Empirical Research on Rate of Return, Interest Rate and Mudharabah Deposit

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Introduction

Islamic banking was introduced in Indonesia in 1992 with the long-term objective of having a full-fledged Islamic banking system running parallel with the existing conventional banking system. To be competitive in the dual banking system, the basic strategy that Islamic banks should have offer Shariah-compliant services which match those offered by the conventional banks. Since interest is prohibited in Islam, Islamic bank services are based on profits and other interest-free Islamic principles. Hence, Islamic banks accept demand and savings deposits based on safe-keeping (wadiah) while investment deposits based on profit sharing (mudarabah). Islamic bank financing is offered varieties of principles such as credit sale (bai bithamin ajit), profit sharing (mudarabah, muasyarakat), leasing (ijarah) and hire-purchase (ijarah thumma al-bai).

Islamic banking is a financial industry that has a number of fundamental differences in activity compared with the conventional banking. One of the main differences is the determination of the results to be obtained by the depositor [1]. The growth of Islamic banking will face a competition between the interest rate of conventional banks and profit sharing rate received by customers. The competition will lead to a decision to invest. In general, the decision to invest will make public consider the interest rate offered.

Islamic banking is an activity based on Islamic Syariah principles, which does not allow the paying and receiving of interest and promotes profit sharing in the conduct of banking. The most important difference between Islamic and conventional banking is the prohibition of interest in Islamic banking. Islamic banking activity is based on the trading principles of buying and selling of assets. Following that, in conventional financing, customer’s outstanding loan consists of principal plus the interest charged then onwards. The interest is actually the financial institution’s cost in obtaining the funds and its profit. Islamic financing works on the concept of buying and selling where the financial institution purchases the property and subsequently sells it to customers above the purchase price [2].

The development of the Indonesian Islamic banking industry is conducted under dual banking systems (conventional and Islamic banking systems). The Islamic banking industry has been growing very well since the establishment of the first bank in 1992. Based on Bank Indonesia’s Islamic banking statistic report, there are 10 Islamic commercial banks (BUS), followed by 25 Islamic banking windows/unit (UUS), and 138 Islamic rural banks (BPRS).

In the dual banking system where Islamic banking system operates in conjunction with the conventional banking system, such as in Indonesia, there will be a substantial relationship between the two systems. Changes in interest rates can place pressure on the rate of return or profit-sharing in Islamic banking. Some studies recommended that banks operating within the dual banking system are more sensitive to changes in interest rates. Bacha stated that once the rate increases, the islamic banks need to increase the rate of return because of the failure to meet these terms can have an effect on the liquidity of the bank. Changes in interest rates can have an effect on the amount of net interest income and other income as well as operational costs [3]. Therefore, the purpose of this paper is to investigate the influence of the rate of return offered by Islamic banks and the interest rate of conventional bank on total time deposits mudharabah in the Islamic bank in Indonesia. In addition, this paper investigates whether the interest rate in conventional banks and the rate of return in Islamic banks in Indonesia are different significantly.

Literature Review

Islamic bank

In general, islamic banks are ruled and guided by islamic laws (Sharia). Islamic banks have many characteristic features. The primary and most vital feature of Islamic banks is that the prohibition of interest (riba), no matter its form or source. The prohibition of riba in Islamic social science has received a lot of attention. Several western studies have urged that the prohibition of interest is associated with degreeti-capitalist and an obstacle to the correct functioning of a contemporary economy and a prejudicial issue to economic development and growth [4]. On the opposite hand, others have argued that there’s no ethical or economic justification for charging or receiving interest. Charging interest is harmful and is not appropriate to supply socio-economic justice.

The holy book of Islam (the Qur’an) prohibits both the receipt and payment of interest in all transactions. The principle is that the credit system involving interest results in an inequitable distribution of financial gain in society. Riba is not a payment for taking risks, nor it is the reward for a constructive activity. However, without some kind of reward, Islamic banks could not operate. Although Islamic banks cannot charge fixed interest prior to, they operate by collaborating within the profit resulting from the use of bank funds. The idea of interest is replaced by profit and loss sharing, however, a mark-up for delayed payments and trade-financing commissions are allowed under the Islamic banking model.

Rosly pointed out that for the conventional financial institution, the bottom lending charge (BLR) and prices of return on deposits would adjust according to alterations inside the industry fascination level. A rise on the market curiosity fee would cause the rate of return

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on deposits to increase. This is able to improve the bank’s price of resources which might consequently bring about the curiosity level on financial loans to rise, not less than in proportion to the increase inside the deposit rate. Subsequently, the conventional financial institution’s profit margin will not be afflicted. The Islamic lender, Conversely, cannot increase the BBA gain margin (as stipulated with the Shariah) when the market place interest charge rises and therefore can not raise the speed of returns on its deposits. Should the Islamic bank chooses to boost its deposit rates in buying to compete with conventional banks, it will eventually reduce the Islamic bank’s earnings margin [5].

For the reason that Islamic bank is featuring lower deposit rates, it is unable to compete with the conventional bank in attracting new deposits. Consequently the speed of progress of new deposits will have a tendency to decline. Simultaneously, depositors who would like to get benefit from the higher interest rates will transfer their deposits from the Islamic bank to the conventional financial institution. Customers may want to help keep their deposits for shorter length. Generally the volume of Islamic deposits could be negatively influenced. The above rationalization theoretically exhibits that any change in the market interest rates would produce a shifting effect from Islamic bank to the conventional financial institution and vice versa.

Interest rate

Rate of interest has always been featured as one of the important considerations in explaining the saving behavior of individual. Saving, according to classical economists, is a function of the rate of interest. The higher the rate of interest, the more money will be saved, since at higher interest rates people will be more willing to forgo present consumption. Conventional banking is based on interest which is against the sharia (Islamic law) hence for all the believers in Allah SWT (God) dealings with these institutions do not suit well. Riba is a synonym for the term interest used in conventional banking operations in Arabic term. Riba means charging predetermined additional amount on a loan extended based on the length of credit period. Hanifi explained that charging of interest on loans had never got support in ethics. Interest charging is forbidden by all revealed religions including Islam [6].

Interest rate risk is a major issue that needs serious attention from the bank. Basel illustrated that changes in interest rates may affect the bank both in terms of income and economic value [7]. As in Bacha stated that the constant increase in the interest rate will cause some problems such as the rising cost of funds of banks, because the banks have to pay more to attract new customers and retain existing customers [3]. Khan and Ahmed stated that the risk rate of return is the most important risk faced by Islamic banking compared to other risks such as operational risk and liquidity risk [8].

Islamic banks obtain funding from two sources, namely 1) the public funds in bank deposits and 2) the public funds in non bank deposits. The former is comprised of wadiah demand deposit, Mudharabah saving deposits and Mudharabah time deposit. In the latter, there are received financing, securities issued by banks, interbank liabilities, liabilities to Bank Central and other payables [9].

In relation to the mudharabah time deposits, Islamic banks provide a rate of return to customers. The rate of return varies between banks because it depends on the bank’s profit and the profit sharing ratio that determined at the beginning. In theory, the rate of return on deposits is based on the profit sharing ratio agreed between the bank and the customer [10].

Profit and Loss Sharing (Rate of Return)

Profit- and loss-sharing (PLS) influence the theoretical literary texts, on Islamic finance. Broadly, PLS is a contractual agreement between two or more transacting parties that permit them to pool their resources to invest inside a project to share in financial profit and loss.

Profit-sharing ratios are determined on the idea of many factors. one of those could be a client or firm’s past and expected performance. Banks do not claim a share within the profits on an equal footing, that otherwise would mean sharing profits in strict proportion to the bank’s funding of the capital of a client. In musharakah practice, the bank’s role is restricted within the most of the cases to the availability of capital, whereas the client, besides providing his share of the capital, also uses their labour, skill, enterprise and expertise.

Therefore, the contract rules measure the contribution of the management, labour and skills by devoting and specifying a portion of profit for it. This portion is named the management fee. The management bonus is owed to the customer under one of two basis whether on the base of the total profit regardless its amount or on the basis of achieving the projected profits. If profits fall below the projection, banks might permit a management fee at a lower rate instead of cancelling it altogether. Consequently the customer who achieves a higher rate of profits will earn a higher proportion of bonuses, which, as mentioned, shall be specified in the agreement. Profit sharing is a system for the distribution of net income between the owners (the first party) and fund managers (second party). Both sides agreed that the working capital provided from the first party to the second party will be managed professionally and responsibly [11].

There are two systems for profit sharing, namely: 1. Profit sharing: the calculation is based on the net revenue share of total income after deducting the cost of obtaining revenue. 2. Revenue sharing: the calculation results based on the total income earned before deducting the costs incurred. Islamic banks in Indonesia are generally applying Revenue Sharing system. This pattern can minimize losses to customers. Only if the results are based on profit sharing, then the percentage of the proceeds to the customer will be much higher. Whatever the system used, the basic principle in the profit and loss sharing is the proportion of each (in percentage) should be determined at the beginning of the agreement.

Mudharabah deposit

According to El Thiby mudharabah contract are the cornerstone of islamic banking. Mudharabah is a profit sharing and loss bearing contract; and it may be used on both sides of the balance sheet assets and liabilities. It is a contract between the capital provider as rab al mal, whereby the capital provider would contribute capital to an enterprise or activity that is to be managed by the entrepreneur as mudarib [12].

Profit generated by that enterprise or activity is shared in accordance with the terms of the mudharabah agreement, whereas losses are to be borne entirely by the capital provider unless the losses are as a result of the mudharib’s misconduct, negligence or breach of the terms and conditions of the contract.

In the case of time deposit, bank act as the mudarib. In fact usually as a mudharib bank will set proportion for result based on equivalent rate. So the rab al mal will get the profit based on equivalent rate promised at the beginning contract. If the rate of return higher then there are a probability that total time deposit will be increase. This is because rab al mal will be interested to deposit their fund in Islamic bank if they think that they will get more result.
In the countries that have dual perbankan system like in Indonesia, capital provider also have access about interest rate in conventional bank. A rational depositor will take into account the amount of results that will be obtained by comparing the level of interest in conventional banks and the level of return of sharing in Islamic bank.

**Previous research**

Several studies have been conducted to see the relationship between the level of profit-sharing (equivalent rate) with deposits in Islamic banks as well as the relationship between the interest rate on the deposits of conventional banks with Islamic banks both domestically and from abroad.

The relationship between total Islamic deposits and the conventional rate of return on deposits has been proved by Haron and Ahmad [13]. A negative relationship between the interest rates of fixed deposits of conventional banks and the volume of interest-free investment deposits of Islamic banks was found. Their finding is consistent with the theory that during the rising of interest rates, returns on Islamic bank deposits are relatively lower which cause customers to switch to the conventional banks.

A survey by Obiyathulla analyzed the relation between changes in the rate of interest of conventional bank deposits as well as the rate of return on Islamic bank deposits since 1984 to 2003. Obiyathulla argued that the conclusion verified the theory that decreasing rates of interest had a positive influence on Islamic banks but it also suggested that Islamic banks were forced to increase deposit rates when rates of interest rose so as to keep competitive which might imply a potential squeeze on the banks' income [14].

Kaleem and Isa found that Islamic banks in Malaysia commonly seen in conventional bank interest rate before adjusting the rate of return or profit [15]. Research conducted by Zainol and Kassim also tried to analyze the effect of changes in interest rates on the level of profit-sharing in Islamic banks and the effect of changes in interest rates on savings deposits in conventional banks and Islamic banking [16].

Another study by Kasri and Kassim found that the interest rate in conventional banking is one of the main factors that determine the savings in Islamic banking in Indonesia [17]. The same thing is expressed by Chong and Liu that the Islamic investment rate is closely linked to the interest rate in conventional banking [18].

Haron and Shanmugam found a strong negative relationship between the interest rate and total deposits in Islamic banks [19]. In another study Haron and Ahmad and Kasri and Kassim showed a negative relationship between the interest rate and total deposits in Islamic banks [13,17]. In addition Kaleem and Isa and Bacha found a significant relationship between the rate of return of Islamic banks and interest rate of conventional bank and proved that changes in interest rates will cause a change in the level of profit-sharing in Islamic banking. Furthermore, these studies found that the total deposits in Islamic banks and the rate of return is positively related. This shows the rate of return risk in Islamic banks, where depositors attracted by high returns and will likely withdraw their savings if the rate of return reduced [15,3].

Research conducted by Zainol and Kassim found that the total deposits in Islamic banks is significantly influenced by the rate of return [16]. These findings suggest that customer behavior is controlled by profit motive. In detail these findings state that: a) there is a very strong positive relationship between the rate of return on an Islamic bank with an interest rate in conventional banks, b) The relationship between the rate of return and deposits in Islamic banks is significantly negative as well as the relationship between the rate of return on Islamic banks with total deposits in conventional banks. This relationship is a logical relationship if the rate of return in Islamic bank increases, the deposits in conventional banks will decrease and vice versa.

Customers in countries implementing a dual banking system like in Indonesia will have the option of depositing funds in whether to use conventional banking or Islamic banking. However, it has been argued that Islamic banking customers are those who are looking for a system that is in accordance with his beliefs. They are known as customer loyalty, related to Islamic banking solely because their beliefs do not care about any rate of return obtained. For these groups comply with religious teachings in this case leaving usury is a must do.

Since the issuance of Majelis Ulama Indonesia’s fatwa in 2003 that rate of interest is Harram, it was believed that the Islamic bank’s customers will increase. Predicted that there will be a transfer of 11% deposits in conventional banking to Islamic banking with a number ranging from 40 trillion rupiah. However, until a year later there were only raising $3.6 trillion in Islamic banks. This indicates that the behavior of customers either conventional or Islamic banks do not differ much when related to the profit motive.

Another study conducted by Farikh also mentions that the Third Party Funds (TPF) in Islamic banking is influenced by a conventional deposit rates. If the conventional deposit rate increases, the Mudharabah deposits will decrease because people will tend to save their money in conventional banks. In addition to the research conducted by Bank Negara Malaysia 1994 also revealed that the rate of return on deposits in Islamic banks have a high correlation with the market interest rate [20].

Ismal states that there is an indication the rate of return on deposits mudharabah tend to mimic the interest rate by adjusting the level of financing and deposits [9]. As in Chong and Liu find that in Malaysia only a small portion of Islamic bank financing is based on profit-loss sharing and that Islamic deposits are not interest-free, but closely pegged to conventional deposits, a finding confirmed by Khan for a sample of large Islamic banks across several countries [18,21].

Based on what was described earlier, this study suspect there is a relationship between the interest rate and the rate of return offered by Islamic banking. Third party funds in Islamic banks in the form of mudharabah deposits, influenced by the rate of return offered by Islamic banks and also likely to be influenced by the level of interest in conventional banks.

From the literature, it shows that rate of return and interest rate is an important factor of mudharabah deposit; hence, the proposed hypothesis is as follows;

\[
\begin{align*}
H1: \text{Rate of return has influence on mudharabah deposit} \\
H2: \text{Interest rate has influence on mudharabah deposit}
\end{align*}
\]

Finally, from the literature it is suggested that rate of return in Islamic bank tends to mimic interest rate in conventional bank; hence, the proposed hypothesis is as follow:

\[
\begin{align*}
H3: \text{There is no mean difference between rate of return and interest rate}
\end{align*}
\]

**Methodology**

**Empirical framework**

This study describes the relationship among a set of variables using
regression analysis. In order to analyze the effect of Islamic banks’ rate of return and conventional banks’ interest rate to Islamic banks’ total deposit in Indonesia, a regression model is utilized.

\[
\text{TOTDEP} = a + \beta_1 \text{IRCB} + \beta_2 \text{RRIB} + \varepsilon
\]

IRCB = Interest Rate Conventional Bank
RRIB = Rate of Return Islamic Bank

a = intercept
\(\beta_1\) and \(\beta_2\) = coefficient
\(\varepsilon\) = term of error

Next this study conduct independent t test to ascertain if there is mean difference between rate of interest and rate of return.

**Data and analysis**

The data for this study are taken from the various issues of Bank Indonesia’s Monthly Statistical Bulletin. The study uses monthly data covering the period from January 2012 to September 2015. The reason for using 1 month deposit data because this deposit is more responsive with the change of interest rate or rate of return because the depositor can Swift their fund quickly. Additionally, 1 month deposits is the largest source of deposits for Islamic banks and conventional deposits compared with 3.6, or 12 months.

**Data and Empirical Result**

The descriptive statistics of variables are presented in Table 1 showing the mean, minimum and maximum for variables rate of return, interest rate, and total mudharabah deposit in Islamic bank.

Over the sample period, the average rate of return of Islamic banks stands at 6.2082 vs. 6.1011 for interest rate in conventional bank. Table 1 indicates that minimum rate of return in Islamic bank is lower than interest rate. In term of Mudharabah deposit, the average is 42,3933 with minimum 19,597 and maximum deposit 69,106.

Using regression analysis, the result shows that simultaneously there is a significant influence in rate of return and rate of interest on mudharabah deposit.

Test on influence partially present in Table 2. Table 3 shows that there is significantly influence for rate of return in Islamic Bank to Mudharabah Deposit \((p=0.002)\). While for rate of interest there is no significant influence \((p=0.185)\) to Mudharabah Deposit. It means that H1 is accepted while H2 is rejected.

![Table 1: Descriptive Statistic.](image)

**Conclusion**

This paper empirically analyzes the impact of rate of return and interest rate on mudharabah deposit in Islamic Bank in Indonesia. In
addition, the study also examines the difference in mean rate of return and interest rate between Islamic bank and conventional banks. When the data have been analyzed, some interesting result emerged. Using regression analysis the result shows that the rate of return in Islamic bank influence mudharabah deposit negative significantly. This study also found that there is negative influence interest rate on Mudharabah Deposit, but it is not significant. This finding indicates profit motive among the Islamic bank depositors as reflected by the significant impact of the Islamic banks’ rate of return on Islamic banks’ total deposits. Using independent t-test, the findings conclude that there is no difference in means of returns between Convention and Islamic banks.

This study however, has its own limitation whereby it is conducted within a limited time period and variables. Further extension of this research should consider a wider scope of deposits by conducting the same approach on different type of deposits available in Islamic banks and specific financial institutions categorized under Islamic financial institutions. Further extension of the study could consider the determinants of rate of return of the Islamic banks.

References