with bank size as a moderating variable, the result of regression testing for NPF variable and bank size to financing is shown in the Table 6.

Table 6
Result of Regression Test of Financing Risk and Bank Size on Sharia Financing

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(constant)	-1.515	1.637		-0.926	0.359
	NPF	7.156	4.175	0.087	1.714	0.092
	Bank Size	1.028	0.054	0.969	19.198	0.000

a. Dependent Variable : Sharia Financing

Table 6 shows that bank size proved significantly to the financing of Indonesian sharia banking. Then it tested the interaction between bank size and FDR with test results as shown in Table 7.

The second test result by looking at the beta resulting from the influence of bank size interaction multiplied by FDR to Financing, after the moderation regression test obtained positive and significant results. So the result of regression test on first hypothesis included in Pure Moderator criterion because result from first test of bank size significant to finance but FDR is not significant. After the second regression testing obtained the result that the FDR on financing with bank size as a moderation variable

proved significantly. This results supports Abedifar et al. (2013) findings.

Table 7
Result of Regression Test of Financing Risk and Bank Size as Moderating Variable on Sharia Financing

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(constant)	30.019	0.363		82.701	0.000
	FDR	-28.249	1.760	-4.268	-16.055	0.000
	Bank Size*FDR	0.922	0.056	4.338	16.318	0.000

a. Dependent Variable : Sharia Financing

Result of Operational Risk Regression to Financing of Indonesian Shariah Banking with Bank Size as Moderatingng Variable

The last research problem is to find out the effect of operational risk to shariah banking financing with bank size as moderating variable. The test results from BOPO and the size of the bank on the financing of Indonesian sharia banking are presented in Table 8.

Table 8
Result of Regression Test of Operational Risk and Bank Size on Sharia Financing

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(constant)	0.400	1.704		0.235	0.815
	BOPO	-0.231	0.298	-0.39	-0.773	0..443
	Bank Size	0.976	0.053	0.920	18.326	0.000

a. Dependent Variable : Sharia Financing

Table 8. shows that bank size is significant to sharia financing, but BOPO is not significant toward sharia financing. The next step is to do regression testing with the following results to determine whether the influence of BOPO on financing with moderating variables is the size of the bank.

The result of regression test as shown in Table 9, shows thatBank Size could fufill the Pure Moderator criteria because the first test result on this third hypothesis of bank size is significant to financing but BOPO proved to be insignificant. Then a moderation regression test was done on the second test that there is a relationship between BOPO and financing with the existence of bank size variable as its moderating variabes. This results supports Abedifar et al. (2013)findings.

Table 9
Result of Regression Test of Operational Risk and Bank Size as Moderating Variable on Sharia Financing

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(constant)	29.269	0.346		84.682	0.000
	BOPO	-31.071	1.982	-5.235	-15.680	0.000
	Bank Size*BOPO	1.046	0.071	4.946	14.814	0.000

a. Dependent Variable : Sharia Financing

5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

Conclusion

Based on the results of data analysis and discussion that has been described, with reference to the hypothesis that has been formulated and the level of confidence 95% or α = 5%, it can be concluded that the results of regression analysis for each independent variable that includes liquidity risk, financing risk, and operational risks are insignificant to Indonesia's sharia banking financing for the period 2012-2016. After a moderate regression test,

FDR, NPF, and BOPO significantly influence the financing of Indonesian sharia banking with bank size as a moderating variable. Moderating effect is positive so bank size could strengthen the effect of liquidity risk, financing risk, and operational risk towards sharia bank's financing.

Implication

The results of this study are used as a reference and input for students and the general public in need in an effort to know the risks that occur in Indonesia's sharia banks are more complex compared with conventional banks where there are distinctive characteristics of Islamic banks and laws in accordance with Islamic Sharia Law.

Limitation and Suggestion

The object of this research is limited to 12 BUS. So the next researcher should be able to expand the object of research not only focusing on Sharia Commercial Bank but can be added with Sharia Business Unit (UUS) and Sharia Rural Bank (BPRS) to know how far bank size as moderating variable have influence that can strengthen independent variable to dependent if the sample research more than in the research that has been done. In addition, future research may add other possible risks and compare them with the risks experienced by conventional banks to see the complexities that Islamic banks and conventional banks will experience.

Abdullah, M., Shahimi, S., & Ismail, A. G. (2011). Operational risk in Islamic banks: examination of issues. Qualitative Research in Financial Markets, 3(2), 131-151. doi: https://doi.org/10.1108/17554171111155366

Abedifar, P., Ebrahim, S., Molyneux, P., & Tarazi, A. (2013). Islamic Banking and Finance: Recent Empirical Literature and Directions for Future Research Working Paper

Act of the Republic of Indonesia Number 10 of 1998 Concerning Banking (1998).

Act of the Republic of Indonesia Number 21 of 2008 Concerning Sharia (Islamic) Banking (2008).

Ahmed, N., Akhtar, M. F., & Usman, M. (2011). Management Practices and Islamic Banks: An Empirical Investigation from Pakistan. Interdisciplinary Journal of Research in Business, 1(6), 50-57.

Al-Tamimi, H. A. H. K. (2009). Financial Literacy and Investment Decisions of UAE Investors. The Journal of Risk Finance, 10(5), 500-516.

Antonio, M. S. (2001). Bank syariah dari teori ke praktik. Jakarta: Gema Insani Tazkia Cendekia.

Ariffin, N. M., Archer, S., & Karim, R. A. A. (2009). Risks in Islamic banks: Evidence from empirical research. Journal of Banking Regulation, 10(2), 153–163.

Arunkumar, R., & Kotreshwar, G. (2006). Risk Management in Commercial Banks (a Case Study of Public and Private Sector Banks). Paper presented at the Indian Institute of Capital Markets 9th Capital Markets

REFERENCES

Bauer, W., & Ryser, M. (2004). Risk management strategies for banks. Journal of Banking & Finance, 28(2), 331-352. doi: https://doi.org/10.1016/j.jbankfin.2002.11.001

Diallo, O., Fitrijanti, T., & Tanzil, N. D. (2015). Analysis of The Influence of Liquidity, Credit and Operational Risk, in Indonesia Islamic Bank's Financing for The Period 2007-2013. Gadjah Mada International Journal of Business, 17(3). doi: 10.22146/gamaijb.8402

Ernayani, R., Robiyanto, R., & Sudjinan, S. (2017). Factors influencing profit distribution management of sharia commercial banks in Indonesia. Journal of Economics, Business & Accountancy Ventura, 20(2). doi: https://doi.org/10.14414/jebav.v20i2.1055

Idris, A. R., Asari, F. F. A. H., Taufik, N. A. A., Salim, N. J., Mustaffa, R., & Juso, K. (2011). Determinant of Islamic Banking Institutions' Profitability in Malaysia. World Applied Sciences Journal, 12 (Special Issue on Bolstering Economic Sustainability), 1-7.

IFSB. (2017). Islamic Financial Services Industry Report 2017. Kuala Lumpur, Malaysia: Islamic Financial Services Board.

Iqbal, A. (2012). Liquidity Risk Management: A Comparative Study Between Conventional and Islamic Bank of Pakistan. Global Journal of Management and Business Research, 12(5), 54-64.

Khan, T. (2003). Credit Risk Management: A Framework for Islamic Banking. Paper presented at the The Islamic Banking: Risk Management, Regulation and Supervision, Jakarta, Indonesia.

McNeil, A. J., Frey, R., & Embrechts, P. (2005). Quantitative Risk Management: Concepts, Techniques and Tools - Revised Edition. Princeton: Princeton University Press.

Mushtaq, S., & Siddiqui, D. A. (2017). Effect of interest rate on bank deposits: Evidences from Islamic and non-Islamic economies. Future Business Journal, 3(1), 1-8. doi: 10.1016/j.fbj.2017.01.002

OJK. (2015). Roadmap Pasar Modal Syariah 2015-2019: Otoritas Jasa Keuangan (OJK).

Ray, D., & Cashman., E. (1999). Operational Risks, Bidding Strategies and Information Policies in Restructured Power Markets. Decision Support Systems, 24(23-24), 175-182.

Regulation of Bank Indonesia 11/25 PBI/2009 (July 1, 2009).

Rose, & Kolari, J. W. (1994). Financial Institutions: Understanding and Managing Financial Services: McGraw-Hill Companies.

Wahyudi, S., Nofendi, D., Robiyanto, R., & Hersugondo, H. (2018). Factors affecting return on deposit (ROD) of sharia banks in Indonesia Business: Theory and Practice, 19, 166-176. doi: https://doi.org/10.3846/btp.2018.17