

Comparative Study on Performance of Islamic Banks and Conventional Banks in GCC region

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Abstract

Islamic banking is considered as alternative to conventional banking. It focuses on profit/loss and risk sharing, than interest based deposit/lending followed in conventional banking. Conventional Banking cherishes a long history while Islamic banking gained importance in last few decades. The study review and compare performance of conventional banks and Islamic banks operating in GCC region during 2005-10. The study investigates the presence, if any, of similarity in growth of chosen performance indicators of Conventional Banks and Islamic Banks in GCC region. The study selected six Islamic banks and six conventional banks. A comparative study is undertaken based performance indicators such as OER, NPR, ROA, ROE, EOA, operating expense, profit, assets, operating income, deposits and total equity. Inferences based on analysis revealed better performance of Islamic banking during the study period. Our analysis revealed that Islamic banks are more equity financed than conventional banks. ANOVA showed the

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presence of significant relationship in movement of selected financial indicators. Conventional banks registered growth in revenue during the period, but could not achieve improved profitability on account of higher provisions towards credit losses and impairment losses. The performance indicators were affected by financial crises as may be noted from the recessionary trends since 2007.

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1 Introduction

Banking sector constitute a major financial service sector affecting economic development. The stability and growth of any economy to a great extent depend on the stability of its banking sector. It functions as intermediary linking surplus and deficit units; facilitate funds for productive purpose and thereby contributes to economic development. Conventional banking based on interest prevails across the world. Islamic banking follows Islamic Shariah as the basis of operation. In GCC region, both conventional banking and Islamic banking operates and offer its various products and services. While conventional banks offer its services that are interest based, Islamic banking services are interest-free and is based on profit-loss and risk sharing, and involve participation and sharing based Mudarabah, Wakalah (agent) contract, etc. In other words, Islamic banking followed an equity approach than interest-based approach in deposit and lending.

Moin [1] defined Islamic banking as banking in consonance with the ethos and value system of Islam and governed, in addition to the conventional good governance and risk management rules, by the principles laid by Islamic Shariah. Even though there are similarities and dissimilarities between Conventional

Banking and Islamic Banking, both exist in a competitive environment and must apply proper risk management mechanisms to mitigate the risks in business. Many studies were undertaken on Conventional Banking and Islamic Banking across the world including Awan [2] Hanif [3] and Alkassim [4]. Most of the studies focused on comparing Conventional Banking with Islamic Banking.

Islamic banking gained popularity since its beginning in 1970 and registered considerable growth over the years as noted by Cevik and Charap [5]. The combined balance sheet of Islamic banks grew from \$150 billion in 1990 to about \$1 trillion in 2010 with more than 300 Shariah-compliant institutions operating in 80 countries. This study is focused on a comparative performance evaluation between Islamic banking and conventional banking in the GCC region. Specifically, we discuss the extent to which conventional banks and Islamic banks satisfy their various performance indicators. We compare the efficiency and effectiveness of operations of both bank-groups in terms of their return on investments, return on assets, and other performance indicators derived from the Income Statement and Balance Sheet. The report is structured into four sections. Section II briefs literature on conventional banking and Islamic banking. Section III explains the methodology used to undertake the study. Section IV undertakes a comparative study on the performance of conventional banks and Islamic banks in the GCC region during 2005-11. The study is important as it can highlight the competitive position of Islamic banks vis-à-vis conventional banks which may be useful in identifying their strengths and weaknesses.

2 Literature Review

Lewis [6] on the operation of Islamic banking briefed the essence of Islamic finance. Islamic banking focused on the principle that loans should be advanced free of interest for charitable bodies and on a profit and loss sharing (PLS) basis

for commercial purposes. In Profit and loss agreement, Islamic banks does not charge interest rather take part in the yield resulting from the use of fund. The depositors also share in the profits of the bank according to a predetermined PLS ratio.

Islamic banking and conventional banking approach business differently and traced its origin to specific focus groups. While conventional banking often traced as 'western banking' as noted by Beck et al [7], Islamic banking rooted its origin in Middle East as noted by Wilson [8]. The growth of Islamic banking, since inception of Dubai Islamic Bank in 1973, instigated comparative research between conventional banking and Islamic banking. The scope of these studies were different and included comparison of leverage and profitability by Toumi et al [9], comparison of operational framework by Awan [2], comparison of profitability and performance by Ansari and Rehman [10], study on differences and similarities by Hanif [11], comparison on asset quality, liquidity and profitability by Jaffar et al [12], comparison on risk management practices by Hassan [13], comparison on customer satisfaction by Ahmed et al [14], comparison on liquidity risk management by Akhtar et al [5], to name few.

Banking, unlike other form of business is evaluated not only based on its profitability, but also criteria's such as quality of assets, liquidity management, risk management, etc. Most of the comparative studies also stressed the relevance of these performance indicators to compare CB and IB. The studies provide three different view points. There exist studies that ranked Islamic banking ahead of conventional banks in terms of various performance indicators, including Olson and Zoubi [16], Samad and Hassan [17], Miniaoui and Tchanchane [18], etc. The second group of studies presented an opposite view and considered conventional banking ahead of Islamic banking in terms of various performance indicators including Shahid et al [19], Mokhtar et al [20], etc. The third group of studies took a mediate approach signifying similarities between the performance of conventional banking and Islamic banking including Akhter et al [21], etc.

Toumi et al [7] briefed structural differences between the bank groups. They identified that Islamic banks mostly rely on their equity in financing while conventional banks rely on borrowed funds in financing, hence indicate a higher shock absorbing capacity for Islamic banks in comparison to conventional banks. Jaffar and Manarvi [12] in a comparative study on Islamic banks and conventional banking using CAMEL test reported better performance of Islamic banks on adequate capital and liquidity position compared to conventional banks. This study found similarity between conventional banks and Islamic banking on asset quality while conventional banks were found superior in management of quality and earning ability.

It may be observed that the increased popularity of Islamic banking in modern days might be influenced by its resilience to financial shocks and crisis. It does not mean that Islamic banks are not at all affected by financial crisis, however it explain, as pointed out by Parashar and Venkatesh [22] that Islamic banks are less susceptible to financial crisis. This view is further supported by Beck et al [7] and reported relatively better performance of Islamic banks during financial crisis since Islamic banks carries higher capitalization plus higher liquidity reserves. Hasan and Dridi [23] found based on a comparative study that Islamic banks showed more resilience during global financial crisis.

In general, studies comparing conventional banking and Islamic banking used different tools and techniques to evaluate its performance. Loghod [24] used a logic model $P(y=1| x) = G(\beta_0 + \beta_1 x_1 + \dots + \beta_k x_k) = G(b_0 + x\beta)$ is used to model and classify Islamic banking performance. This study utilized financial ratios classified into profitability ratios, leverage ratios, liquidity ratios and structure ratios. The significance of difference between the performance indicators of conventional and Islamic banking is also tested. Yudistira [25] applied Data Envelopment Analysis (DEA) to test efficiency of Islamic banking. Similarly, Shahild et al [19] utilized DEA to compare efficiency of conventional banks and Islamic banks. Alkassim [26] used financial ratios and regression models to

compare the performance of Islamic banking and conventional banking in GCC. Akhter [21] utilized financial ratios to study the efficiency and performance of Islamic banking. Toumi et al [9] used logistic regression model and discriminant analysis to compare leverage and profitability of Islamic banks and conventional banks. Cihak and Hesse [27] utilized Z-score and regression analysis to assess the financial stability of Islamic banks. Hays et al [30] used CAMELs rating system and multiple discriminant analysis to differentiate between efficient and low efficient banks based upon its efficiency ratios. Miniaoui and Tchanchane [28] used DEA (Data Envelopment Analysis) to analyze the relative efficiency of Islamic banks and conventional banks in GCC region.

3 Study Design and Methodology

The study aimed to evaluate and compare major performance indicators of conventional banks and Islamic banks in GCC region. Twelve major banks that include six Islamic banks institutions and six conventional banks operating in GCC region were selected. The financial information from 2005-10 is used to undertake the study. In GCC region, many banks operate with both conventional and Islamic banking products. To compare and contrast on Islamic and conventional banks, it is necessary to select banks which can be either classified as conventional or Islamic banks. GCC consists of 6 countries. Islamic banks operate in all countries. In this study, Islamic banks were selected from all countries, except Sultanate of Oman, where Islamic banking operation started only recently. It may be noted that an individual bank-wise analysis is not intended here; and focused on evaluating the indicators on the bank group as a whole.

The banks are selected for the study based on following criteria;

- Banks are selected from all GCC countries except for Sultanate of Oman, since no full-fledged Islamic bank exists.

- The absolute values indicating performance is not used in the study. The study concentrates on the ratios and growth rates to infer on performance of bank-groups.
- The Emirates NBD is selected as one of the conventional banks operating in the region. It may be noted that the bank also possess Islamic banking division.

Table 1: Islamic Banks selected for the study

No	Name of the Bank	Date of Establishment
1	Al Rajhi Bank, Saudi Arabia	1978
2	Bahrain Islamic Bank, Bahrain	1979
3	Dubai Islamic Bank, UAE	1975
4	Qatar International Islamic Bank	1991
5	Kuwait Finance House, Kuwait	1977
6	Abu Dhabi Islamic Bank, Abu Dhabi, UAE	1997

The MEED report [29] on Islamic banking ranked Al-Rajhi Bank as number one bank in GCC region, followed by Kuwait Finance House, Dubai Islamic Bank, Abu Dhabi Islamic Bank, ranked 2,3 and 4 respectively. Qatar International Islamic Bank is ranked 20, while Bahrain Islamic Bank was ranked 25th in the list. (Source: MEED, 2009). Six commercial banks were selected for the study. The banks selected were ranked as leading commercial banks in GCC region. It may be noted the Abu Dhabi Commercial bank added Islamic banking activity as well, but is found comparably negligent (Ratio of income from Islamic financing to income from interest stands 0.030:1, based on financial results 2010), hence selected under commercial banking group.

Table 2: Conventional banks selected for the study

No	Name of the Bank	Date of Establishment
1	Bank Muscat, Sultanate of Oman	1993
2	Commercial Bank, Qatar	1975
3	Abu Dhabi Commercial Banking	1997
4	Arab Banking Corporation, Bahrain	1980
5	National Bank of Kuwait	1952
6	Emirates Bank International	2007* ³

A major tool used to assess the performance of any commercial organization is its profitability. Profitability is reflected in various indicators that include Operating Profit Ratio (OER), Net Profit Ratio (NPR), Return on Asset (ROA), Return on Share capital (ROCA) and Return on Total Equity (ROE). The above-mentioned ratios indicate the relationship of profit on total income, total asset, share capital, total equity etc. The efficiency with which an organization manages its operating expenses is highlighted in Operating Expenses Ratio. Another major indicator of performance is capital adequacy and is measured using Equity to Asset Ratio, calculated by dividing total equity by total assets. A higher ratio indicates low risk and represents a higher share of ownership fund in total asset of the bank. In addition, indicators such as profit as a percentage of customer deposits, customer deposits as a percentage of total liabilities, and total equity as a percentage of total assets were computed to compare between conventional banks and Islamic banks.

The second part stress the movement of various performance indicators such as total income, total expenses, total profit, total assets, total customer deposits, share capital and total equity during 2005-10. The average annual growth

³ Result of a merger between Emirates Bank International and National Bank of Dubai (NBD) in 2007.

rate (AAG) is calculated to study the performance of selected banks during the period. The third part focus on hypothesis testing to evaluate whether there exists significant difference among Islamic banks and conventional banks operating in the region.

4 Data Analysis

4.1 Operating Profit Ratio (OPR)

OPR is calculated by dividing operating profit by total income generated. An evaluation of operating profit reveals a comparably better performance of Islamic banks.

Table 3: Average Operating Profit Ratio 2005-10 (Bank Group Wise)

Bank Group	2005	2006	2007	2008	2009	2010	Avg
Islamic Banks	71.17	73.75	72.91	61.94	48.78	44.53	62.18
Conventional Bank	50.97	49.60	54.63	47.00	33.14	41.53	46.14

On an average, Islamic banks registered an OPR of 62% during 2005-10, while it stands 46% for the conventional banks. Even though the ratio is favorable for Islamic banks, it is observed that there exists a decline in OPR of Islamic banks from 2007 onwards, which may be impacted by the financial crisis that erupted worldwide during 2007. On the other hand, even though conventional banks reported reduction in operating profit from 2007, it reported an increased profitability during 2010, indicating signs of recovery. Table 3 indicates average OPR of selected banks during 2005-10.

4.1.1. Testing of Hypothesis

A One way ANOVA is used to evaluate whether there exist significant relationship in the trend of operating profit between Islamic banks and conventional banks.

H0 : There exists no significant relationship in movement of operating profit among Islamic banks and Conventional Banks

H1 : There exists significant relationship in movement of operating profit among Islamic banks and Conventional Banks

Table 4: One way ANOVA – Movement of Operating Profit

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	771.364	1	771.364	6.891	.025
Within Groups	1119.330	10	111.933		
Total	1890.694	11			

The p- value = .025, ie <0.05 results in rejecting null hypothesis. It may be inferred based on the analysis that there exists significant relationship in the movement of operating profit among Islamic banks and conventional banks.

4.2 Net Profit Ratio

NPR is calculated by dividing net profit by total income generated. Conventional banks registered a higher NPR than Islamic banks during 2005-10. Islamic banks registered an average annual NPR of 30.89%, while it stood at 38.49% for conventional banks. Similar to the trend in operating expense ratio, NPR ratio also showed a reduced trend after 2007 for Islamic banks, while conventional banks reported a recovery of NPR from 2009 onwards. It may be

observed that the negative average NPR of Islamic banks during 2010 is mainly due the net loss suffered by Bahrain Islamic bank during 2009 and 2010.

Table 5: Average Net Profit Ratio 2005-10 (Bank Group Wise)

Bank Group	2005	2006	2007	2008	2009	2010	Avg
Islamic Banks	47.62	48.15	50.59	39.07	11.05	-11.15	30.89
Conventional Bank	49.04	48.01	52.85	14.72	29.31	36.99	38.49

4.2.1. Testing of Hypothesis

A One way ANOVA is used to evaluate whether there exist significant relationship in the trend of net profit between Islamic banks and conventional banks.

H0 : There exists no significant relationship in movement of net profit among Islamic banks and Conventional Banks

H1 : There exists significant relationship in movement of net profit among Islamic banks and Conventional Banks

Table 6: One way ANOVA – Movement of Net Profit

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	173.204	1	173.204	.407	.538
Within Groups	4253.468	10	425.347		
Total	4426.672	11			

The p- value = .538, i.e. >0.05 results in accepting null hypothesis. It may be inferred based on the analysis that there is no significant relationship in the movement of net profit among Islamic banks and conventional banks. Even

though there exists significant relationship between the bank groups on movement of operating profit, the same is not true in case of net profit. It may be due to the differences in provision and contingencies, which is significant in determining the net profit of conventional banks.

4.3 Operating Expenses Ratio

A lower OER shows better control over operating expenses and highlights lower expenses and higher earnings. Hays et al [30] used OER as efficiency ratios to differentiate between low efficiency and high efficiency banks. It may be observed from the analysis that Islamic banks shows a lower OER ratio compared to conventional banks during 2005-10. The analysis inferred two major trends in OER ratio. First, Islamic banks shows higher OER ratio after 2008. The same is true in the case of conventional bank as well. It indicates the possible susceptibility of bank groups towards financial crisis. To improve efficiency, banks need to reduce its OER ratio.

Table 7: Average Operating Expense Ratio 2005-10 (Bank Group Wise)

Bank Group	2005	2006	2007	2008	2009	2010	Avg
Islamic Banks	28.83	26.25	27.09	38.06	51.22	55.86	37.89
Conventional Banks	30.37	31.52	39.34	49.76	56.94	53.87	43.63

4.3.1. Testing of Hypothesis

A One way ANOVA is used to evaluate whether there exist significant relationship in the movement of operating expenses between Islamic banks and conventional banks.

- H0** : There exists no significant relationship in movement of operating expenses among Islamic banks and Conventional Banks
- H1** : There exists significant relationship in movement of operating expenses among Islamic banks and Conventional Banks

Table 8: One way ANOVA – Movement of Operating Expenses

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	99.130	1	99.130	.663	.434
Within Groups	1495.326	10	149.533		
Total	1594.456	11			

The p- value = .434, ie >0.05 results in accepting null hypothesis. It may be inferred based on the analysis that there is no significant relationship in the movement of operating expenses among Islamic banks and conventional banks. It supports the earlier observation on relationship in the movement of net profit among Islamic banks and conventional banks.

4.4 Return on Asset

ROA is calculated by dividing total profit by total asset. The ratio is widely used as a proxy for profitability. Cook and Uchida [31] utilized ROA to assess profitability and evaluate performance of different enterprises. Peterson and Schoeman [32] interpreted ROA as an important tools indicating operational efficiency of the bank. It may be observed from the analysis that Islamic banks enjoy higher ROA than conventional banks. The ROA of Islamic banks stand 2.63% during 2005-10, while it stands for 1.61% for conventional banks. It may

be further observed that Islamic banks performance over last five years showed a trend of reduced ROA, hence needs to be improved in the long run.

Table 9: Average Return on Asset 2005-10 (Bank Group Wise)

Bank Group	2005	2006	2007	2008	2009	2010	Avg
Islamic Banks	3.73	3.63	3.70	2.63	1.22	0.89	2.63
Conventional Bank	2.18	1.96	1.90	0.96	1.24	1.41	1.61

4.4.1. Testing of Hypothesis

H0 : There exists no significant relationship in movement of Average ROA among Islamic banks and Conventional Banks

H1 : There exists significant relationship in movement of Average ROA among Islamic banks and Conventional Banks

Table 10: One way ANOVA – Average Rate of Return on Asset

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.152	1	3.152	3.317	.099
Within Groups	9.501	10	.950		
Total	12.653	11			

A one way ANOVA is used to test the hypothesis. The p-value greater than 0.05 indicate that null hypothesis is accepted and concludes that there exists no significant differences in the movement of Average Return on Asset among Islamic banks and Conventional Banks.

4.5 Return on Equity Capital (ROCA)

ROCA is calculated by dividing net profit after tax by share capital. The equity capital denotes the issued capital alone and does not include any reserves, etc. It establishes the relationship between profit after tax and share capital. It may be observed from the analysis that Islamic banks possess higher ROCA compared to conventional banks during 2005-10. ROCA stood at 59.06% for Islamic banks while it stands 55.54% for conventional banks. An interpretation of efficiency based on ROCA is often difficult, hence not intended here.

Table 11: Return on Equity Capital 2005-10 (Bank Group Wise)

	2005	2006	2007	2008	2009	2010	Avg
Islamic Banks	101.16	82.17	80.44	49.20	20.66	20.74	59.06
Conventional Bank	54.37	56.75	72.43	54.03	47.61	48.06	55.54

4.5.1. Testing of Hypothesis

- H0** : There exists no significant relationship in movement of ROCA among Islamic banks and Conventional Banks
- H1** : There exists significant relationship in movement of ROCA among Islamic banks and Conventional Banks

Table 12: One way ANOVA – Average Rate of Return Equity Capital

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	37.171	1	37.171	.060	.812
Within Groups	6213.009	10	621.301		
Total	6250.180	11			

The p- value = .812 i.e. $p > 0.05$ results in accepting null hypothesis. It may be inferred based on the analysis that there is no significant relationship in the movement of ROCA among Islamic banks and conventional banks.

4.6 Return on Total Equity (ROE)

A higher ratio indicates better use of capital. It calculated by dividing net profit after tax by total equity. Total equity is sum total of capital and reserves. It may be observed from the analysis that Islamic banks carry a higher ROE compared to conventional banks. As may be seen in other performance indicators, there exists a decline in ROE ratio of Islamic banks over the years.

Table 13: Return on Total Equity (ROE) 2005-10 (Bank Group Wise)

	2005	2006	2007	2008	2009	2010	Avg
Islamic Banks	25.57	20.87	18.39	14.70	6.91	1.88	14.72
Conventional Banks	14.14	14.71	16.32	4.90	8.55	8.92	11.26

4.6.1. Testing of Hypothesis

A One way ANOVA is used to evaluate whether there exist significant relationship in the movement of Return on Total Equity among Islamic banks and conventional banks.

H₀ : There exists no significant relationship in movement of ROE among Islamic banks and Conventional Banks

H₁ : There exists significant relationship in movement of ROE among Islamic banks and Conventional Banks

Table14: One way ANOVA – Return on Total Equity

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	35.984	1	35.984	.729	.413
Within Groups	493.946	10	49.395		
Total	529.930	11			

The p- value = .413 i.e. $p > 0.05$ results in accepting null hypothesis. It may be inferred based on the analysis that there is no significant relationship in the movement of ROE on total equity among Islamic banks and conventional banks.

4.7 Profit as a % of Customer Deposits

Customer deposit is a major source of fund for banks. The success of banks can also be determined based on its efficiency in managing customer deposits and converting it into revenue generative investment opportunities. The bank have to pay returns on customer deposits, which in conventional banking denoted as interest expense, while in Islamic banking is denoted as share of profit. Profit as a percentage of customer deposits is calculated by dividing profit after tax by total customer deposits. It may be observed from the analysis that the Islamic banks provide more profit on customer deposits than conventional banks. Profit as a percentage of customer deposits is calculated as 17.57% for Islamic banks during 2005-10, while it stands 2.90% for conventional banks.

Table15: Profit as a % of Customer Deposits 2005-10 (Bank Group Wise)

	2005	2006	2007	2008	2009	2010	Avg
Islamic Banks	19.04	21.46	24.19	19.47	12.97	8.30	17.57
Conventional Bank	3.78	3.69	3.80	0.70	2.64	2.78	2.90

4.7.1. Testing of Hypothesis

A One way ANOVA is used to evaluate whether there exist significant relationship in the movement of profit as a percentage of customer deposits among Islamic banks and conventional banks.

H0 : There exists no significant relationship in movement of profit as a percentage of customer deposits among Islamic banks and Conventional Banks.

H1 : There exists significant relationship in movement of profit as a percentage of customer deposits among Islamic banks and Conventional Banks.

Table 16: One way ANOVA – Profit as % of customer deposits

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	645.920	1	645.920	36.095	.000
Within Groups	178.951	10	17.895		
Total	824.871	11			

The p- value = .000 i.e. $p < 0.05$ results in rejecting null hypothesis. It may be inferred based on the analysis that there exists significant relationship in the movement of profit as a percentage of customer deposits among Islamic banks and conventional banks.

4.8 Customer Deposits as % of total liabilities

Customer deposit is a major part of total liabilities of any bank. It may be observed from the analysis that Islamic banks carry higher percentage of customer deposits in total liabilities during 2005-10. Islamic banks hold an average of 73.80% deposits in total liabilities of the bank group, while it stands 55.12% for conventional banks. It may be interesting to note that customer deposits in total

liabilities has reduced for Islamic banks during 2005-10, while it showed an improved trend in case of conventional banks from 55.27% to 61.87%.

Table 17: Customer Deposits as % of total liabilities 2005-10 (Bank Group Wise)

	2005	2006	2007	2008	2009	2010	Avg
Islamic Banks	78.03	71.73	73.94	72.63	73.83	72.65	73.80
Conventional Bank	55.27	50.13	54.44	52.04	56.99	61.87	55.12

4.8.1. Testing of Hypothesis

A One way ANOVA is used to evaluate whether there exists significant relationship in the movement of customer deposits (as percentage of total liabilities) among Islamic banks and conventional banks.

- H0** : There exists no significant relationship in the movement of customer deposits (as percentage of total liabilities) among Islamic banks and conventional banks.
- H1** : There exists significant relationship in the movement of customer deposits (as percentage of total liabilities) among Islamic banks and conventional banks.

Table 18: One way ANOVA – Customer Deposits as % of total liabilities

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1046.640	1	1046.640	96.181	.000
Within Groups	108.820	10	10.882		
Total	1155.461	11			

The p- value = .000 ie $p < 0.05$ results in rejecting null hypothesis. It may be inferred based on the analysis that there exists significant relationship in the movement of customer deposits (as percentage of total liabilities) among Islamic banks and conventional banks.

4.9 Total Equity as a % of Total Assets

It is also known as Ratio of Equity to Assets. The ratio shows the relative percentage of total equity (shareholder funds) in total assets of the company. A higher ratio is preferable as it indicate the presence of less external funds in total assets of the company. The total equity as a percentage of total assets showed an average rate of 15.26% in Islamic banks during 2005-10, while it stands 12.46% in conventional banks during the period. It may be observed from the analysis that Islamic banks utilize more equity funds compared to conventional banks towards total assets of the company. Hence, it may be concluded that Islamic banks are more equity financed than conventional banks.

Table 19: Ratio of Equity to Assets 2005-10 (Bank Group-Wise)

	2005	2006	2007	2008	2009	2010	Avg
Islamic Banks	13.85	14.63	18.65	15.62	15.40	13.44	15.26
Conventional Bank	13.10	10.93	11.36	11.41	13.42	14.56	12.46

4.9.1. Testing of Hypothesis

A One way ANOVA is used to evaluate whether there exist significant relationship in the movement of Total Equity as a % of Total Assets among Islamic banks and conventional banks.

- H0** : There exists no significant relationship in the movement of Total Equity as a percentage on Total Assets among Islamic banks and conventional banks.
- H1** : There exists significant relationship in the movement of Total Equity as a percentage on Total Assets among Islamic banks and conventional banks.

Table 20: One way ANOVA – Equity to Assets

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	23.548	1	23.548	8.491	.015
Within Groups	27.733	10	2.773		
Total	51.281	11			

The p- value = .015 i.e. $p < 0.05$ results in rejecting null hypothesis. It may be inferred based on the analysis that there exists significant relationship the movement of Total Equity as a percentage on Total Assets among Islamic banks and conventional banks.

5 Comparison of AAG Rate of Selected performance indicators

A comparison of performance of Islamic and conventional banks using AAG rate is initiated here. Often, performance effectiveness is measured based on the growth of operations during a period of time. The financial performance during 2005-10 is used to calculate the growth rate and average annual growth rate of operations.

5.1 Total Operating Income

Total operating income is a major criterion to assess the growth of operations. An increased operating income reflects ability of the organization to succeed in the market. For conventional banks, operating income denotes the total of net interest income and non-interest income. For Islamic banks, it is sum of income from different Islamic financing and investment activities and includes income from murabaha, mudaraba and wakala ijara and other Islamic financing activities, income from investment properties and investment properties, etc.

In Table 21, it may be observed from the analysis that Islamic banks possess a higher AAG rate of total operating income than conventional banks in GCC region during 2005-10. The AAG rate of total operating income is 24.62% for Islamic banks, while it is reported at 16.47% for conventional banks. It may be observed that the operating income of conventional banks showed a reduced growth from 2007 onwards which may be attributed to the effect of recessionary trend due to financial crisis that erupted worldwide.

Table 21: AAG Rate of Total Operating Income 2005-10 (Bank Group-Wise)

Bank Group	2006	2007	2008	2009	2010	AAG Rate
Islamic Banks	62.86	21.79	5.80	14.92	17.75	24.62
Conventional Banks	23.06	24.80	20.37	11.14	-1.10	16.47

5.2 Total Operating Expenses

Total operating expenses includes staff costs, general and administrative expenses. Miller (1989) stressed the need to manage operating expenses to improve the profitability. He argued that management of operating expenses means controlling its growth, in comparison to growth in revenue or total income.

An efficient management indicates reduced growth of cost in comparison to growth in revenue.

Table 22: AAG Rate of Total Operating Expenses 2005-10 (Bank Group-Wise)

	2006	2007	2008	2009	2010	AAG Rate
Islamic Banks	30.46	37.40	60.84	14.40	4.67	29.55
Conventional Banks	30.18	27.22	49.29	22.06	-2.35	27.06

It may be observed from the analysis that Islamic banks reported a higher growth rate of operating expenses compared to conventional bank. The AAG rate of operating expenses for Islamic banks stood at 29.55% while it is 27.06% for conventional banks. Both bank groups reported increase in operating expenses increased at a faster rate than AAG rate of operating income.

5.3 Total Operating Profit

Operating profit indicates profit earned from its core business activity. It does not include income from investments and effect of taxes. Growth in operating profit is necessary to grow in the market.

Table 23: AAG Rate of Total Operating Profit 2005-10 (Bank Group-Wise)

	2006	2007	2008	2009	2010	AAG Rate
Islamic Banks	49.27	34.33	-4.55	-30.35	-4.34	8.87
Conventional Banks	21.46	14.76	6.42	-30.74	-18.06	-1.55

It may be observed from the analysis that Islamic banks reported a higher AAG rate of operating profit. The AAG rate stood at 8.87% for Islamic banks during

2005-10, while it reported a negative -1.55% AAG rate. A further analysis revealed a reduced growth mainly after 2007 mainly due to financial crisis and recessionary pressures.

5.4 Net Profit (Profit after Tax)

The study showed mixed trends in movement of net profit among bank groups. Banks faced many challenges that includes upsurge of recessionary pressures due to financial crisis, rising NPA and requirement for impairment and provisions, etc. This has posed serious stress on profitability of banks. As many noted from the analysis on net profit, both Islamic banks and conventional banks reported net loss from 2007 onwards.

Table 24: AAG Rate of Net Profit 2005-10 (Bank Group-Wise)

	2006	2007	2008	2009	2010	AAG Rate
Islamic Banks	40.40	38.63	-0.96	-49.16	217.35	49.25
Conventional Banks	23.13	12.28	-112.56	-48.95	-19.70	-30.18

It may be observed from the analysis that Islamic banks are better poised to meet the challenges of financial crisis. On other hand, exposure to financial crisis forced many conventional banks to provide a higher amount for provision and contingencies and it affected the profit negatively. The AAG rate does not indicate a true picture of net profit, as it is influenced greatly by the trends since 2007.

5.5 Total Asset

The total assets of Islamic banks and conventional banks moved positively during 2005-10 but marginally affected by the recessionary trends since 2007. It may be observed from the analysis that Islamic banks reported a higher AAG rate of total asset than conventional banks. The total assets of Islamic banks grew by 21.53% during 2005-10, while the growth rate is 18.42% for conventional banks.

Table 25: AAG Rate of Total Asset 2005-10 (Bank Group-Wise)

	2006	2007	2008	2009	2010	AAG Rate
Islamic Banks	35.34	30.36	22.36	10.47	9.61	21.63
Conventional Banks	30.05	35.92	19.98	-0.39	5.03	18.42

A growth of total assets does not indicate an improved efficiency; indicating opportunities for further growth. It reflects availability of financial and non-financial resources to support the organization's growth.

5.6 Total Customer Deposits

Customer deposits provide funds for investment and financing. Growth in customer deposits is a positive indicator of banking growth. A review of selected Islamic and conventional banks revealed similarity in the growth of deposit mobilization. The customer deposits in Islamic banks grew with an AAG rate of 17.35%, while the deposits grew in conventional banks at an AAG rate of 18.42%. Similar to the trend in other indicators, the growth rate of deposits was reduced since 2007, may be attributable to the recessionary trends and financial crises.

Table 26: AAG Rate of Total Customer Deposits 2005-10 (Bank Group-Wise)

	2006	2007	2008	2009	2010	AAG Rate
Islamic Banks	20.72	27.20	18.49	9.79	10.54	17.35
Conventional Banks	24.76	25.04	14.53	12.05	12.50	18.42

5.7 Total Liabilities

Growth in total liabilities should be properly managed, as it involves the requirement to repay money or money's worth at a late date. It is observed from the analysis that total liabilities in Islamic banks grew by an AAG rate of 17% during 2005-10, while it grew by 18.60% for conventional banks. An interesting point to note is the similarity in growth rate of total liabilities and total assets of conventional banks. Both indicators grew by 18.42% during 2005-10.

Table 27: AAG Rate of Total Liabilities 2005-10 (Bank Group-Wise)

	2006	2007	2008	2009	2010	AAG Rate
Islamic Banks	22.39	24.75	22.31	4.80	10.76	17.00
Conventional Banks	33.60	37.96	20.29	-3.35	3.39	18.60

Islamic banks showed an improved performance since the total assets grew at a faster rate than liabilities. It supports the view of many scholars that Islamic banks are more equity financed.

5.8 Total Equity

Total equity represents ownership fund in business. It may be observed from the analysis that total equity grew by an AAG rate of 22.51% in Islamic

banks, while it increased by 21.18% for conventional banks. It may be inferred from the analysis that Islamic banks post higher equity finance in total asset of the company.

Table 28: AAG Rate of Total Equity 2005-10 (Bank Group-Wise)

Total Equity	2006	2007	2008	2009	2010	AAG Rate
Islamic Banks	47.19	58.07	1.52	9.13	-3.35	22.51
Conventional Banks	13.38	29.00	23.09	17.40	15.84	21.18

6 Major Findings

Based on analysis, similarities and dissimilarities were found while comparing conventional and Islamic banks in GCC region. Operating profit increased at a faster rate in Islamic banks than conventional banks. Even though there are differences in movement of operating profit, the trend followed is found to be significantly correlated. On the contrary, NPR ratio showed a different trend; with conventional bank has a higher growth in profit. NPR does not follow similar pattern of movement between conventional banks and Islamic banks, as indicated by F-test.

ROA is a major indicator of profitability bank. Islamic banks reported a higher ROA compared to Islamic banks. ROA does not follow similar movement between Islamic bank and conventional banks. ROE also follow similar trend. Total profit as a percentage of customer deposits is comparably higher in Islamic banks. It may be observed from the analysis that total profit as a percentage of customer deposits differ significantly in Islamic banks and conventional banks. The study supports the view that Islamic banks are more equity financed, while conventional banks are more borrowed fund financed. A review of customer deposits and total liability showed a higher percentage of equity fund in Islamic

banks (Average 73.80%), compared to conventional banks (55.12%). A hypothesis test revealed a significant relationship in the movement of customer deposits (as percentage of total liabilities) among Islamic banks and conventional banks. Similarly, total equity registered a higher proportion in total assets of bank in Islamic banks compared to conventional banks. Further, it is also found that there exists significant relationship in the movement of Total Equity as a percentage on Total Assets among Islamic banks and conventional banks. The total assets of Islamic banks grew by 21.53% during 2005-10, while the growth rate is 18.42% for conventional banks.

The study used AAG rate to highlight change in selected performance indicators. The performance indicators studied include total operating income, operating expenses, operating profit, net profit, total assets, customer deposits and total equity capital. The study found that Islamic banks possess a higher AAG rate of total operating income than conventional banks in GCC region during 2005-10. The AAG rate of total operating income is 24.62% for Islamic banks, while it is reported at 16.47% for conventional banks. It may be observed that the operating income of conventional banks showed a reduced growth from 2007 onwards which may be attributed to the effect of recessionary trend due to financial crisis that erupted worldwide. Similar to growth in operating income, operating expense showed an increased AAG rate. The study revealed a favorable position of Islamic banks where operating income increased at a faster rate than increase in operating expenses.

The study found that Islamic banks reported a higher AAG rate of operating profit. The AAG rate stood at 8.87% for Islamic banks during 2005-10, while it reported a negative -1.55% AAG rate. A further analysis revealed a reduced growth mainly after 2007 mainly due to financial crisis and recessionary pressures. The customer deposits in Islamic banks grew with an AAG rate of 17.35%, while the deposits grew in conventional banks at an AAG rate of 18.42%.

Similar to the trend in other indicators, the growth rate of deposits was reduced since 2007, may be attributable to the recessionary trends and financial crises.

With regard to the impact of financial crisis on banking, the analysis revealed that Islamic banks were less affected compared to conventional banks in the GCC region. Even though there exists a fall in income and growth of selected indicators, the impact was minimum compared to the change witnessed in conventional banks. It support the earlier studies, particularly Syed Ali (2011) [33] who argued that financial crisis impacted performance of bank groups in different levels. Further the impact of financial crisis is mainly witnessed during 2008-09 for Islamic banks, while it produced impact on conventional banks from 2007-09.

7 Scope for further research

The study concentrated on a sample study and focused attention on financial performance during 2005-10. The period is significant because of the global financial crisis that erupted worldwide during this period. The limitations of sample study are inherent in this study as well. We took full care in selecting banks which are true representative of two bank groups in the region. The financial performance of banks is influenced by the global financial crisis, which affected Islamic banks and conventional banks differently. This stands as an attention-grabbing area for further research.

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Appendix

Figures and Charts

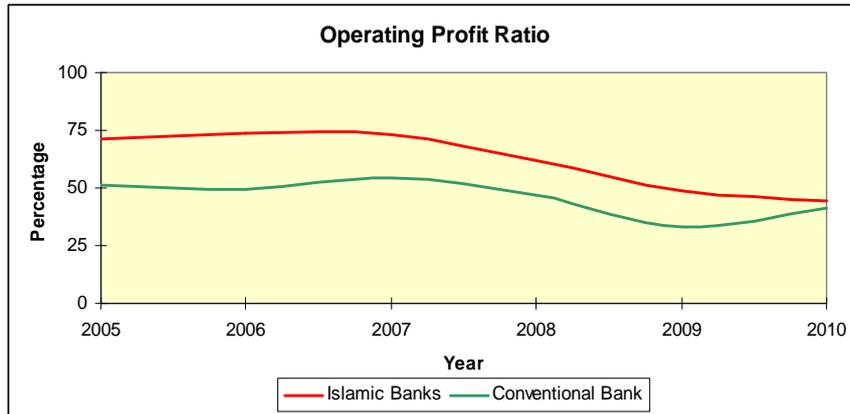


Figure 1: Operating Profit Ratio

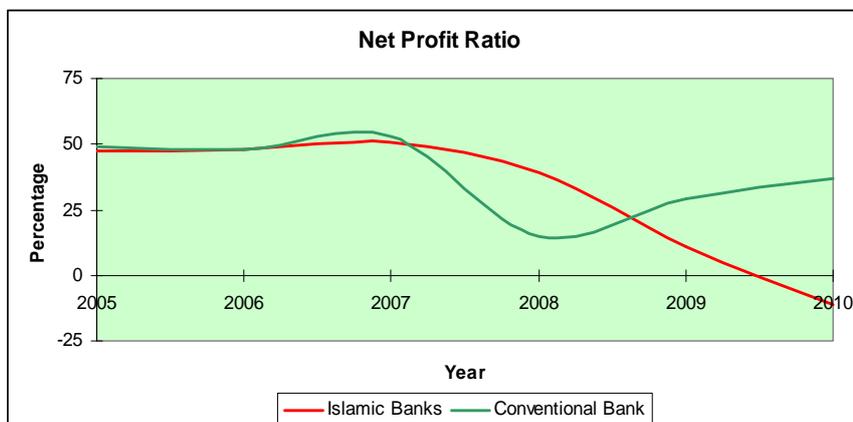


Figure 2: Net Profit Ratio

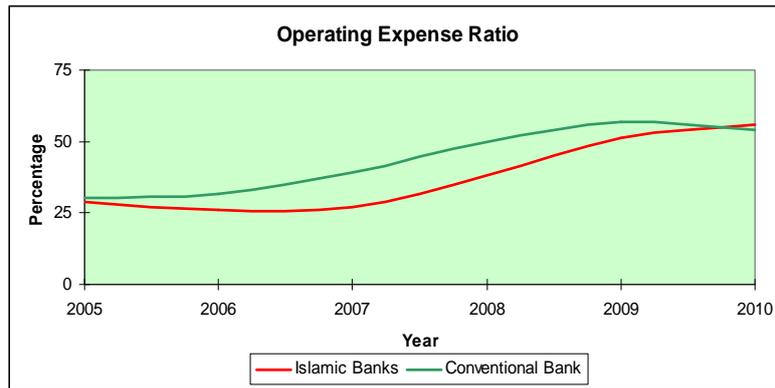


Figure 3: Average Operating Expense Ratio 2005-10 (Bank Group Wise)

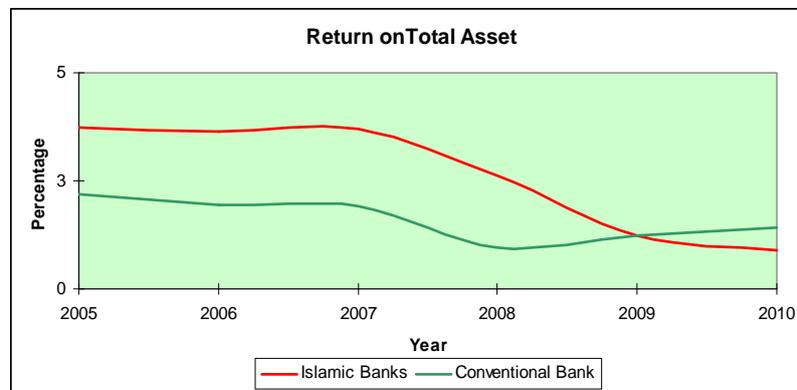


Figure 4: Return on Asset 2005-10 (Bank Group Wise)

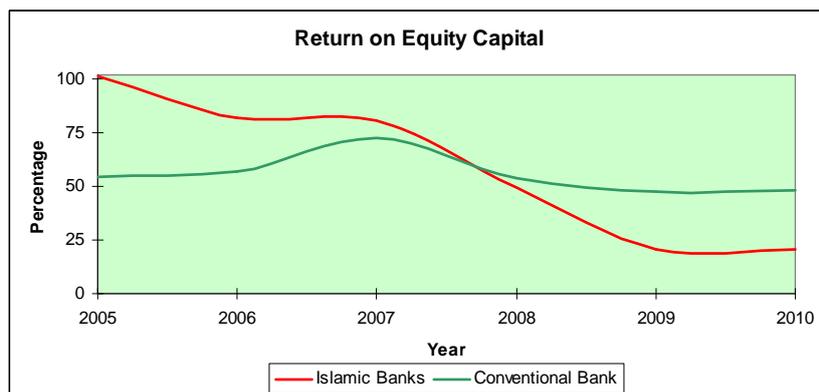


Figure 5: Return on Asset 2005-10 (Bank Group Wise)

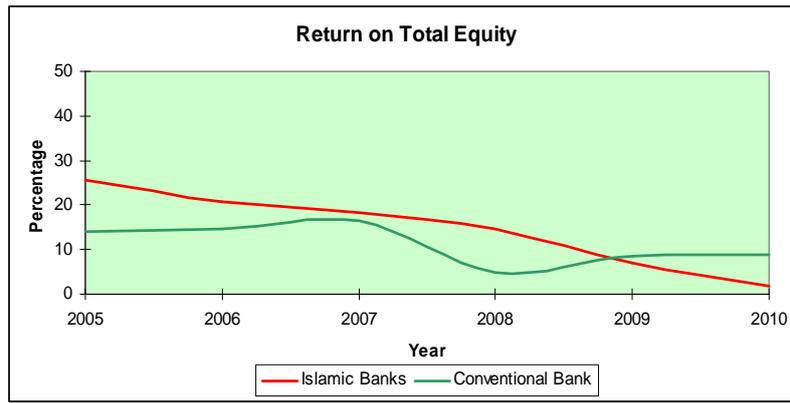


Figure 6: Return on Total Equity (ROE) 2005-10 (Bank Group Wise)

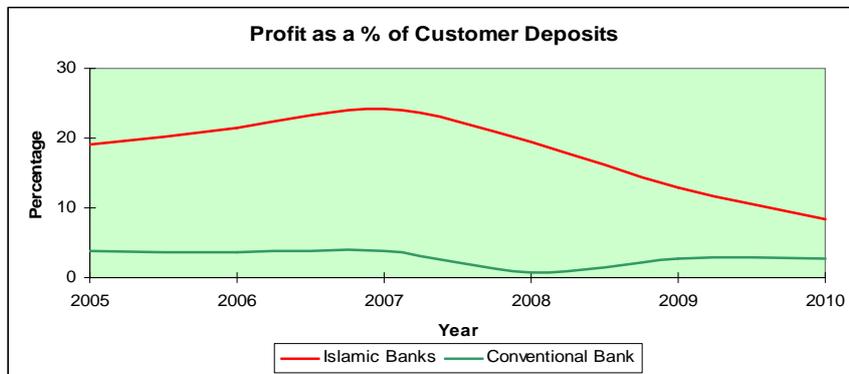


Figure 7: Profit as a % of Customer Deposits 2005-10 (Bank Group Wise)

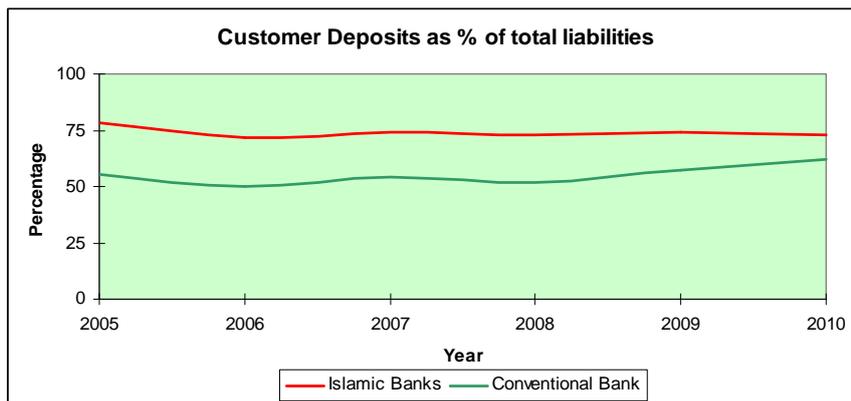


Figure 8: Customer Deposits as % of Total Liabilities 2005-10 (Bank Group Wise)

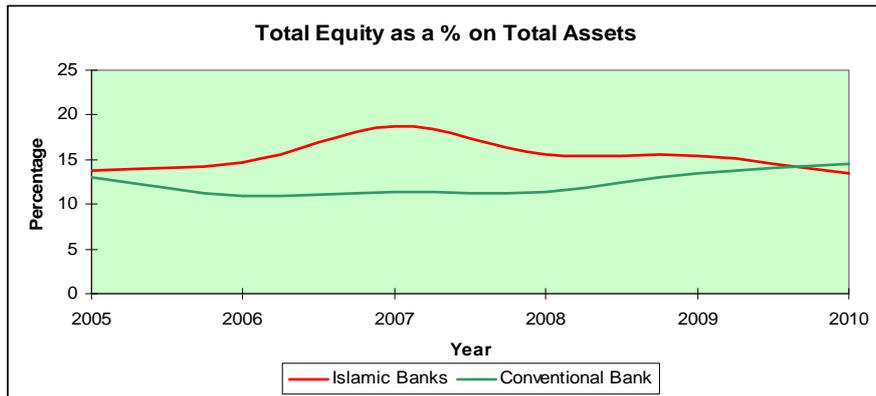


Figure 9: Ratio of Equity to Assets 2005-10 (Bank Group-Wise)

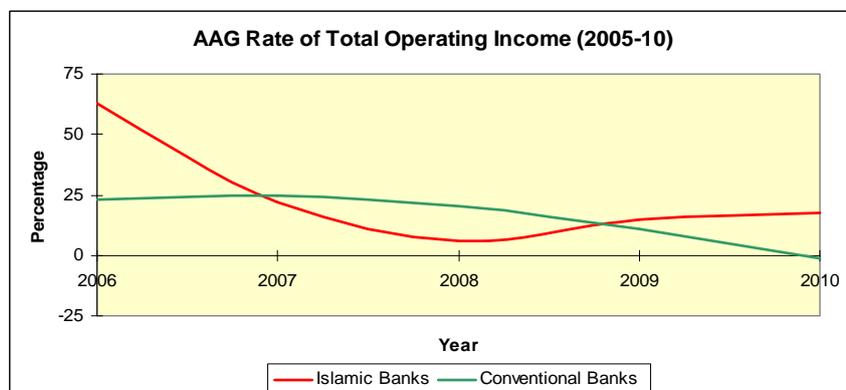


Figure 10: AAG Rate of Total Operating Income 2005-10 (Bank Group-Wise)

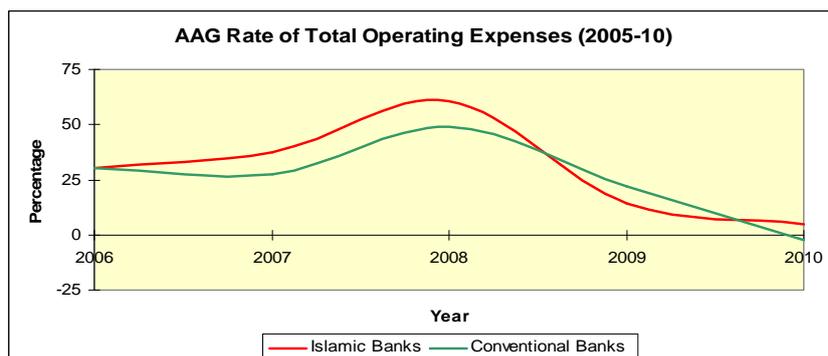


Figure 11: AAG Rate of Total Operating Expenses 2005-10 (Bank Group-Wise)

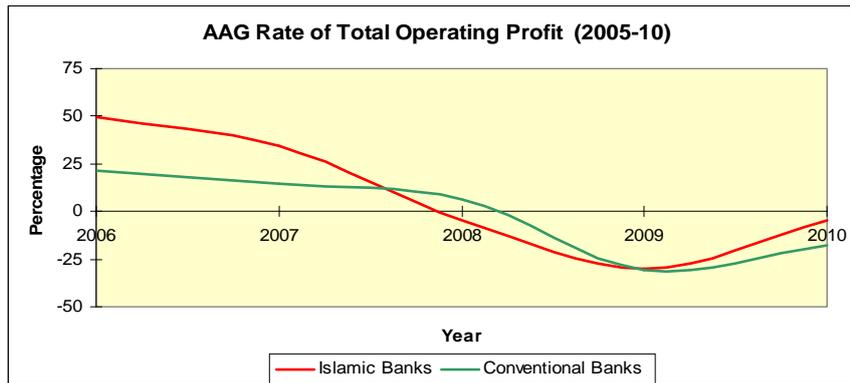


Figure 12: AAG Rate of Total Operating Profit 2005-10 (Bank Group-Wise)

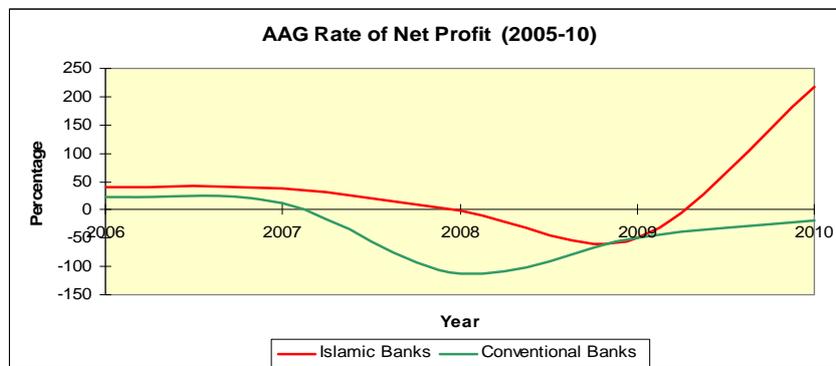


Figure 13: AAG Rate of Net Profit 2005-10 (Bank Group-Wise)

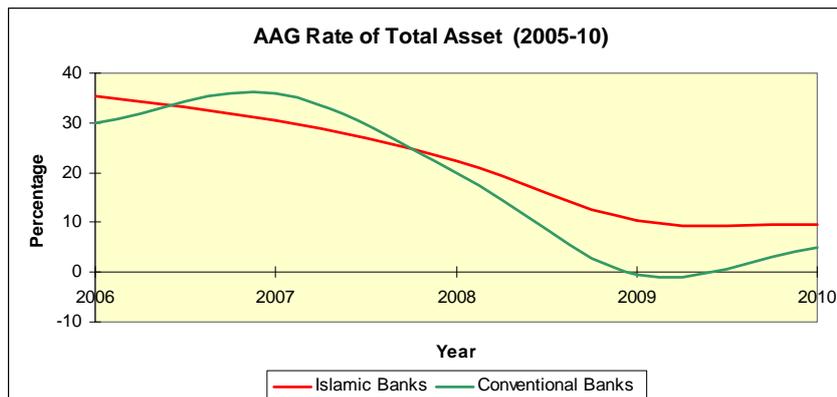


Figure 14: AAG Rate of Total Asset 2005-10 (Bank Group-Wise)

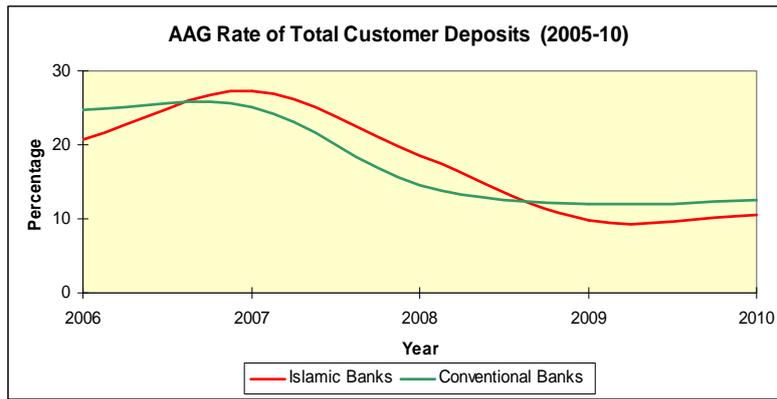


Figure 15: AAG Rate of Total Customer Deposits 2005-10 (Bank Group-Wise)

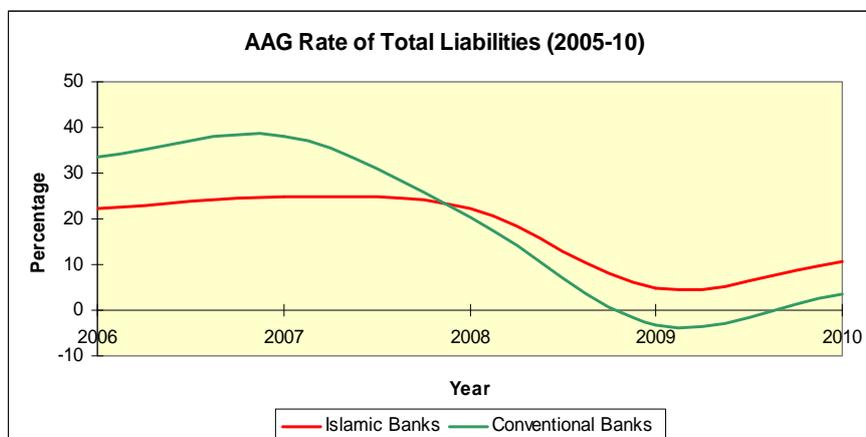


Figure 16: AAG Rate of Total Liabilities 2005-10 (Bank Group-Wise)

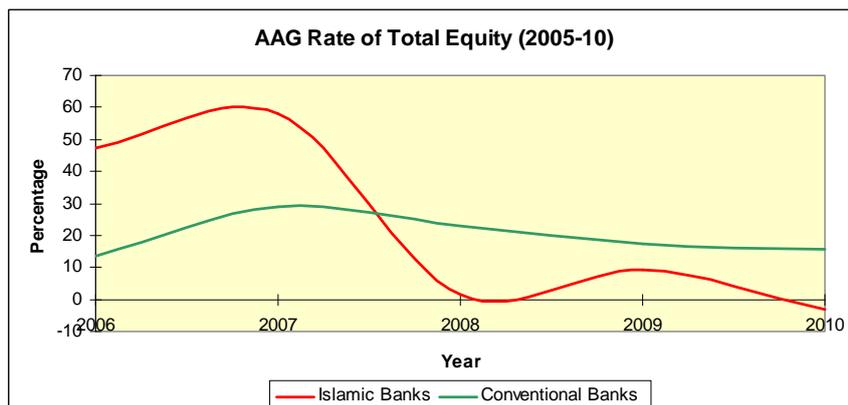


Figure 17: AAG Rate of Total Equity 2005-10 (Bank Group-Wise)