

Performance Analysis of Selected Islamic and Conventional Banks of Pakistan through CAMEL Framework

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Abstract

Paucity of indigenous research on regulatory assessment of Islamic financial institutions makes the subject an unveiled prospect. The study examines, evaluates and compares the financial activities of selected Islamic and conventional banks of Pakistan for a decennium viz. 2003-2012. Financial data was collected from annual reports using various parameters of CAMEL model and was tested by simple t-test for mean comparison. The study found significant differences between Islamic and conventional banks in risk-weighted credit exposures, regulatory capital, advances in proportion to asset portfolios, long-term debt paying abilities, management's control over expenses in proportion to income, return on assets, and liquidity. However, provisions for non-performing credit assortments displayed insignificant differences. Out of a total of 21 tests of various financial parameters, the study found 12 areas significantly different between selected Islamic and conventional banks over a decade.

Keywords: comparative performance evaluation, islamic and conventional banks, CAMEL model.

1. Introduction

Eminence of money as a medium of exchange and bank as an intermediary can be comprehended and recognized by visualizing a world without them. Banks deal in money, accept deposits, and advance loans. "Banking means the accepting, for the purpose of lending or investment, of deposits of money from the public, repayable on demand or otherwise, and withdrawal by cheque, draft, order or otherwise." Section 5 (b) Banking Companies Ordinance (1962).

Safe custody of valuables and financial intermediation are the key logical reasons for the presence of banks. Therefore, supervision and evaluation is essential for smooth, reliable and authentic functioning of the financial system. Financial institutions mostly deal in money that is not their own. Hence, there is a high risk of going astray. Various events of global scams, frauds, and malfeasance forced the attention of the concerned to have appropriate systems and controls in place to safeguard the

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interest of all the stakeholders. Therefore, it is of immense importance to continuously monitor and evaluate the performance of financial institutions in an efficient and effective manner. Financial evaluation is mostly done by regulatory bodies or at executive management level of a financial institution, while other financial market participants can also conduct performance evaluation.

The actual financial picture of Islamic and conventional banks is ambiguous. There are various reasons behind it. One of the reasons is lack of local research done on the subject matter that contributes towards this ambiguity. Similarly, choice and size of institutes, performance evaluation techniques, time periods and variables chosen for researches, all affect the existing body of knowledge of comparative studies on Islamic and conventional banks. Hence, it is required to objectively analyze and compare both types of banks that have started working together at the same time in Islamic and conventional banking industry so that an objective view could be formed about the relative strengths and weaknesses.

This study aims to examine and compare descriptively the overall financial performance of both types banks since their inception. Specifically these parameters will include capital adequacy, asset quality, management quality, earnings, equity, liquidity and sensitivity of both institutions to see which one of them is financially different than the other.

The objective of the study is to analyze Islamic and conventional on various selected parameters of CAMELS framework namely Capital Adequacy, Asset Quality, Management Quality, Earnings, Liquidity and Sensitivity.

CAMEL framework is a regulatory tool used by central banks to evaluate the performance of financial institutions in many countries. Buerger (2011) is of the view that every director of bank should be aware of CAMEL framework because their institution is rated on various holistic factors, unlike other regulatory concerns that focus on categories like risk assessment and quality.

The study analyses selected Islamic and conventional banks on relatively proportional basis and covers the gap found in the studies of Awan (2009), Dang (2011), Baber and Zeb (2011) and Merchant (2012). Proportionate, equivalent, and common size financial institutions are analyzed so as to form an objective view about the performance of Islamic and Conventional banks.

2. Literature Review

A study on banking supervision and role of CAMEL framework conducted by Dang (2011) revealed that CAMEL framework is a useful tool for the supervision

of banks due to its international standardization and wide applicability. It facilitates the supervising body by on-site and off-site examination but it also overlooks certain provisions and allowances. Due to the confidential nature of CAMEL framework, very less work is publically available on the subject matter. However, all accessible sources were searched and reviewed. Various studies conducted in the Asian setting have analyzed and compared the performance of financial institutions; for instance, Cole and Gunther (1995) suggest that every bank should be evaluated by CAMEL framework at least once every two quarters. However, the study did not incorporate any empirical evidence to support their argument. Derviz and Podpiera (2004) studied the determinants of ratings CAMEL frameworks and Standards & Poors in Czech Republic and were of the view that regulatory bodies are in a better position to judge the performance of financial institutions. Awan (2009) analyzed Islamic and Conventional banks of Pakistan and found that Islamic Banks outperformed Conventional banks in Assets, Deposits, Financing, Investments, Efficiency, Quality of Services and Recovery of Loans. However, size of sample banks was overlooked in the study and the data set was not statistically tested. Baber and Zeb (2011) studied 17 banks of Pakistan for a period of 5 years and found that all sample banks of Pakistan comply with the requirements of the regulatory body regarding Capital Adequacy Ratio with the exception of Summit Bank. Banks such as Bank of Khyber, Faysal Bank, JS Bank, NIB Bank, My Bank, and Summit Bank contain enormous quantities of non-performing loans. MCB Bank, Allied Bank, Habib Bank and UBL performed well as compared to small banks with respect to Management Efficiency and Quality due to the fact that the management of large banks had access to huge amounts of resources. Similarly, large banks afford costly management to run the operations and use their talents for efficient results. With reference to the earnings of banks, the study found that during 2010 most banks had low earnings apart from Allied Bank, National Bank of Pakistan, United Bank and MCB Bank. All banks maintained liquidity positions that do not offend the regulatory body. Habib Metropolitan Bank and Bank of Khyber displayed regulatory concerns with respect to Sensitivity. However, the study did not differentiate proportionately between financially homogenous and heterogeneous banks. Differentiation of Islamic and Conventional banks was not made; therefore, further analysis is required. Moreover, no reference was made to the benchmark rates used in the study. Merchant (2012) studied the performance of Islamic and conventional banks in the Gulf region during 2008 - 2011 and found that Islamic banks increased their loan reserves and conventional banks increased their loan reserves as well as equity to total assets. Islamic banks possessed adequate capital structure but recorded poor management efficiency, asset quality and liquidity of both types of banks did not record any significant changes. The timeframe of the study was based on a period of crises. Therefore, a study based on relatively long-term period is required on the subject matter, which, to some extent, is the scope of

the current study, i.e. to test the financial performance of proportionate Islamic and conventional bank in the long run.

2.1 Capital Adequacy

According to Comptroller's Handbook (2007), a financial institution is expected to maintain capital commensurate with its nature and market risks. The effect of credit and market risk should be considered when evaluating the adequacy of capital. Capital adequacy ratio considers both tiers of capitals and also the risk weighted assets. It is one of the key parameter of CAMEL framework and is also used by regulatory bodies to supervise the financial institutions. Advances, given by banks to customers in comparison to its assets, assess the credit an institution has issued as well as the assets that cover these loans, can be calculated by advances to assets ratio. Since, one of the primary activities of banks is money lending, therefore it is mandatory to compare the money a bank has issued with respect to its assets. Debt to Equity Ratio indicates the degree of leverage of a corporation (Gibson, 2013). Asset quality reflects the quantity of existing and potential credit risk associated with loan and investment portfolios.

2.2. Asset Quality

Evaluation of asset quality should consider the allowances and provisions for non-performing loans or loan losses, and the degree to which the assets have been converted into investments i.e. investment to assets ratio.

2.3. Management Quality

Manager of a corporation works as an agent and is responsible for smooth functioning of all the operations. Success of management is usually measured with respect to the tendency of keeping expenses significantly below the income levels i.e. proved by calculating Expenses to Income Ratio. The ability of management to transform deposits into financing could be measured to by Financing to Deposits Ratio. The ability of management towards motivating employees to perform activities that ensure growth of an organization can be measured by the contribution level of employees in the profitability. Quantitatively, it can be measured by Profit after Tax to Total Employees and Business per Employee.

2.4. Earnings

Almost all studies on financial performance analysis like Awan (2009), Merchant (2012), Prasad and Ravinder (2012) and Babar and Zeb (2012) used Return on Assets, Return on Equity and Income Margins to assess the ability of earnings of a bank. Liquid Assets to Demand Deposits helps the firm to meet its demand of depositors

(Mishra & Aspal, 2012). Similarly, total liabilities to total assets shows to what extent the liabilities are related to total assets.

2.5. Liquidity

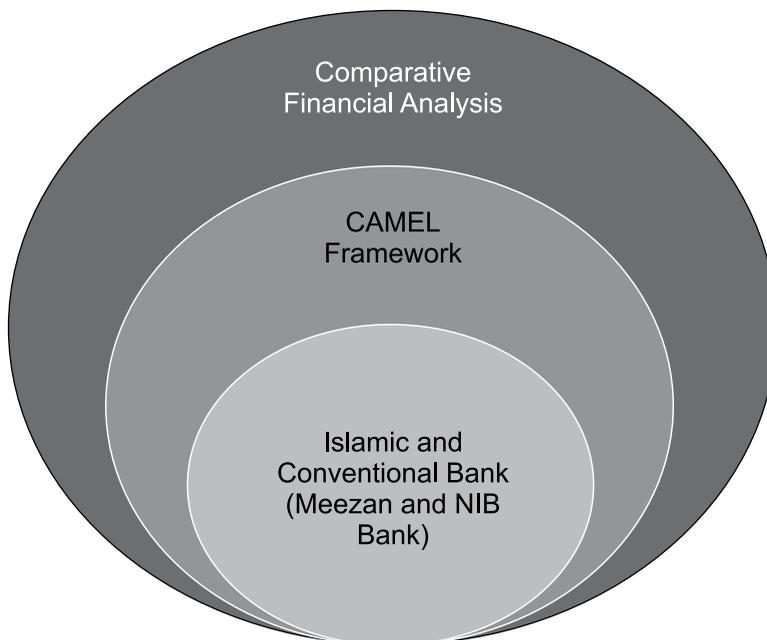
Liquidity is important for the firm in meeting the short-term commitments of the firm. Percentage change in the net profit allows an evaluator to see what increase or decrease occurred in the yearly profits of the firms.

2.6. Sensitivity

The rate sensitive assets to liabilities help in understanding whether a firm is vulnerable in assets or liabilities side. Return earned in proportion to return expensed demonstrates the ability of management to control expenses.

2.7. Theoretical Framework

The study is based on the parameters such as Capital Adequacy, Asset Quality, Management Quality, Earnings, Liquidity and Sensitivity.

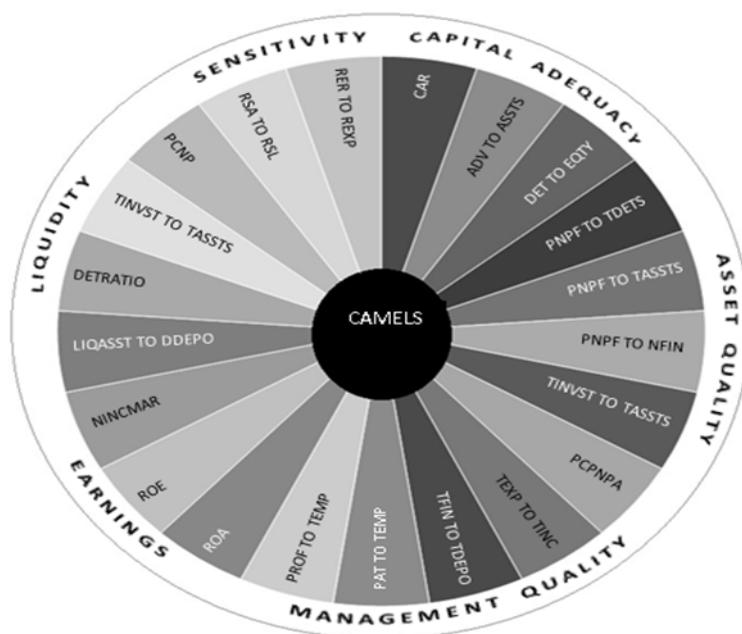


Research Onion Showing Overall Structure of the Study

Various sub-factors of above mentioned parameters are analyzed to accomplish objectives of the study. Capital Adequacy is calculated by Capital Adequacy Ratio, Advances to Assets Ratio, and Debt to Equity Ratio. Asset Quality is assessed by comparing Provision for Non-Performing Financing with Total Debts, Total Assets and Net Financing. Similarly, Total Investment to Total Assets and percentage change in Non-Performing Advances are also used for determining the Asset Quality. Management Quality is measured by Total Expenses to Total Income Ratio, Total Financing to Total Deposits Ratio, Net Profit per Employee and Business per Employee. Earning is calculated by Return on Assets, Return on Equity and Net Income Margin. Liquidity is assessed by Liquid Assets to Demand Deposits, Debt Ratio, Total Advances to Total Assets, and percentage change in Net Profit. Sensitivity is determined by comparing the Rate Sensitive Assets to Rate Sensitive Liabilities and Return Earned to Return Expended.

2.8. Hypotheses of the Study

Null and Alternate hypotheses developed on the basis of various factors of CAMELS framework are stated below. These hypotheses help to understand the performance of Meezan and NIB bank. However, the findings of t-test for mean



Source: Comptroller's Handbook (2007), Gibson (2013), Awan (2009), Merchant (2012), Prasad and Ravinder (2012), Babar and Zeb (2012), Mishra and Aspal (2012)

comparison revealed higher or lower performance of banks.

Capital Adequacy

– Capital Adequacy Ratio

$$H_0: CAR_{MEBL} = CAR_{NIB}$$

$$H_1: CAR_{MEBL} \neq CAR_{NIB}$$

– Advances to Assets Ratio

$$H_0: ADV_TO_ASSTS_{MEBL} = ADV_TO_ASSTS_{NIB}$$

$$H_1: ADV_TO_ASSTS_{MEBL} \neq ADV_TO_ASSTS_{NIB}$$

– Debt to Equity Ratio

$$H_0: DET_TO_EQTY_{MEBL} = DET_TO_EQTY_{NIB}$$

$$H_1: DET_TO_EQTY_{MEBL} \neq DET_TO_EQTY_{NIB}$$

Asset Quality

– Provision for Non-Performing Financing to Total Debts

$$H_0: PNPf_TO_TDETS_{MEBL} = PNPf_TO_TDETS_{NIB}$$

$$H_1: PNPf_TO_TDETS_{MEBL} \neq PNPf_TO_TDETS_{NIB}$$

– Provision for Non-Performing Financing to Total Assets

$$H_0: PNPf_TO_TASSTS_{MEBL} = PNPf_TO_TASSTS_{NIB}$$

$$H_1: PNPf_TO_TASSTS_{MEBL} \neq PNPf_TO_TASSTS_{NIB}$$

– Provision for Non-Performing Financing to Net Financing

$$H_0: PNPf_TO_NFIN_{MEBL} = PNPf_TO_NFIN_{NIB}$$

$$H_1: PNPf_TO_NFIN_{MEBL} \neq PNPf_TO_NFIN_{NIB}$$

– Total Investment to Total Assets

$$H_0: TINVST_TO_TASSTS_{MEBL} = TINVST_TO_TASSTS_{NIB}$$

$$H_1: \text{TINVST_TO_TASSTS}_{\text{MEBL}} \neq \text{TINVST_TO_TASSTS}_{\text{NIB}}$$

– **Percentage Change in Provision for Non-Performing Advances**

$$H_0: \text{PCPNPA}_{\text{MEBL}} = \text{PCPNPA}_{\text{NIB}}$$

$$H_1: \text{PCPNPA}_{\text{MEBL}} \neq \text{PCPNPA}_{\text{NIB}}$$

Management Quality

– **Total Expenses to Total Income**

$$H_0: \text{TEXP_TO_TINC}_{\text{MEBL}} = \text{TEXP_TO_TINC}_{\text{NIB}}$$

$$H_1: \text{TEXP_TO_TINC}_{\text{MEBL}} \neq \text{TEXP_TO_TINC}_{\text{NIB}}$$

– **Total Financing to Total Deposits**

$$H_0: \text{TFIN_TO_TDEPO}_{\text{MEBL}} = \text{TFIN_TO_TDEPO}_{\text{NIB}}$$

$$H_1: \text{TFIN_TO_TDEPO}_{\text{MEBL}} \neq \text{TFIN_TO_TDEPO}_{\text{NIB}}$$

– **Profit after Tax to Total Employees**

$$H_0: \text{PAT_TO_TEMP}_{\text{MEBL}} = \text{PAT_TO_TEMP}_{\text{NIB}}$$

$$H_1: \text{PAT_TO_TEMP}_{\text{MEBL}} \neq \text{PAT_TO_TEMP}_{\text{NIB}}$$

– **Business per Employee**

$$H_0: \text{PROF_TO_TEMP}_{\text{MEBL}} = \text{PROF_TO_TEMP}_{\text{NIB}}$$

$$H_1: \text{PROF_TO_TEMP}_{\text{MEBL}} \neq \text{PROF_TO_TEMP}_{\text{NIB}}$$

Earnings

– **Return on Assets**

$$H_0: \text{ROA}_{\text{MEBL}} = \text{ROA}_{\text{NIB}}$$

$$H_1: \text{ROA}_{\text{MEBL}} \neq \text{ROA}_{\text{NIB}}$$

– **Return on Equity**

$$H_0: \text{ROE}_{\text{MEBL}} = \text{ROE}_{\text{NIB}}$$

$$H_1: ROE_{MEBL} \neq ROE_{NIB}$$

– **Net Income Margin**

$$H_0: NINCMAR_{MEBL} = NINCMAR_{NIB}$$

$$H_1: NINCMAR_{MEBL} \neq NINCMAR_{NIB}$$

Liquidity

– **Liquid Assets to Demand Deposits**

$$H_0: LIQASST_TO_DDEPO_{MEBL} = LIQASST_TO_DDEPO_{NIB}$$

$$H_1: LIQASST_TO_DDEPO_{MEBL} \neq LIQASST_TO_DDEPO_{NIB}$$

– **Debt Ratio**

$$H_0: DETRATIO_{MEBL} = DETRATIO_{NIB}$$

$$H_1: DETRATIO_{MEBL} \neq DETRATIO_{NIB}$$

– **Total Investment to Total Assets**

$$H_0: TINSVT_TO_TASSTS_{MEBL} = TINSVT_TO_TASSTS_{NIB}$$

$$H_1: TINSVT_TO_TASSTS_{MEBL} \neq TINSVT_TO_TASSTS_{NIB}$$

– **Percentage Change in Net Profit**

$$H_0: PCNP_{MEBL} = PCNP_{NIB}$$

$$H_1: PCNP_{MEBL} \neq PCNP_{NIB}$$

Sensitivity

– **Rate Sensitive Assets to Rate Sensitive Liabilities**

$$H_0: RSA_TO_RSL_{MEBL} = RSA_TO_RSL_{NIB}$$

$$H_1: RSA_TO_RSL_{MEBL} \neq RSA_TO_RSL_{NIB}$$

– **Return Earned to Return Expensed**

$$H_0: RER_TO_REXP_{MEBL} = RER_TO_REXP_{NIB}$$

$$H_1: \text{RER_TO_REXP}_{\text{MEBL}} \neq \text{RER_TO_REXP}_{\text{NIB}}$$

3. Methodology

The study has compared, described and explained by doing an analysis of the audited, consolidated financial statements of Meezan and NIB banks through parameters such as the Capital Adequacy, Asset Quality, Management Quality, Earnings, Liquidity and Sensitivity.

3.1. Measurement Approaches

Comparative studies of the same nature have used quantitative tools for instance t-test and f-test by Shahzad (2013), regression analysis by Weill (2011) and also by Noor & Hayati (2011) and mean and p-value by Merchant (2012). Others, such as Kabir and Dey (2012) and Sole (2007) used no statistical tool and descriptively concluded their comparative studies. Therefore, similar strategies for choosing tools for data analysis are incorporated by using simple t-test for mean comparison after ensuring normality and inspecting for outliers.

3.2. Sampling

Data is collected for a period of 10 years i.e. 2003-2012 by scrutinizing proportionate, homogeneous and common size financial institutions that may be compared equally, unlike previous studies namely Awan (2009), Ahmad and Noor (2011), Babar and Zeb (2012) and Shahzad (2013) whose data were limited with regards to time-frames, parameters, institutions and were relatively disproportionate and asymmetrical especially in selection of financial establishments. Following is the list of population of full-fledged Islamic banks in Pakistan.

Table 1: Names of Islamic Banks with the Year of Commencement of Business

Sr. No.	Bank	Year of Commencement of Business
1	Meezan Bank	2002
2	Bank Islami	2004
3	Dubai Islamic Bank	2006
4	Burj Bank	2007
5	Al-Baraka Bank	2010

(Source: meezanbank.com, bankislami.com.pk, dibpak.com, burjbankltd.com, albaraka.com.pk)

The year of origin only qualifies one bank to be analyzed for a decade (viz. 2003-2012) namely Meezan bank. Similar inquiry was made for conventional banks and only NIB bank was found to be consistent with the sampling requirements. Therefore, two banks are selected as Hobson's choice to conduct the study on longitudinal and proportional basis.

4. Results

Financial parameters are tested with simple t-test for comparison of means. Significance level for two tailed p-value is 0.05. Confidence interval was set at 95%. Descriptive statistics are given below followed by the test results for each of the parameter.

Table 2: Summary Statistics - Meezan Bank Limited

Factors	Variable	Obs	Mean	Std. Dev.	Min	Max
C	CAR	10	12.476%	1.972383%	10.03%	15.75%
	ADV_TO_ASSTS	10	48.136	14.35505	29.22	66.63
	DET_TO_EQTY	10	11.151	3.194058	5.52	16.66
A	PNPF_TO_TDETS	10	0.52	0.3853714	0.1	1.24
	PNPF_TO_TASSTS	10	0.477	0.3596928	0.09	1.15
	PNPF_TO_NFIN	10	1.217	1.120863	0.14	3.24
	TINVST_TO_TASSTS	10	22.299	18.1814	5.24	55.55
	PCPNPA	10	169.856	144.0338	0	404.98
M	TEXP_TO_TINC	10	44.843	15.32074	32.83	76.62
	TFIN_TO_TDEPO	10	64.534	22.18664	37.92	96.27
	PAT_TO_TEMP	10	499358.3	253111.7	195958	1118902
	PROFT_TO_TEMP	10	2336283	855244.2	1023755	3668230
E	ROA	10	1.275	0.3623457	0.73	1.93
	ROE	10	23.156	9.977493	12.61	42.24
	NINCMARGIN	10	23.864	15.11432	9.13	56.93
L	LIQ_TO_DDEPO	10	82.836	24.32597	52.39	116.32
	DETRATIO	10	90.888	2.904111	84.25	93.97
	TINVST_TO_TASSTS	10	22.299	18.1814	5.24	55.55
	PCNP	10	129.487	62.12374	0	205.6
S	RAS_TO_RSL	10	109.388	4.734909	103.83	118.2
	RER_TO_REX	10	201.144	12.8948	184.7	220.29

Source: Financial Statements Meezan Bank 2003-2012

Table 3: Summary Statistics - NIB Bank Limited

Factors	Variable	Obs	Mean	Std. Dev.	Min	Max
C	CAR	10	13.916%	4.358104%	6.47%	19.58%
	ADV_TO_ASSTS	10	54.407	14.48811	37.51	78.13
	DET_TO_EQTY	10	7.711	3.346602	3.43	12.25
A	PNPF_TO_TDETS	10	1.771	2.519226	0.07	6.55
	PNPF_TO_TASSTS	10	1.518	2.139101	0.06	6
	PNPF_TO_NFIN	10	3.29	4.807972	0.11	13.24
	TINVST_TO_TASSTS	10	22.628	12.30604	4.63	43.91
	PCPNPA	10	439.034	599.3565	0	1882.26
M	TEXP_TO_TINC	10	78.551	125.8744	28.67	436.01
	TFIN_TO_TDEPO	10	95.067	34.37048	70.51	184.45
	PAT_TO_TEMP	10	-376528.5	957132.6	-2665228	345238.2
	PROF_TO_TEMP	10	2872872	1554208	692257	5242870
E	ROA	10	-1.03	2.448011	-5.9	0.9
	ROE	10	-3.884	13.36448	-32.28	9.98
	NINCMARGIN	10	-9.649	27.71065	-60.21	15.26
L	LIQ_TO_DDEPO	10	116.57	25.16389	86.78	146.41
	DETRATIO	10	86.667	5.829396	77.37	92.46
	TINVST_TO_TASSTS	10	22.628	12.30604	4.63	43.91
	PCNP	10	239.178	895.0107	-649.84	2618.52
S	RSA_TO_RSL	10	104.109	29.52372	69.39	179.3
	RER_TO_REX	10	148.957	30.1313	117.23	208.8

Source: Financial Statements NIB Bank 2003-2012

4.1. Capital Adequacy

4.1.1. Capital Adequacy Ratio

Mean difference of Capital Adequacy is -1.4 with a comparative standard deviation of .393. The respective t-value is -11.2. Since, the two tailed p-value for Capital Adequacy is less than 0.05 level it that the mean difference between the capital adequacies of both banks is statistically significantly different.

Variable	Mean	CAR_NIB	Difference	t-value	p-value
CAR_MEBL	1.70046	3.103301	-1.402841	11.2633	0.000

4.1.2 Advances to Assets

Mean difference of Advances to Assets is -6.27 with 7.03 standard deviation on a 95% confidence interval the two-tailed p-value remained 0.02 which shows that the mean difference between the Advances to Assets of both banks is significantly different.

Variable	Mean	ADV_TO_ASSTS_NIB	Difference	t-value	p-value
ADV_TO_ASSTS_MEBL	48.136	54.407	-6.270999	-2.8193	0.000

4.1.3. Debt to Equity

The mean difference between the Debt to Equity position of Meezan and NIB bank is 3.44 and the difference in standard deviation is 3.9 on a 95% confidence interval the respective t-value is 2.74. The two tailed p-value is 0.02 that means that the mean difference between the Debt to Equity of both banks is statistically significantly different from zero.

Variable	Mean	DET_TO_EQTY_NIB	Difference	t-value	p-value
DET_TO_EQTY_MEBL	11.151	7.711	3.44	2.748	0.0225

4.2. Asset Quality

4.2.1 Provision for Non-Performing Financing to Total Debts

The mean difference between the two banks is -0.232 whereas the difference in standard deviation is 1.34 on a 95% confidence interval. The two tailed p-value is 0.59 which is greater than the 0.05 threshold, therefore it can be concluded that the mean difference between the provisions for non-performing financing to total debts of both banks are not significantly different from zero.

4.2.2. Provision for Non-Performing Financing to Total Assets

The provisions for non-performing financing to total assets of both banks for a period of ten years exhibited a mean difference of -.26 with a difference in standard deviation of 1.27. At 95% confidence interval the two tailed p-value is 0.529 which shows that the mean difference between the two banks is not statistically different from zero.

Variable	Mean	PNPF_TO_TDETS_NIB	Difference	t-value	p-value
PNPF_TO_TDETS_MEBL	-0.6988797	-0.4666743	-0.2322053	-0.5452	0.5988

4.2.3. Provision for Non-Performing Financing to Net Financing

Provisions for non-performing financings were proportioned with net financing and it showed a mean difference of -.190 with a comparative standard deviation of 1.38 on a 95% confidence interval. The degree of freedom is 9. The respective two tailed p-value is 0.675 that is way greater than 0.05 therefore the mean difference between the provisions for non-performing financing to net financing is not statistically significantly different from zero.

Variable	Mean	PNPF_TO_NFIN_NIB	Difference	t-value	p-value
PNPF_TO_NFIN_MEBL	-0.2006826	-0.010262	-0.1904207	-0.4333	0.675

4.2.4. Total Investment to Total Assets

Total investments to total assets displayed a mean difference of -1.43 whereas the relative standard deviation is 0.811 and the respective t-value is -5.59. On a 95% confidence interval the respective two tailed p-value was 0.0003 which shows that the mean difference between the total investments to total assets is statistically significantly different from zero.

Variable	Mean	PNPF_TO_NFIN_NIB	Difference	t-value	p-value
PNPF_TO_NFIN_MEBL	-0.2006826	-0.010262	-0.1904207	-0.4333	0.675

4.2.5. Percentage Change in Non-Performing Advances

The test results display a mean difference of 0.257 with relative standard deviation of 1.59. The respective t-value is 0.50. On a 95% confidence interval the two tailed p-value stayed on 0.62 level. It implies that the mean difference between the percentage change in the provisions for non-performing advances of Meezan and NIB bank is not statistically significantly different from zero.

Variable	Mean	TINVST_TO_TASSTS_NIB	Difference	t-value	p-value
TINVST_TO_TASSTS_MEBL	2.623824	4.059402	-1.435579	-5.5947	0.0003

4.3. Management Efficiency

4.3.1. Total Expenses to Total Income

The mean difference between the two banks is -.2833, whereas the respective difference in standard deviation remained 2.22. Similarly, the respective t-value stayed

at -0.403. The confidence interval is 95% with a two tailed p-value of 0.6960 which shows that the mean difference between the Total Expenses to Total Income is not statistically significantly different from zero.

Variable	Mean	PCPNPA_NIB	Difference	t-value	p-value
PCPNPA_MEBL	5.428132	5.170705	0.2574272	0.5096	0.6226

4.3.2. Total Financing to Total Deposits

The mean difference in Total Financing to Total Deposits is 1.6298 with a standard deviation difference of 1.089. The t-value is 4.73. The confidence interval for the test was 95% and the two tailed p-value is 0.0011. This shows that the mean difference between the total financing to total deposits between Meezan and NIB bank is significantly different from zero.

Variable	Mean	TEXP_TO_TINC_NIB	Difference	t-value	p-value
TEXP_TO_TINC_MEBL	1.86314	2.14646	-0.2833206	-0.4035	0.696

4.3.3. Net Profit per Employee

The results of Profit after Tax per employee by both types of banks show a difference in mean and standard deviation of 0.0694 and 1.45, respectively. The relative t-value is 0.1513 and the degrees of freedom is 9. On 95% confidence interval the two tailed p-value is 0.88. It concludes that the mean difference in the profit after tax per employee is not significantly different from zero.

Variable	Mean	TFIN_TO_TDEPO_NIB	Difference	t-value	p-value
TFIN_TO_TDEPO_MEBL	4.22879	2.598922	1.629869	4.73	0.0011

4.3.4. Business per Employee

The difference in mean and standard deviation between both institutions is -0.194 and 0.1620, respectively. The test showed the two tailed p-value of 0.0043, which means that the mean difference between the Profit or Business per Employee of Meezan bank and NIB bank is significantly different from zero.

Variable	Mean	PAT_TO_TEMP_NIB	Difference	t-value	p-value
PAT_TO_TEMP_MEBL	12.94545	2.87601	0.0694439	0.1513	0.883

4.4 Earning

4.4.1 Return on Assets

Return on Assets shows a mean difference of 1.040 based on an average annual return calculated for ten years. The test also illustrates that the standard deviation displays a difference of 1.231 during the same period. On 95% confidence interval and 9 degrees of freedom the result came up with a two tailed p-value of 0.0256. It indicates the mean differences between the Return on Assets of Meezan and NIB bank is statistically significantly different from zero.

Variable	Mean	ROA_NIB	Difference	t-value	p-value
ROA_MEBL	1.143556	0.1034525	1.040104	2.6712	0.0256

4.4.2 Return on Equity

Return on Equity shows a mean difference of -0.248 while the difference between the standard deviation is 1.05. The confidence interval remained at 95% level. The results disclose a two tailed p-value of 0.476, which shows that the mean difference between the two banks with respect to return on equity is not statistically significantly different from zero.

Variable	Mean	ROE_NIB	Difference	t-value	p-value
ROE_MEBL	2.362169	2.61047	-0.2483006	-0.7422	0.4769

4.4.3 Net Income/Interest Margin

The statistics of Net Income Margin show a mean & standard deviation difference of -0.266 and 1.6775, respectively. The t-value is -0.5029. On 95% confidence interval the results exhibit a two tailed p-value of 0.627, representing an insignificant statistical difference between the net income margin of Meezan and NIB bank.

Variable	Mean	NINCMAR- GIN_NIB	Difference	t-value	p-value
NINCMAR- GIN_MEBL	2.648555	2.91534	-0.2667855	-0.5029	0.6271

4.5. Liquidity

4.5.1 Liquid Assets to Demand Deposits

The results show a mean and standard deviation difference of -.35936 and .078257. The respective t-value of test is -4.59. On 95% confidence interval, the two tailed p-value is 0.0013. It shows that the mean difference between the liquid assets

to demand deposits of Meezan and NIB bank is significantly different from zero.

Variable	Mean	LIQ.ASSTS_TO_DDE- PO_NIB	Difference	t-value	p-value
LIQ.ASSTS_TO_ DDEPO_MEBL	4.37736	4.73672	-0.35936	-4.592	0.0013

4.5.2. Total Liabilities to Total Assets

Debt ratio of Meezan and NIB bank display a mean difference of -0.381. The difference between the standard deviation of the two banks in the same respect is 1.081. The test displays a two tailed p-value of 0.293. This concludes that the mean difference between the debt ratio of Meezan and NIB bank is not significantly different from zero.

Variable	Mean	DEBT_RATIO_NIB	Difference	t-value	p-value
Debt_Ratio_MEBL	1.155651	1.537272	-0.3816208	-1.1159	0.2934

4.5.3. Total Investment to Total Assets

The mean difference between the two banks in Investment to Assets is -1.43 for a period comprising of ten years. The banks display a difference of -2.01 in the standard deviation. The resulting two tailed p-value stands at 0.0003, which proves the mean difference between the total investments to total assets to be significantly different from zero.

Variable	Mean	TINVST_TO_TASSTS_ NIB	Difference	t-value	p-value
TINVST_TO_ TASSTS_MEBL	2.623824	4.059402	-1.435579	-5.5947	0.0003

4.5.4. Percentage Change in Net Profit

Test statistics display a mean difference of -2.11 and difference in standard deviation is 0.676. The respective two tailed p-value for the test is 0.0000, which shows that the mean difference between the percentage change of Meezan and NIB is significantly different from zero.

Variable	Mean	PCNP_NIB	Difference	t-value	p-value
PCNP_MEBL	4.700648	6.815799	-2.115151	-9.8927	0.0000

4.6. Sensitivity

4.6.1. Rate Sensitive Assets to Rate Sensitive Liabilities

The rate sensitive assets and rate sensitive liabilities of Meezan and NIB bank presents a mean difference of -1.25 and the difference in the standard deviation was 0.683. The confidence interval was 95% and the resulting two tailed p-value was 0.0003 which denotes that the mean difference of the rate sensitive assets to rate sensitive liabilities between Meezan and NIB bank is statistically significantly different from zero.

Variable	Mean	RSA_TO_ RSL_NIB	Difference	t-value	p-value
RSA_TO_ RSL_MEBL	2.658173	3.910413	-1.25224	-5.7958	0.0003

4.6.2. Return Earned to Return Expensed

Statistical findings for money earned and spent by Meezan and NIB exhibit a mean difference of 52.18 and a standard deviation difference of 27.699. The respective t-value was 5.95 at 95% confidence interval the test revealed a two tailed p-value of 0.0002 that shows significant statistical difference from zero by both the banks.

Variable	Mean	RER_TO_ REXP_NIB	Difference	t-value	p-value
RER_TO_ REXP_MEBL	201.144	148.957	52.187	5.9578	0.0002

4.7. Discussion

Capital Adequacy

Capital Adequacy Ratio of Meezan bank (Islamic Bank) is significantly different than NIB (Conventional Bank) and in conformity with the previous studies such as Babar and Zeb (2011), and Kabir and Dey (2012). However; advances to assets of Islamic banks are higher than conventional banks. Shahzad (2013), and Usman and Khan (2012) found Advances to Assets not significantly different, but Merchant (2012) found that Capital Adequacy and Advances to Assets of Islamic banks were significantly different than conventional banks.

Asset Quality

Asset Quality shows mixed statistical results. Provisions for Non-Performing Financing to Total Debts of Meezan is not significantly different as compared to NIB bank. Similarly, the Provisions for Non-Performing Financings to Total Assets

also shows a similar result. Likewise, the comparison of Meezan Bank's Provision for Non-Performing Financings to Net Financing with NIB bank is not significantly different from zero. Awan (2009) found the assets, advancements and investments of Islamic banks in a continued increasing tendency. Others such as Baber and Zeb (2011) conclude increasing tendency in provisions for non-performing loans by conventional banks. Merchant (2012) also found the provisions significantly different in Islamic and conventional banks.

Management Quality

Total Expenses to Total Income of Meezan bank are not significantly different NIB bank. Profit after Tax in proportion to Total Employees is also not significantly different. Conversely, Total Profit displays significant differences. Ahmad (2009) is of the view that there is a strong, positive and direct relationship between the quality of services provided by Islamic and Conventional banks which also affects the financial performance of banks. This study also concluded that Islamic and Conventional banks display significant differences in Income to Expenses Ratio. Similarly, Conventional banks were less profitable than Islamic banks during 2006-2008. Whereas, Awan (2009), Usman and Khan (2012) and Shahzad (2013) revealed no significant differences in advances to deposits of Islamic and conventional banks. Merchant (2012) also found no significant differences in the profitability of both types of banks.

Earnings

Earnings also disclose mixed findings. Return on Assets (ROA) displays significant difference but Return on Equity (ROE) is not significantly different. Net Income Margin also exhibits insignificant statistical difference. Iqbal, Ahmad, and Khan (1998) found that both ROA and ROE of Islamic banks are substantially higher than conventional banks. Whereas, Usman and Khan (2012) found the difference in ROA and ROE of Islamic and conventional banks as insignificant. Conversely, Merchant (2012) found the profitability of Islamic and conventional banks insignificantly different. Shahzad (2013) also found no significant differences in ROA but significant differences were revealed in ROE between both types of banks.

Liquidity

Liquidity positions of both banks show that the Liquid Assets to Demand Deposits are significantly different. Debt ratio is not significantly different. Total Investment to Total Assets and Percentage Change in the Net Profit both revealed significantly different outcomes.

Sensitivity

Rate sensitive assets and rate sensitive liabilities display an average fraction of 109.39% in Meezan bank and 104.11% in NIB bank. The return earned and expense ratio of Meezan bank is 201.14% and of NIB bank is 148.96%.

The Sensitivity with respect to Rate Sensitive Assets and Rate Sensitive Liabilities is found to be significantly different from zero. The amount of Return Earned and Expense between both the banks exhibit statistically different results. Therefore, the null hypotheses for both aforementioned areas are rejected and the alternative hypotheses are selected. Awan (2009) showed that during 2006-2008, expenses of conventional banks doubled. Similarly, Profit to Expense ratio displayed significantly different results (Shahzad, 2013). Hayati & Noor (2011) found that the Profitability of Islamic banks is not impacted by the adversity in the external financial sector.

5. Conclusion

Islamic banking is believed to be a novice phenomenon especially in Pakistan. The industry, despite challenges, is growing by leaps and bounds. The study could not find sufficient evidence to conclude that Islamic and conventional banks financially perform the same way. Various dissimilarities were found in the performance of both types of institutions, for instance, capital adequacy, advances to assets and debt to equity demonstrated statistically significantly different controls to absorb risk weighted credit exposures and in employing tier 1 and tier 2 capitals. Similarly, investments and assets portfolios, long-term debt paying ability, costs control, returns earned, business generated by employees, return on assets, and liquidity displayed significant variances amongst the two types of institutions. However, further analysis is required to find deep rooted variances by enhancing the scope geographically to find stronger evidences in the same discipline.

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