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An Evaluation of Financial Performance of Commercial Banks

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ABSTRACT

Banks are one of the important players in the financial system in any economy. This study evaluate the financial performance of commercial banks in Bahrain. This study is based on eight commercial banks for the period from 2005 to 2015. The data used in this study are obtained from published annual reports and websites of the respective banks, investor's guide, newspaper, newsletters of the banks and from Central Bank of Bahrain website. We used regression, correlation analysis & *t*-tests to determine the relationship between different financial parameters. The results of the study indicate that the profitability has an impact on capital adequacy and financial leverage, whereas the study did not ratify the relationship between the profitability and efficiency of the banks. This study also reveals that enforcement of higher capital adequacy ratio will adversely affects the profitability of the banks. The impact of financial and oil crisis might have influenced the financial leverage of the banks there by resulted in an adverse effect on the profitability of the banks.

JEL Classifications: G10, G14, G15.

Keywords: Banks, financial performance, performance analysis, ratios.

1. INTRODUCTION

The banking institution is indispensable in modern society. It plays a vital role in the economic development of a country and forms money marketing in advanced country. In a stable economic system, banking

activities hold remarkable role by enhancing financial resources for industrial activities which intern generate employment opportunities and overall development of the country. The financial performance of banks guides to analyses the outcomes of a firm's policies, performance, efficiency and effectiveness in monetary terms. These results reflect in the firms return on investment, return on assets and profit earning. It also emphasizes on how a bank is effectively utilizing its financial and other resources to earn profit. Financial performance evaluation is a subjective measure to assess firm's usage of assets from its primary mode of business and generation of revenues. It also includes net operating income (NPI), earnings before interest and taxes (EBIT), profit after taxes (PAT) and net asset value (NAV). This also measure of how efficiently a bank uses its assets and other resources to generate revenues, which intern firm's overall financial condition for a given period, and can be used to compare industries with each other's. Finance and its function play a very significant role in determining the profitability and stability of the business. Most of the studies in financial performance analysis of the banks have more stress in comparing financial results of Islamic and non-Islamic banking sector undertaking. The present study is undertaken to find out and evaluate financial performance of commercial banks in Bahrain.

2. LITERATURE REVIEW

The performance of commercial bank analysis has been carried out by many researchers in various countries. The performance analysis of Islamic and conventional bank is done to understand the effectiveness of the banking system. Researcher has considered various articles on bank performance in Bahrain and other countries of the world to have more comprehensive analysis. Raquibuz Zaman and Hormoz Movassaghi (2001) opined that the products and services offered by the Islamic banks do not conform to the traditional Islamic principles. Emphasizing on profitability is concern, Haron (2004) revels that expenditures and profitability are positively correlated and the size of the Islamic banks only had a significant positive correlation with expenditure but was not significant with profitability measures. Chen et. al., (2005) found the large state-owned banks and smaller banks are more efficient than medium sized among Chinese commercial banks. Their study also opined that, technical efficiency consistently dominates the locative efficiency among commercial banks in China. Burhonov (2006) found that there is no clear-cut relation between short-term funding and profitability. Interestingly their regression analysis reveals that the impact of macroeconomic variables, GDP on profitability is not conclusive. Noor Ahmed Memon (2007), opines that the role of Islamic banks as financial mediators and its importance to the society is very relevance. The study reveals that Islamic Banks entering directly into areas like trade& commerce, industry and agriculture etc. is not beneficial as it implies that banks are deviating from their actual role as a financial intermediary. Alkassim (2007) opined that the return on Assets for Islamic banks in GCC has positive correlation with total assets and total expenses. In contradiction to (Burhonov 2006) result, Zantioti (2009) in their study reveals that equity to total assets and GDP per have a significantly positive impact on profitability of Islamic bank. Usman et. al., (2009) opines that the financial reforms improved the level of efficiency in banking sector in Pakistan. Hameeda Abu Hussain and Jasim Al-Ajmi (2012) opined that the credit, liquidity and operational risk are very important risks facing both Islamic and conventional banks.

Furthermore, their study observed that, Islamic banks differ significantly from conventional banks in risk management practice and level of risk faced by Islamic bank is significantly more than conventional banks.

Kaleem (2000) opined that the Islamic banking system is more crises-proofed compared to the conventional banking system due to its asset-linked nature. Mathuva (2009) found a negative relationship between the equity capital ratio and profitability. Their study also reveals that in terms of their efficiency as measured by the cost to income ratio Kenyan banks are not globally competitive enough. Kassim and Majid (2010) finds mixed evidences on the impact of the macroeconomic shocks on the Islamic and conventional banks and their study also indicated that the Islamic banks are relatively resilient to the financial shocks, the results based on the more robust econometric analysis reveal otherwise. Further the results based on the IRF analysis show that the Islamic financing responded significantly to macroeconomic shocks in non-crisis and 2007 crisis periods. Iqbal and Joseph (2011a) revealed that among the factors affecting selection of the banks, people give top most priority to reliability, human element at the second position, responsiveness at the third position, accessibility at the fourth position, and tangibility in the fifth position respectively. Iqbal and Joseph (2011b) opined that the most crucial factor leading to service gap is systemization or technological advancement among interactive and conventional banks. Najjar (2013) found that the variations in profitability of five Bahraini banks for the years 2005, 2006 and 2007, were satisfactory for the due to good profit margins generated in those years. While in 2008 and 2009, poor profit margins had a significant impact on ROE. Palečková (2014) examined the relationship between profitability and efficiency in the Czech banking sector using Granger causality test and concludes that Granger Causality do not confirm the relationship between Return on Equity, Return on Assets on efficiency of the banks. Hawaldar et. al., (2016a) found that operating efficiency of wholesale Islamic banks was better than retail Islamic banks for the period of 2009-2013, which was evident from asset utilization ratio. Using the result of correlation analysis of wholesale Islamic banks between various performance indicators, their study also showed the existence of significant positive correlation of cost to income ratio with operational efficiency ratio and staff cost to income ratio. A similar study by Hawaldar et. al., (2016b) opined that no significant difference between the performance of retail and wholesale conventional banks operating in Bahrain. Hawaldar et. al., (2016c) revealed that team orientation and development is the crucial aspect in enhancing employees' performance. The study opines that the leadership affect the performance of the banks in Bahrain.

Hawaldar et. al., (2017a) analysed the impact of financial and oil price crisis on the financial performance of selected banks in Bahrain. They selected a sample of seven commercial banks out of which three Islamic banks and four conventional banks. The study covered a period of eleven years, from 2005 to 2015. The financial performance of banks in terms of profitability, efficiency, leverage and liquidity is analysed through ratios. They found that there was not much impact on the financial performance of the banks during the crisis and pre-crisis period but the impact was observed in post financial crisis. The oil price crisis has an impact on the financial performance of banks all the banks. Hawaldar et. al., (2017b) examined the impact of oil crisis on the performance of selected banks of Kingdom of Bahrain using profitability, efficiency, capital adequacy and liquidity ratios in the pre-crisis and crisis periods. The study reveals that there is no significant difference in the performance of banks in the pre-crisis and crisis period. The results indicate that there is a significant difference in the performance of conventional banks and Islamic banks in the pre-crisis period. Hawaldar et. al., (2017c) revealed that conventional retail banks, except for Bahrain development bank, have consistent performance in return on assets and return on equity. While among the Islamic retail banks, the performance of Kuwait finance house is satisfactory in terms of profitability. Hawaldar et. al., (2017d) found that the staff cost to income ratio, cost to income ratio, asset utilization and operating efficiency is higher in wholesale Islamic and conventional banks compared to retail banks.

They also found that there is no significant difference between performance of conventional and Islamic retail and wholesale banks in respect to staff cost to income ratio, cost to income ratio, asset utilization ratio and operating efficiency ratio during the study period. The study found that there is a positive relationship between Staff Cost to Income Ratio, Operational Efficiency Ratio and Cost to Income Ratio among retail and wholesale Islamic and conventional banks.

3. OBJECTIVES OF THE STUDY AND HYPOTHESES

Based on the review of literature following objectives developed.

- To evaluate financial performances of commercial banks in Bahrain.
- To test the predetermined hypothesis relating to the financial performance of the banks in Bahrain.

The hypothesis being tested are:

H1: There is an inverse relationship between the cost to income ratio and the bank's profitability.

H2: There is a significant relationship between capital adequacy ratio and banks profitability.

H3: There is no significant impact of leverage ratio on profitability (ROA and ROE) of the banks.

H4: There is a significant relationship between cost to income and capital adequacy ratios of the banks.

H5: There is a significant relationship between cost to income (efficiency) and leverage ratios of the banks.

H6: There is a positive correlation between customer deposits, profitability, efficiency, financial strength and leverages of the banks.

4. METHODOLOGY

The data used in this study are obtained from published annual reports and websites of the respective banks, investor's guide, newspaper, newsletters of the banks and from Central Bank of Bahrain website. The study covers a period from 2005 to 2015.

Table 1
Variable definitions

<i>Variable</i>	<i>Formula</i>	<i>Meaning</i>
Profitability	ROE = ((Net Income excluding minority interest & extraordinary income)/Shareholder's Equity) × 100 ROA = ((Net Income excluding minority interest & extraordinary income)/Total Assets) × 100	Ability of the business to earn profit
Efficiency	COI = Operating Expenses /Operating Income	Process that uses the minimum amount of inputs to create the greatest amount of outputs
Financial Strength	CAR = (Total Capital Base/Total Risk-weighted Assets) × 100	Minimum capital to be maintained by the firm to pay the depositors
Leverage Ratio	ETA = Total Shareholder's Equity/Total Assets LTA = Total Liabilities/Share Holders Equity	Extent to which the banks has been funded by debt

5. RESULTS AND ANALYSIS

Based on the results of regression, *t*-test and correlation following inferences are made.

Table 2
Regression Model for ROE (profitability) on cost to income (efficiency)

R	R ²	Adjusted R ²	Standard Error	F-value	F-Critical value
0.165	0.027	-0.135	14.95	0.169	5.987

^aPredictors: (Constant), cost to income

Table 2 provides the R and R² value. The R-value is 0.165, indicates a low degree of relationship between profitability and efficiency of the banks. In this case, the coefficient of determination (R²:0.027) value indicates that ROE is not lies around the mean of cost to income ratio. This result is also supported by the result of F test, where 0.169(F value) is less than 5.987(F Critical value) indicates high significance of regression model. Therefore, it is evident that there is no significant relationship between the cost to income ratio and the profitability.

Table 3
Regression Coefficients

	Unstandardized Coefficients	Standard Error	Standardized Coefficients	t-value	p-value	t-critical value
Constant	-13.849	46.184		-0.300	0.774	
COI	0.280	0.683	0.165	0.411	0.696	6.313

^aDependent Variable: ROE (profitability).

Table 3, reveals the information of each predictor variable. It is evident from the Table that both the constant and ROE do not contribute significantly to the model as the sig. Value is higher than 0.05. Since two tests provides contradictory results, it is not possible to confirm the relationship between the profitability and efficiency of the banks (Palečková, 2014). Therefore, we reject the hypothesis and can be conclude that there is no significant relationship between CIR and profitability of the banks.

Table 4
Regression Model for ROA (profitability) on capital adequacy

R	R ²	Adjusted R ²	Standard Error	F-value	F-Critical Value
.472	0.223	0.093	1.319	1.71	5.987

^aPredictors: (Constant), CAR.

Table 4 represents the relationship between capital adequacy (financial strength) and ROA. The R-value is 0.472, which represents a positive relationship but the R² (0.223) indicates weak fit of the regression model. Therefore, it is evident that there is no significant relationship between capital adequacy ratio and ROA. The *f*-test value is lower than the critical value i.e. 1.71 < 5.987, which supports the significance of regression model.

From the Table 5 it is evident that there is no relationship between capital adequacy and ROA as the *p*-value of CAR is 0.238 > 0.05(significance level). However, the *t*-test value is -1.310, which is less than

Table 5
Regression Coefficients

	<i>Unstandardized Coefficients</i>	<i>Standard Error</i>	<i>Standardized Coefficients</i>	<i>t-value</i>	<i>p-value</i>	<i>t-critical value</i>
(Constant)	2.280	0.920		2.479	0.048	6.313
CAR	-2.978E-02	0.023	-0.472	-1.310	0.238	

^a*Dependent Variable:* ROA.

the critical value (6.313), indicates that the any changes in the capital structure of the bank will adversely affect the profitability. Thus, the null hypothesis is accepted, so it can be concluded that there is a significant relationship between capital adequacy ratio and ROA (profitability) of the banks.

Table 6
Regression Model for ROE (profitability) on capital adequacy ratio

R	R ²	<i>Adjusted R²</i>	<i>Standard Error</i>	<i>F- Value</i>	<i>F-critical value</i>
0.646	0.417	0.320	11.57802	4.295	5.987

^a*Predictors:* (Constant), CAR.

Table 6 presents the strength of relationship between capital adequacy and ROE. The R-value is 0.646, which represents the positive relationship and the R² value (0.417) indicates that 41.7% of the variation in capital adequacy is around the mean value of ROE. The *t*-test results also justifies that there is a significant relationship between ROE and capital adequacy ratio.

Table 7
Regression Coefficients

	<i>Unstandardized Coefficients</i>	<i>Standard Error</i>	<i>Standardized Coefficients</i>	<i>t-value</i>	<i>p-value</i>	<i>t-critical value</i>
(Constant)	19.406	8.072		2.404	0.043	
CAR	-0.413	0.199	-0.646	-2.072	0.048	6.313

^a*Dependent Variable:* ROE.

The Table 7 reveals the information of each predictor variable. This helps in predicting the ROE. It is evident from the table 6 that both the constant and ROE contribute significantly to the model as the significance value is less than 0.05. Thus, there a relationship between capital adequacy ratio on the ROE (profitability) of banks.

Thus, hypothesis 2 is accepted as there is a significant relationship between the capital adequacy ratio and the profitability of banks.

Table 8
Regression Model for ROA (profitability) on leverage ratio of the banks.

R	R ²	<i>Adjusted R²</i>	<i>Standard Error</i>
0.575	0.331	0.219	7.78318

^a*Predictors:* (Constant), ROA.

The Table 8 explains the strength of relationship between leverage ratio on ROA. The R-value is 0.575, which represents the positive relationship between profitability and leverage ratio. However, the coefficient of determination value (0.331) indicates that 33.1% of the variations in leverage ratio impacts the return on assets ratio.

Table 9
Regression Coefficients

	<i>Unstandardized Coefficients</i>	<i>Standard Error</i>	<i>Standardized Coefficients</i>	<i>t-value</i>	<i>p-value</i>	<i>t-critical value</i>
(Constant)	24.143	3.810		6.336	0.001	6.313
ROA	3.656	2.124	0.575	1.722	0.136	

^a*Dependent Variable: ETA.*

Table 9 highlights the information of each predictor variable. It is evident from the table that the *p*-value of ROA and leverage ratio is 0.136 which more than 0.05, therefore the hypothesis is rejected and the *t*-value is less than the *t*-critical value indicates that there is a significant impact of leverage ratio on ROA of banks in Bahrain.

Table 10
Regression Model for ROE (profitability) on leverage ratio of the banks

R	R ²	<i>Adjusted R²</i>	<i>Standard Error</i>
0.612	0.170	0.031	8.66910

^a*Predictors: (Constant), ROE.*

The Table 10 illustrates the strength of relationship between leverage ratio on ROE. The R-value is 0.612, which indicates a positive relationship between ROE and leverage ratio.

Table 11
Regression Coefficients

	<i>Unstandardized Coefficients</i>	<i>Standard Error</i>	<i>Standardized Coefficients</i>	<i>t-value</i>	<i>p-value</i>	<i>t-critical value</i>
(Constant)	27.392	3.279		8.354	0.000	
ROE	0.258	0.233	0.412	1.107	0.311	6.313

^a*Dependent Variable: ETA.*

From the Table 11, it is evident that the relationship between ROE and leverage ratio is not significant since *p*-value is more than 0.05. However, the *t*-test result reveals that there is a significant relationship between the mean values of the ROE and leverage ratio. The impact of financial and oil crisis may influence the financial leverage of the banks there by resulted in an adverse effect on the profitability of the banks (Nawaz and Ali, 2016).

Thus, hypothesis 3 is rejected as there is significant impact of leverage ratio (equity to total assets) on the ROA and ROE (profitability) of banks at 5% significance.

Table 12
Regression Model for cost to income (efficiency) on capital adequacy (financial strength)

R	R ²	Adjusted R ²	Standard Error	F-value	F-critical value
0.076	0.006	-0.160	8.9202	0.035	5.987

^aPredictors: (Constant), CAR.

The Table 12 reports the strength of relationship between cost to income (efficiency) on capital adequacy (financial strength). The R-value is 0.076, which represents the low relationship between the cost to income ratio and capital adequacy ratio and the value of coefficient of determination (0.006) indicates a low fit of the linear regression model. The *f*-value which is $0.35 < 5.987$ (*f*-critical value) indicates a good significance for regression.

Table 13
Regression Coefficients

	Unstandardized Coefficients	Standard Error	Standardized Coefficients	<i>t</i> -value	<i>p</i> -value	<i>t</i> -critical value
(Constant)	66.217	6.219		10.648	0.000	6.313
CAR	2.874E-02	0.154	0.076	0.187	0.858	

^aDependent Variable: COI.

The value of *p* is 0.858 which higher than the required significance level i.e. 0.05. Therefore, from the Table 12 it is evident that there is no significant relationship between the means of cost to income ratio and CAR. Which is also supported by the *t*-test results where the *t*-test value is greater than the critical value ($0.187 > 6.313$). Therefore, hypothesis 4 is rejected.

Table 14
Regression Model for cost to income (efficiency) on leverage ratio

R	R ²	Adjusted R ²	Standard Error
0.220	0.048	-0.110	9.28147

^aPredictors: (Constant), ETA.

The Table 14 signifies the strength of relationship between cost to income ratio on leverage ratio (equity to total assets). The R-value is 0.220, which represents the low relationship and the R² value refers to the coefficient of determination which indicates that only 4.8 percent of the variations of leverage ratio is around the mean value of cost to income ratio.

Table 15
Regression Coefficients

	Unstandardized Coefficients	Standard Error	Standardized Coefficients	<i>t</i> -value	<i>p</i> -value	<i>t</i> -critical value
(Constant)	12.989	28.659		0.453	0.666	6.313
ETA	0.233	0.424	0.220	0.551	0.601	

^aDependent Variable: COI.

It is evident from the Table 15 that both the constant and leverage do not contribute significantly to the model as the *p*-value is more than 0.05. Thus, there is no impact of leverage (equity to total assets) on the efficiency (cost to income ratio) of banks. In addition to that, the *t*-test value is 0.551 is less than the critical value i.e. 6.313, there for we can reject the null hypothesis. Therefore, we can conclude that there is no relationship between cost to income ratio and equity to total asset (leverage ratio).

Table 16
Regression Model for cost to income ratio on liquidity ratio

R	R ²	Adjusted R ²	Standard Error	F-Value	p-value	F-critical value
0.490	0.240	0.114	3.95622	1.900	0.217	5.987

^aPredictors: (Constant), LTA.

The Table 16 provides the strength of relationship between cost to income ratio (efficiency) on liquidity ratio (liquid assets to total assets). The R-value is 0.490, which represents a considerable relationship between the dependent and independent variables. But the R² (0.240) indicates a weak fit of the linear regression however the *p*-value is more than the significance level (0.05 < 0.217) contradicts the significant relationship between the cost to income ratio and liquidity ratio.

Table 17
Regression Coefficients

	Unstandardized Coefficients	Standard Error	Standardized Coefficients	t-value	p-value	t-critical value
(Constant)	22.945	12.216		1.878	0.109	6.313
LTA	-0.249	0.181	-0.490	-1.378	0.217	

^aDependent Variable: COI

It is evident from the table 16 that both the constant and liquidity do not contribute significantly to the model, as the sig. value is more than 0.05. Thus, there is no impact of liquidity (liquid assets to total assets) on the efficiency (cost to income ratio) of banks. The *t*-test value is also less than zero which also favors the null hypothesis, so it can be conclude that there is no relationship between the cost to income ratio and liquidity ratio hence the null hypothesis is accepted.

Table 18
Correlation Results

		ROE	ROA	CAR	COI	LTA	ETA	CDT
ROE	Pearson Correlation	1	0.821	-0.646	0.165	0.297	0.412	0.763
	Sig. (2-tailed)	.	0.013	0.084	0.696	0.476	0.311	0.028
ROA	Pearson Correlation	0.821	1	-0.472	-0.158	0.684	0.575	0.913
	Sig. (2-tailed)	0.013	.	0.238	0.709	0.061	0.136	0.002
CAR	Pearson Correlation	-0.646	-0.472	1	0.076	-0.27	0.242	-0.539
	Sig. (2-tailed)	0.084	0.238	.	0.858	0.518	0.563	0.168
COI	Pearson Correlation	0.165	-0.158	0.076	1	-0.49	0.22	-0.396
	Sig. (2-tailed)	0.696	0.709	0.858	.	0.217	0.601	0.331

(Contd...)

		ROE	ROA	CAR	COI	LTA	ETA	CDT
LTA	Pearson Correlation	0.297	0.684	-0.27	-0.49	1	0.533	0.648
	Sig. (2-tailed)	0.476	0.061	0.518	0.217	.	0.174	0.082
ETA	Pearson Correlation	0.412	0.575	0.242	0.22	0.533	1	0.377
	Sig. (2-tailed)	0.311	0.136	0.563	0.601	0.174	.	0.357
CDT	Pearson Correlation	0.763	0.913	-0.539	-0.396	0.648	0.377	1
	Sig. (2-tailed)	0.028	0.002	0.168	0.331	0.082	0.357	.

ROE = Return on Equity, ROA = Return on Asset, CAR = Capital Adequacy Ratio, COI = Cost to Income Ratio, LTA = Liquidity to Total Asset, ETA = Equity to Total asset and CDT = Customer Deposits

The results of the correlation presented in the Table 18 reveals that the correlation coefficient between ROE and ROA is 0.821 and the p -value for two-tailed test of significance is $0.013 < 0.05$ indicates that the two variables ROA and ROE simultaneously affects each other (Heikal et. al., 2014). The correlation coefficient between ROE and CAR is -0.646 and the p -value for two-tailed test is $0.084 (p > 0.05)$ represents that changes in the CAR will result in the decreased ROE of the banks (Zeitun and Haq, 2015). The correlation coefficient between ROE and COI variables is 0.165 and the p -value for two-tailed test is $0.696 (p > 0.05)$ and can be concluded that there is no significant relationship between ROE and COI in determining the bank performance (Palečková, 2014). The correlation coefficient between ROE and LTA variables is 0.297 and the p -value for two-tailed test of significance is $0.476 (p > 0.05)$ reveals that the increase in the liquidity asset ratio will decrease the profitability of the bank. This result is in parity with the result of (Alshatti, 2015) and can be concluded that there is a negative relationship between variables ROE and LTA in determining the bank performance at 5% significance level. The correlation coefficient between ROE and ETA variables is 0.412 and the p -value for two-tailed test of significance is $0.311 (p > 0.05)$ and contradicts the relationship between ROE and ETA. Correlation between ROE and CDT variables is 0.763 and the p -value for two-tailed test of significance is 0.028 , which is less than 0.05 and can be concluded that there is significant relationship between ROE and CDT at 5% significance level this result is in accordance with (Khalaf Sulieman, 2014).

The correlation coefficient between ROA and CAR variables is -0.472 indicates that as the CAR decreased, it negatively affected the ROA there it exhibits a moderate negative linear relationship and the result is supported by the p -value i.e. $0.238 > 0.05$. The correlation coefficient between ROA and COI variables is -0.158 and the p -value for two-tailed test of significance is $0.709 (p > 0.05)$ and can be concluded that COI is inversely related to ROE (D.M. Mathuva, 2009). The correlation coefficient between ROA and LTA variables is 0.684 and the p -value for two-tailed test of significance is 0.061 and can be concluded that there is no significant relationship between ROA and LTA variables in determining the bank performance at 95% confidence level (Alshatti, 2015).

The correlation coefficient between ROA and ETA variables is 0.575 indicates a good relationship between the profitability and equity asset ratio but the p -value is 0.136 which greater than the significance level so it can be concluded that the relationship between ROA and ETA variables at 5% significance level is not statistically valid. ROA and CDT has a very strong correlation (0.913) variables is 0.913 and the p -value is $0.002 < 0.05$ (significance level) which is statistically significant hence it is concluded that there is a significant relationship between ROA and CDT at 5% significance level this result contradicts with the result of (Khalaf Sulieman, 2014). The correlation coefficient between CAR and COI variables is $.076$

and the p -value for two-tailed test of significance is 0.858 and can be concluded that there is no statistically significant relationship between CAR and COI at 95% confidence level.

The correlation coefficient between CAR and LTA variables is -0.270 , this result is in contradiction with (Vodová, 2013) since the negative correlation indicates that as the LTA increases the capital adequacy ratio is decreases (Pastory and Mutaju, 2013). The correlation coefficient between CAR and ETA variables is 0.242 and the p -value for two-tailed test of significance is 0.563 and can be concluded that there is no significant relationship between CAR and ETA variables at 5% significance level. The correlation coefficient between capital adequacy ratio and customer deposit ratio is -0.539 , which indicates a negative relationship between the two variables (Keynes I, 2015). This result is also supported by the p -value for two-tailed test of significance is 0.168 indicates there is no statistical significant relationship between CAR and CDT since p -value > 0.05 . The correlation coefficient between COI and LTA variables is -0.490 and the p -value for two-tailed test is 0.217, which is more than the significance level. The negative value indicates that the increase of LTA will result in the decreased efficiency and vice versa. The correlation coefficient between COI and ETA variables is 0.220 and the two-tailed test value is 0.601 > 0.05 , indicates that the leverage ratio does not contribute any impact on efficiency of the conventional banks in Bahrain at 5% significance level. The correlation coefficient between COI and CDT variables is -0.396 this shows negative correlation and the p -value for two-tailed test of significance is 0.331 which is more than 0.05 and can be concluded that there is no significant relationship between COI and CDT at 5% significance level.

The correlation coefficient between LTA and ETA variables is 0.533 and the p -value for two-tailed test of significance is 0.174 and can be concluded that at 5% significance level there is no significant relationship between LTA and ETA. The correlation coefficient between LTA, ETA and CDT variables is 0.648 & 0.377 respectively. This shows positive correlation between two variables but their relationship is does not result in increase or decrease of customer deposits over liquidity of total asset ratio or equity to total asset ratio since the p -value is 0.082 > 0.05 (significance level).

Since there is no correlation between all the parameters of efficiency, profitability, leverages ratio, financial strength and customer deposits we can reject the hypothesis that there is no positive correlation between customer deposits, profitability, efficiency, financial strength and leverages of the banks.

6. CONCLUSION

After examining the results of regression, t -test and p -value, it is not possible to confirm the relationship between the profitability and efficiency of the banks (Palečková, 2014). The test for determining the impact of capital adequacy ratio on profitability (ROA and ROE) ensured the relationship between the variables. The t -test value of profitability parameters are -1.310 & -2.702 respectively. This result indicates that enforcement of higher CAR will inversely affect the profitability of the banks (Calomiris and Kahn, 1991). As per regression and t -test results, this study evidences that there is a positive and significant relationship between the leverage ratio and profitability of the banks, this results partially contradicts the results of (Nadeem et. al., 2015). The regression result (0.076) indicates a weak relation between the financial strength and efficiency of the banks, this result is supported by the p -value (0.858) which indicates the insignificance of capital adequacy ratio over the cost to income ratios of the conventional banks of Bahrain. Our results contradicts the result of (Altunbas et. al., 2007), (Aspal and Nazneen, 2014). The R-value indicates a weak relationship efficiency on leverage ratio 0.220 & 0.490 for ETA and LTA respectively. The p -value for ETA

and LTA is 0.66 & 0.217 respectively, which indicates an insignificant relationship between efficiency and leverage ratio. However the *t*-test value for LTA is -1.376 , this indicates a negative association between efficiency and leverage ratio of the banks (Javed, et. al., 2015). The correlation analysis of customer deposits, profitability, efficiency, financial strength and leverages of the banks of Bahrain were not positively correlated.

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