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## Islamic Banks Financial Performance Indicators in Dual Banking System: The Case of Indonesia

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### ABSTRACT

*The aim of this research is to elaborate the financial performance of Indonesia Islamic banks (IIB). Used factor analysis to examine financial ratios ten Indonesia Islamic banks (IIB) over the period 2010-2019. The result of recent study proven six factors are key point to describe that the majority of financial ratios in this study namely liquidity, capital adequacy, profitability, efficiency, coverage and control are the factors according to the rank. The study also proven that stability of factors and loadings are stable over time. This study provides an indicator performance of IIB and may be worthwhile to stakeholders have interested with Islamic banking. This research has proved the IIB performance towards important aspect of dual banking system such as Indonesia.*

**Keywords:** Indonesian Islamic Bank (IIB), Factor Analysis, Financial Ratios, Financial Performance

### INTRODUCTION

In general, the Indonesian banking system comprises to commercial banks and Islamic banks. The primary purpose is mobiliser of fund as the fountain sprout of financing, which support economic activities and economic growth. The Islamic financial system is growing rapidly side-by-side with the conventional financial system. Bank Muamalat Indonesia (BMI), first Indonesia Islamic bank established in 1992. The awareness of people to employ Islamic banks have spurred the government and Indonesian Moslem scholars' council (MUI) to develop an industry meaningful to people, namely Islamic bank. In 2019, there are fourteen Islamic commercial banks (BUS) followed by 20 Islamic banking unit (UUS) and 164 Islamic rural banks (BPRS) comprises 1,919, 381 and 617 number of offices respectively around the country. The Islamic banking industry has also staged impressive financial performance, as reflected by the high asset growth. Total assets of the IIBs have grown remarkably from IDR 279 trillion in 2014 to IDR 524.56 trillion in 2019. Islamic financial system proposed not only alternative but also can offer current system. With assets in the world, its resilience to financial shocks (Mirakhor, 2008).

Recently, Indonesian not only successful implementing dual banking system but also has emerged a full-fledged Islamic banking system operating on a parallel basis with the conventional banking system. Indonesian Islamic bank (IIB) system based on *Shariah* principle. The unique feature of Islamic finance is interest free and prohibitions on other unethical activities such as alcohol production, gambling industries, pornographic industries etc. Consequently, these banks do not adopt *Riba* (usury) or in any

financial transactions that prohibit with *Shariah* principles. Financial resources used to get profit for both Islamic and conventional banks, considering of capital and liquidity as a couple of rules and regulations that govern these factors. However, IIB accept deposits using a profit and loss sharing (PLS) system and invest the money with financing products on the same basis using *ijarah, istishna, mudharaba, murabaha, musharaka, salam*, and other schemes (Zarrouk *et al.*, 2016). Some Islamic scholars pursue Islamic banks to be not only *Shari'ah* compliant, but also contributing to social activities toward achieving broad based financial inclusion, enhancing social mobility, equitable income distribution, and fostering need fulfillment (Shaikh *et al.*, 2017).

Since economics crisis in 1998 until now, Indonesia have been faced to relatively low level of economics growth, just over 5 percent, then suffered the rate of poverty and unemployment. This phenomenon has produced many of interpretations, debates and controversies among stakeholders over the IIBs role in regard to performance comparison against conventional banking. Major financial markets are discovering solid evidence that Islamic finance has already been mainstreamed within the global financial system – and that it has the potential to help address the challenges of ending extreme poverty and boosting shared prosperity.

Despite suffered economic downturn, the Indonesian financial sectors have affected positively to economic developments and trends in the Islamic finance industry, with provide special regulation to manage IIB operating. For instance, some Indonesia conventional banks (CB) have also opened Islamic windows to offer similar level and operational with Islamic bank products and services. It is clear from this indicator that the economic crisis is negatively influenced the IIBs. However, compared to conventional bank examined by asset quality, business model, efficiency, and stability from 2008 to 2012, IIBs are significant differences. Moreover, Indonesia Islamic banks (IIBs) have better asset quality, more stable and more efficient than conventional banks (Sakti and Mohamad, 2018). The recent study attempts to contribute describes Indonesia Islamic banks (IIB) financial performance by use principal component analysis (PCA), there is no study that use PCA to examine the reason that make Islamic banks different from conventional banks. This study presents a set of ratios that followers, investors, and regulators of Islamic banks may find useful in understanding the nature and characteristics of IIB.

This is specific rule, as Indonesia banks face a homogenous set of regulations and rules prescribed by the Bank of Indonesia (BI) and Indonesia financial service authority (OJK). This study also used the latest available data in efforts to incorporate the recent development and change in the economic and industry. Specifically, the study aims to empirically examine the relationships among financial ratios and bank financial stability, as well as profitability.

The remainder of the paper is organized as follows. Section 2 is a review of the relevant literature for related and similar research and study. Section 3 describes the sample and research method in this research, followed by a discussion of the findings in section 4, while section 5, the final section in this study, presents the summary and concluding.

## LITERATURE REVIEW

Despite the annual growth on Indonesia Islamic banks (IIB) in 2004 to 2009 reached 46.3 percent and 47 percent in 2010. However, in 2016 the performance significant decrease to 19.67 per cent. Compared to conventional banks, until 2019 the marked share *shariah* products and services stagnant below 5 per cent. As intermediary function and prudential banking systems, the financing to deposit ratio IIB has significantly decrease to 79.65 per cent in 2019 compared to 106.76 per cent from 2001 to 2010. Since 2010 until 2019, the nonperforming finance slightly more than 4 per cent. While total assets of IIB significant increase more than 500 per cent to IDR 525.56 trillion compared to IDR 67.43 trillion in 2010 (OJK, 2020). Similarly with other financial institutions in the world, the operations of Indonesia Islamic banks (IIBs) have been faced to some financial problems such as bankruptcy risk, capital adequacy risk, credit risk, liquidity risk, market risk, solvency risk and withdrawal risk are most important risk in Indonesia were caused some facts:

1. Indonesia have adopted dual banking system, furthermore, the Indonesian Islamic banks operate side by side with the conventional ones. Therefore, they have to products, services and perform well to be attractive to depositors.
2. The conventional banks have had the giant of assets, offices, and capital, they could offer attractive return from a variety of banking products and services. Islamic banks, on the other hand, the operation must be obliged by the sharia principles to produce value added from the real and actual business activities.
3. The last but not the least, Indonesian economic have been faced to fluctuated of currency and low level of growth, around 5 per cent, when economic or financial crisis occurs will affect to Islamic bank capital adequacy, liquidity, profitability, and solvency. It is caused by some rational depositors expect to receive a higher return from Islamic banks. It may lead to a severe displaced commercial risk or withdrawal risk.

Although Islamic finance institutions (IFIs) are booming in the world, empirical work and empirical research on the industry is still limited, and the few studies that have been conducted suffer from data limitations. The purpose of this paper is twofold. First, it extends the work on the determinants of Islamic banks' financial performance. Second, the study develops a database of Islamic banks, which is particularly useful because no previous study elaborates IIBs, especially using financial ratios and factor analysis.

Some researchers have examined the financial performance Islamic banks with mixed results, for instance three major investment activities are revenue generating activities for Islamic banks, savings and investment deposits are costs to the banks, total expenses are positively correlated with profitability (Haron, 1996), high leverage and large loans to asset ratios have a correlation to higher profitability in eight Middle Eastern countries (Bashir, 2003), liquidity risk, coverage, efficiency (utilization), profitability, capital adequacy, and control able to explain most of the variation of the financial ratios (Eljelly and Elobeed, 2013).

Profitability of 44 Islamic Banks in the GCC were indicated that higher capital, better asset quality, and larger size lead to higher profitability, while higher cost-to-income ratio leads to lower profitability (Smaoui and Salah, 2012). However, Islamic banks better implement non-financing activities to improve their profitability (Zarrouk, Jedidia and Moualhi, 2016), some efforts need to improve liquidity of Indonesia Islamic banking practices based on sharia principles (Ismal,2010), profitability and risk (Trad *et al.*, 2017; Trabelsi and Trad, 2017), Efficiency (Belanès *et al.*, 2016; Wanke *et al.*, 2016), capital structure and performance (Al-Kayed *et al.*, 2014), financial performance (Nawaz and Haniffa, 2017), deposits, income, insolvency and ownership (Grassa, 2016),

Several previous studies of Islamic bank often mixed results. For instance, Beck *et al.* (2013). Employing a sample of 510 banks (including 88 Islamic banks) from 22 countries, the authors find that Islamic banks are more capitalized but less cost-efficient compared to their conventional counterparts. Another example is the paper by Abedifar *et al.* (2013), which reports no significant difference between Islamic and conventional banks in terms of insolvency and charging higher rates to customers for offering Sharia'a compliant products. They also show that Islamic banks have lower credit risk than their conventional peers. This was followed by Johnes *et al.* (2014), who find that Islamic banks are less efficient than conventional banks, suggesting that compliance with Sharia'a law reduces the efficiency of this industry but that the competent and skilled managers of Islamic banks make up for this disadvantage. Finally, Mollah and Zaman (2015) use several profitability indicators and report no significant difference between the two banking systems. Both Bahrain and Malaysia are the major hubs Islamic financial institutions with operate in approximately 75 countries in the world, majority in the Middle East and Southeast Asia. As it is a beneficial sector, the Islamic financial industry is a prosperous market that could have become rival the conventional sector in many countries. The financial assets almost \$1.8 trillion, Islamic banking and finance has pursued Muslim and non-Muslim financial markets to gain transaction over the last decade (Alam and Rizvi, 2017).

Islamic banking achievement has helped promote the interest of Islamic bank financial performance study through comparative analyses with conventional banks in recent times. The findings of studies

offer contradictory results whether Islamic banks are better performers than their counterparts. The Gulf Cooperation Council (GCC) banks over the 5-year period of 2000–2005 investigation with financial ratios as the distinguishing factor between conventional and Islamic banks found that Islamic banks more profitable, but less efficient as compared to conventional banks Olson and Zoubi (2008). This argument opposite with Chong and Liu (2009) statement that Islamic banking practice not different with conventional banking in Malaysia. Despite the Islamic banks operation are to be treated in a similar way to conventional banks, not only in Malaysia but also some countries exist with dual banking system, side by side with the commercial banks in the same competitive market. Therefore, they have the same tactics and tools to get profit. Other opinion that the Islamic banks and conventional banks are different proved by Hassan and Bashir (2003) found that many noticeable differences between the two types with respect to capital-assets ratio, operations ratios, and liquidity ratios.

Financial system based on the Islamic principle would be more efficient in allocating resources than their counterparts based on conventional interest-based system. This claim can be supported that IBs as investment alternatives to strict their productivity and rates of return to improve allocations. The Islamic financial system is more stable than the conventional system is based on three views: (1) the avoidance of leverage and debt refinancing due to the prohibition of debt; (2) the elimination of the multiplier effect, (3) the matching of assets and liabilities (Iqbal and Mirakhor, 2011).

Profitability positive affect to 15 conventional and Islamic banks in MENA region activities, capital and liquidity risk. Positive interest rate risk and deposits with the result that negative effect with credit risk and size (Mokni and Rachdi, 2014). Using data of banks from 28 countries, compared to conventional bank in 28 countries, Islamic banks have a higher liquidity risk, lower credit risk, lower insolvency risk (Safiullah and Shamsuddin, 2018). Similarly in 553 banks from 24 countries from 1999 until 2009, compared to conventional bank, small Islamic banks leveraged, based on countries with majority moslem populations have lower credit risk as well as insolvency risk also more stable (Abedifar et al., 2013). However, in 3 Asian countries with dual banking system, assets and diversification have low effect of the performance Islamic banks and a negative effect to conventional banks, bank size and diversification positively affects the profitability of large Islamic and conventional banks (Chen *et al.*, 2018). Measured toward capital variables (equity to assets and equity to liabilities), loan to total assets and net profit revenue on average assets are positively related to Islamic bank profitability, while loan loss provision and cost to total income have a negative impact in 51 Islamic banks in the MENA region over the period from 1994 to 2012 (Zarrouk *et al.*, 2016).

Similarly result in Bangladesh, Islamic banks have outperformed conventional banks during the global financial crisis (GFC) from 2010-2015, which examined by multi-directional efficiency analysis (MEA) to understand of inefficiency patterns (Asmild *et al.*, 2019). Bank-specific factors such as the operating efficiency ratio are negatively and significant to profitability of 44 Islamic banks from Asian and African region period 2013, while equity financing is positive and significant to the profitability. The credit risks and liquidity risks are factors insignificant on the performance of the Islamic banks (Chowdhury and Rasid, 2015). However, when operate with small scale, Islamic bank is better to handle of economic downturn in 76 banks from the Gulf Cooperation Council (GCC) region over the period 2000-2013. In the other hand, during the global financial crisis Islamic banks are experienced of higher level of financial instability than conventional banks (Alqahtani and Mayes, 2018). Opposite conclusion measured by ROA and ROE are indicators as a bank-specific function reveal that banks with larger assets, size and with efficient management lead to greater return on assets, supported by management efficiency on operating expenses positively and significantly affects the Islamic banks' profitability (Masood and Ashraf, 2012). Relationship between size and stability in 45 Islamic banks from 13 countries prove that larger Islamic banks are more stable (Ibrahim and Rizvi, 2017).

A wider scale of researcher to compare 8,615 Islamic banks and conventional banks in 124 developed and developing countries for the period 2006-2012 found that Islamic banks are better measured by capitalized, liquidity and profitability. However, liquidity and earning volatility are more predominate in countries with dual banking system. Moreover, return volatile of Islamic banks affected by the amount of capital (Bitar *et al.*, 2017). Similarly, in Gulf Cooperation Council (GCC) countries over the period 2003–2010 using financial ratios to examine distinguish between Islamic and conventional banks,

conclude that Islamic banks are more liquid, more profitable, better capitalized, and have lower credit risk than conventional banks (Ben Khediri *et al.*, 2015). Haron (1996) attempt to empirically investigate 13 Islamic banks in nine countries from 1993 to 1998 concluded that profitability was highly correlated with bank size, funds invested in Islamic securities, interest rates, liquidity, market share, profit sharing ratio and total expenditures. On the other hand, Funds deposited, total capital and reserves, also play a major role in influencing the profitability of Islamic banks. Capital ratio, deposits, funding, inflation, GDP, loans, market capitalization, profit before tax to total assets, ROA and ROE contributed to the profitability of 14 Islamic banks in Middle East and equity and loan to assets ratio as the highest profitability Islamic banks' (Bashir, 2003).

Some researchers have examined the Islamic banks financial performance with different indicators, such as both micro and macroeconomic are strength of IBs profitability measured by ROA and ROE ratios and risk measured by credit risk (Impaired loans/Gross loans and Equity/Net loans) and insolvency risk (Z-score). However, few studies use factor analysis to summarize financial information. Moreover, bank size and capital are key indicators of increased profitability and stability of IBs and reduce their credit risk affected by liquidity 78 Islamic banks in 12 countries over the 2004–2013 period (Trad *et al.*, 2016). This argument supported by (Trabelsi and Trad, 2017) that bank capital as the main indicator to maximizing profitability and stability of IBs and reducing their credit risk 94 Islamic banks (IBs) in 18 countries during the 2006-2013. The efficiency level of 114 Islamic banks from 2010 to 2014, compared to Kuwait, Oman, Pakistan, Saudi Arabia and Turkey efficiency scores Brunei Darussalam, Egypt, Indonesia, Lebanon, Malaysia, Pakistan, Singapore, Sudan, Syria, United Kingdom and Yemen Islamic banks tends to be significantly smaller (Wanke *et al.*, 2016), high IBs profitability affected by high capital and loan-to-asset ratios (Hassan and Bashir, 2003), significant positive relationship between value added intellectual coefficient (VAIC) and accounting performance based on ROA (Nawaz and Haniffa, 2017).

Factor analysis was originally developed to explore data and to generate future hypotheses. In general, the technique applied to entire population in research. The aim of this technique to find common underlying dimensions within the data and primary concern with common variance (Field, 2018). For the first time, factor analysis has been used to analysis group financial ratios for industries other than the banking industry. Some researchers have been explored and proven that factor analysis useful to produce meaningful classes of financial ratios, such as Pinches, Mingo, and Caruthers (1973) found that industrial firms in the USA with seven ratio groups are stability over time. Chu *et al.* (1991) examined across the three industries of hospitals, manufacturing, and retail in US, found that five factors were able to describe as common factors between the three industries. In the financial sector there are some studies to address the ratio classification was conducted in other industries.

Eljelly (2002) found six factors namely financial structure, internal growth, liquidity, profitability, risk, and shareholders' wealth to explain 83 per cent of the variation in financial ratios emerged from the analysis public commercial banks in Saudi Arabia by applied the factor analysis technique to financial ratios found that the extracted factors are stable over time. Moreover, Eljelly and Elobeed (2013) six factors can explain 82.91 the variation of the financial ratios of Islamic banking in Sudan. This research found that profitability is not of most important concern to Islamic banks in Sudan, due to high concentration; rather it is liquidity and investment risk control. These factors ranked based on the percentage of variation are liquidity risk, coverage, efficiency (utilization), profitability, capital adequacy, and control. The factors stability over time, both the extracted factors and their loadings are stable over time.

Thus, based on the conflicting of views and some review of literatures, this study attempts to practice the factor analysis technique to examine 20 financial ratios, that are deem necessary for reflecting the performance of Islamic banks in Indonesia. The primary objective is this research to summarize ratios in objective and rational groupings, then make sense to the measurement of Islamic banks in general. As in Eljelly (2002), Eljelly and Elobeed (2013) and Field (2018). Principal component analysis method of factor analysis is used to summarize most of the information contained in the original variables. This study uses the oblique (correlated) rotation method rather than the orthogonal rotation method. Financial ratios are correlated to a large extent often use the underlying accounting information and take correlation into account.

## DATA AND RESEARCH METHODS

The first classification of sample is bank provide annual reports and operational before 2010. The second reason for restricting our study to these periods are cover some of IIBs established in 2010, the data was available for all years. We had to collect the data directly from the published annual reports from the websites of those banks. Difficulty in obtaining data is common in third world countries, such as not all IIBs provide clear the amount of current asset and current liabilities in their financial statement. Table I shows the sample banks and the years of established for which data is available.

**Table 1. The sample of Indonesia Islamic bank (IIB)**

No.	Banks	Established
1	Bank Muamalat Indonesia (BMI)	1992
2	Bank Syariah Mandiri (BSM)	1999
3	Bank Rakyat Indonesia Syariah (BRIS)	2008
4	Bank Syariah Bukopin (BSB)	2008
5	Panin Dubai Syariah Bank (PDSB)	2009
6	BNI Syariah (BNIS)	2009
7	BCA Syariah (BCAS)	2010
8	Bank BJB Syariah (BJBS)	2010
9	Bank Syariah Mega Indonesia (BSMI)	2004
10	Bank Victoria Syariah (BVS)	2009

The financial ratios uses were 20, listed and defined in table II, which is frequently referred to indicators of financial performance by accounting one by one. In spite of some of IIBs have a large of asset, only 2 banks are listed on the Indonesia stock exchange (ISE) namely BMI and PDSB with no active trading market. Further, majority the shareholders the IIBs are founding owners or holding share rather than pure investment. This phenomenon supported with argument that public company ownerships are dominated by social, religious, and political networks, rather than by pure economic and financial grounds (Hamza, 1997). According to data, since 2014 most of IIB do not give much consideration for declaring of paying dividends caused financial performance (profit) down turn. This is suffered the dividend payout, dividend per share, financial ratios, price to book, and price earnings ratio.

**Table 2. Financial Ratios Used and Abbreviations**

No.	Ratios	Abbreviation
1	Deposits with Bank Indonesia/Third Party Fund	INVDP
2	Deposits with Bank Indonesia/Total of assets	INVTA
3	Deposits with Bank Indonesia/Total of liabilities	DPTL
4	Debt/Equity	DER
5	Non-performing Financing Net	NPF
6	Return of Assets	ROA
7	Return of Equity	ROE
8	Net Profit/Total of Revenue	NPTR
9	Expand to Profit ratio	EPR
10	Debt/Assets	DAR
11	Third Party Fund/Total of Assets	TDTA
12	Total of Revenue/Total of Assets	NIM
13	Current of Assets/Total of Assets	CATA
14	Capital Adequacy ratio	CAR
15	Financing to Deposits	FDR
16	Current of Assets/Current of Liabilities	CACL
17	Equity/Third Party Fund	EQDP
18	Cash/Third Party Fund	CASHDP
19	Earning per Share	EPS

In this study we are use factor analysis to examine whole the variables to estimate the underlying factors and it relies on various assumption for accurate estimate. Factor analysis was originally developed to explore data to generate future hypotheses and it was assumed that the technique would applied to entire population interest, try to find common underlying dimensions within the data and primarily concerned with the common variance by assuming the communality of every variables and estimating communality values for each variables.

To examine the adequacy of the samples for factor analysis, we examine samples adequacy by Bartlett’s sphericity and Kaiser-Meyer-Olkin (KMO) tests. The KMO can be used to calculate for individual multiple variables and represents the ratio of the correlation between variables to the partial correlation between variables (Field, 2018). Both tests show that the sample used in this study is quite adequate as reflected in the high significance of the values reported for these statistics. Factor analysis is applied to the 20 ratios, for which complete records are found among all banks included in the sample. Principal component analysis method of factor analysis is used to summarize most of the information contained in the original variables in as few factors as possible. This study uses the oblique (correlated) rotation method. Financial ratios are correlated to a large extent often to use the underlying accounting information, and oblique methods take correlation into account (Eljelly and Eloheed, 2013).

**RESULT AND DISCUSSION**

Table 3 shows descriptive statistics result of the financial ratios used in the analysis as the input of factor analysis. The aim of descriptive statistical to present information in a clear, concise and accurate manner, structure and handle observational data, then summarize the information and draw out the main features without distorting the picture. The result give general information the level of ratios for the sample banks during this period and the variation within the samples. Moreover can be compared the analysis samples for the purpose of testing time series stability of factors and factor loadings. The result showy the variation of ratios among banks as reflected in the high standard deviations of the value ratios.

**Table 3. Descriptive Statistics Analysis of Financial Ratios Used**

No.	Ratio	Mean	SD	n
1	INVDP	11.534	9.339	100
2	CACL	183.556	165.113	100
3	CASHDP	2.014	2.727	100
4	DPTL	331.600	235.732	100
5	TRTA	9.132	2.928	100
6	EPS	3234.532	11157.797	100
7	TDTA	37.671	31.544	100
8	NPTR	5.373	15.964	100
9	ROA	.856	1.708	100
10	ROE	6.463	14.637	100
11	CAR	22.976	22.612	100
12	DAR	35.254	31.047	100
13	DER	241.488	217.772	100
14	EQDP	16.442	14.806	100
15	EQTA	12.141	8.682	100
16	FDR	83.222	21.721	100
17	CATA	51.156	46.991	100
18	NPF	2.799	2.884	100
19	INVTA	13.891	18.486	100
20	BOPO	92.948	16.748	100

Table 4 is the result of component method factor analysis whole ratios, it can be seen that the KMO statistic is 0.589 fall in to the range mediocre, which is showy that the samples is adequate for factor

analysis and well above the minimum criterion value suggested greater than 0.5. The value indicates that the pattern of correlations are relatively compact and so factor analysis should yield distinct, reliable factors and acceptable (Field, 2018). The results of applying the principal component method of factor analysis to these ratios, six factors were emerged as the grouping to explain the variation in the ratios. The extracted six factors were relative strength to describe variance of liquidity risk, coverage, efficiency (utilization), profitability, capital adequacy, and control. The overall explained variance is 76.96 per cent, with liquidity variables as the highest with 16.49 per cent, followed by capital adequacy of 15.91 per cent, Profitability third ranks with 15.83 per cent, and fourth rank efficiency (utilization) with 12.74 per cent of explained overall variance. In spite of IIBs have a good performance in liquidity and capital adequacy, this phenomenon have not occurred in profitability and efficiency. This result similarly with previous research in that profitability is not a paramount concern to Islamic banks especially in Sudan (Elzahi *et al.*, 2003, Eljelly and Elobeed, 2013) due to their high concentration; rather it is liquidity and the related investment risk control that matter most. Although, IIBs supported by the huge of muslim society, IIB are not able to expand, not only international but also local market share, invite potential investors, as the latter extends interest-based loans. That may explain why liquidity comes out on top of the important factors of performance indicators.

**Table 4. The Results Of Factor Analysis**

Factor Names	Variable loading	on factors	Factor loading (%)
F1: Liquidity Risk	TDTA	.916	16.49
	DAR	.906	
	DPTL	.875	
	DER	.639	
	EPS	.633	
F2: Capital adequacy	EQTA	.866	15.91
	EQDP	.812	
	CAR	.647	
	TRTA	.565	
F3: Profitability	ROA	.926	15.83
	NPTR	.924	
	ROE	.887	
F4: Efficiency (utilization)	CASHDP	.854	12.74
	NPF	.795	
	INVDP	.832	
	BOPO	.490	
F5: Coverage	CATA	.713	8.84
	FDR	.621	
F6: Control	CACL	.726	7.14
	INVTA	.764	
Total variance explained (%)			76.96
Sample Statistics			
KMO			.589
Barlette $X^2$			1251.566
Significance (p-value)			.000

Table 5 shows the inter-factor correlation the orthogonality of the factors solution are highly independent proven that whole the factors majority are have quite high and significant matrix. Table VI proven the high correlation among the variables (ratios) that are loaded on the six factors. All correlation coefficients are large and significant, pointing that the value of variable loadings are homogenous. Significant implications for recognize the ratio to represent the factor showy by the result.

**Table 5. Factors Score Component Matrix**

Factor	1	2	3	4	5	6
1	1					
2	-0.008	1				



3	0.002	0.041	1			
4	-0.009	-0.004	0.005	1		
5	-0.013	0.003	-0.004	0.038	1	
6	0.029	-0.015	-0.002	0.011	0.068	1

**Table 6. Factor Corelations Matrix**

<b>Factor 1</b>	<b>TDTA</b>	<b>DAR</b>	<b>DPTL</b>	<b>DER</b>	<b>EPS</b>
TDTA	1				
DAR	0.94 (0.00)	1			
DPTL	-0.70 (0.00)	-0.64 (0.00)	1		
DER	0.50 (0.00)	0.57 (0.00)	-0.29 (0.00)	1	
EPS	-0.23 (0.01)	-0.21 (0.02)	0.43 (0.00)	-0.024 (0.01)	1
<b>Factor 2</b>	<b>EQTA</b>	<b>EQDP</b>	<b>CAR</b>	<b>TRTA</b>	
EQTA	1				
EQDP	0.87 (0.00)	1			
CAR	0.61 (0.00)	0.52 (0.00)	1		
TRTA	-0.34 (0.01)	-0.31 (0.00)	-0.19 (0.05)	1	
<b>Factor 3</b>	<b>ROA</b>	<b>NPTR</b>	<b>ROE</b>		
ROA	1				
NPTR	0.91 (0.00)	1			
ROE	0.87 (0.00)	0.82 (0.00)	1		
<b>Factor 4</b>	<b>CASHDP</b>	<b>NPF</b>	<b>INVDP</b>	<b>BOPO</b>	
CASHDP	1				
NPF	0.58 (0.00)	1			
INVDP	0.64 (0.00)	0.37 (0.00)	1		
BOPO	0.17 (0.06)	0.43 (0.00)	0.11 (0.14)	1	
<b>Factor 5</b>	<b>CATA</b>	<b>FDR</b>			
CATA	1				
FDR	-0.26 (0.15)	1			
<b>Factor 6</b>	<b>CACL</b>	<b>INVTA</b>			
CACL	1				
INVTA	-0.21 (0.03)	1			

In this study, we test the time series stability of extracted carried out by running the factor analysis. It has been become a most important concern researchers to use factor analysis as a technique of financial ratios, who attempt to use factor analysis as a classification technique of financial ratios. According to table IV, the whole period samples prove the time series stability and indicating more information in correlation matrix for accounted.

## SIMPULAN

The purpose of this study to examine and proven Indonesian Islamic bank (IIB) of financial performance, using factor analysis. The methodology solves the numerous individual ratios that are sometimes difficult to describe result and financial performance of banks. Further, factor and statistical results help not only researchers but also the other stakeholders to develop clear planning, spared from random grouping widely applied in academia and industry by factor, statistical grouping as well as.

The empirical analysis in this study on ten Indonesian Islamic bank (IIB) shows the six factors emerged that described about 76.96 per cent of the total variation between the sample banks with respect to the processed variables. The emerging variables are:

1. liquidity risk.
2. capital adequacy.
3. Profitability.
4. efficiency (utilization).
5. coverage.
6. control.

The correlations between these emerged factors show clearly that they are independent and that each variable describes a different and unique aspect of performance of these banks. On the contrary, the high and significant intra-factor correlation structure reflects the homogeneity and cohesiveness of the emerged factors. In effect, this indicates that each member ratio within each factor can act as a measure of that aspect of performance the factor loadings are stable over time.

## REFERENCES

- Abedifar, P., Molyneux, P. & Tarazi, A. (2013). Risk in Islamic Banking. *Review of Finance*, 17(6), 2035-2096.
- Alam, N. & Rizvi, S. A. R. (2017). Empirical research in Islamic banking: Past, Present, and Future. In Alam, N. & Rizvi, S. A. R. (Ed.), *Islamic Banking: Growth, Stability and Inclusion*, Springer, Cham, CH, 1-13.
- Al-Kayed, L. T., Zain, S. R. S. M. & Duasa, J. (2014). The relationship between capital structure and performance of Islamic banks. *Journal of Islamic Accounting and Business Research*, 5(2), 158-181.
- Alqahtani, F. & Mayes, D. G. (2018). Financial stability of Islamic banking and the global financial crisis: Evidence from the Gulf Cooperation Council. *Economics Systems*, 42(2), 346-360.
- Asmild, M., Kronborg, D., Mahbub, T. & Matthews, K. (2019). The Efficiency Patterns of Islamic Banks during the Global Financial Crisis: The Case of Bangladesh. *The Quarterly Review of Economics and Finance*, 74 (November), 67-74.
- Bashir, A. (2003). Determinants of profitability in Islamic banks: Some evidence from the Middle East. *Islamic Economic Studies*, 11(1), 31-57.
- Beck, T., Demirgüç-Kunt, A. & Merrouche, O. (2013). Islamic vs. conventional banking: Business model, efficiency, and stability. *Journal of Banking & Finance*, 37(2), 433-447.
- Belanès, A., Ftiti, Z. & Regaïeg, R. (2015). What can we learn about Islamic Banks efficiency under the subprime crisis? Evidence from GCC Region. *Pacific-Basin Finance Journal*, 33(June), 81-92.
- Ben Khediri, K., Ben Ali, S. & Ben Khediri, H. (2010). Bank-specific, industry-specific and macroeconomic determinants of African Islamic banks profitability. *International Journal of Business and Management Science*, 3(1), 39-56.
- Ben Khediri, K., Charfeddine, L. & Youssef, S. B. (2015). Islamic versus conventional banks in the GCC countries: A comparative study using classification techniques. *Research in International Business and Finance*, 33(January), 75-98.
- Bitar, M., Madiès, P. & Taramasco, O. (2017). What makes Islamic banks different? A multivariate approach. *Economics Systems*, 41(2), 215-235.
- Chen, N., Liang, H. Y. & Yu, M. T. (2018). Asset diversification and bank performance: Evidence from three Asian countries with a dual banking system. *Pacific-Basin Finance Journal*, 52(December), 40-53.

- Chong, B. S. & Liu, M. H. (2009). Islamic banking: Interest free or interest based? *Pacific Basin Finance Journal*, 17(1), 125-144.
- Chowdhury, M. A. F. & Rasid, M. E. S. M. (2015). The determinant of the profitability of Islamic banks: a cross-sectional study from Asia and Africa. *International Journal of Business and Globalisation*, 15(3), 375-388.
- Chu, D. K., Zollinger, T. W., Kelley, A. S. & Saywell, R. M. (1991). An empirical analysis of cash flow, working capital and the stability of financial ratio groups in the hospital industry. *Journal of Accounting and Public Policy*, 10(1), 39-58.
- Eljelly, A. M. A. & Eloheed, A. A. (2013). Performance indicators of banks in a total Islamic banking system: the case of Sudan. *International Journal of Islamic and Middle Eastern Finance and Management*, 6(2), 142-155.
- Eljelly, A. M. A. (2002). Characterizing Saudi commercial banks performance: an exploratory factor analytic approach. *Middle East Business and Economic Review*, 14(1), 43-54.
- Field, A. (2018), *Discovering statistics using IBM Statistics using*, London, GBR.
- Grassa, R. (2016). Ownership structure, deposit's structure, income structure and insolvency risk in GCC Islamic banks. *Journal of Islamic Accounting and Business Research*, 7(2), 93-111.
- Haron, S. (1996). The effects of management policy on the performance of Islamic banks. *Asia Pacific Journal of Management*, 13(2), 63-76.
- Hassan, M. K. & Bashir, A. M. (2003). Determinants of Islamic banking profitability", paper presented at the ERF 10th Annual Conference, 16-18 December, Marrakesh, Morocco, available at: [https://kantakji.com/media/3016/kabir\\_bashir.pdf](https://kantakji.com/media/3016/kabir_bashir.pdf) (accessed on 20 November 2020).
- Ibrahim, M. H. & Rizvi, A. R. (2017). Do we need bigger Islamic banks? An assessment of bank stability. *Journal of Multinational Financial Management*, 40(June), 77-91.
- Iqbal, Z. & Mirakhor, A. (2011). *An introduction to Islamic finance: Theory and Practice*, John Wiley & Sons, Pvt. Ltd, Singapore, SG.
- Ismael, R. (2010). Assessment of liquidity management in Islamic banking industry. *International Journal of Islamic and Middle Eastern Finance and Management*, 3(2), 147-167.
- Johnes, J., Izzeldin, M. & Pappas, V. (2014). A comparison of performance of Islamic and conventional banks 2004-2009. *Journal of Economic Behavior & Organization*, 103(July), S93-S107.
- Masood, O. & Ashraf, M. (2012). Bank-specific and macroeconomic profitability determinants of Islamic banks: The case of different countries. *Qualitative Research in Financial Markets*, 4(2-3), 255-268.
- Mirakhor, A. (2008). Lesson of the recent crisis for Islamic finance. *IJUM Journal of Economics and Management*, 16(2), 132-138.
- Mokni, R. & Rachdi, H. (2014). Assessing the bank profitability in the MENA region: A comparative analysis between conventional and Islamic bank. *International Journal of Islamic and Middle Eastern Finance and Management*, 7(3), 305-332.
- Nawaz, T. & Haniffa, R. (2017). Determinants of financial performance of Islamic banks: An intellectual capital perspective. *Journal of Islamic Accounting and Business Research*, 8(2), 130-142.
- Olson, D. & Zoubi, T. A. (2008). Using Accounting Ratios to distinguish between Islamic and conventional banks in the GCC region. *The International Journal of Accounting*, 43(1), 45-65.
- Pinches, G. E., Mingo, K. A. & Caruthers, J. K. (1973). The stability of financial patterns in industrial organizations. *Journal of Finance*, 28(2), 389-396.

- Safiullah, M. & Shamsuddin, A. (2018). Risk in Islamic banking and corporate governance. *Pacific-Basin Finance Journal*, 47(2), 129-149.
- Sakti, M. R. P. & Mohamad, A. (2018). Efficiency, stability and asset quality of Islamic vis-à-vis conventional banks: Evidence from Indonesia. *Journal of Islamic Accounting and Business Research*, 9(3), 378-400.
- Shaikh, S. A., Ismail, M. A., Shafiat, M. H. M., Ismail, G. & Shahimi, S. (2017). Role of Islamic Banking in Financial Inclusion: Prospects and Performance. In Alam, N. and Rizvi, S.A.R. (Ed.), *Islamic Banking: Growth, Stability and Inclusion*, Springer, Cham, CH, 33-49.
- Smaoui, H. & Salah, I. (2012). Profitability of Islamic banks in the GCC region. *Global Economy and Finance Journal*, 5(1), 85-102.
- Trabelsi, M. A. & Trad, N. (2017). Profitability and risk in interest-free banking industries: a dynamic panel data analysis. *International Journal of Islamic and Middle Eastern Finance and Management*, 10(4), 454-469.
- Trad, N., Trabelsi, M. A. & Goux, J. F. (2016). Risk and profitability of Islamic banks: A religious deception or an alternative solution? *European Research on Management and Business Economics*, 9(1), 46-66.
- Wanke, P., Azad, M. A. K., Barros, C. P. & Hassan, M. L. (2016). Predicting Efficiency in Islamic Banks: An Integrated Multi criteria Decision Making (MCDM) Approach. *Journal of International Financial Markets, Institutions & Money*, 45(November), 126-141.
- Zarrouk, H., Jedidia, K. B. & Moualhi, D. M. (2016). Is Islamic bank profitability driven by same forces as conventional banks? *International Journal of Islamic and Middle Eastern Finance and Management*, 9(1), 46-66.