

# Comparative Analysis of Financial Performance between Islamic and Conventional Bank in Indonesia

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## Abstract

The objective of this research is to compare the financial performance between Islamic and conventional bank in Indonesia in the period of 2006 – 2014 by using financial ratios. Financial ratios that are used consist of capital adequacy ratio (CAR), loan to deposit ratio (LDR), non performing loan (NPL), operational efficiency ratio (OER), and return on asset (ROA). The study analyzed five banks listed in Bank Indonesia which were PT Bank Bukopin, PT Bank Mega, PT Bank DBS Indonesia, PT Bank Syariah Mandiri, and PT Bank Muamalat Indonesia. The method used in this research is independent sample t-test, which is used to compare samples from two different populations. This study used secondary data that was collected and obtained from financial publication report quarterly published by representative banks through the official sites of the banks and official site of Bank Indonesia starting from March 2006 to June 2014. The result showed that CAR, LDR, NPL, and OER between Islamic and conventional banks are significantly different, while ROA showed no significant different between Islamic and conventional banks. In terms of CAR and NPL, conventional bank is better than Islamic bank, meanwhile Islamic bank is better than conventional bank in terms of LDR, OER, and ROA.

**Keywords:** CAR, LDR, NPL, OER, ROA.

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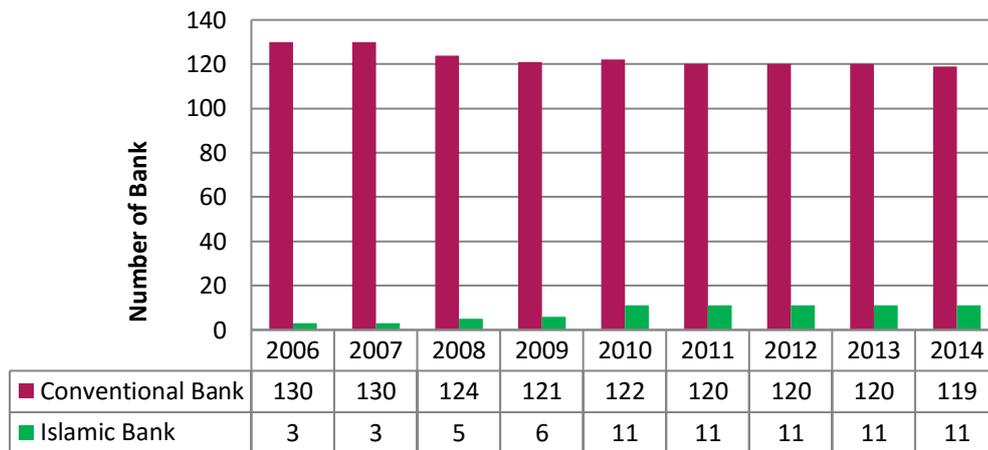
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## Introduction

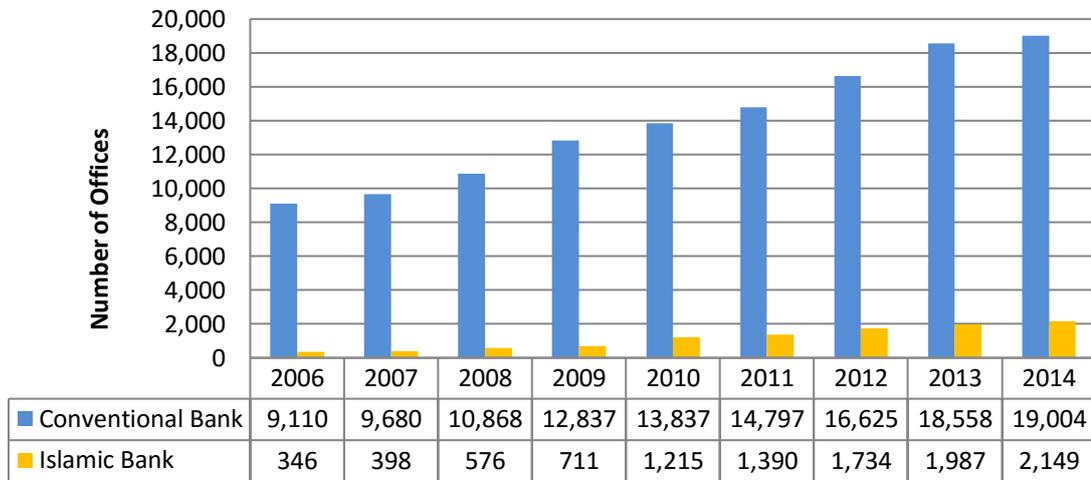
Bank has a strategic role in the economy of a country. It is because bank is the financial system that serves as a financial intermediary, which is an institution that has role to reconcile between the owners and users of funds. Bank raise funds from the public in the form of savings and distribute it to the public in the form of credit and or other forms in order to improve people’s living standard. Therefore, the activities of banks must be run efficiently on macro and micro scale.



Source: Indonesia Banking Statistic 2012 and Indonesia Banking Statistic 2014

Figure 1. The Number of Conventional and Islamic Banks

A banking system with Islamic approach has introduced in Indonesia since the last few years. Indonesia’s Islamic financial system has been extended to the capital market, insurance, mortgage, saving and loan institution and others. The purpose is to enrich Islamic system over conventional systems that are used to compare the performance and especially the future prospects. Islamic banking system is positioned as part of the national banking system. In 2008, the government issued Law No. 21 of 2008 about Islamic banking, which is expected to provide a clearer operating foundation and greater opportunities in the development of Islamic banking in Indonesia, so it will be equal between Islamic banking and conventional banking. The existence of Islamic bank in Indonesia have been regulated in Law No. 10 of 1998 on the amendment of Law No. 7 of 1992 about banking as well as more specifically on Government Regulation No. 72 of 1992 about bank based on the principle of profit sharing. Since then, there are two banking systems in Indonesia (Dual Banking System) that is differentiated by the payment of interest or profit-sharing system, which are conventional bank and Islamic bank.

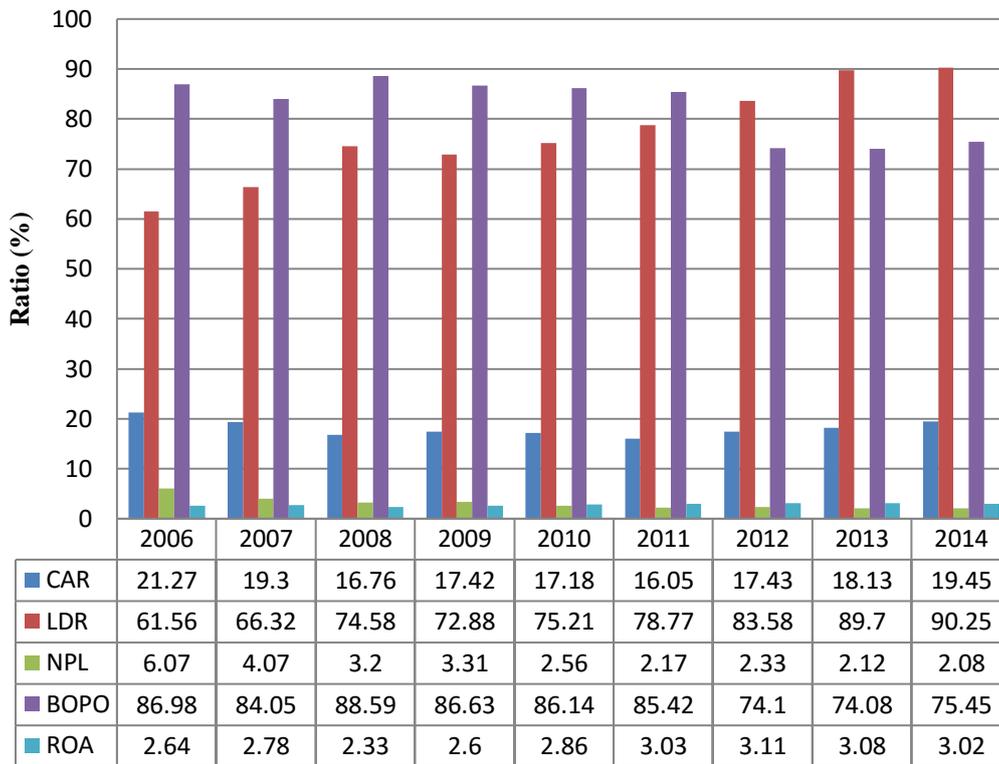


Source: Indonesia Banking Statistic 2012 and Indonesia Banking Statistic 2014

Figure 2. The Number of Offices of Conventional and Islamic Banks

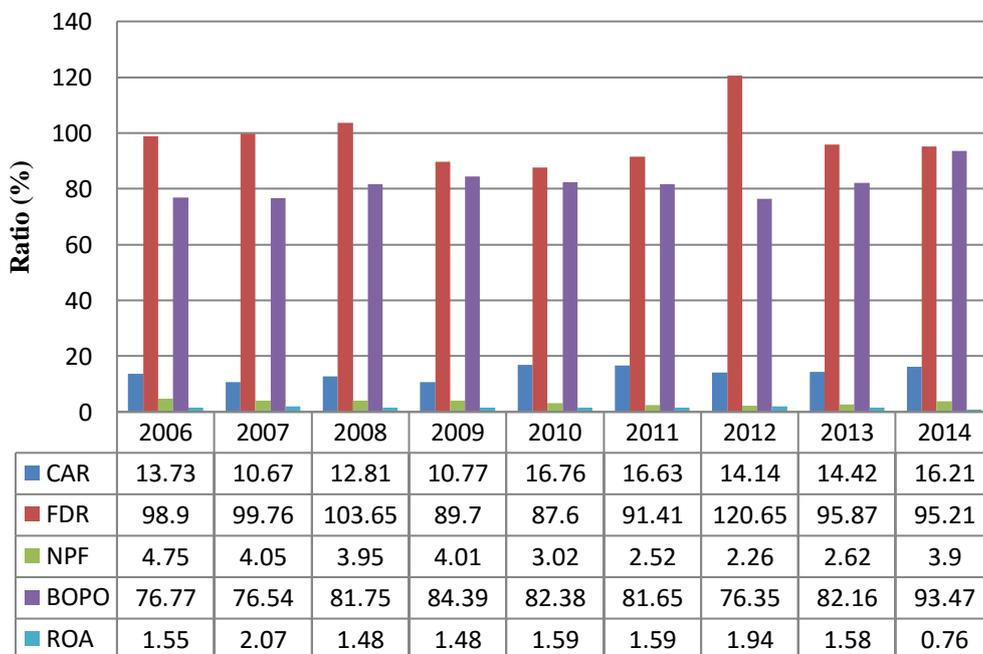
Figure 1 and figure 2 respectively show the number of conventional banks and Islamic banks, and the number of offices of conventional and Islamic banks. Although the number of Islamic banks is still far below the conventional banks, the offices of Islamic banks increase faster than the offices of conventional bank. The numbers of conventional bank offices increased by 8% to 12% from 2009 until 2014. While the growth of Islamic bank offices reach 71% in 2010, and it increased by 14% to 25% from 2011 until 2014. The increasing of the number of bank offices shows that the financial institutions are increasingly providing convenience to the public, especially the expanding of Islamic banking offices in Indonesia with muslim majority.

Figure 3 and figure 4 respectively show the financial performance of conventional banks and Islamic banks that are measured by the ratios. In terms of capital, both conventional bank and Islamic bank has increased year by year and has met the standard of capital adequacy of Bank Indonesia, which is 8%. In terms of NPL or known as NPF in Islamic banking which is the ratio that indicated the percentage of non-performing loans to all loans or financing disbursed by bank, Islamic bank has met the standard of Bank Indonesia which is under 6% and there is no big difference compared to the NPL of conventional bank.



Source: Indonesia Banking Statistic 2012 and Indonesia Banking Statistic 2014

Figure 3. The Financial Performance of Conventional Bank



Source: Indonesia Banking Statistic 2012 and Indonesia Banking Statistic 2014

Figure 4. The Financial Performance of Islamic Bank

In case of the level of bank's liquidity which is measured by LDR or known as FDR in Islamic bank, Islamic bank has met the standard of Bank Indonesia which is 85% - 110%. Meanwhile OER as the efficiency ratio to measure the level of efficiency and bank's ability to conduct its operation (Siamat, 2005), Islamic bank has not met the standard of Bank Indonesia at 94%. In terms of ROA which is the ratio to measure the ability of bank management in obtaining the overall profit, both Islamic bank and conventional bank has met the best standard of Bank Indonesia of 1.5%. In some ways, both conventional bank and Islamic bank have similarities, especially in the technical side of the receipt of money, the mechanism of transfer, general conditions to obtain the financing and so forth. However, there are fundamental differences between the two, which is in the agreement that Islamic banks do have worldly and hereafter consequences because the agreement made according to the Islamic law.

The financial statement of the bank shows its financial performance that has been achieved at a certain time. The financial performance could be measured by calculating the financial ratios in order to determine the performance using ratio analysis, which is the ratios of liquidity, solvency, profitability, and operational efficiency. Ratio analysis is a technical analysis to determine the relationship between certain items in the balance sheet and income statement of bank. Liquidity ratio used in banking could be determined by calculating the quick ratio, banking ratio, and loan-to-asset ratio. Financial ratio to measure solvency of a bank could be determined by calculating the capital adequacy ratio, the primary ratio, and capital ratio. Profitability ratio could be determined by calculating the return on asset, return on equity, and the gross profit margin. Meanwhile the ratio of operational efficiency could be determined by calculating the leverage multiplier ratio, assets utilization ratio, and the operating ratio (Rahmawati, 2008). In addition, analysis of the ratios also assist management in understanding what is actually happening in the banking based on financial statement information either by comparison of current ratio with the past and future in the banking sector, and the ratio of internal banking with the other banks or industry during the same point.

As it is one of the financial institutions, banks need to maintain its performance in order to operate optimally. Moreover, Islamic banks have to compete with conventional banks which are dominant and have been growing rapidly in Indonesia. This tight and intense competition should be coupled with good management to survive in the industry. One factor that must be considered by the bank to be able to survive is the bank's financial performance. Besides that, Islamic banks still need to convince people and investors to put and invest their money in Islamic bank. That is why, as one of an important factor to prove their healthiness and quality as well as to gain people's trust, the financial performance of Islamic bank and conventional bank will be assessed further.

According to the explanation about the problem above, the researcher would like to assess the difference of Islamic bank and conventional bank based on the financial performance. The financial performance could be identified by ratio analysis, which includes CAR, OER, NPL, LDR and ROA. Those variables are expected to be explored more in order to analyze and explain the difference between financial performance of Islamic bank and conventional Bank.

## Literature review and hypotheses

### *Conventional Bank*

Conventional bank is bank that run the business activities in a conventional way and based on its type consist of commercial bank and rural bank (Booklet *Perbankan Indonesia*, 2014). Conventional bank could also be defined as in the definition of commercial bank in article 1, paragraph 3 of Law No. 10 of 1998 by removing the phrase “and or based on Islamic principle”, that is bank that run the business activities conventionally which in the activities providing services in payment traffic.

Based on Booklet *Perbankan Indonesia* (2014), the business activities of conventional bank consist of:

1. Collect funds from the public in the form of deposits, time deposits, certificates of deposit, savings, and/or the other equivalent form;
2. Giving credit;
3. Issuing the letter of debt acknowledgement;
4. Buy, sell, and insure over the risk itself and for the benefit and on behalf of its customers;
  - a. The draft letters including the draft that accepted by the bank in which the validity period is not longer than the habit in the trade of referred letters;
  - b. The letter of debt acknowledgement and the other trade paper that the validity period is not longer than the habit in the trade of referred letters;
  - c. Treasury paper and government bonds;
  - d. Bank Indonesia Certificate or *Sertifikat Bank Indonesia*(SBI);
  - e. Bond;
  - f. Trade letter with maturity up to 1 year; and
  - g. The other securities instrument with maturity up to 1 year.
5. Transferring money either for themselves or on behalf of the customers;
6. Placing funds to, borrow from, or lend funds to the other banks, either by using the mail, telecommunication facilities as well as the show notes, checks or the other facilities;
7. Receiving payment of bills on securities and perform the calculations with or between third parties;

8. Providing a place to store goods and securities;
9. Conducting deposit activities for the benefit of the other party based on a contract;
10. Placing the funds from customer to the other customers in the form of securities that are not listed on a stock exchange;
11. Conducting factoring activities, credit card business, and activities of trustees;
12. Provide financing and or doing the other activities based on *syariah* principle, in accordance to the existing regulations;
13. Perform other activities that commonly conducted by the bank as long as not contrary to the law on banking and the existing laws and regulation;
14. Conducting foreign exchange operations by meeting the existing regulations;
15. Conducting the equity investment in banks or other companies in the field of finance, such as leasing venture capital, securities companies, insurance, as well as clearing settlement and storage, by meeting the existing regulations;
16. Conducting the equity investment while to overcome the effect of credit failure or financing failure based on *syariah* principle, with the condition that they must withdraw their the investment, by meeting the existing regulation;
17. Acting as the founder of the pension fund and pension fund trustees in accordance with the existing law and regulation of pension;
18. Conducting the business activities of a bank in the form of custody management/trust.

### *Islamic Bank*

Islamic bank is a bank that conducted the business activities based on *syariah* principles and based on its type consists of Islamic bank and Islamic financing bank. *Syariah* principle is the principle of Islamic law in banking activities based on the fatwa issued the institution that has the authority in the determination of the fatwa in *syariah* (Booklet *Perbankan* Indonesia, 2014). In general, what is meant by Islamic bank is a financial institution whose main business is providing credit and other services in payment traffic and the circulation of money that is adapted to operate with the principle of *syariah* (Sudarsono, 2008).

According to Booklet *Perbankan* Indonesia (2014), the business activities of Islamic bank consist of:

1. Raise funds in the form of deposit, such as demand deposit, savings, or other equivalent form based on the *wadi'ah* agreement or the other agreement that does not contrary with the *syariah* principle;

2. Raise funds in the form of investment of deposit, saving, or any other equivalent form, based on *mudharabah* agreement or other agreement that does not contrary with *syariah* principle;
3. Distribute the financing of profit-sharing based on *mudharabah*, *musyarakah*, or other agreement that does not contrary with *syariah* principle;
4. Distribute the financing based on *murabahah*, *salam*, *istishna*’, or other agreement that does not contrary with *syariah* principle;
5. Distribute the financing based on *qardh* or other agreement that does not contrary with *syariah* principles;
6. Distribute the financing leasing of movable or immovable goods to customers under *ijarah* agreement and/or lease purchase in the form *Ijarah Muntahiya bit Tamlik* (IMBT), and other agreement that does not contrary with *syariah* principle;
7. Conducting debt take over based on *hawalah* agreement or other agreement that does not contrary with *syariah* principle;
8. Conducting debit card business and/or financing card based on *syariah* principle;
9. Buy, sell, or guarantees at own risk securities issued by third parties on the basis of real transactions based on *syariah* principle, such as *ijarah*, *musyarakah*, *mudharabah*, *murabahah*, *kafalah*, or *hawalah*;
10. Purchase securities based on *syariah* principle issued by the government and/or BI;
11. Receive payment of bills on securities and perform calculations with the third parties or among third parties based on *syariah* principle;
12. Conduct deposit activities for the benefit of the other party based on a agreement in accordance with *syariah* principle;
13. Provide a place to store goods and securities based on *syariah* principle;
14. Transferring money either for itself or on behalf of customers based on *syariah* principle;
15. Perform function as trustee based on *wakalah* agreement;
16. Provide a letter of credit or bank guarantee based on *syariah* principle;
17. Perform other activities that commonly done in banking and in the social as long as it does not contrary with *syariah* principle and in accordance with the law and regulation;
18. Conduct foreign exchange activities based on *syariah* principle;

19. Conduct equity investment in Islamic bank or financial institution that conduct the business based on *syariah* principle;
20. Conduct equity investment while to overcome the effect of financing failure based on *syariah* principle, with the condition that they must withdraw their investment;
21. Act as the founder and administrator pension funds based on *syariah* principle;
22. Conduct the activities in capital market as long as it does not contrary with *syariah* principle and the law and regulation of capital market;
23. Organize the activities or banks' product based on *syariah* principle using electronic facilities;
24. Publish, offers, and trades in short-term securities based on *syariah* principle, either directly or indirectly through money market;
25. Publish, offer, and trade in long-term securities based on *syariah* principle, either directly or indirectly through money market; and
26. Provide the product or conduct the other Islamic bank business activities based on *syariah* principle.

### *The Differences Between Conventional Bank and Islamic Bank*

In some cases, conventional bank and Islamic bank have several similarities, especially in the technical side of the receipt of money, transfer mechanism, computer technology that is used, general conditions in obtaining the financing such as identity card or *kartutandapenduduk* (KTP), tax identification number or *nomorpokokwajibpajak* (NPWP), proposal, financial report, and so on. However, there are many fundamental differences between the two. There are the differences in the legal aspects, organizational structure, financed business, and the basis of profit or loss calculation (Antonio, 2007).

Table 1. The Differences between Islamic Bank and Conventional Bank

Islamic Bank	Conventional Bank
1. Doing lawful (halal) investments only.	1. Investment is lawful (halal) and unlawful (haram)
2. Based on principle of profit-sharing, sell-buy, or lease.	2. Using interest.
3. Profit and Falah oriented (prosperity in this world and happiness in Hereafter).	3. Profit oriented.
4. Relationships with the customers in the form of partnerships.	4. Relationships with the customers in the form of debtor-creditor relationship.

5. Collection and distribution of funds shall be in accordance with the fatwa of <i>Syariah</i> Supervisory Board (DPS).	5. There is no <i>Syariah</i> Supervisory Board (DPS), but Commissary Board.
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Source: (Antonio, 2007)

### Agreement and Legality Aspects

Is Islamic bank, the agreements have the consequences worldly and hereafter because the agreement is carried out based on Islamic law. Often, the customers daring to break the deal or treaty that has been done when the law was only based on mere positive law, but not so when the agreement has responsibility to *YaumulQiyamah* later.

### Organizational Structure

Islamic bank may have the same structure as conventional bank, for example in the terms of commissioners and directors, but the element that distinguish the most between Islamic bank and conventional bank is the necessity of *Syariah* Supervisory Board which is in charged to supervise the operations of the bank and its products to fit the lines of *syariah*. *Syariah* Supervisory Board positions are usually place on the same level of Board of Commissioners on each bank. This is to ensure the effectiveness of any opinion given by *Syariah* Supervisory Board. Therefore, the determination of *Syariah* Supervisory Board is usually carried out by the general meeting of shareholders or *rapat umum pemegang saham*(RUPS) upon the recommendation of National *Syariah* Board.

### Business and Enterprises Funded

Business and enterprise that is taken under Islamic bank must comply with the provision of *syariah* such as, it does not contain elements of gambling (*maisir*), unfounded speculation (*gharar*), and is not related sexual misconduct, unlawful, and usury.

### Work Environment

An Islamic bank should have a working environment in line with *syariah*. In terms of ethics, for example the character of trust (*amanah*) and *shiddiq*, must underpin every employee. In addition, employee of Islamic bank must be skillful and professional (*fathanah*), and able to perform tasks in a team-work in which the information evenly across all the functional organization (*tabligh*). Similarly in terms of reward and punishment, is necessary in accordance with the principle of justice in *syariah*.

### Basic Calculation of Profit or Loss

Islamic bank does not use the system of interest as the basis calculation in running the activities (transaction or agreement), instead they use profit-loss sharing system which is the profit sharing system between *shahibul maal* and *mudharib* based on profit-sharing ratio or percentage agreed upon at the beginning of the transaction.

### *Banking Financial Performance*

The purpose of the analysis of banking financial performance is to assess the success of management in managing an enterprise. Banking performance is an overview of the achievements of the bank in the financial aspects, marketing, collection and distribution of funds in a certain period. Bank as a company is required to maintain public trust toward the performance of the bank itself. Therefore the transparency or disclosure of bank's financial statement is necessary in order to provide the information regarding the financial position, performance and changes in financial position, as well as a basis for decision making (Gunawan & Dewi, 2003). Assessment of bank's financial performance could be determined through the approach of financial ratios analysis of all financial statements reported in a certain time (Febryani & Zulfadin, 2003).

#### *Capital Ratio (Solvability)*

The definition of bank capital based on the regulation of Bank Indonesia is distinguished between banks that is founded and headquartered in Indonesia and branches of foreign banks operating in Indonesia. Capital of the bank was founded and is headquartered in Indonesia consists of core capital or primary capital and supplementary capital or secondary capital. Components of core capital basically consist of paid-in capital and reserves that are formed from profit after tax (Siamat, 2005). Supplementary capital consists of reserved that are not formed from the profit after tax and loans that are equivalent to capital, with the following detail:

##### Fixed assets revaluation reserve

Fixed assets revaluation reserve is a reserve created from revaluation of fixed assets that have been approved by the Directorate General of Taxation.

##### Allowance for earning assets (PPAP)

Allowance for earning assets is reserves formed by burdening income for the year, with the purpose to accommodate the losses that may arise as a result of non-receipt of a portion or all of the productive assets. PPAP which can be considered as supplementary capital is a maximum of 1.25% of total weighted assets (ATMR).

##### Quasi capital

Quasi capital is the capital that is supported by the instruments or slips that have nature like capital.

##### Subordinated loan

Subordinated loan is a loan that must meet various requirements, such as a written agreement between the bank and the lender, received approval from Bank Indonesia, the minimum term of 5 years, and repayment prior to maturity must be approved by Bank Indonesia.

Aspects that relate to capital are the ratio between the capitals of risk weighted assets or *aktiva tertimbang menurut risiko* (ATMR). Risks to assets in a broad meaning could arise either in the form of credit risk and the risk that occurs due to fluctuations in the price or value of securities, interest rate, and foreign currencies exchange rates. This comparison is commonly known as capital adequacy ratio. The first step in the calculation of CAR is to calculate risk weighted assets. In this case all of the assets given certain weight based on the weight of certain scales ranging from not at risk (risk = 0%) to the risk of 100%. This risk weighting uses international standard which is set by the Bank International for International Settlement. For this weighting, the bank must first conduct the test on credit risk (credit assessment) based on certain criteria.

The next step to get CAR is to divide the capital of bank (bank's equities) to risk weighted assets. From the formula, it could be seen that if a bank is more aggressive distributing funds into productive assets at risk (because they expect greater interest income), the bank should also have to have greater capital. According to Achmad and Kusumo (2003), a bank with higher value of CAR has a better condition, as it means the capital owned by the bank is able to cover the risk of loss arising from the investment of funds in productive risky assets, and can be used to finance the cultivation of the fixed assets and investments.

Bank Indonesia as the banking regulator has issued regulation in Circular No. 6/23/DPNP dated May 31, 2004, which requires banks in Indonesia to maintain a capital adequacy ratio as low as 8%. For the banks with the CAR is less than 8%, should increase their capital either in the form of additional paid-in capital by the owner or a merger with a bank that has a capital adequacy.

$$CAR = \frac{\text{Total Capital}^*}{\text{Risk Weighted Asset}} \times 100\% \quad (\text{Eq. 1})$$

*\*Total Capital = Core Capital + Supplementary Capital*

#### *Quality of Earning Assets Ratio*

Under article 1 point b, the Board of Director of Bank Indonesia decree No. 31/147/KEP/DIR November 12, 1998, on the quality of earning assets, the quality of earning assets is an investment bank both in Rupiah and foreign currencies in the form of credit, securities, interbank placements, investment, commitments and contingencies at the balance sheet transactions. In Article 14 paragraph (1) stated, the provisions of the decree also applies to banks based on Islamic principles. Similarly the assessment of assets quality assessment or *kualitas aktiva produktif* (KAP) for a conventional bank and Islamic banks, they still use the same reference that is based on (Article 3):

1. Prospects of the business
2. The financial condition of the debtor's emphasis on cash flow
3. Ability to pay

The last four groups of collectability are non-performing loans. Non-performing loan in the conventional bank is analogous to non-performing financing in Islamic bank. Non Performing Financing demonstrates the ability of bank management in managing the problem of financing provided by the bank. So the higher this ratio the worse the credit quality of banks that caused the greater number of problem loans, the likelihood of a bank in the greater problematic conditions. Credits in this case are loans granted to third parties excluding loans to other banks. NPL ratio is indicated by the percentage of non-performing loans to all loans disbursed by banks or financing.

If the condition of a bank's NPL is high, it shows a worse credit quality that caused the greater the amount of performing loans, which will lead the bank to a problematic condition. The lower the value of NPL reflects the better the quality of bank's assets (Masyhud, 2004). According to the regulation of Bank Indonesia in Circular No. 6/23/DPNP dated May 31, 2004, a good condition of bank's NPL is below 6%. Below is the calculation for NPL or known as NPF in Islamic bank:

$$NPF = \frac{\text{Financing Loss point } 3,4,5}{\text{Total Financing}} \times 100\% \quad (\text{Eq. 2})$$

$$NPL = \frac{\text{Non Performing Loan point } 3,4,5}{\text{Total Loan}} \times 100\% \quad (\text{Eq. 3})$$

### *Profitability Ratio*

Analysis of bank profitability ratio is a tool to analyze or measure the level of business efficiency and profitability achieved by the banks concerned. Profitability ratio used in this study is the Return on Assets. ROA is the ratio used to measure the ability of bank management in obtaining the overall profit (Dendawijaya, 2009). The larger the ROA of a bank, the greater the level of profit achieved the bank and the better the position of the bank in terms of asset utilization (Siamat, 2005).

Companies can increase ROA by increasing profit margins or asset turnover. This ratio is often useful to describe the strategy of a company's finances. This is understandable because asset turnover indicates the ability of management to manage the entire investment (assets) in order to generate sales. The increase in this ratio means an increase in the net profit of the bank concerned. As it stated in Circular No. 6/23/DPNP dated May 31, 2004, Bank Indonesia put the requirement for ROA is greater than 0.5%.

Below is the formula to calculate the return on assets:

$$ROA = \frac{\text{Profit before Tax}}{\text{Total Assets}} \times 100\% \quad (\text{Eq. 4})$$

### *Efficiency Ratio*

The ratio of cost efficiency is the ratio between operating expenses and operating income or known as operational efficiency ratio. This ratio is used to measure the level

of efficiency and the bank's ability to conduct its operations (Siamat, 2005). In other words, the efficiency ratio is used to measure the ability of bank management in controlling operating expenses to operating income. The smaller this ratio means that the more efficient operational costs incurred by the bank, so that the possibility of a bank in error gets smaller. Bank of Indonesia sets up that the bank will be considered have healthy condition regarding its financial performance if OER value does not exceed 94% - 96%.

Mathematically, OER can be formulated as follows:

$$OER = \frac{\text{Operating Expense}}{\text{Operating Income}} \times 100\% \quad (\text{Eq. 5})$$

### *Liquidity Ratio*

The liquidity ratio is a ratio to measure the bank's ability to meet its short-term obligations at the time of collection. The ratio used in this study is Loan to Deposit Ratio which is analogous to Finance to Deposit Ratio in Islamic bank. This ratio used to measure the level of liquidity that shows the ability of banks to meet the credit demand by using the total assets of the bank (Dendawijaya, 2009). This ratio indicates the amount of third party funds that are distributed in the form of credit (in Islamic bank known as financing terms). This ratio can also be said to be used to determine the bank's ability to repay obligations to the customers who have invested their funds with loans that have been given to the debtor. If the ratio is too high, it illustrates not too good position of banks liquidity.

LDR is the ratio between loans disbursed with public funds collected by the bank in the form of demand deposits, savings and time deposits. The increase in LDR mean the increasing of bank credit expansion that is not matched with the third-party funds, or from the other side means that third party funds collected by banks is declined. Meanwhile, the bank that has a very small LDR mean the bank is not doing the intermediation function properly. These banks are generally only accommodating third-party funds, and then do the placing on the market of money to seek profits without providing credit facilities to the public. According to Bank Indonesia, the best standard LDR is 85% to 110% while the industry average LDR of 40%.

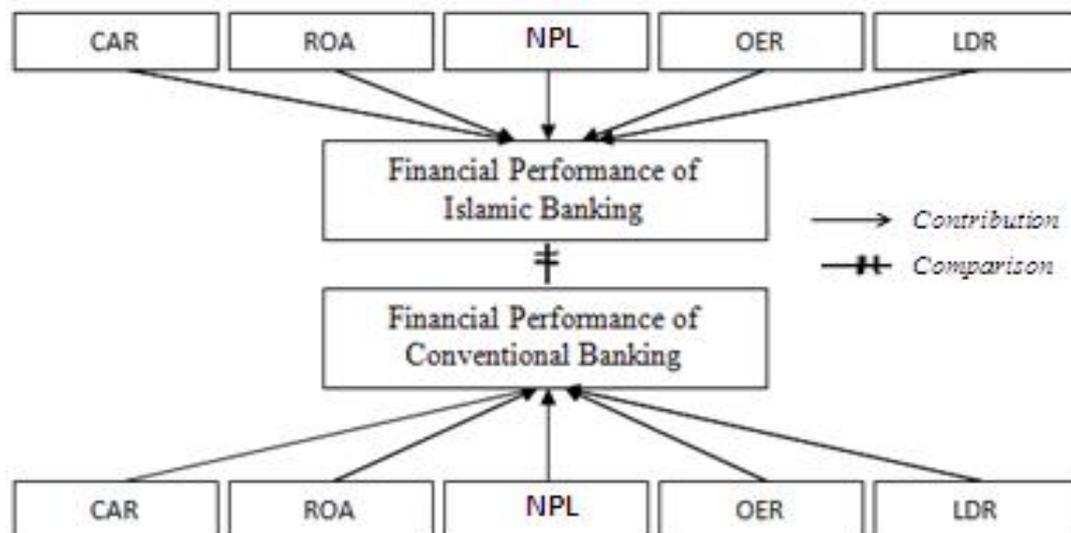
Financing to Deposit Ratio or Loan to deposit Ratio can be formulated as following:

$$FDR = \frac{\text{Total Financing}}{\text{Third Party Funds}} \times 100\% \quad (\text{Eq. 6})$$

$$LDR = \frac{\text{Total Loan Disbursed}}{\text{Third Party Funds}} \times 100\% \quad (\text{Eq. 7})$$

## Theoretical Framework

Figure 5. Theoretical Framework



Source: Puspitaningrum & Triyuwono, 2007

The researcher wants to research the determinants of financial performance by using 5 independent variables which are Capital Adequacy Ratio, Loan to Deposit Ratio, Non-Performing Loan, Operational Efficiency Ratio, and Return on Asset.

## Hypothesis Testing

The hypotheses for this research formulated as follows:

H<sub>1</sub>: There is significant difference in financial performance between Islamic and conventional banks based on CAR

H<sub>2</sub>: There is significant difference in financial performance between Islamic and conventional banks based on ROA

H<sub>3</sub>: There is significant difference in financial performance between Islamic and conventional banks based on LDR

H<sub>4</sub>: There is significant difference in financial performance between Islamic and conventional banks based on NPL

H<sub>5</sub>: There is significant difference in financial performance between Islamic and conventional banks based on OER

## Research design

There are two methods in doing scientific research, which are quantitative and qualitative research. Quantitative research is an objective measurement and statistically

valid of a larger number of respondents or samples. Quantitative research generates numerical data into useable statistics by using some tools, such as Statistical Package for the Social Sciences (SPSS), to quantify the problem. To achieve findings with an acceptable degree of accuracy, the researcher use formula to determine how large a sample size will be needed from a given population.

### *Sampling Design*

Sampling is the process of obtaining information from a subset (sample) of a larger group (population) (Sekaran & Bougie, 2009). The methods used in the determination of the sampling is purposive sampling method, the sample drawn based on certain characteristics, which have relation with the population characteristics which previously known.

Table 2. Islamic Banks Listed in Bank Indonesia

No.	Islamic Bank Name	Total Assets (In Million Rupiah)
1.	PT Bank SyariahMandiri	62,786,572
2.	PT Bank Muamalat Indonesia	58,488,595
3.	PT Bank BRI Syariah	18,316,859
4.	PT Bank BNI Syariah	17,350,767
5.	PT Bank Mega Syariah	8,451,443
6.	PT Bank JabarBantenSyariah	5,050,108
7.	PT Bank PaninSyariah	4,692,020
8.	PT Bank SyariahBukopin	4,645,407
9.	PT Bank BCA Syariah	2,224,415
10.	PT Bank MaybankSyariah Indonesia	2,075,674
11.	PT Victoria Syariah	1,341,518

Source: Bank Indonesia

Based on table 2 above, there are two Islamic banks that meet the criteria, which are PT Bank Syariah Mandiri and PT Bank Muamalat Indonesia. While in terms of conventional bank, researcher found out that there are three conventional banks that meet the criteria and assumed to be comparable with chosen Islamic bank, which are PT Bank Bukopin, PT Bank Mega, and PT Bank DBS Indonesia, with the total asset respectively 69,152,798-, 61,388,740-, and 57,696,953 (In Million Rupiah).The data taken to be used in this research is typical of time series data. A time series data is a set of observations on the values that a variable takes a different times (Gujarati, 2004). The data may be collected at regular time intervals, which in this research is quarterly. In time series data, the sample size will be based on total of the time ranges.

As showed by table 3, the total time ranges that taken from 2006 until 2014 quarterly as calculated are 34. The sample size will be calculated as follows:

Table 3 Sample Size Calculation

Year	Quarter	Total Quarter
2006	Q1, Q2, Q3, Q4	4
2007	Q1, Q2, Q3, Q4	4
2008	Q1, Q2, Q3, Q4	4
2009	Q1, Q2, Q3, Q4	4
2010	Q1, Q2, Q3, Q4	4
2011	Q1, Q2, Q3, Q4	4
2012	Q1, Q2, Q3, Q4	4
2013	Q1, Q2, Q3, Q4	4
2014	Q1, Q2	2
Total Sample Size		34

Source: Constructed by the researcher

### *Normality Test*

In most researches, normality test is well-known to be completed as the first assumption which is for testing whether the input data is normally distributed (Jackson, 2008). Independent Sample T-test needs to have assumptions that data comes from a normally distributed population.

Normality test can be done through graphic analysis and statistical analysis. As cited by Jayanti (2013), basics for decision making for normality test are as follow:

1. In statistical analysis, if the data in Kolmogorov-Smirnov table the value of Sig or significant > 0.05, means normally distributed.
2. In graphical analysis, if P-P plot (probability-probability plot) the data (dots) spreads around diagonal line or follow the shape of line, means it is normal distribution.
3. In histogram, if the curve is concentrated in the middle and declined in both side and make a bell shape, means the data normally distributed.

### *Homogeneity Test*

In this research, the homogeneity assumption test using Levene's test (F-test) is conducted to answer the question of "Can variance of the two populations be considered equal or assumed to be homogeneous?" (Peer, 2012, p.235). This test should be done before T-test because T-test essentially requires the similarity variance of two populations tested.

Hypothesis for variance test:

$$H_0: \sigma^2_1 = \sigma^2_2$$

$$H_a: \sigma^2_1 \neq \sigma^2_2$$

With the conditions:

If  $F\text{-value} > F\text{-table}$  then  $H_0$  is rejected and  $H_a$  is accepted

If  $F\text{-value} < F\text{-table}$  then  $H_0$  is accepted and  $H_a$  is rejected

## Result and discussion

### *Descriptive Statistics*

Below is the descriptive table contains of mean and standard deviation of the variables used in this research, that will help to explain the statistics information of both Islamic and conventional bank.

Table 4. Descriptive Statistics

Group Statistics					
	Bank	N	Mean	Std. Deviation	Std. Error Mean
CAR	Islamic Bank	34	13.1626	1.48683	.25499
	Conventional Bank	34	16.0544	1.84150	.31581
ROA	Islamic Bank	34	1.8662	.37542	.06438
	Conventional Bank	34	1.8074	.33882	.05811
LDR	Islamic Bank	34	93.3918	4.31285	.73965
	Conventional Bank	34	75.9653	6.16164	1.05671
NPL	Islamic Bank	34	4.3024	1.36661	.23437
	Conventional Bank	34	2.2709	.31568	.05414
OER	Islamic Bank	34	81.4224	3.50035	.60030
	Conventional Bank	34	84.3194	3.59815	.61708

The table 4 shows five independent variables, which are; CAR, ROA, LDR, NPL, and OER with 34 data for each type of banking in which it is generated from quarterly publication report of 5 representative banks (PT Bank SyariahMandiri, PT Bank Muamalat Indonesia, PT Bank Bukopin, PT Bank Mega, and Bank DBS Indonesia) from 2006 to 2014. According to table 4, CAR mean value of Islamic bank is lower than CAR mean value of conventional bank ( $13.1626 < 16.0544$ ). The standard deviation itself shows the data is good, because the value of standard deviation from each bank is smaller than its mean value. Islamic bank has standard deviation of 1.48683 and the standard deviation of conventional bank is 1.84150. In terms of ROA, Islamic bank has slightly higher mean value than conventional bank ( $1.8662 > 1.8074$ ). Islamic bank has standard deviation of 0.37542 which is relatively smaller than the mean value itself (1.8662). Conventional bank has also standard deviation that is smaller than the mean value ( $0.33882 < 1.8074$ ). It indicates that both of the data for variable ROA is good.

Table 4 also shows the mean value of LDR for Islamic bank ( $M=93.3918$ ,  $\sigma=4.31285$ ) which is significantly higher than the mean value of LDR for conventional bank ( $M=75.9653$ ,  $\sigma=6.16164$ ). The standard deviation itself indicates that both data of LDR are good. Islamic bank also has a higher mean value for NPL than conventional bank. The

mean value and standard deviation of NPL for Islamic bank are  $M=4.3024$ ,  $\sigma=1.36661$ , meanwhile the conventional bank has mean value and standard deviation of  $M=2.2709$ ,  $\sigma=0.31568$ . On the other hand, Islamic bank has lower mean value of OER ( $M=81.4224$ ,  $\sigma=3.50035$ ) than conventional bank ( $M=84.3194$ ,  $\sigma=3.59815$ ). On the side of the standard deviation, it still shows the data of the variable is good, because it has smaller value than the mean value.

*Normality Test*

(I) CAR

Table 5. Test of Normality CAR

BANK		Kolmogorov-Smirnov <sup>a</sup>		
		Statistic	df	Sig.
CAR	Islamic Bank	.132	34	.139
	Conventional Bank	.141	34	.084

Figure 6. Plot Normal Output of Variable CAR for Islamic Bank

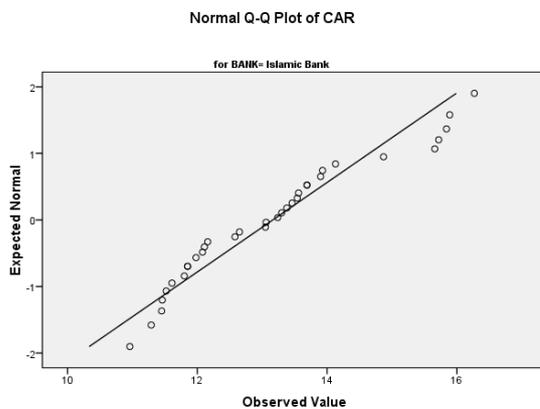
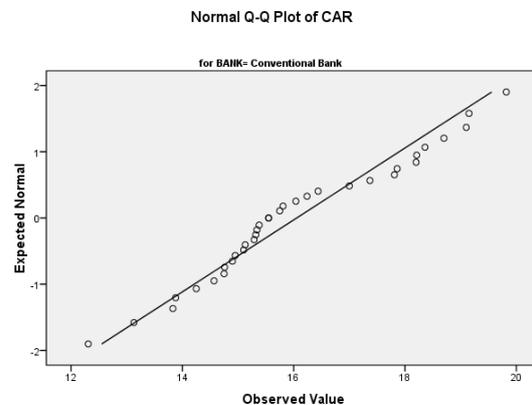


Figure 7. Plot Normal Output of Variable CAR for Conventional



According to table 5, the significant value of Islamic bank (0.139) and conventional bank (0.84) are greater than 0.05. So, based on normality test of Kolmogorov-Smirnov, the data has normal distribution. Figure 6 and figure 7 show the plot normal of variable for Islamic bank and conventional bank respectively. Both plots shows the data are normally distributed since the plots are close by the line. Therefore variable CAR of Islamic bank and conventional bank meets the requirement of normality.

(II) ROA

Table 6. Test of Normality ROA

Bank		Kolmogorov-Smirnov <sup>a</sup>		
		Statistic	df	Sig.
ROA	Islamic Bank	.138	34	.097
	Conventional Bank	.162	34	.025

Figure 8. Plot Normal Output of Variable ROA for Islamic Bank

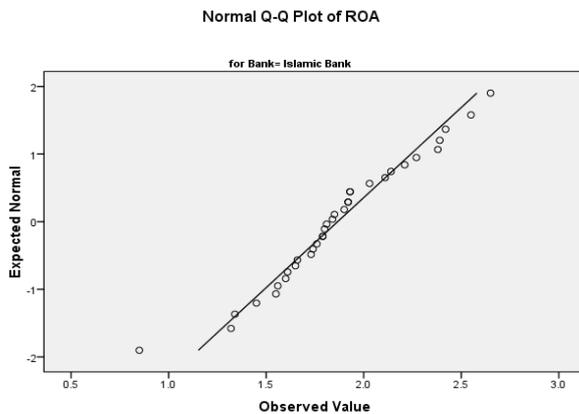
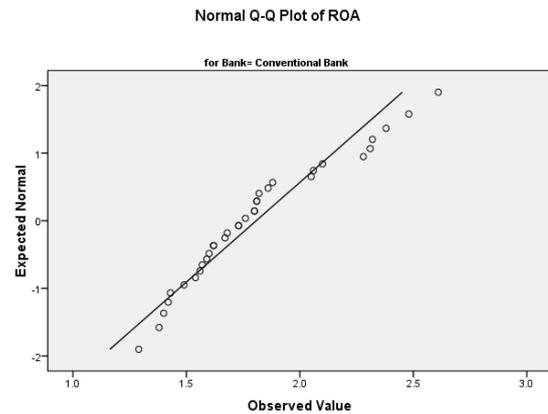


Figure 9. Plot Normal Output of Variable ROA for Conventional



The table 6 show that the p value of Islamic bank is 0.097 which is greater than 0.05 and the p value of conventional bank is slightly below 0.05, which is 0.025. Meanwhile, from the figure 8 and figure 9, both pictures show that the plots are still around the diagonal line. It means that the variable ROA of Islamic bank and conventional bank passed the normality test.

(III)LDR

Table 7. Test of Normality LDR

Bank		Kolmogorov-Smirnov <sup>a</sup>		
		Statistic	df	Sig.
LDR	Islamic Bank	.112	34	.200 <sup>*</sup>
	Conventional Bank	.094	34	.200 <sup>*</sup>

Figure 10. Plot Normal Output of Variable LDR for Islamic Bank

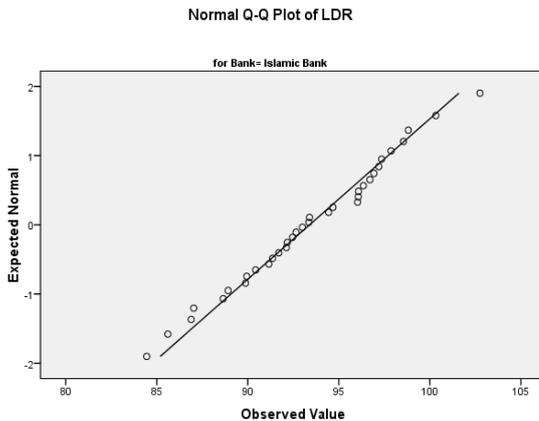
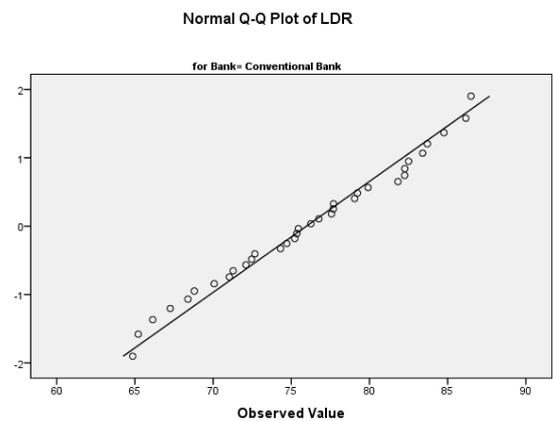


Figure 11. Plot Normal Output of Variable LDR for Conventional



Based on the table 7, both Islamic bank and conventional bank has the same significant value LDR of 0.200, which is greater than 0.05. It means the data is normally distributed. It also strengthens by the figure 10 for Islamic bank and figure 11 for conventional bank that pictures the plots in a close distance with the diagonal line. It could be concluded that the variable of LDR for both Islamic bank and conventional bank is pass the normality test.

(IV) NPL

Table 8. Test of Normality NPL

		Kolmogorov-Smirnov <sup>a</sup>		
		Statistic	df	Sig.
NPL	Islamic Bank	.114	34	.200 <sup>*</sup>
	Conventional Bank	.140	34	.090

Figure 12. Plot Normal Output of Variable NPL for Islamic Bank

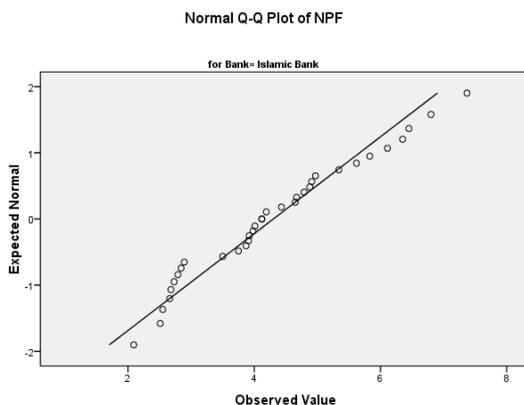


Figure 13. Plot Normal Output of Variable NPL for Conventional

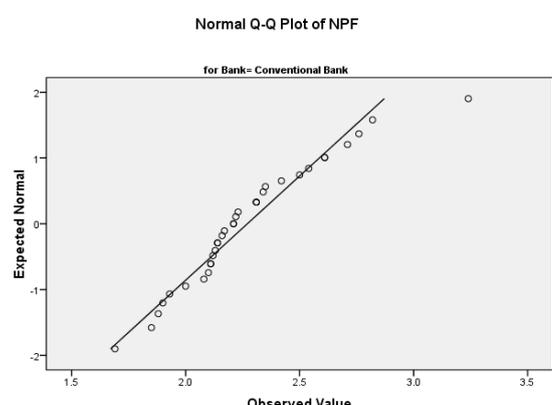


Table 8 indicates that the variable of NPL for both Islamic bank and conventional bank is normally distributed. It could be seen from the p value of Islamic bank (0.200) and conventional bank (0.90), which are greater than 0.05. It also proven by the figure 12 and figure13 of normal plot for Islamic bank and conventional bank respectively, which show the plots appears around the diagonal line. Therefore, the variable NPL of Islamic bank and conventional bank is eligible to be tested in the next level of analysis.

(V) OER

Table 9. Test of Normality OER

Bank		Kolmogorov-Smirnov <sup>a</sup>		
		Statistic	df	Sig.
OER	Islamic Bank	.124	34	.200 <sup>*</sup>
	Conventional Bank	.125	34	.198

Figure 14. Plot Normal Output of Variable OER for Islamic Bank

Figure 15. Plot Normal Output of Variable OER for Conventional

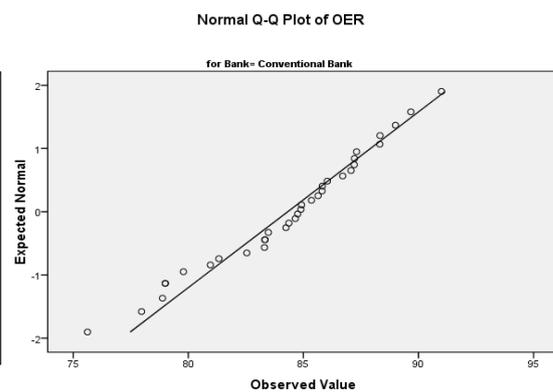
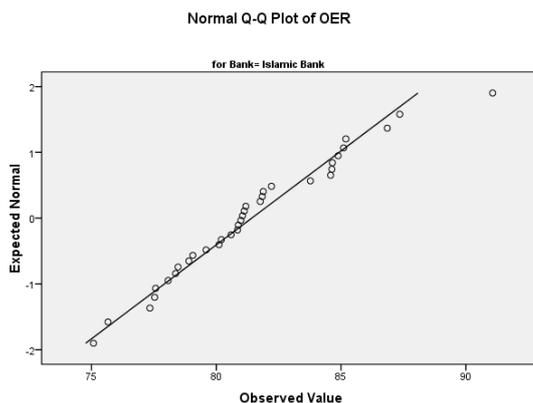


Table 9 contains p value of variable OER for both Islamic bank (0.200) and conventional bank (0.198) that is greater than 0.05. The figure 14 and figure 15 of normal plot also show that variable OER for Islamic bank and conventional bank respectively are normally distributed. It is proven by the plots that appear around the diagonal line.

*Homogeneity Test*

After the data of Islamic bank and conventional bank passed the normality test, the researcher needs to observe their homogeneity before the researcher analyzed the difference of these two populations using independent T-test. To determine the homogeneity, Levene’s test is usually used by the researchers since this test can be utilized not only for primary statistical analysis but also to identify underlying homogeneous assumption associated with the statistical analysis of compared means (Gibbons, 2007). Homogeneity is indicated when  $p\text{-value} > p\text{-table}$  where p-table is 0.05

based on the hypothesis. Nonetheless, it doesn't mean that if the populations are not homogeneous then they could not be tested through independent T-test. Once this test is done, the researcher will know which output numbers will be observed in the independent T-test based on whether they are homogenous or not.

Table 10. Levene's Test Result

		Levene's Test for Equality of Variances	
		F	Sig.
CAR	Equal variances assumed	1.796	.185
	Equal variances not assumed		
ROA	Equal variances assumed	.095	.758
	Equal variances not assumed		
LDR	Equal variances assumed	4.799	.032
	Equal variances not assumed		
NPL	Equal variances assumed	37.349	.000
	Equal variances not assumed		
OER	Equal variances assumed	.042	.839
	Equal variances not assumed		

According to table10, for variable CAR, ROA, and OER within 2006 – 2014, it indicates homogeneity between variances of Islamic bank and conventional bank. The researcher found in Levene's test result CAR  $p$ -value ( $F=1.796, p=0.185$ ), ROA  $p$ -value ( $F=0.095, p=0.758$ ), and OER  $p$ -value ( $F=0.042, p=0.839$ ), are greater than 0.05 ( $p$ -value  $> p$ -table). In terms of LDR and NPL, the researcher concludes that Islamic and conventional bank variances are not homogenous, in which LDR  $p$ -value ( $F=4.799, p=0.032$ ) and NPL  $p$ -value ( $F=37.349, p=0.000$ ) are less than 0.05 ( $p$ -value  $< p$ -table).

### *Hypothesis Analysis*

This is the main part of analysis which all variables will be observed to test the research hypothesis. Here is the table 4.8 which briefly presents the overview of hypothesis result.

Table 11. Overview of Hypothesis Analysis Result

Variable	Significant Value		Confidence Interval	Result
	F	t		
CAR	.185	.000	0 not included	H <sub>0</sub> is rejected, H <sub>a</sub> is accepted
ROA	.758	.500	0 included	H <sub>0</sub> is accepted, H <sub>a</sub> is rejected
LDR	.032	.000	0 not included	H <sub>0</sub> is rejected, H <sub>a</sub> is accepted
NPL	.000	.000	0 not included	H <sub>0</sub> is rejected, H <sub>a</sub> is accepted
OER	.839	.001	0 not included	H <sub>0</sub> is rejected, H <sub>a</sub> is accepted

Table 11 above, in terms of variable CAR, LDR, NPL, and OER the result shows that the four variables are significantly different between Islamic and conventional bank (H<sub>0</sub> is rejected, H<sub>a</sub> is accepted). On the other hand, the result for variable ROA shows different result that H<sub>0</sub> is accepted, H<sub>a</sub> is rejected. In order to know more in detail about the result of hypothesis analysis, below (Table 4.9) is a table that shows Levene's test result and independent T-test for equality of means between Islamic and conventional bank with observed variables; CAR, ROA, LDR, NPL and OER. Firstly, through Levene's test, if the variable has not significant different in variance (homogeneous) so it is assumed as "Equal Variances Assumed". The researcher should find independent T-test result from "Equal Variances Assumed" perspective. Then, if the variable has significant different in variance which is "Equal Variances Not Assumed", the researcher should observe independent T-test result from "Equal Variance Not Assumed" perspective. The analysis will be explained in detail one by one per variable in the next explanation.

Table 12. Independent T-test

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
CAR	Equal variances assumed	1.796	.185	-7.124	66	.000
	Equal variances not assumed			-7.124	63.194	.000
ROA	Equal variances assumed	.095	.758	.678	66	.500
	Equal variances not assumed			.678	65.317	.500
LDR	Equal variances assumed	4.799	.032	13.510	66	.000
	Equal variances not assumed			13.510	59.076	.000
NPL	Equal variances assumed	37.349	.000	8.445	66	.000
	Equal variances not assumed			8.445	36.512	.000
OER	Equal variances assumed	.042	.839	-3.365	66	.001
	Equal variances not assumed			-3.365	65.950	.001

Furthermore, another supporting table below (table 13) will assist the researcher to double check whether the decision of hypothesis is totally valid and correct. In this table, each variable has the information about the difference with 95% confidence interval observed.

Table 13. Confidence Interval of the Difference

Variables		95% Confidence Interval of the Difference	
		Lower	Upper
CAR	Equal variances assumed	-3.70218	-2.08135
	Equal variances not assumed	-3.70285	-2.08068
ROA	Equal variances assumed	-.11433	.23198
	Equal variances not assumed	-.11437	.23201
FDR	Equal variances assumed	14.85120	20.00175
	Equal variances not assumed	14.84555	20.00739
NPF	Equal variances assumed	1.55121	2.51173
	Equal variances not assumed	1.54387	2.51908
OER	Equal variances assumed	-4.61590	-1.17822
	Equal variances not assumed	-4.61593	-1.17819

Based on Elliot (2006, p.64), the rule of decision making using confidence interval is when the interval includes zero (0) between lower and upper then it is strongly believed that the means have no significant difference. Meanwhile, if the interval does not include zero, the researcher will completely conclude that there is significant difference between these two means (Islamic and conventional bank).

#### Difference in CAR between Islamic and conventional bank

CAR has *t*-value of 0.000 with the interval associated with the assumption of equal variances from -3.70218 to -2.08135 between Islamic and conventional bank, which identify that in terms of variable CAR, these two types of bank do have significant difference. This result explains that conventional bank with CAR mean value of 16.05% is better than Islamic bank with the mean value of 13.16%. As related to the theory, when bank generates higher CAR, it means bank has greater adequate capital. According to Achmad and Kusumo (2003), a bank with higher value of CAR has a better condition, as it means the capital owned by the bank is able to cover the risk of loss arising from the investment of funds in productive risky assets, and can be used to finance the cultivation of the fixed assets and investments. However, both bank groups still met the standard required by Bank of Indonesia which is between 8% - 9%. Thus, this result is completely same as Ningsih, Liviawati and Wiyati on their research that both Islamic and conventional banks are significantly different in terms of CAR. According to Liviawati and a Wiyati's research, Islamic and conventional banking are significantly different seen from CAR value with significance value 0.014. Then Ningsih's research showed that CAR of conventional banking is better than Islamic bank.

### Difference in LDR between Islamic and conventional bank

The result from the test done in this research proves that Islamic and conventional bank are different significantly in terms of LDR where  $t$ -value is lower than 0.05. Based on the test, LDR mean value of Islamic bank is higher than conventional bank (93.39% for Islamic bank and 75.96% for conventional bank), which means Islamic bank is more liquid than conventional bank (Kasmir, 2010). If the ratio is too high, it describes deficiencies in the bank's liquidity position. The increasing in LDR means the increasing in credit expansion is not balanced with the collection of third party funds. Meanwhile, a very small value of LDR means the bank does not run the intermediation function properly. Moreover, only Islamic bank completely met the requirement from Bank of Indonesia to gain LDR value between 85% - 100%. The same result also reflected by Abustan, Ningsih, Liviawati and Wiyati on their research in which LDR between these two types of bank are significantly different. Referring to the research of Abustan and Ningsih, Islamic bank has better performance than conventional in terms of LDR. It also stated that based on the regulation of Bank of Indonesia, Islamic bank is in an ideal condition during the research period.

### Difference in NPL between Islamic and conventional bank

There is also a significant difference between Islamic and conventional bank on the side of NPL, as the significance  $t$ -value of NPL is 0.000 ( $t$ -value < 0.05). Referring to the mean value, Islamic bank has a greater mean value of NPL than conventional bank (4.30% for Islamic bank and 2.27% for conventional bank). It means that during 2006-2014 conventional bank has better non performing loan compared to Islamic bank, as the lower the value of NPL, the better the quality of bank's assets (Masyhud, 2004). If the condition of a bank's NPL is high, it shows a worse credit quality that caused the greater the amount of performing loans, which will lead the bank to a problematic condition. Somehow, based on the regulation of Bank Indonesia that the best standard of NPL is below 6%, Islamic bank is still in an ideal condition. This result is also similar to Ningsih's research that stated Islamic and conventional banking are significantly different in NPL. As explained in her research, conventional bank has a better performance in terms of NPL, which means conventional bank has a better quality of asset compared to Islamic bank.

### Difference in OER between Islamic and conventional bank

In terms of OER, the result of research showed that there is significant difference between Islamic and conventional bank, as the significance  $t$ -value of OER is 0.001 ( $t$ -value < 0.05). According to the mean value, conventional bank has higher mean value (84.31%) compared to Islamic banks (81.42%). It is indicated that Islamic bank have better operational efficiency ratio rather than conventional bank, since a lower value of OER reflects a better quality. Referring to Siamat (2005), a decreasing in OER show higher operational efficiency achieved by the bank, which means bank's asset is more efficient in generating profits. Bank of Indonesia sets up that the bank will be considered have healthy condition regarding its financial performance if OER value does not exceed 94% - 96% therefore based on the research, Islamic and conventional banks are indicated

as healthy banks since the number of OER is even below 94%. The same result was also showed by the research of Abustan, Liviawati and Wiyati, and Ningsih, where there is a significant difference between OER of Islamic and conventional bank.

### Difference in ROA between Islamic and conventional bank

On the contrary, in terms of ROA, there is no significant difference between Islamic and conventional bank. Based on the research,  $t$ -value of ROA (0.500) is higher than 0.05 as  $t$ -table, which then identified that Islamic and conventional bank, are not different significantly. It is also proven by the mean value of ROA for each bank (1.86% for Islamic banks and 1.80% for conventional banks) that shows no big gap between the two. From related theory, this result determines that Islamic bank is much better utilizing its assets to gain more profit rather than conventional bank (Siamat, 2005). The research of Azzahra showed the same result that there is no significant different between Islamic and conventional bank in terms of ROA. It also stated that Islamic bank has a better performance in ROA rather than conventional bank. Refer to the regulation of Bank Indonesia that sets up the minimum requirement of ROA between 0.5% - 1.25%, both Islamic banks and conventional banks meet the requirement.

### Conclusion

1. Based on statistic test used independent T-test result, significance value of CAR is  $0.000 < 0.05$  which concluded  $H_0$  is rejected and  $H_a$  is accepted. It means that there is a significant difference between Islamic and conventional bank in terms of CAR. The mean value of CAR between Islamic and conventional bank showed that conventional bank CAR value of 16.05% is above the Islamic bank mean value of 13.16%. It means that conventional bank has a greater adequate capital compared to Islamic bank during the research period. However, both bank CAR exceeded minimum requirement set by Bank of Indonesia, 8% - 9%.

2. Based on statistic test used independent T-test result, significance value of ROA is  $0.500 > 0.05$  which concluded  $H_0$  is accepted and  $H_a$  is rejected. It means that there is no significant difference between Islamic and conventional bank in terms of ROA. The mean values of ROA between Islamic bank (1.86%) and conventional bank (1.80%) are not significantly different but both bank groups successfully exceeded minimum requirement set by Bank of Indonesia, 0.5% - 1.25%.

3. Based on statistic test used independent T-test result, significance value of LDR is  $0.000 < 0.05$  which concluded  $H_0$  is rejected and  $H_a$  is accepted. It means that Islamic and conventional banks are significantly different in terms of LDR. The mean value of LDR between Islamic and conventional bank showed that Islamic bank LDR value of 93.39% is above the conventional bank LDR value of 75.96%. It explains that Islamic bank is more liquid than conventional bank. Indeed, conventional bank LDR had not met minimum requirement set by Bank of Indonesia, 85% - 100%.

4. Based on statistic test used independent T-test result, significance value of NPL is  $0.000 < 0.05$  which concluded  $H_0$  is rejected and  $H_a$  is accepted. It means that there is

a significant difference between Islamic and conventional bank in terms of NPL. The mean value of NPL between Islamic and conventional bank showed that Islamic bank NPL value of 4.30% is higher than the conventional bank NPL value of 2.27%. As it has lower NPL value, conventional bank have better non performing loan compared to Islamic bank. However, Islamic bank NPL still in an ideal condition based on the requirement set by Bank of Indonesia, which is 5%.

5. Based on statistic test used independent T-test result, significance value of OER is  $0.001 > 0.05$  which concluded  $H_0$  is rejected and  $H_a$  is accepted. It means that Islamic and conventional banks are significantly different in terms of OER. The mean value of OER between Islamic and conventional bank showed that conventional bank value (84.31%) are higher than Islamic bank (81.42%). According to this result we could conclude that Islamic bank perform more efficient in generating profit. However, both bank groups still controlled their efficiency not to exceed more than 96% set by Bank of Indonesia.

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