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The Financial Performance Analysis of Islamic Vs Conventional Banks: An Empirical study on Bangladesh

Mohotarema Rashid

Abstract

This paper focuses on the comprehensive comparison about the financial performance of conventional and non conventional banks of Bangladesh. The study shows that in spite of a few exceptions in general conventional overall performance was better than the non conventional banks. I have chosen five Islamic banks and five Conventional Banks & analyze different data to find out the effect of CAMEL Factors on Return on Equity. Here I have used different dependent variables to analyze the impact of each variable on Return on Equity. The variables are Capital Adequacy, Asset Quality, Management Quality, Earnings & Liquidity The regression model indicates that Capital adequacy, Asset Quality, have significant negative impact on Return on Equity for conventional bank. This model also indicates Management Quality & Earnings Quality and Liquidity are positively related to Return on Equity and this variable has also significant impact on Return on Equity. I have used this same model for non conventional banks and found that Capital adequacy, Asset Quality and Earnings and Liquidity have negative insignificant impact on Return on Equity & only Management Quality has negative insignificant impact on return on asset. Then In my study I have used descriptive statistics to compare between these two banking system in terms of CAMEL factors. I have found that conventional bank dominates non conventional bank in terms of Capital Adequacy, Asset Quality, Earnings, whereas non conventional bank dominates conventional banks in terms of Management Quality and Liquidity.

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1. Introduction

Among 62 banks of Bangladesh it is seen that Ten full-fledged Islamic banks are operating with 1,068 branches in the country. Moreover, 19 Islamic banking branches of nine commercial banks and 25 Islamic banking windows of eight commercial banks are also providing Islamic financial services. With a workforce of 30336 people, Islamic banking covers 22.72% market share of the country's entire banking sector in terms of deposits and investments. Islamic banks are similar to conventional banks in that both offer similar financial services and play a vital role in the economic development of the country. But they are different in that Islamic banks, unlike non-Islamic banks, are bound to follow Islamic Shari'ah in their operations. Islamic banking and conventional banking differs in that while the conventional banking follows conventional interest-based principle, the Islamic banking is based on interest-free principle and principle of Profit-and-Loss sharing in performing their businesses as intermediaries. Due to the banking sector's significant role in the wellbeing of any economy, it is vital to constantly monitor and evaluate banks' performance; to ensure that the financial sector is strong and efficient. The Basel Committee on Banking Supervision proposed the CAMEL framework in 1988 to be used for managerial and financial assessment, to provide a comprehensive evaluation of financial organizations and help in ranking the performance of banks as cited in Awan (2009) and Akhtar (2010). The CAMEL model has previously been used by researches in foreign countries to contrast the performance of banks and identify the determinants of profitability. However, little efforts have been done to introduce this model to Banglasdesh with only a few banks adopting it to measure their performance. Hence it is not a formal method of bank evaluation recommended by the Central Bank as is done in several other countries.

1.1 Objective of the study:

To empirically compare the Financial performance of conventional and non conventional bank, using several indicators such as capital adequacy, Asset quality, Management quality, Earning and Liquidity & critically examine the various determinants of profitability of islamic banks & conventional banks of Bangladesh.

1.2 Research Method:

The report is prepared to analyze the financial performance of conventional banks and Islamic banks of Bangladesh. For this purpose I have used five Islamic banks & five conventional banks which are given below:

Islamic Banks	Conventional Banks
Islami Bank Bangladesh Ltd	Dhaka Bank Ltd
Al-Arafah Islami Bank Ltd	Eastern Bank Ltd
EXIM Bank Ltd	Brac Bank Ltd
Fisrt Security Islami Bank Ltd	Mutual Trust Bank Ltd
Social Islami Bank Ltd	Prime Bank Ltd

1.2.1Data Source:

Secondary data were used for analysis. The above mentioned banks last five years (2013-2017) data is used which have taken form annual report of the respective banks. Secondary data which is derived from the bank's financial statements which have been transformed into percentages and ratios so that comparison can be made between the two types of banking system.

1.2.2Data Analysis technique:

Descriptive Statistics (including mean, standard deviation, skewness) will be used to compare and analyze the performance of Islamic and conventional banks. Finally regression analysis has been carried out to analyze the effect of the variables on bank profitability. CAMEL framework is used to measure and compare the financial performance of Islamic and

conventional bank in order to detect whether there any significant differences in the performance indicators of the two banking systems in terms of; capital adequacy, asset quality, management quality, earnings and liquidity.

1.2.3Dependent variables:

ROE: Return on Equity is an indicator of managerial efficiency; as it measures management's capability of converting the bank's assets into net earnings.

1.2.4Independent variable:

Capital adequacy: Capital adequacy measures the financial strength and viability of the banks in terms of capital over assets like investments and loans

Asset quality: The loans constitute the greater proportion of assets in balance sheets of any bank, hence the quality of loans or asset of any banks is very significant for investors or depositors because they are the main source of generating profit for banks

Management quality: This measure of performance will shed light on the superiority of the management. The duty of the management is to safeguard that the banks operation runs in a smooth and decent manner.

Earnings quality : To measure the efficiency and earnings quality of a bank one should assess the bank's ability to control costs and increase productivity, ultimately achieving higher profits.

Liquidity: parameter of performance is very crucial for all banks, because it aids in assessing the risk of unforeseen circumstances which can may lead to insolvency and bankruptcy.

This paper will present the output of the regression analysis, to explain how any change in the independent or explanatory variables internal CAMEL factors will affect the determinants of profitability (ROE)

Variable Measurement	Measurements used to present the explanatory Variables
Return on Equity	Net income/ Total Equity (ROE)
Capital Adequacy	Total Equity/Total assets (ETAR)
Asset Quality	Loan Loss Reserves/ Total Loans (LLR)
Management Quality	Loans/Deposits (LDR)
Earnings Quality	Total expenses/Total revenue (COSR)
Liquidity	Net loans/Total Assets (NLTA)

1.2.5Model Specification:

So In my study I will use the following model:

$ROE = \alpha 1 + \beta 1(CA) + \beta 2(AQ) + \beta 3(MQ) + \beta 4(ER) + \beta 5(LM) + €t$

Where,α = Intercept

CA =Capital Adequacy of bank i at time t

AQ = Asset Quality of bank i at time t

MQ = Management Quality of Bank i at time t

ER= Earnings of Bank i at time t

LM =Liquidity Ratio of Bank i at time t

ROE=Return On Equity

€t = Error Term

2.Literature Review:

The comparison of the conventional and Islamic banking in terms of CAMEL has always been an interesting topic for researchers since the beginning of Islamic banking. In case of conventional bank profitability, liquidity and safety are three main factors and Islamic bank is not exception in that case. Because of their similarity of operations, Islamic banks should also

consider these three principles (Haron, 1996). According to studies relating to the GCC (Gulf Cooperation Councils), Islamic banks are more profitable and accordingly, their shareholders' investments get better returns in comparison with the shareholders of conventional banks(Olson and Zoubi, 2008). Also in Malaysia Samad and Hassan (2000) find that Islamic banks operate better than conventional banks. Islamic banks are more profitable than conventional banks, with identical balance sheet figures (Kaouther et al., 2011). Awan (2009), who compared the profitability of Islamic and conventional banks in Pakistan concluded that Islamic banks had performed much better than selected conventional banks in terms of assets management, deposits, financing, investment,efficiency and quality of services and recovery of loans, and were,therefore, more profitable. Iqbal and Molyneux (2005) compared across country sample of Islamic and conventional banks for the period 1990-2002. They found that in terms of key performance ratios measuring soundness, effective use of resources, prudence, cost efficiency and profitability Islamic banks meet, and in several cases surpass, international standards. They also showed that in the benchmarking exercise that they conducted for many performance-measuring variables, Islamic banks outperformed their conventional peers. The results of Samad and Hassan's study (2000) comparing the performance of BIMB(Bank Islam Malaysia Berhad) with conventional banks revealed that Islamic banks made statistically significant progress on return on assets(ROA) and return on equity (ROE) from 1984 to 1997. In addition, the78 Cheng Fan Fah and Abbas Hassani ROA and ROE did not indicate any significant difference in profitability (Samad and Hassan, 2000). With an efficient Islamic system, it is possible to allocate fewer capital resources to the more profitable operations and contribute towards value creation (Yahya et al., 2012). On the other hand, profit efficiency indicates how well a bank is anticipated to perform in terms of profit related to other banks in the same period oftime for producing a similar set of outputs. Hassoune (2002) investigated Islamic banks' profitability in an interest cycle and compared ROA and ROE volatility for both Islamic and conventional banks in Kuwait, Saudi Arabia and Qatar. He discovered that managers of Islamic banks that operated on the basis of profit and loss sharing, must consider providing proper returns to depositors because they are not interested to invest with them just yet (Hassoune, 2002).To examine the above-mentioned ideas on whether in Bangladesh Islamic banks are actually more successful than conventional banks the study compares the profitability of Islamic banks with conventional banks.

3.1Descriptive Statistics Analysis

In order to compare the differences in financial performance of Islamic vs. Conventional banks the following descriptive statistics I computed.Here Descriptive analysis is used to determine the performance of both banks in terms of CAMEL factors.

Table 3.1:Descriptive Statistics

	CAPITAL ADEQUACY		*ASSET QUALITY*		*MANAGEMENT QUALITY*		*EARNINGS*		*LIQUIDITY*		*ROE*	
	CB	*NCB*	*CB*	*NCB*	*CB*	*NCB*	*CB*	*NCB*	*CB*	*NCB*	*CB*	*NCB*
MEAN	0.083	0.069	0.0139	0.008	0.453	0.450	0.498	0.453	0.664	0.738	0.122	0.119
STANDARD DEVIATION	0.018	0.020	0.006	0.003	0.057	0.025	0.065	0.072	0.04	0.029	0.03	0.030

Source: Excel Output

3.1.1Capital adequacy:

From the below chart I see that conventional banks have better capital adequacy than Non Conventional banks. CB is dominating in terms of capital adequacy, since it has higher capital adequacy ratio that is .083 than NCBs which is. This may signify that CB are more capable of withstanding any unexpected losses and unforeseen events, because high capital adequacy ratio will aid the bank in providing a strong cushion to increase its credit undertakings, lower the unanticipated risks and supports the organization in charming asset losses. Consequently, it is also seen from the above that conventional banks are stronger in responding to balance sheet shocks, such as liabilities payments, operational and credit risks.

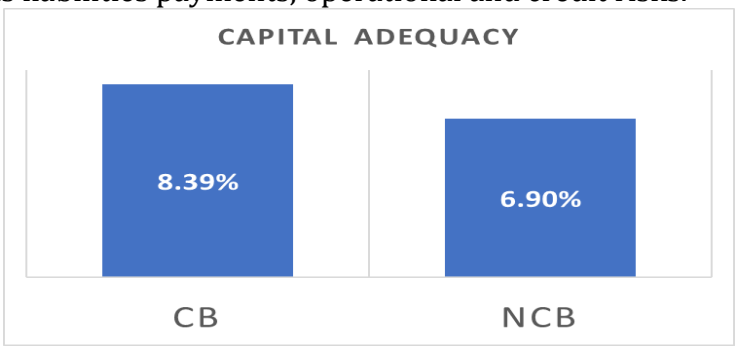

Figure 3.1.1Comparison of Capital Adequacy

3.1.2Asset Quality:

NCB is dominating asset quality, since it has the lower ratio but This indicates that it has fewer loan loss reserves as a proportion to their gross loans, which relatively means that NCB has more credible and superior asset quality in relation to CB. It is seen that banks maintaining high provisions for bad loans should be concerned as this will signal towards future losses.

Figure 3.1.2Comparison of Asset Quality

3.1.3Management Quality:

Furthermore, CB is dominating in Management Quality, since it has a higher ratio than NCB .Total loans over total deposits (LDR) reveals the percentage of bank loans funded through deposits; the higher the ratio, the more effective and superior bank management is in acquiring more deposit trustworthy and financially strong depositors.

Figure 3.1.3 Comparison of Management Quality

3.1.4 Earnings Quality:

In the earnings quality, NCB is dominating, since it has a lower cost to income ratio than CB The lower cost to income ratio indicates that NCB uses lower costs to generate a dollar of income. Hence, it is more capable of controlling its costs and increasing productively which ultimately results in higher profitability.

Figure 3.1.4 Compariosn of Earnings

3.1.5 Liquidity:

Finally, CB is dominating in Liquidity, since It has a lower liquidity ratio than NCB and the lower net loans to total assets ratio in CB indicates that it is more liquid, because it has fewer assets engaged in loans.

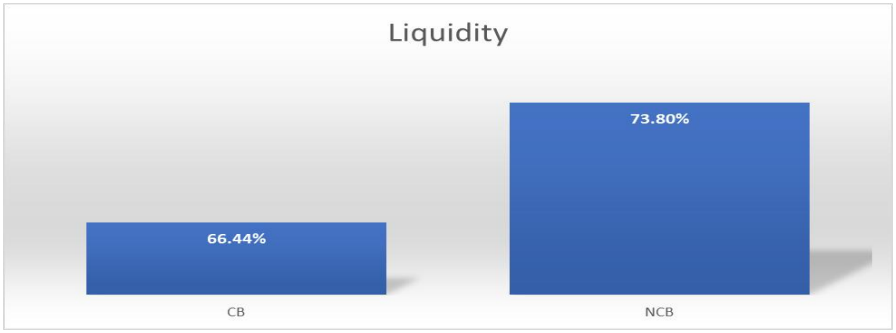

Figure 3.1.5Comparison of Liquidity

4 Correlation Matrix analysis & Interpretation CB

This section presents the explanatory variables of the study and their relationship with bank performance as expressed by the dependent variables ROE

Table 4.1. : Correlation Matrix Analysis of CB

	Capital Adequacy	*Asset Quality*	*Management Quality*	*Earnings*	*Liquidity*	*ROE*
Capital Adequacy	1					
Asset Quality	0.391550806	1				
Management Quality	0.329143945	0.096222366	1			
Earnings	-0.404557057	0.142293645	-0.080491062	1		
Liquidity	0.031509047	-0.26157143	0.736753769	-0.258517205	1	
ROE	-0.308672333	-0.568863899	0.022451437	0.116503846	0.111517636	1

Source: Excel Output

Since most of the independent variables have a correlation of less 0.4, then this signals a weak relationship between each independent variable and hence indicates absence of significant correlation between all independent variables which helps me to separate effects of the individual explanatory variables on the regression model. Though from the above it is seen correlation between liquidity & management quality is 0.73 that means this two variable seems moderate relationship with each other but no so strong relationship. Capital adequacy is positively correlated to ROE that is .30. .Asset quality is positively correlated to ROE correlation between them is 0.56. Management quality is positively correlated to ROE and correlation between this two variable is 0.022. Earnings quality is positively correlated with both ROE correlation between them is .11. Liquidity is positively related with ROE correlation between this variable is 0.11.

4.2 Correlation Matrix analysis & Interpretation NCB

Table 4.2.2 : Correlation Matrix Analysis of NCB

	Capital Adequacy	*Asset Quality*	*Management Quality*	*Earnings*	*Liquidity*	*ROE*
Capital Adequacy	1					
Asset Quality	0.350709	1				
Management Quality	-0.06327	0.018862	1			
Earnings	-0.68941	-0.47954	-0.1475	1		
Liquidity	-0.19384	-0.24198	0.235395	0.295544	1	
ROE	0.078323	-0.16298	0.295727	-0.56064	-0.17556	1

Source: Excel Output

Here most of the independent variables have a correlation of less 0.4, then this signals a weak relationship between each independent variable and hence indicates absence of significant correlation between all independent variables. From the above it is seen Capital Adequacy & Management Quality are positively correlated to ROE, whereas Asset Quality, Earnings, & Liquidity are negatively correlated to ROE.

5 Regression Model Analysis

Analysis & Interpretation of Regression Model To determine the difference between conventional & non conventional Bank:

The Regression Model is given below:
CB:
ROE= 0.2087+(-.192Capital Adequacy) +(-3.669Asset Quality)+ (.188 management quality)+(.068Earnings)+ (.209liquidity)+ €t
NCB:
ROE= .43+ (-.76Capital Adequacy)+(-5.23Asset Quality)+ (.153management quality)+(-.47Earnings)+ (-.10 liquidity)+ €t

Table 5.1 Regression Summary Output

	CB	NCB
Multiple R	0.625210809	0.86185106
R Square	0.390888555	0.74278725
Adjusted R Square	0.23059607	0.67509969
Standard Error	0.030765187	0.01690748

Source: Excel Output

From the above model summary, it is seen that for NCB multiple R is 0.86185106 that means there is strong correlation between the independent variables and dependent variables. In this regression model that means 86% of the variation of dependent variable that is ROE is explained by the independent variables Capital adequacy, asset quality, management quality, earnings & liquidity.From the above model summary it is seen that for CB multiple R for model 1 is 0.6252which means the independent variables have strong correlation with profitability that is ROE.In model R^2 = 0.6252 that means 62% variation of dependent variable can be expressed by independent variable.

Table 4.3.2 : Anova Table Summary

	CB	NCB
F	2.438596	10.97376243
Significance F	0.042145629	**0.0000445175899004121**

Source: Excel Output

From the above I can able to conclude that since significance F is less than .05 the test is statically significant. Larger the F ratio, the more variance in the dependent variable is explained by the independent variables. The F ratio for NCB 10.97 indicates that the models are highly significant at the 0.00004451 level.The F ratio for 2.43 indicates that the models are highly significant at the 0.042145629 level for CB regression analysis model.

Table No:4.3.3Comapartive Analysis Of Coefficient Table

	Coefficients		*P-value*	
	CB	***NCB***	***CB***	***NCB***
Intercept	0.208756054	0.43793582	0.253586	0.001129194
Capital adequacy	-0.19229914	-0.7609913	0.700641	0.005201552
asset quality	-3.66977165	-5.2385620	0.008381	0.000568133
management quality	0.188775013	0.15395006	0.367157	0.317551633
earning quality	0.068465071	-0.4706295	0.584093	.000000678
liquidity	-0.20932100	-0.1097217	0.468576	0.422096903

Source: Excel Output

From the above analysis I can see in case of CB management quality & earning quality have positive impact on Return On Equity, where capital adequacy, asset quality & liquidity have negative impact on Return On equity .From the above P value it is seen that only variable asset quality is significant. On the other hand in case of NCB management quality has positive impact on ROE, whereas other variables have negative impact on ROE. Among five variables in case of NCB it is found capital adequacy, asset quality, & earning quality are significant determinants of profitability for NCB.

6. Conclusions & Findings:

The study employs the CAMEL framework to measure and compare the financial performance of Islamic and conventional banks in order to detect whether there any significant differences in performance indicators of the two banking systems in terms of; capital adequacy, asset quality, management quality, earnings and liquidity. The empirical results of my study at times were consistent to those of previous literature studies, but at times, however contradicting results were discovered. Due to the banking sector's significant role in the well being and stability of any economy, it is imperative to constantly monitor and evaluate banks' performance to guarantee that the economy's financial sector is operating efficiently. So performance evaluation of bank can play a significant role in this purpose.I hope my study will be helpful to fulfill this purpose and will make concerned parties enable to analyze financial performance of conventional & non conventional bank of Bangladesh.

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Appendix

1.1Descriptive Statistics for Conventional Banks:

	Capital Adequacy	*Asset Quality*	*Management Quality*	*Earnings*	*Liquidity*	*ROE*
Mean	0.083875938	0.01393669	0.453928166	0.498177075	0.664396007	0.122208295
Median	0.083242452	0.012782965	0.441712929	0.517096728	0.663299087	0.110487742
Standard Deviation	0.018167484	0.006151381	0.05796405	0.065657457	0.04195908	0.035073762
Count	25	25	25	25	25	25

1.2 Descriptive Statistics for Non Conventional Banks:

	Capital Adequacy	Asset Management	*Management Quality*	*Earnings*	*Liquidity*	*ROE*
Mean	0.069	0.008	0.450	0.453	0.738	0.119
Median	0.072	0.008	0.450	0.437	0.742	0.115
Standard Deviation	0.020	0.003	0.025	0.072	0.029	0.030
Count	25	25	25	25	25	25

2.1 Correlation Analysis for Conventional Banks

	Capital Adequacy	*Asset Quality*	*Management Quality*	*Earnings*	*Liquidity*	*ROE*
Capital Adequacy	1					
Asset Quality	0.391550806	1				
Management Quality	0.329143945	0.096222366	1			
Earnings	-0.404557057	0.142293645	-0.080491062	1		
Liquidity	0.031509047	-0.26157143	0.736753769	-0.258517205	1	
ROE	-0.308672333	-0.568863899	0.022451437	0.116503846	0.111517636	1

2.2 Correlation Analysis for Non Conventional Banks

	Capital Adequacy	*Asset Quality*	*Management Quality*	*Earnings*	*Liquidity*	*ROE*
Capital Adequacy	1					
Asset Quality	0.350708742	1				
Management Quality	-0.063274143	0.018862124	1			
Earnings	-0.689410541	-0.47953603	-0.147498843	1		
Liquidity	-0.193835481	-0.241978527	0.235394628	0.29554362	1	
ROE	0.078323032	-0.162979318	0.295727049	-0.560640418	-0.17556	1

3.1 Regression Analysis for Conventional Banks

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.625210809							
R Square	0.390888555							
Adjusted R Square	0.23059607							
Standard Error	0.030765187							
Observations	25							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	5	0.011541	0.002308	2.438596	0.042145629			
Residual	19	0.017983	0.000946					
Total	24	0.029524						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.208756054	0.177307	1.177371	0.253586	-0.16235154	0.579864	-0.16235	0.579863647
Capital Adequacy	-0.192299143	0.49267	-0.39032	0.700641	-1.22346972	0.838871	-1.22347	0.838871436
Asset Quality	-3.669771652	1.247665	-2.94131	0.008381	-6.28116374	-1.05838	-6.28116	-1.058379568
Management Quality	0.188775013	0.204339	0.923834	0.367157	-0.23891066	0.616461	-0.23891	0.616460685
Earnings	0.068465071	0.122939	0.556905	0.584093	-0.18884819	0.325778	-0.18885	0.325778332
Liquidity	-0.209321005	0.283014	-0.73961	0.468576	-0.80167678	0.383035	-0.80168	0.383034767

3.2 Regression Analysis for Conventional Banks

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.86185106							
R Square	0.74278725							
Adjusted R Square	0.67509969							
Standard Error	0.01690748							
Observations	25							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	5	0.015685	0.003137	10.97376243	4.45176E-05			
Residual	19	0.005431	0.000286					
Total	24	0.021116						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.43793582	0.114338	3.830195	0.001129194	0.198624219	0.677247	0.198624	0.677247
Capital Adequacy	-0.76099135	0.241121	-3.15606	0.005201552	-1.265662427	-0.25632	-1.26566	-0.25632
Asset Quality	-5.23856209	1.268122	-4.13096	0.000568133	-7.892771317	-2.58435	-7.89277	-2.58435
Management Quality	0.15395006	0.149977	1.026492	0.317551633	-0.159955156	0.467855	-0.15996	0.467855
Earnings	-0.47062955	0.076277	-6.16997	6.27E-06	-0.630280106	-0.31098	-0.63028	-0.31098
Liquidity	-0.10972173	0.133723	-0.82052	0.422096903	-0.389606512	0.170163	-0.38961	0.170163

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