

## A comparative study on the financial performance between Islamic and conventional banks: Egypt case

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### Keywords

Islamic banking, conventional banking, banks financial performance measures, profitability, Egypt.

### Abstract

*There is no doubt that banks have significant position in the welfare of any economy. In the last few decades, Islamic banking sector was introduced. This new banking type has demonstrated a competitive position with the traditional conventional banks. It has acquired the interest in many countries and regions. Islamic banking system has accelerated its growth globally in terms of total assets and market share. Egypt is the birthplace for this new system, although, it is not taking a leading role in the implementation as well as the academic research. A summary of Islamic banking principles and instruments are introduced before going through the details of the empirical study to compare the financial performance of both types of banks. The focus of this research is to investigate the effect of the inter-bank factors along with the size of banks on the financial performance of these banks working in the Egyptian market. The research main aim is to perform a comparative analysis on the financial performance of both Islamic and conventional banks. Research analyses adopted in this study are descriptive, correlation and regression analyses to test the research hypotheses. Findings of this research provide evidence that some of the inter-bank factors found to have significant effect on the financial performance of these banks; however, no considerable differences between the two groups were found which suggests that bank type is not a significant variable and that conventional and Islamic banks don't differ from each other with respect to the variables under investigation.*

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### 1. Introduction

We cannot imagine our modern life without banks; they fulfill the economy needs in fund sharing between the investors and the producers (Al-Jarrah and Molyneux, 2007). The regular conventional banking system is not satisfying a large number of Muslim populations, as some of its elements are contradicting with the Islamic law "Shareaa", so the introduction of the Islamic banking system was very important (Siddiqi, 2006). The Islamic Banking system created to provide financial products that are compatible with Islamic law "Shariaa" in Muslim countries, and then it has been recognized globally as an international banking system. More than 57 countries provide the Islamic banking services (Hamedian, 2013). This new banking system emerged in Egypt in 1963 and continued growing until now (Botiş, 2013). Ahmed El Naggar established the Mit Ghamr local saving bank in 1963 (Fayed, 2013). Mit Ghamr Islamic saving bank stop its operations in 1967 after launching nine branches. Mr. El Naggar helped the Egyptian government to initiate Nasser Social Bank in 1971, the bank that did not use any interest-based when borrow or lend the money. The main objective of Nasser Bank was to lend the money as a charity on the basis of profit and loss sharing system, mainly to support the needy people (Botiş, 2013). In 1974, the Organization of Islamic Countries OIC established the Islamic Bank for Development to support and fund the governments in the Islamic countries. The inspiration of Islamic Banking extended to other countries in the Islamic regions such as the

Gulf States and South East Asia (Fayed, 2013). Today three full-fledged Islamic banks operate in Egypt provide wide range of financial products and 14 conventional banks operating in Egypt provide Islamic products. Elise (2015) states that there are approximately 2.5 million Islamic banking clients in Egypt, who constitute 20% of the clients of the country's banks. Three full-fledged Islamic banks and about fourteen conventional banks provide Islamic banking services in the Egyptian market. Figure (1) shows the number of conventional banks which provide Islamic services.

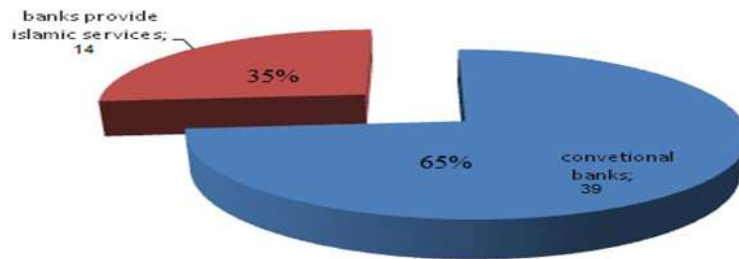


Figure 1: Number of conventional banks providing Islamic services.

Source: *dailynewsegypt website*

Globally, the Islamic banking and finance have become one of the fast growing sectors in the global financial market (Mashal, 2012). Based on Ernst and Young's world Islamic Banking competitive report (2014), Islamic Banking assets with commercial banks globally are set to cross US\$1.7t in 2013, with suggested annual growth of 17.6% between 2009-2013 and expected average growth of 19.7% by 2018. Assets with Islamic banks and Islamic banking windows have grown at a compound annual growth rate (CAGR) of 40.3% between 2004 and 2011 to reach USD1.1 trillion according to the Islamic Financial Services Industry Stability Report (2013). This is illustrated in figure (2). These statistics show that the Islamic finance and banking industry is one of the fast growing segments in the international finance and it plays a significant role in their respective economies.

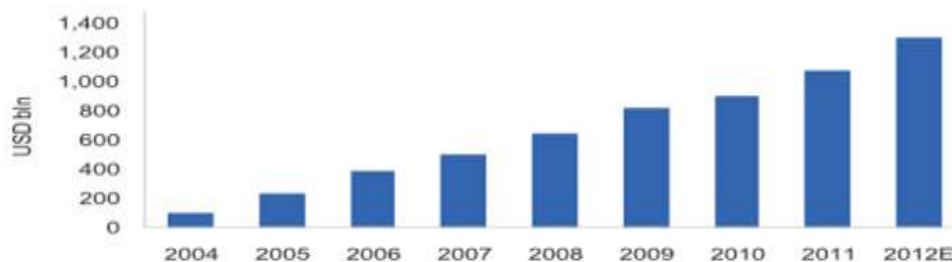


Figure 2: Islamic banking assets growth trend

Source: Regulatory authorities, Bloomberg, Zawya, central banks, individual institutions, corporate communications, The Banker, KFHR

## 2. Islamic Banking Principles

The Islamic banking system is built on "Shariaa" law, so the bank processes and the products or services provided should follow the main principles of Islamic law (Faizulayev, 2011). The main principles of Islamic banking system:

Riba (usury) is prohibited; Iqbal (2001) defines the usury as any excessive increase charged on the principal amount or rate of interest. Profit should not be pre-determined even if the sharing ratio is agreed upon prior to the actual activity. The exact amount that is considered a transaction profit will remain uncertain until the action is completed.

Gharar (Trading Risk), Islamic financing system prohibits Gharar which is defined as any trading occurring when the object, price, or time of payment in sale are not clearly identified in advance to the purchaser or in the transaction contract (Iqbal and Moleneux, 2005).

Maysir (Speculating) is the third trading type that is not allowed in the Islamic banks, gambling or betting are forbidden because it does not guarantee a return for the money and it contains ambiguity (Alkassim, 2005).

Shariaa board committee is required to be established in any Islamic bank or institute, this is a supervisory board that guides and validates all bank's transactions and verifies that they adhere to Shariaa's principles (Botiş, 2013).

Zakat is a mechanism to redistribute the money in the society, when the rich people pay part of their wealth to the poor people (Siddiqi, 2006).

### 3. Islamic Banking Instruments

Islamic Banking system provides a wide range of the financial products. The following is the list of these financial products:

Mudaraba (Passive Partnership), it is a form of partnership between banks as fund providers and customers or investors as project and resource managers (Faizulayev, 2011). The contract between both parties will determine the proportion of the profit sharing, fixed amount as a profit for the bank is prohibited.

Musharakah (Long-Term Partnership), it is a long-term relationship for sharing the profit and loss and contribution in running the business. Based on this contract both sides bank and customer or investor will share in supply the capital, labor and the project or business management (Iqbal and Moleneux, 2005).

Murabaha (Mark-Up/ Cost Plus), this is the most popular form of Islamic financing, it occupied about (80%-95%) of the financing form, and it is considered as replacement of the 'interest' in the conventional banks with 'mark-up fixed return' in the Islamic bank (Khan, 2011). Simply, it is sale transaction for a commodity at a profit. This transaction requires three parties, customer who identifies the commodity, the Islamic bank who purchases the commodity and third party who owns this commodity. Islamic banks re-sell the product to the customer with higher price (Hamedian, 2013).

Tawarroq (Reverse Murabaha), the bank uses this form to facilitate the personal loans or cover the credit cards. The bank purchases a commodity on a cash basis from a supplier based on a sales contract, the bank sells the commodity will less price to third party (Khan, 2011).

Ijarah W Iqtana (Lease to Buy), it is a leasing contract between the bank and the customer, to rent an asset like a machine, equipment or apartment. The customer will pay the value of the asset plus certain fixed amount; customer has the privilege to purchase the asset within the contact period (Hamedian, 2013).

Bay' Salam (Prepaid purchase with Deferred Delivery), mainly used in agriculture and can be used also in other industries. It is paying in advance in the time of the contract the full price of goods or services that will be delivered in the future. To remove the uncertainty "Gharar" the contract should include all needed specification (Khan, 2011).

Istisna (Manufacturing Contract), it is a contract to pay in advance a price of product that is not yet manufactured. To remove the uncertainty the contact should include all item design and measurement figures (Fayed, 2013).

Wadi'ah (Safekeeping) that is synonym of Amanah, it is like safekeeping, the bank hold the amount in current account without pay any interest, the bank only charge the customer with a service fees (Faizulayev, 2011).



Qard Hasan (Free Loan), this is a loan with free interest the borrower will repay only the amount he takes from the bank without extra amount under any justification as profit or gift (Khan, 2011).

#### 4. Comparison between Islamic and Conventional Banks

Both Islamic and Conventional banking systems are financial intermediations that support the investors to capitalize their projects or investments. Nevertheless, there are vital variations between the products and processes between both systems as shown is table (1).

Conventional System	Islamic System
The conventional banks product and operations are based on manmade principles, its main target is to maximize the profit without restrictions.	The Islamic banks aim to maximize the profit it should follow the Shariaa complains in design their products or process.
The relation between the conventional banks and their clients is one of two types' creditors or debtors. Therefore, the banks give the credit worthiness the created weight, and little importance to develop expertise in project evaluations.	The relation between the Islamic banks and their clients is partner, investors or traders; also, they are buyers or sellers. Therefore, the banks give more weight to validate the viability of the projects; also, the banks provide more attention in preparing projects evaluation and management.
Money is used as commodity, a medium of exchange and store a value. Figure 2.1 explain how the conventional banks transfer the money between the bank and client and gain interest from the money transaction.	Money is tools and utility to facilitate the operations and trading activities. Figure 2.1 show how the Islamic banking system show the money as a tool to produce or move goods or services
Lending and borrowing money with compounding interest rate are the fundamental function of the conventional banks, the banks provide to the investor predetermined interest rate, based on the time value. Loss is not shared between the banks and investors.	Profit is gained from a partnership relation with the customers, and exchange of goods or services, the contract defines the profit sharing portion and risk sharing, so the banks may need to understand the customer's business very well and sometime contribute in the business management
Additional charge is allowed in case of failure.	It is not allowed to charge any extra money in case of failure.
It is easy to borrow the money from interest-based commercial banks.	It is more complicated to approve transaction in Islamic banks.
All the deposits in the conventional banks are guaranteed	Because of the profit-loss concepts, the deposits are not guaranteed, only the deposits based on <i>Wadi'ah</i> (Safekeeping) principles are guaranteed.
In the case of the project failure, the loans considered as non-performing loan.	In case of the project failure, bank and the investor still own the project and can do restructure in management and have better resource utilization.
Money can expand without have real backing from goods or assets, this will cause deficit.	The money never expand that will result in a balance in the budget

Table 1: Differences between Islamic and Conventional Banks\*

\*The table contents extracted from (Faizulayev, 2011) and (Hamedian, 2013)

#### 5. Literature Review

Alkassim (2005) study measured the performance in Islamic and conventional banks in GCC countries for the period from 1997 to 2004. All data was extracted from Bankscope, the model used is the Ordinary Least zshow that Islamic banks are better in capitalization. Total loans for both types of banking have a positive relationship with profitability representing that lending has better progress for profitability. The conventional banks are better in the asset

quality and finally Islamic banks reach fairly profitability from lending money without charging interest.

Siraj and Piali (2012) conducted a performance comparison between Islamic and conventional banks operating in GCC countries during the period between 2005 and 2010. The Study uses data for six Islamic banks and six conventional banks, the selected twelve banks are the major banks operate in the market. The comparative study was carried out based on performance indicators like OER, NPR, ROA, ROE, EOA, that measure the operating expense, profit, assets, operating income, deposits and total equity. The study used one-way ANOVA to determine if the operating profit in the Islamic and conventional banks has any sort of relationship. Results highlight that Islamic Banks in the GCC region has faster increase in the operation profit than the conventional banks. There is a difference in the movement of the operation profit, but the trend follows has significant correlation. Conventional banks have higher ratio for NPR, however, it does not follow the same pattern between the Islamic and conventional banks. Islamic banks report higher ROA; moreover, it does not follow the similar move as well. One-way ANOVA shows the existence of significant relationship in the movement in the financial indicator selected in the study.

Hamedian (2013) conducted a study to compare the Islamic versus conventional banks operating in Malaysia for the period from 2005 to 2011, the sample include seven Islamic banks and seven conventional banks. The study compared the bank's profitability ratio measured by the Return on Assets (ROA) and the Return on Equity (ROE). In addition, the study investigated the relationship between profitability as a dependent variable with the independent variables that consisted of capital adequacy (CAR), liquidity (LQR), asset quality (ASQ), and management efficiency (EFF). The study also analyzed the impact of the global financial crisis in 2008 on the selected banks. The study illustrates that conventional banks were doing better profitability than Islamic banks. In addition to that, the study proves that Islamic banks performance was better than conventional banks during the financial crisis 2008.

Ramin *et al.* (2014) performed a study to examine the profitability of Islamic banks and conventional banks. Research uses the data for six Islamic banks in Iran and six conventional banks in Turkey between years 2006 and 2011. Data was collected from the Bankscope database. The method used to analyze the data is the Pooled Ordinary Least Square (POLS). The method used to investigate the effect of total assets, equity, loans and deposits on the main profitability ratios; namely the return on asset (ROA), the return on equity (ROE) and the net interest margin (NIM). The study shows that the Islamic banks in Iran are doing better regarding profitability. The total asset that identifies the bank size represents a positive relationship with profitability for Islamic banks and a negative relationship for conventional banks. In addition, it shows a positive relation with the profitability for both Islamic and conventional banks for equity that measures the capitalization.

Fayed (2013) conducted a comparative performance study between the conventional and Islamic banking in Egypt. The empirical study analyzes and compares the performance of three Islamic banks and six conventional banks operating in Egypt. In order to perform the empirical study uses under-bank analyses for the data between years 2008 - 2010. The study collected the data from the financial statements and annual reports to measure the profitability, liquidity, credit risk and solvency. In addition to the financial comparison, the study elucidates that the Islamic banks still have many challenges in order to perform better. Some of these challenges are related to the conflict between the theoretical base and the real operation of Islamic banks in Egypt. Another challenge for the Islamic banks that they do not have a clear implementation for Profit and Loss Sharing (PLS) concept with their clients.

## 6. Data and Methodology

### 6.1 Research Questions

This study seeks to analyze the effect of some inter-bank factors on the financial performance of both conventional and Islamic banks in Egypt during the period from 2010 to 2013 to answer several questions:

- Do these inter-bank factors, namely; Capital Adequacy, Asset Quality, Management Quality, Liquidity and size affect the financial performance of banks work in the Egyptian market?
- Is there any significant difference in the relationship between these factors and the financial performance with respect to bank type -whether it is an Islamic bank or a conventional bank?

### 6.2 Research Methodology Design

A quantitative research approach will be used to answer the research questions, an exploratory analysis method performed to evaluate the collected data. The exploratory design is commonly used to answer specific questions from an operational perspective (Sreejash *et al.*, 2014). This method will be used to understand and evaluate the banks performance in terms of the inter-bank variables such as Capital Adequacy, Asset Quality, Management Quality, Liquidity and Size. Quantitative analysis is used for several reasons, such as measure performance and evaluate financial instruments; moreover, the quantitative research used to test relationships between relevant variables (Zikmund *et al.*, 2009). Secondary data will be used to carry out this study; the targeted data are pulled together from the banks financial statements published in the DataStream database and the official banks' websites.

### 6.3 Sample of the Study

The sample is selected from a list of banks listed in the Egyptian Exchange market. Thirteen conventional and Islamic banks are listed in this market (three Islamic banks and ten conventional banks). The study will use Non-probability sampling technique (purposive or judgment sampling) as the research design used is an exploratory (Kothari, 2004). The sample criteria for Islamic banks were simple as only three full fledge Islamic banks operate in Egypt. The full fledge Islamic banks are Faisal Islamic Bank, Al Baraka Bank and Abu Dhabi Islamic bank (ADIB). ADIB was excluded from the study sample as the bank reported high negative value of the ROE and ROA during the study period. The Study used the Net Asset value to select the conventional banks; the aim is to have a consistent sample between both types of banks. The final list of selected banks is represented in table (2).

Islamic Bank	Conventional Banks
Faisal Islamic Bank of Egypt (S.A.E.) (FAITA)	Bank of Alexandria S.A.E. (BALX)
Al Baraka Bank Egypt SAE (SAUD)	National Bank of Kuwait Egypt S.A.E (NBKE)
	Societe Arabe International de Banque (S.A.E.) (SAIB)

Table 2: The Selected Banks

### 6.4 Data Collection

Data was collected from the Thomson Reuters DataStream database, this database contains a full reliable data with a standard format for the financial statements, and it has standard calculation methods for the required financial ratios. The financial statements for the selected list



were downloaded for the period between 2010 and 2013. Subsequently, data was validated and completed any missing ones from various resources to calculate the needed ratios for four years.

### 6.5 Variables Identification

Profitability is the dependent variable in this study, it is considered as one of the main variables in measuring banks financial performance (Fayed, 2013). Independent variables were selected in line with Hamedian (2013) study, which identified the independent variables as Capital Equity, Assets Quality, Management Quality, Liquidity, Bank Size and Bank Type. Table (3) shows the list of variables used in the study with its classification as dependent, independent and moderator variables and their measurements.

Bank Factor	Variables	Measures	Notation
Dependent Variables	Profitability	Return on Assets = Net Income / Total Assets	ROA
		Return on Equity = Net Income/Total Equity	ROE
Independent Variables	Capital Adequacy (CAR)	Equity/ Total Assets	ETAR
	Assets Quality (ASQ)	Loans Loss Reserves / Total Loans	LLR
	Management Quality (MQR)	Loans / Deposits	LDR
	Liquidity (LQR)	Net Loans / Total Assets	NLTA
	Bank Size	Total Assets	TA
Moderator Variable	Bank Type	Dummy variable; 0 is a conventional Bank 1 is an Islamic Bank	BANK_TYPE

Table 3: Study Dependent, Independent and Moderator Variables

#### 6.5.1 Dependent Variables

Profitability is considered as one of the most popular performance indicators, it is very important because the owners of the banks need to know if the bank is making profits and being well managed or not (Fayed, 2013). The profitability is measured by two ratios:

Return on Assets (ROA), which is the Net Profit / Total Assets. It proves how competent of management and allocating the resource of assets and gain profit. The higher ROA indicates a better performance (Alkassim, 2005; Ramin et al., 2014).

Return on Equity (ROE), which is the Net Profit / Equity Capital. ROE ratio indicates how much the bank earns on their equity investment. The higher ROE indicate to better performance and more efficient (Hamedian, 2013).

#### 6.5.2 Independent Variables

The independent variables will be represented by the four inter-bank management factors, in addition to the bank size.

- Capital Adequacy (CAR), this variable is measured by the Equity/Total Assets (ETAR). This variable identifies the contribution of the shareholders in financing the total assets. The higher value is better (Samad, 2004).
- Asset Quality (ASQ), this variable is measured by Loans Loss Reserves/Total Loans (LLR), this ratio evaluates the strength of the bank's capital assets like investment and loans, and if the bank is able to secure its depositors and lenders from bank failure. The lower value of this ratio is better (Fayed, 2013).

- Management Quality (MQR), this variable is measured by Loans/Deposits (LDR); it is used to measure the level of efficiency and productivity for the bank's management to utilize the bank's loans in deposits for creditworthy customers. The higher ratio indicates more management efficiency (Faizulayev, 2011).
- Liquidity (LQR), this variable is measured by Net Loans/Assets (NLTA), it shows the bank's ability to deal and fund any contractual or financial obligations and deposit outflows. The higher this ratio means less bank liquidity and more banking risk (Hamedian, 2013).
- Bank Size commonly measured by the Total Assets (Hamedian, 2013), as from prior literature, size was proved to have a major influence on the financial performance.

### 6.5.3 Moderator Variable

The moderator variable in this study is the bank type, whether it is an Islamic or conventional bank. This variable is been measured as a dummy variable where (0) indicates that it is a Conventional Bank and (1) indicates that it is an Islamic Bank.

## 6.6 Data Analysis Methods

The research analyzes the data using descriptive, correlation and regression methods. The analyses executed using the SPSS software (Statistical Package for the Social Science).

- Descriptive Analysis: Calculates the mean, standard deviation, minimum and maximum to compare the financial performance between Islamic and conventional banks.
- Correlation Analysis: Correlation analysis will be employed to determine the relationships among the study variables. Afterward, the study will examine whether the variables are highly correlated or not.
- Regression Analysis: will be used to validate how much the changes in the independent variables would explain the changes in the profitability variable. The model is represented in the following equation:

$$Y_{it} = \beta_0 + \beta_1 x_{1it} + \beta_2 x_{2it} + \beta_3 x_{3it} + \beta_4 x_{4it} + \beta_5 x_{5it} + \beta_6 x_{6it} + u_{it}$$

Where:

$Y_{it}$ : Represents Return on Assets (ROA, Return on Equity (ROE) for bank  $i$  at time  $t$

$x_{1it}$ : Represents Capital Adequacy for bank  $i$  at time  $t$

$x_{2it}$ : Represents Assets Quality for bank  $i$  at time  $t$

$x_{3it}$ : Represents Management Quality for bank  $i$  at time  $t$

$x_{4it}$ : Represents Liquidity for bank  $i$  at time  $t$

$x_{5it}$ : Represents natural Logarithm of Total Assets for bank  $i$  at time  $t$

$x_{6it}$ : Represents a dummy variable that indicates bank type, where 0 is for conventional bank and 1 for Islamic bank.

$\beta_0$ : Is Intercept

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$ : Coefficients of the regression relations.

$u_{it}$ : Represents error

## 6.7 Research Hypotheses

Hypotheses tested in this study that reflect the relationships among the inter-bank factors and the financial indicators of banks working in the Egyptian market in addition to having bank type as a moderator for these relationships could be formulated as follows:

H<sub>1</sub>: Capital adequacy is positively affecting the financial performance measured by ROE of banks work in the Egyptian market.

H<sub>2</sub>: Asset quality is negatively affecting the financial performance measured by ROE of banks work in the Egyptian market.



H<sub>3</sub>: Management quality is positively affecting the financial performance measured by ROE of banks work in the Egyptian market

H<sub>4</sub>: Liquidity is negatively affecting the financial performance measured by ROE of banks work in the Egyptian market.

H<sub>5</sub>: Size is positively affecting the financial performance measured by ROE of banks work in the Egyptian market

H<sub>6</sub>: Capital adequacy is positively affecting the financial performance measured by ROA of banks work in the Egyptian market.

H<sub>7</sub>: Asset quality is negatively affecting the financial performance measured by ROA of banks work in the Egyptian market.

H<sub>8</sub>: Management quality is positively affecting the financial performance measured by ROA of banks work in the Egyptian market

H<sub>9</sub>: Liquidity is negatively affecting the financial performance measured by ROA of banks work in the Egyptian market.

H<sub>10</sub>: Size is positively affecting the financial performance measured by ROA of banks work in the Egyptian market

H<sub>11</sub>: Bank type is significantly affecting the relationship between the inter-bank factors and the financial indicators.

## 7. Data Analysis

This section will include the extensive analysis of the empirical results. The data has been collected and verified using Excel application. Then the SPSS application used to perform the previously mentioned analyses in the data methodology section.

### 7.1 Descriptive Analysis

The descriptive analysis used to examine the differences in financial performance between Islamic and conventional banks. The below two tables (4) and (5) show the descriptive analysis of both Islamic and conventional banks that resulted from SPSS.

	N	Minimum	Maximum	Mean	Std. Deviation
ROE	8	8%	26%	14.38%	.06653
ROA	8	0%	2%	1.00%	.00535
ETAR	8	6%	7%	6.25%	.00463
LLR	8	2%	6%	4.00%	.01414
LDR	8	26%	74%	45.88%	.13789
NTLA	8	39%	71%	54.38%	.10743
TA	8	14.83	46.82	28.1488	12.27903
Valid N (listwise)	8				

Table 4: Descriptive Statistics Islamic Banks

	N	Minimum	Maximum	Mean	Std. Deviation
ROE	12	8%	23%	14.33%	.04163
ROA	12	0%	3%	1.17%	.01030
ETAR	12	8%	11%	10.00%	.00953
LLR	12	3%	20%	9.83%	.05797
LDR	12	22%	74%	49.17%	.17209
NTLA	12	21%	69%	45.50%	.15235
TA	12	11.07	24.12	16.8958	3.39263
Valid N (listwise)	12				

Table 5: Descriptive Statistics Conventional Banks

The study results clarified that the ROE for Islamic banks is 14.38%; it is slightly higher than the ROE for conventional banks 14.33%. This finding contradicted with Fayed (2013) in ROE as her study resulted a higher ROE for the conventional banks. The explanation for this

variance is because Fayed (2013) included Abu Dhabi Islamic Bank data in the Islamic banks sample, this bank has a high negative value of ROE and ROA for three consecutive years. The ROA indicator show slightly better ROA for conventional banks as it was 1.10%, when the Islamic banks resulted in only 1.00%. This is consistent with Fayed (2013) finding. For the Capital Adequacy the conventional banks are dominating, since they have better Equity / Total Assets which was 10%, when the Islamic banks resulted in only 6.25 %. This result is inconsistent with Alkassim (2005) finding when his research indicated that Islamic banks are dominating conventional banks in GCC countries. Asset Quality result showed that Islamic banks have relatively low ratio 4% in comparison with the conventional banks which have 9.83%. This indicates that Islamic banks have better Asset Quality. This result is consistent with Fayed (2013) which indicates that the conventional banks have higher LLR ratio. In addition, the results showed that the conventional banks have better management quality; the LDR shows 49.17 % for conventional banks compared with 45.88% for Islamic banks. This is contradicting with the findings of Faizulayev (2011) which declare that Islamic Banks are dominant in LDR. Finally, the liquidity indicated that Islamic banks have greater NLTA ratio of 54.38%, when conventional banks have only 45.5%. This finding is consistent with Fayed (2013) study, it is also supported by Alkassim (2005) results as it stated that the conventional banks have better NLTA ratio.

## 7.2 Correlation Analysis

Correlation analysis executed to figure out the relationship among the independent variables and the dependent variable in the two groups of banks; namely, Islamic and conventional ones. Correlation applied to examine the relationships between the independent variables and the dependent variable which is bank's profitability.

		Correlations							
		ROE	ROA	ETAR	LLR	LDR	NLTA	SIZE	
Spearman's rho	ROE	Correlation Coefficient	1.000	.659	.760*	.186	-.154	-.343	.359
		Sig. (2-tailed)	.	.076	.028	.658	.715	.405	.382
		N	8	8	8	8	8	8	8
	ROA	Correlation Coefficient	.659	1.000	.577	.283	-.338	-.329	.327
		Sig. (2-tailed)	.076	.	.134	.497	.414	.426	.429
		N	8	8	8	8	8	8	8
	ETAR	Correlation Coefficient	.760*	.577	1.000	-.131	-.520	.000	.756*
		Sig. (2-tailed)	.028	.134	.	.758	.187	1.000	.030
		N	8	8	8	8	8	8	8
	LLR	Correlation Coefficient	.186	.283	-.131	1.000	.293	-.025	-.408
		Sig. (2-tailed)	.658	.497	.758	.	.481	.953	.316
		N	8	8	8	8	8	8	8
	LDR	Correlation Coefficient	-.154	-.338	-.520	.293	1.000	.062	-.921**
		Sig. (2-tailed)	.715	.414	.187	.481	.	.885	.001
		N	8	8	8	8	8	8	8
	NLTA	Correlation Coefficient	-.343	-.329	.000	-.025	.062	1.000	.012
		Sig. (2-tailed)	.405	.426	1.000	.953	.885	.	.978
		N	8	8	8	8	8	8	8
	SIZE	Correlation Coefficient	.359	.327	.756*	-.408	-.921**	.012	1.000
		Sig. (2-tailed)	.382	.429	.030	.316	.001	.978	.
		N	8	8	8	8	8	8	8

\*. Correlation is significant at the 0.05 level (2-tailed).  
 \*\*. Correlation is significant at the 0.01 level (2-tailed).

Table 6: Correlations Analysis of Islamic Banks

Table (6) represents the correlation relationships among different types of variables for the Islamic banks only. Both ROE and ROA as the measures of the dependent variable that is profitability, move together in a positive relation, this support with (Alkassim, 2005) finding and contradict with (Hamedian, 2013). Capital adequacy is the only independent variable that has a positive and significant correlation with ROE, which highlights that the major factor that

counts for profitability in Islamic banks is their capital levels and whether it is adequate to be engaged in their operations. Bank size (TA) has a positive relation but insignificant with both ROA and ROE, which indicates that the size of the bank is not an influential factor to have a better profitability levels. On the other hand, bank size also has a significant positive relationship with capital adequacy which does make sense that larger banks will have more adequate capital than the smaller ones. Finally, bank size has a significant but negative relationship with management quality; this might mean that management of these banks is more efficient in managing their operations while the bank is still of controllable size but not with larger banks.

			Correlations							
			ROE	ROA	ETAR	LLR	LDR	NLTA	SIZE	
Spearman's rho	ROE	Correlation Coefficient	1.000	.809**	-.034	-.011	.289	.208	.577*	
		Sig. (2-tailed)	.	.001	.918	.974	.363	.516	.049	
		N	12	12	12	12	12	12	12	
	ROA	Correlation Coefficient	.809**	1.000	.199	-.156	.621*	.545	.380	
		Sig. (2-tailed)	.001	.	.535	.629	.031	.067	.223	
		N	12	12	12	12	12	12	12	
	ETAR	Correlation Coefficient	-.034	.199	1.000	-.281	.259	.349	-.481	
		Sig. (2-tailed)	.918	.535	.	.377	.416	.267	.113	
		N	12	12	12	12	12	12	12	
	LLR	Correlation Coefficient	-.011	-.156	-.281	1.000	-.481	-.501	.081	
		Sig. (2-tailed)	.974	.629	.377	.	.114	.097	.803	
		N	12	12	12	12	12	12	12	
	LDR	Correlation Coefficient	.289	.621*	.259	-.481	1.000	.988**	-.133	
		Sig. (2-tailed)	.363	.031	.416	.114	.	.000	.681	
		N	12	12	12	12	12	12	12	
	NLTA	Correlation Coefficient	.208	.545	.349	-.501	.988**	1.000	-.235	
		Sig. (2-tailed)	.516	.067	.267	.097	.000	.	.463	
		N	12	12	12	12	12	12	12	
	SIZE	Correlation Coefficient	.577*	.380	-.481	.081	-.133	-.235	1.000	
		Sig. (2-tailed)	.049	.223	.113	.803	.681	.463	.	
		N	12	12	12	12	12	12	12	
	**.			Correlation is significant at the 0.01 level (2-tailed).						
	*.			Correlation is significant at the 0.05 level (2-tailed).						

Table 7: Correlations Analysis of conventional Banks

Table (7) shows the correlation relationships among different types of variables for the conventional banks. In consistent with Islamic banks group, the profitability measures have positive relationship between each other. Moreover, bank size represented by TA has positive significant correlation with ROE but not ROA. On the other hand, ROA has significant positive correlation with management quality and liquidity for the conventional banks. This means that for these well established and long history banks they have better ability and knowledge to manage their operations more efficiently and because of the large number of clients they have, they maintain better levels of liquidity to face their clients' demands which both result in better levels of profitability. Finally management quality and Liquidity has a high positive significant correlation that suggests that for these banks the more efficient they are in managing their operations, the high level of liquidity they remain to face clients demands.

### 7.3 Regression Analysis

The regression analysis runs to examine how the profitability (ROA, ROE) will be affected when the independent or explanatory variables (CA, ASQ, MGR, LQR, Bank Size and Bank Type) adjusted.



Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.261	.112		-2.328	.037		
ETAR	2.503	1.062	.994	2.357	.035	.125	7.969
LLR	.132	.182	.138	.729	.479	.620	1.612
LDR	.498	.136	1.516	3.648	.003	.129	7.727
NLTA	-.504	.147	-1.379	-3.440	.004	.139	7.191
TA	.007	.001	1.413	5.170	.000	.299	3.342
BANK_TYPE	.079	.049	.775	1.626	.128	.098	10.163
R				.842			
R Square				.710			
Adjusted R Square				.576			

Table 8: Regression Analysis Results with ROE as the Dependent Financial Indicator

Table (8) presents the regression analysis results for the sample of banks with ROE as the dependent financial indicator measure. The model summary for ROE illustrates R Square of 71%. This is considered as a high prediction probability level. This means that the inter-bank factors along with the size of banks could explain 71% of the changes in the ROE as the dependent variable measure.

- Capital adequacy represents a strong positive significant relationship with the ROE which suggests accepting the first hypothesis ( $H_1$ ). Also, management quality explores positive significant relationship with the ROE, therefore, the third hypothesis ( $H_3$ ) is accepted as well. Liquidity as expected has a negative significant relationship with the ROE so the fourth hypothesis ( $H_4$ ) is accepted. And finally size of the banks proved to have a positive significant effect on financial performance represented by ROE which accepts the fifth hypothesis ( $H_5$ ).
- Asset quality has not proved to have any significance level with the ROE, this might be because of the high level of uncertainty that the whole Egyptian economy suffers during the period of study and since the 25<sup>th</sup> of January revolution.
- Bank type, whether the bank is conventional or Islamic, did not have any sort of influence on the relationships between inter-bank factors and size on the financial indicators. Therefore, it is very untrue to say that these independent variables could affect the financial performance differently between the two types of banks. Hypotheses number two and eleven were rejected.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.050	.023		-2.163	.050		
ETAR	.291	.220	.697	1.325	.208	.125	7.969
LLR	.028	.038	.179	.756	.463	.620	1.612
LDR	.081	.028	1.491	2.878	.013	.129	7.727
NLTA	-.055	.030	-.907	-1.814	.093	.139	7.191
TA	.001	.000	1.020	2.992	.010	.299	3.342
BANK_TYPE	.008	.010	.496	.835	.419	.098	10.163
R				.740			
R Square				.548			
Adjusted R Square				.340			

Table 9: Regression Analysis Results with ROA as the Dependent Financial Indicator

Table (9) presents the regression analysis results for the sample of banks with ROA as the dependent financial indicator measure. The model summary for ROA illustrates R Square of



almost 55%. This is considered as a high-moderate prediction probability level. This means that the inter-bank factors along with the size of banks could explain around 55% of the changes in the ROA as the dependent variable measure.

- Management quality has a positive significant relationship with the ROA, therefore, the eighth hypothesis (H<sub>8</sub>) is accepted. Also, size of the banks proved to have a positive significant effect on financial performance represented by ROA which accepts the tenth hypothesis (H<sub>10</sub>).
- Although capital adequacy has a positive relationship with ROA, it was not at a significant level. Asset quality has not also proved to have any significance level with the ROA, this might be because of the high level of uncertainty that the whole Egyptian economy suffers during the period of study and since the 25<sup>th</sup> of January revolution. Moreover, liquidity was not proved to be significant, although it has a negative relationship with ROA.
- Bank type, whether the bank is conventional or Islamic, did not have any sort of influence on the relationships between inter-bank factors and size on the financial indicators. Therefore, it is very untrue to say that these independent variables could affect the financial performance differently between the two types of banks. Hypotheses number six, seven, ninth and eleven were rejected.

## 8. Conclusion

The results of the descriptive analysis illustrate that Islamic banks are dominating in some figures whereas the conventional banks are dominating in others. Regarding profitability ratios, values show minor differences between ROE and ROA in Islamic banks and conventional banks. It was clear that there are no significant differences between these groups regarding financial measures. The conventional banks are dominating in the capital adequacy that was measured by the equity to the total assets ratio (ETAR). This indicates that conventional banks have better risk management that supports the organization's efforts to avoid asset losses. On the other hand, Islamic banks have superior position in the assets quality that is measured by the loans loss reserved (LLR). This suggests that the Islamic banks have better management for their loans, this is an expected behavior specially that all Islamic banks instruments are based on profit/loss sharing. In addition to that the money is not moved to the client as a loan but as a business partnership. The management quality, which is evaluated by the loans to deposits ratio (LDR), shows that conventional banks have better performance regarding this issue. Finally, the conventional banks perform better on liquidity management. This contradicts with the asset quality management variable especially that the Islamic banks loans should be covered by assets, but this result maybe inconsistent because of the data limitation.

To sum it up, it can be stated that large sized banks that have enough capital along with the ability to manage bank's resources efficiently will definitely affect their financial performance positively, on the same time having good ability to manage their financial obligations and therefore decreasing the level of risk regarding liquidity will participate in enhancing the financial performance of these banks. Also, bank type, whether the bank is conventional or Islamic, was proved not have any sort of influence on the relationships between inter-bank factors and size on the financial indicators.

## 9. Recommendations and Future Research

In the light of the findings of the current study, it is recommended that Islamic banks management focus on improving the capital competence, management quality and liquidity, as

their performance on these aspects is lower than their counterparts of the traditional banks. Moreover, they should keep the asset quality management at the same current level.

The study does not provide more detailed answers regarding what could gauge financial performance of banks? And what other independent variables that should be taken into consideration when study the relationship with the financial performance. Further research may be conducted to attempt to answer these questions. The findings of such studies would help the banks' management create their own strategies to increase their profitability.

Future studies can also examine and compare the performance of Islamic and traditional banks in more consecutive periods, more than one developing country, and larger sample than the one chosen in this study due to the very limited data or using different selection criteria. A comparison between the performance of banks before the revolution and after it should be conducted to see the progress. Finally, more detailed comparisons are needed between the performance of the two banking systems with regard to specific products, such as the profitability of Musharakah as a Long-Term Partnership in the Islamic system and the long term loans in the traditional one.

#### **10. Research Limitations**

The study experienced three main limitations. First, after collecting the required data and when performing the comparison analysis, some inconsistencies in the Islamic banks' data were discovered because of the high negative ROE and ROA values in Abu Dhabi Islamic Bank. Therefore, ADIB data had to be excluded from the sample in order not to distort the whole data.

Second, there are shortages of the available secondary data and financial statements. Although banks should publish all their financial statements for investors' relations, the reality shows that not all financial reports are published, or only parts of them are published. Although a professional database (Thomson Reuters DataStream) was used to collect the required data, in some cases, researchers realized that some important financial ratios were missing. This required extra effort to complete the missing information manually from other available annual reports.

Finally, the sample is relatively small due to the low number of Islamic banks working in the Egyptian market and due to the unavailability of data as shown earlier. Because of the limitation of the data, a full test for all profitability ratios could not be performed. For example, researchers were forced to exclude the net interest margin (NIM) since it was not available. For the same reason, the analysis in all CAMEL ratios [Capital Adequacy, Asset Quality, Management Quality, Efficiency and Liquidity] could not be conducted.

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