An Empirical Analysis of Financial Performance of Retail and Wholesale Islamic Banks in Bahrain

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Abstract

Islamic banking, as an alternative to conventional banking system, is currently one of the most rapidly growing segments of the global financial market industry operating with more than 300 institutions spread over 75 countries. Undoubtedly, Islamic banks has cogent contribution towards the economic growth of any nation. This paper explores the analysis of the financial performance of retail and wholesale Islamic Banks operating in the Kingdom of Bahrain. For the empirical investigation, six retail and seven wholesale Islamic banks were selected for the study. Financial ratio analysis, standard deviation and correlation analyses were employed for the time period 2009-2013. The study found that there is a negative relationship among asset utilization ratio with staff cost to income ratio, operational efficiency ratio and cost to income ratio of retail Islamic Banks. Empirical results for wholesale Islamic banks revealed that there is a positive relationship among staff cost to income ratio, operational efficiency ratio and cost to income ratio.

Keywords: Islamic banks; Performance analysis; Retail banks; and Wholesale banks.

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1. Introduction

Financial and banking services are paramount to a nation's economic growth, development and prosperity. It is argued that the efficiency of financial intermediation affects a nation's economic growth and any under-performance can lead to potential adverse consequences for the economy as a whole. Islamic banking system have exhibited remarkable progress in a very short period of time and captured a substantial market share from their conventional banking rivals. One of the many countries which have a major role towards the development of Islamic banking is Bahrain. Since 1979, Bahrain (a tiny island-kingdom in the Gulf Region) has actively promoted itself as a global hub for Islamic Banking and Finance.

Bahrain's banking system is composed of both conventional and Islamic banks and these sectors chiefly represent more than 85% of the country's total financial system assets. Bahrain's conventional banking sector consists of twenty three retail banks, sixty nine wholesale banks, two specialized banks and thirty six representative offices of overseas banks while the Islamic banking sector, offering a multitude of Sharia compliant financial products and services, is composed of six retail banks and eighteen wholesale banks. Indeed, the country's banking sector continued to be the pillar for economic growth of the national economy. According to Central Bank of Bahrain (CBB), the total assets of Bahrain's Islamic banking sector has boosted from US$1.9 billion in 2000 to US$25.4 billion in 2012. This is accompanied by the surge in market share of Islamic banks from 1.8% in 2000 to 13.3% in 2012.

With a notable history of Islamic Banking, this study aims to empirically analyze the financial performance of retail and wholesale Islamic Banks in Bahrain during the period 2009 to 2013 using financial ratio analysis, standard deviation and correlation techniques. This study is useful in providing valuable information to relevant stakeholders such as bank customers, bank management and bank regulators on Islamic banks' financial performance in terms of efficiency and solvency.

2. Methodology

The study aimed to examine the financial performance of retail and wholesale Islamic Banks in Bahrain. Six retail and seven wholesale Islamic Banks were selected. This study utilized data collected from secondary sources, which are the annual reports of Islamic Banks in the Kingdom of Bahrain during the period 2009-2013. Financial ratio analysis, correlation analysis and standard deviation are used to measure, describe, examine and analyze the financial performance of retail and wholesale Islamic Banks. The obtained data were analyzed through "Statistical Package for Social Science" software or SPSS, and Microsoft Excel.

3. Review of Literature

There are numerous studies on the measurement and analysis of on financial performance of Islamic banks, conventional banks and also on the comparative performance analysis of Islamic and conventional banks in the GCC region, Malaysia, Pakistan and other countries. But after extensive literature review, it is observed that there are no existing studies on the comparative financial performance analysis of retail and wholesale Islamic banks in the GCC particularly in Bahrain. In this regard, a study on the on the financial performance of retail

and whole Islamic banks in Bahrain is carried out.

The following section includes review of previous research studies on the analysis of financial performance of Islamic banks, conventional banks as well as both segments of banks.

Reference [5] investigated the performance of Islamic banks using trend analysis and financial ratios during the period of 1990-1998 and showed that results of Islamic banks' performance is reasonably sound as compared to conventional banks over the study period. In addition, it was argued that Islamic banks were satisfactorily capitalized, profitable and stable. Reference [11] explored the analysis of the effectiveness of Meezan Bank Limited (MBL), the pioneering bank in Pakistan's Islamic banking sector, as opposed with five traditional banks in Pakistan. The study focused on the following aspects: profitability, risk, liquidity and efficiency for the period 2003 to 2007. The outcomes proposed that MBL was more solvent, less profitable, and less efficient in comparison to the median results of the five conventional banks.

Reference [1] employed the Stochastic Frontier Analysis (SFA) to examine Malaysian commercial banks during the period 1996 to 2002 and focused primarily on the determination of the impact of Islamic banking on performance. The study revealed that Malaysian banks tolerated moderate scale economies and yearly productivity change of 2.68%, which was driven primarily by Technical Change during the study period. Reference [7] stated that Islamic banks performed much better in the possession of capital adequacy and as such had better liquidity position than conventional banks. On the other hand, conventional banks have pioneered in the areas of management quality and earning capability. The study also found that the asset quality of Islamic and conventional banks were almost same. The loan recovery performance of conventional banks was better for the study period of 2005-2009. The findings also showed that the loan disbursement process of both Islamic and Conventional banks was not efficient and the profitability of Islamic banks was poor compared to conventional banks.

Reference [6] found that Islamic banks showed better performance in terms of equity to total assets whereas conventional banks performed better in return on average equity and cost to income ratio for the period of 2008–2011. The results showed that the profitability performance of Islamic banks were low even though there was better capitalization. The efficiency of Islamic banks was poor. It was also found that loan loss reserve to gross loans ratio which measures the asset quality increased for Islamic banks after the crisis. The capital adequacy of Islamic banks was better in pre and post crisis periods.

Reference [13] found that operating profit of Islamic banks were higher growth than conventional banks whereas net profit of conventional bank has a higher growth than Islamic banks. In terms of return on assets of conventional banks was better than Islamic banks and there was no similar movement in return on assets between Islamic and conventional banks. The study also showed that Islamic banks were financed more by equity whereas conventional banks were financed more by borrowed funds. The study also revealed that there was less impact of crisis on Islamic banks compared to conventional banks in the GCC region.

Reference [2] diagnosed the common performance features of Islamic banking in Sudan. The researchers

employed factor analysis to a considerable set of financial ratios in order to ascertain that the six factors namely: liquidity risk, coverage, efficiency, profitability, capital adequacy, and control are sufficient to explain most of the variation of the financial performance of Islamic banks in Sudan.

Reference [3] investigated the investment decision quality of Islamic banks in Bangladesh through the use of five financial ratios to selected banks. Their findings revealed that assurance of better profitability performance and operational efficiency and asset utilization does not rely solely on deposits and credits. They argued that investment quality of Islamic banks is much better as compared to conventional banks in Bangladesh. Reference [10] compared the development of the relative technical efficiency of Jordanian Islamic banks performance during the period 2005-2009 using the Malmquist Data Envelopment Analysis and Financial Ratio Analysis. The findings revealed that Jordanian Islamic banks are constantly efficient (using both approaches) during the study period and suggested that Jordanian Islamic banks can improve their efficiency by making decisions on reallocating their resources in order to sustain long-term growth and profitability.

Reference [9] examined the effects of capital structure on Islamic banks performance by focusing on a sample of 85 Islamic banks in 19 countries. The findings revealed that after control of the macroeconomic environment, financial market structure and taxation, Islamic banks' performance i.e. profitability measure favorably responds to an increase in equity or capital. Over and above, the result also suggested that capital structure has a positive effect on Islamic banks.

Reference [12] conducted a research on the evaluation and comparative analysis of the financial performance of all full-fledged Islamic banks in Pakistan and five selected Islamic banks from Malaysia based on compiled annual reports of 2006 to 2011 using ratio analysis. The results of the study revealed that the Malaysian Islamic banks are more profitable, liquid and thriving ahead as compared to Pakistani Islamic banks in terms of profit margin, profit to expense, earnings per share, cash ratio and loan to deposit ratio although there's no significant difference in return on asset, return on equity, current ratio, cash and portfolio investment to deposit and loan to asset ratio.

4. Empirical Results and Analysis

4.1. Staff Cost/Income Ratio of Retail and Wholesale Banks

The staff cost to income ratio measures the efficiency of the bank in terms of staff cost. It measures how staff costs are changing in relation to income.

It is clear from the Table 1 that the ratio of staff cost to income (SCI) is higher in the case of wholesale Islamic banks compared to retail Islamic banks. The ratio shows an increasing trend over the years for wholesale Islamic banks whereas for retail Islamic banks it surged but at a decreasing rate.

The SCI of retail Islamic banks grew at high rate in 2011 and continued in the same rate. Wholesale Islamic banks, experienced an increased in SCI but at much higher rate than retail banks in 2011 and remained in the same rate for the succeeding period.

Table 1: Staff Cost/Income Ratio of Islamic Banks

Year	Retail Banks				Wholesale Banks			
	Min	Max	Mean	Std. Deviation	Min	Max	Mean	Std. Deviation
2013	29	52	39.24	9.19	9.14	413.16	101.14	127.41
2012	27.86	56.18	36.23	10.70	19.28	359.11	88.39	109.23
2011	21.23	65.02	36.17	15.53	14.77	321.17	66.61	80.41
2010	14.7	26.48	19.58	4.24	9.53	47.50	28.51	12.10
2009	14.56	28.45	20.00	4.89	6.25	43.98	22.63	11.26

4.2. Cost/Income Ratio

The cost to income ratio is a tool used to measure the efficiency of a bank. It is similar to that of operating margin but in the case of cost to income ratio, the lower the ratio, the better off the bank. It shows the relationship between the cost and income. The cost income ratio is calculated by dividing operating cost with operating income.

Table 2: Cost/Income Ratio of Islamic Banks

Year	Retail Banks				Wholesale Banks			
	Min	Max	Mean	Std. Deviation	Min	Max	Mean	Std. Deviation
2013	53.58	121.71	82.03	22.94	9.14	2521.93	336.98	698.36
2012	52.05	107.73	76.71	19.80	19.28	1307.66	223.16	376.50
2011	48.3	345.05	110.63	115.89	24.48	925.74	159.47	237.47
2010	30.59	68.51	40.77	14.85	9.53	86.26	44.84	22.52
2009	30.46	51.58	37.25	7.95	6.25	59.37	34.74	19.47

Cost/Income ratio of retail and wholesale Islamic banks presented in Table 2 indicates that the ratio of cost to income is higher in the case of wholesale Islamic banks as compared to retail Islamic banks. The ratio reveals an increasing upward trend over the years for wholesale Islamic banks while the ratio of retail Islamic banks is building up at a decreasing rate over the years. For 2011, there was sudden growth in cost to income ratio both for the retail and wholesale Islamic banks. This increasing trend continued only for wholesale Islamic banks after 2011.

4.3. Asset Utilization Ratio of Retail and Wholesale Islamic Banks

Asset utilization ratio is a measurement of the extent to which the assets are utilized by relating the profits to the

total assets utilized by the banks. The parameters used here are the operating income and total assets. Asset utilization ratio is a tool employed to measure how well the assets of the bank are used to generate revenue. It signifies the efficiency of the management in employing its asset for productive use. It is computed by dividing the total revenue by the total assets of the banks.

Table 3: Asset Utilization Ratio of Islamic Banks

Year	Retail Banks				Wholesale Banks			
	Min	Max	Mean	Std. Deviation	Min	Max	Mean	Std. Deviation
2013	0.52	4.32	1.84	1.38	0.19	16.55	5.10	3.12
2012	0.7	4.15	1.93	1.44	0.75	6.16	2.49	4.26
2011	0.76	4.82	1.89	1.50	0.56	9.79	5.66	1.10
2010	2.17	5.37	3.60	1.44	1.67	33.68	10.05	11.23
2009	2.12	8.32	4.16	2.21	4.14	26.12	11.33	7.36

Table 3 demonstrates that the ratio of asset utilization is greater for the wholesale Islamic banks than the retail Islamic banks. Over the years of study, the ratio for wholesale Islamic banks reveals an increasing trend while retail Islamic banks' ratio is fluctuating.

4.4. Operating Efficiency Ratio

The operating efficiency ratio is a tool to measure the bank's productivity. The efficiency ratio signifies the bank's ability to support its net income from its operation. The operating efficiency ratio is calculated by dividing non-interest expense by net interest income of the bank.

Table 4: Operating Efficiency Ratio of Islamic Banks

Year	Retail Banks				Wholesale Banks			
	Min	Max	Mean	Std. Deviation	Min	Max	Mean	Std. Deviation
2013	53.58	121.71	82.03	22.94	15.83	2521.93	332.79	707.67
2012	60.51	107.73	62.17	75.80	30.86	1307.66	165.78	450.00
2011	48.30	345.05	87.36	144.22	24.48	925.74	171.47	237.47
2010	30.59	68.51	23.16	58.84	14.73	86.26	43.70	47.16
2009	30.46	41.1	13.57	54.99	10.07	59.37	26.99	46.77

Table 4 shows that the ratio of operating efficiency of wholesale Islamic banks is lesser than the retail Islamic banks. This indicates that retail Islamic banks were able to maintain operating efficiency. For wholesale Islamic

banks, the ratio demonstrates an increasing trend over the years of study. But in the case of retail Islamic banks, the ratio is volatile over the years.

4.5. Hypothesis Testing

Hypothesis 1

H_0: There is no significant difference between performance of retail and wholesale Islamic banks.

H_1: There is significant difference between performance of retail and wholesale Islamic banks.

Table 5: Measurement of Performance of Retail and Wholesale Islamic Banks

	Islamic Banks	Mean	Std. Deviation	Mean Difference	t - Value	Sig. (2- tailed)
Staff Cost Ratio	**Retail Bank**	30.24	9.63	-28.8107	-2.433	0.072
	Wholesale Bank	59.05	35.72			
Cost to Income Ratio	**Retail Bank**	69.48	30.69	-90.3598	-1.844	0.139
	Wholesale Bank	159.84	126.75			
Asset Utilization Ratio	**Retail Bank**	2.69	1.11	-2.9651	-1.848	0.138
	Wholesale Bank	5.65	4.51			
Operating Efficiency Ratio	**Retail Bank**	49.52	34.96	-89.2305	-2.125	0.101
	Wholesale Bank	138.75	122.25			

The various ratios measuring performance of retail and wholesale Islamic banks are depicted in Table 5. It is clear from Table 5 that the mean staff cost to income ratio of retail banks and wholesale Islamic banks are 30.243 and 59.0537 respectively. The mean difference between retail banks and wholesale banks are -28.8107, the t-value between the banks are -2.433 with p-value 0.072. Therefore, the null hypothesis is accepted i.e. the mean difference is not significant as the p-value is more than 0.05 with 95% confidence level.

The mean cost to income ratio of retail and wholesale Islamic banks is 69.4783and 159.8381 respectively. The mean difference between the banks are -90.3598, the t-value between the banks are -1.844 with p-value 0.139. This implies that the null hypothesis is accepted i.e. the mean difference is not significant. The mean asset

utilization ratio of retail and wholesale Islamic banks is 2.6853 and 5.6505 respectively. The mean difference between the banks are -2.9651, the t-value between the banks are -1.848 with p-value 0.138. Hence, null hypothesis is accepted i.e. the mean difference is not significant. The mean operating efficiency ratio of retail and wholesale Islamic banks is 49.5187 and 138.7492 respectively. The mean difference between the banks are -89.2305, the t-value between the banks are -2.125 with p-value 0.101. This asserts that the null hypothesis is accepted i.e. the mean difference is not significant and we conclude that, there is no significant difference between performance of retail and wholesale Islamic banks as the p-value is less than 0.05 with 95% confidence level.

Hypothesis 2

H_0: There is no positive correlation among staff cost to income ratio, operational efficiency ratio, cost to income ratio and asset utilization ratio of retail Islamic banks.

H_1: There is positive correlation among staff cost to income ratio, operational efficiency ratio, cost to income ratio and asset utilization ratio of retail Islamic banks.

Table 6: Correlation between Financial Performance Ratios of Retail Islamic Banks

		Staff Cost to income Ratio	Cost to Income ratio	Asset utilization Ratio	Operating efficiency Ratio
Staff Cost to income Ratio	**Pearson Correlation**	1	0.877	-0.975**	0.934*
	Sig. (2-tailed)	.	0.051	0.005	0.02
Cost to Income ratio	**Pearson Correlation**	0.877	1	-0.899*	0.95*
	Sig. (2-tailed)	0.051	.	0.038	0.013
Asset utilization Ratio	**Pearson Correlation**	-0.975**	-0.899*	1	-0.924*
	Sig. (2-tailed)	0.005	0.038	.	0.025
Operating efficiency Ratio	**Pearson Correlation**	0.934*	0.95*	-0.924*	1
	Sig. (2-tailed)	0.02	0.013	0.025	.

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

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

The results of correlation between financial performance ratios of retail Islamic banks presented in Table 6 revealed the existence of significant positive correlation of operational efficiency ratio with staff cost to income ratio and cost to income ratio with value 0.934 and 0.95 respectively which is significant at 0.05 level of

significance. The result of correlation analysis also depicts that asset utilization ratio is negatively correlated with staff cost to income ratio, operational efficiency ratio and cost to income ratio with values -0.975, -0.924 and -0.899 respectively which is significant at 0.01 and 0.05 levels of significance. On the basis of the above correlations, the null hypothesis is rejected as negative correlations are significant at 0.01 levels of significance. Thus, there is a negative relationship among asset utilization ratio with staff cost to income ratio, operational efficiency ratio and cost to income ratio.

Hypothesis 3

H_0: There is no positive correlation among staff cost to income ratio, operational efficiency ratio, cost to income ratio and asset utilization ratio of wholesale Islamic banks.

H_1: There is positive correlation among staff cost to income ratio, operational efficiency ratio, cost to income ratio and asset utilization ratio of wholesale Islamic banks.

Table 7: Correlation between Financial Performance Ratios of Wholesale Islamic Banks

		Staff Cost to income Ratio	Cost to Income ratio	Asset utilization Ratio	Operating efficiency Ratio
Staff Cost to income Ratio	**Pearson Correlation**	1	0.976**	-0.852	0.935*
	Sig. (2-tailed)	.	0.005	0.067	0.02
Cost to Income ratio	**Pearson Correlation**	0.976**	1	-0.733	0.98**
	Sig. (2-tailed)	0.005	.	0.159	0.003
Asset utilization Ratio	**Pearson Correlation**	-0.852	-0.733	1	-0.614
	Sig. (2-tailed)	0.067	0.159	.	0.271
Operating efficiency Ratio	**Pearson Correlation**	0.935*	0.98**	-0.614	1
	Sig. (2-tailed)	0.02	0.003	0.271	.

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

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

The result of correlation analysis of wholesale Islamic banks between various performance indicators showed the existence of significant positive correlation of cost to income ratio with operational efficiency ratio and staff cost to income ratio with value 0.98 and 0.976 respectively which is significant at 0.01 level of significance and staff cost to income ratio with operational efficiency ratio with the value 0.98 which is significant at 0.05 level of significance. The result of this analysis also illustrates that asset utilization ratio is negatively correlated with staff cost to income ratio, operational efficiency ratio and cost to income ratio which is not significant at 0.01 or

0.05 levels of significance. On the basis of above correlations, the null hypothesis is accepted as negative correlations are not significant at 0.01 or 0.05 levels of significance. Hence, there is a positive relationship among staff cost to income ratio, operational efficiency ratio and cost to income ratio.

5. Conclusion

The staff cost to income and cost to income ratio of retail banks are more than wholesale banks. The operating efficiency ratio also shows an increasing upward trend for the wholesale Islamic bank as compared to retail Islamic banks during the study period of 2009 to 2013. The asset utilization ratio of wholesale banks are higher than the retail Islamic banks. The correlation results reveal that there is a negative relationship between asset utilization ratio with staff cost to income ratio, operational efficiency ratio and cost to income ratio of retail Islamic banks. There is a positive relationship between staff cost to income ratio, operational efficiency ratio and cost to income ratio of wholesale Islamic banks.

This study has been performed on Islamic banks based in the Kingdom of Bahrain. To get a better understanding and generalization of findings, it would be interesting to analyze similar objectives by including Islamic banks from other countries. Future researches can study other determinants of bank performance by using different types of financial ratios, advanced statistical tools and longer time frame of study period.

The findings of this study is very useful for bankers, investors, public and policy makers especially the management team to understand and evaluate the weak and strong areas of Islamic banks' performance. Therefore, this research will guide senior management, policy makers and regulators on the gaps that need to be avoided and invest on the strengths that will improve their banks' financial performance.

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