



## Disparity of Performance Indicators of Islamic Banks: Study on Bangladesh

Mamunur Rashid

Ph.D. Student, Graduate School of Business, National University of Malaysia (UKM)

UKM Bangi, Selangor, Malaysia 43650

Hand Phone: 60166377245 E-mail: mamun.finance@gmail.com

Ainun Nishat

Department of Business Administration, East West University

43 Mohakhali C/A, Dhaka 1212, Bangladesh

Tel: 88-02-9339-863 E-mail: anishat@gmail.com

### Abstract

Islamic banking is still in emergent stage. However, according to Islamic Financial Services Board (IFSB), the industry is growing at the rate of 15% every year. As it is operating under a distinct system of banking, Islamic Shariah, Islamic banks have been facing immense competition from other Islamic banks and conventional banks of domestic and multinational origin. Moreover, banking is an important industry, which is responsible for the development of the global economic condition. Hence, analysis of performance and identification of the problems, at a continuous basis, are basic necessities for Islamic banks. This study considers 12 important financial ratios and common size income statement and balance sheet information of Islamic banks for 2001 to 2006. The ratios were compared with simple industry average and other banks after distributing these into three generations, namely; generation one, two and three. Results showed poor performance of Islamic banking sector in almost every aspect, especially in the areas of profit maximization, investor management and operating inefficiency. The report identified unique banking system, lack of efficient human resources, lack of marketing and awareness creating activities, absence of Islamic capital and inter-bank markets and lack of direct government control as precedent problems. The study reported to bring about immediate change in HR management and policy, changes in operating policy, increase in marketing and awareness creating activity, guidelines and supervision of the government through direct Islamic Banking Law.

**Keywords:** Islamic banking, Performance analysis, Common size statements

### 1. Introduction

Banking is a crucial global financial service industry. The fundamental functions enclosed by a bank comprise mobilizing deposit and deploying that in credits of divergent categories in contour with the requirement of various customers. The interest of the extensive variety of people is strongly related to banks' operation and performance. For the sake of investors' safety, regulators are also engrossed in monitoring performance of banks all over. More than 90% of financial assets of Bangladesh are owned by different category of bank, which is also largely contributing to the growth in the county's GDP and employment (Ali and Howlader, 2005). Since, banking activity affects the overall economic performance; incessant measurement of performance of these financial institutions has been indispensable.

The deteriorating health of the banking industry and surge for bank failures globally entitle for renewed interest in bank performance analysis (Mansur et al, 1993). Evaluating banking industry performance has been difficult, since the industry has close affiliation with various economic units. Not only the complex economic affiliation, banks are engaged with social welfare of diverse motives. Moreover, this activity has been even skinned as the banks have started to establish them as global, universal, technologically sophisticated, therefore highly regulated and customer driven financial institutions.

Islamic banks have enhanced a new dimension in banking initiated on religious standard. The industry is growing at an astounding rate over the last four decades Global Islamic financial services industry grew at a rate of 10-15% during

1995 to 2005. By the end of 2005, total asset value stood at US\$700 Billion and at an annual growth of 15% until 2010, the industry could growth to US\$1.4 Trillion and to US\$2.8 Trillion by 2015 (IFSB Website, 2008). With the increasing demand and competition against conventional financial institutions, it is indispensable to contrast performance of Islamic banks with other competitors.

This study contrasts financial performance and its deviations among different conventional and Islamic banks in Bangladesh with the following specific objectives:

1. Comparative profitability status of Islamic and other banks
2. Comparative riskiness of Islamic and other banks
3. Comparison of performance of Islamic Banks with the industry average and different generations of banks
4. Identifying points-of-riskiness for Islamic Banking Sector and recommendation on possible turning points

## **2. Bank Performance Analysis: Literature Review**

Banking sector is the key to economic growth in Bangladesh. It has significant contribution in country's GDP growth and in other economic developments. To develop a stagnant, war affected economy; the initial policy taken by Government of Bangladesh was to nationalize the banking sector. Ali and Howlader (2005) stated that one of the central causes of nationalization was to exaggerate control over the banking sector, which might result in regimented economical prosperity. As the market has been expanding with multi-level development activities, demand for more customer pleasant banking sector has started to emerge. Denationalization procedure started in 1982 and banking industry has started breathing again (Ali and Howlader, 2005). At present banking sector stands at over 6% growth in its contribution in GDP (Bangladesh Bank Annual Report, 2005).

What induce bank performance? Numerous studies have been conducted on bank sector performance analysis, impact of performance issues on economic growth, riskiness of banks, service development of banks, and financial behavior of banks. Other efforts can also be remembered that signified to establish an employable index of performance that can be evaluated time to time for inferring conclusion on the status of financial performance of the banks of different countries. Bangladesh Bank has been following the CAMEL rating to rank the banks based on their financial performance. Under this rating, significant issues like capital adequacy, asset management, managerial efficiency, earnings quality and liquidity are employed. However, no specific index has been identified to contrast the Islamic bank sector performance with that of the conventional bank sector performance. Moreover, according to our acquaintance, none of such studies conducted in Bangladesh could reach beyond to compare between Islamic and Conventional banking sector performance.

Bank performance analysis might hold various motives such as Shu (2002) conducted studies in Hong Kong to see affiliation between macroeconomic condition and average asset quality of banks. Gerlach and Peng (2003) study concentrated on lending opportunities, economic performance and regulatory measures in their bank sector performance analysis. Other studies examined competition and its impact on profit margins (Johnston and Buttle, 2001), the growth of non-interest income (Mansur et al, 1993), capital management (Mansur et al, 1993), cost efficiency (Kwan, 2002; Jiang et al, 2003; Bonin and Leven, 1996, Gunay, 2004), industry consolidation (Jackson, 1975), banking regulation (Kumbhakar and Sarkar, 2003).

Government regulation exerted approximately as an intermediate against profitability and productivity of banking sector in numerous countries. Many of the developed economies undertook massive deregulation effort to liberalize the banking sector since 1980s' (Kumbhakar and Sarkar, 2003). The relaxation of stringent regulation thereafter began to contribute in overall economic development, productivity, employment generation. In recent years, specific performance related issues such as profitability has been widely covered in numerous studies. Among others, the Return on Asset, Return on Equity, Interest Margin and Net Profit Margin were considered in analyzing the cause-and-effect of banks' success (Seiford and Zhu, 1999; Tatje and Lovell, 1999; Soteriou and Zenios, 1999).

Various other sets of performance analysis highlighted the successful structural or allocational presence of banks in specific territory. Number of employees, branch coverage, population coverage of branch and ATM network, per employee expense, credit and deposit ratio, number of deposit and credit accounts have been the focal point of study (Athanassopoulos, 1998; Harker and Zenios, 1999; Berger and Humphrey, 1997; Seiford and Zhu, 1999, Huda et al, 2007). Studies went beyond operational and allocative performance. Seiford and Zhu (1999), Gunay (2004), Johnston and Buttle (2001) studied the impact of bank's financial ratios on its stock market performance.

Among several studies conducted on banking sector of Bangladesh, Siddique and Islam (2001) identified some extensive features which affect the profitability of the banking sectors. They have drawn a regression analysis and found the result significant by taking profitability as the dependent variable and factors like number of employees, number of branches, amount of investment, amount of asset, amount of time deposit and number of advance account as independent variables.

Financial intermediation in Islamic framework is based on profit-loss sharing principles (Chapra, 1985) unlike on debtor-creditor relationship (Hassan & Tariq, 1992), where a conventional principle of prefixing profit has been replaced with a variable rate of return based on real economic performance (Mangla & Uppal, 1990). In acquaintance of the differences between conventional and Islamic financial banks, some frequent arguments have to be identified to analyze and differentiate operational and financial performance.

Ahmad and Hassan (2007) analyzed the asset quality, capital ratios, operational ratios such as net profit margin, net interest income, income to asset ratio, non-interest income to asset ratio and liquidity ratios for seven years from 1994 to 2001. Islamic banks on an average were the preeminent performer in terms of lowest non-performing to gross loan ratio, capital funds to total asset ratio, capital funds to net loans ratio, capital funds to short-term loan ratio, capital funds to liabilities ratio, non-interest expense to average asset ratio and most of the liquidity ratios. Therefore, it can be concluded that Islamic banks are outperforming others in capital adequacy and adequate liquidity. Except Return on Equity Ratio, Islamic Banks were at par with the industry in all other cases.

Sarker (1999) analyzed the productive efficiency, operational efficiency, allocative efficiency, distributive efficiency and the stabilization efficiency of Islamic banks in Bangladesh. However, the study did not illustrate any industry average of the ratios that could be used further to compare performance of Islamic banks with other competitors considering similar platform. Therefore, generalization of the result was not feasible. Nonetheless, the study found Islami Bank Bangladesh Limited as the leader in the market in profit maximization ratios, loan recovery ratios, and branch and employee coverage during the year 1998 to 2004.

The central bank of Bangladesh has recently established the strategy for merger of banks and also has increased the capital requirement of chartering a new bank to 400 Crore Taka. (Bangladesh Bank Press Relies, 2007). To meet the challenge of Basel II, which might increase the capital reserve of banks, banks will approach to capital market with new IPOs' or they will seek for possible mergers with other successful and largely capitalized banks. This might create strong pressure on the capital market as well. Moreover, restructuring of large NCBs' is in progress and government of Bangladesh is sincerely thinking to initiate a separate law on Islamic Insurance. So, a vital alteration possibly will transpire in near future in banking sector, which would entail examining the stability and strength of the sector.

### 3. Banking Sector Performance in Bangladesh: Current Status

Banking sector in Bangladesh comprises of Nationalized Commercial Banks (NCBs'), Development Financial Institutions (DFIs'), Private Commercial Banks (PCBs') and Foreign Commercial Banks (FCBs'). Majority of the banks are privately owned and are from second generation (*See Annexure*). Total number of banks became 49 in 2004 from 50 of 1998 due to merger of a FCB. Banks were historically concentrating mostly on the rural areas, since the basic objective was rural socio-economical development (Uddin et al, 1985; Ali and Howlader, 2005, p. 65).

#### Insert Table 1 Here

Networking of branches in the urban areas in 2004 has increased noticeably (Table 1). Only the DFIs' have the majority of the branch concentrated in the rural areas as because their core objective is to develop rural agriculture, small industries and community based infrastructural development. PCBs' have average 72% of their branches in the urban areas mostly in Dhaka, Chittagong and Sylhet divisions (Schedule Bank Statistics, 2004). All of the FCB's branches are located in the urban areas since their concentration is high-income group. Significant shifting occurs in deposit mobilization between 1998 and 2004 among different types of banks. Table 01 show that bankers are mostly collecting urban deposits. This was ensued because of low-income generation in the rural areas, higher migration of the rural people to the urban areas and higher cost-benefit ratio for the bank operation in the rural areas (Huda et al, 2007). Though NCBs' have been pioneering the deposit collection from the public and private deposits; PCBs' are rapidly expanding market with creative service offering. Huda et al (2007) study found out that the PCBs' and the FCBs' are more focused in target market selection and service offerings. However, fast disbursement of retail loans without verifying the customer carefully has made few private banks very risky compared to others.

Credit deployment has significantly amplified among the competing groups. Following the urban credit, credit disbursement in the rural areas has improved. Some of the private banks are lately opening branches in semi-urban and rural areas. But still the proportion of credit deployment has been noteworthy in the urban areas and this trend is being sizable to the PCBs' (Schedule Bank Statistics, 2004). FCBs' have been very much keen to monitor the credits and their ratio of NPL to total loans is -1.4% in 2004. As table 1 show that PCBs' have been very efficacious in controlling the bad loans since the ratio is 4.6% in 2004 compared to a very high ratio of 26.3% in 1998. Most of the banks have access liquidity accept DFIs'. Liquid Reserve Ratio is the highest for the FCB's. LRR for FCBs' is 39.8% in 1998 and 37.8% in 2004. Due to undecorated lending risk management, the required capital becomes higher for DFIs' and NCBs', since they could not able to meet the CRR requirement successfully. Out of many, deprived political administration and lack of customer management were largely responsible for this (Rashid and Huda, 2007).

#### Insert Table 2 here

Islamic banking in Bangladesh started its journey in 1983 with the inauguration of Islami Bank Bangladesh Limited. The number of banks offering only Islamic banking appeared to be 6 at the end of June 2007 (Table 02). 10 conventional banks are offering Islamic banking services through separate branches. Number of branches in June 2007 of Islamic banks has increased by 12 from June 2006. Approximately 28% employees of the total Private Sector banks are from Islamic Banks. By the end of June 2007, 14.3% of the total bank sector deposit was collected by Islamic banks, which was 9.67% at the end of June 2006. Islamic banks' credit with respect to total industry credit grew up to 17.2% at the end of June 2007, which was approximately 3% higher than that of June 2006. Following this higher acceptance, one entirely conventional bank, EXIM Bank, was been transformed to Islamic Bank from 2003. Few others are in the process of such conversion. Competition has developed severely among pure Islamic, conventional Islamic windows, multinational conventional and Islamic ventures in Bangladesh, which has constructed the cornerstone of appropriate performance intervention for the Islamic Banking industry.

#### 4. Methodology

This study goes beyond what Ahmad and Hassan (2007) and Sarker (1999) did. In their studies, they have simply identified some ratios to present the then status of Islamic banks. We have collected annual reports of commercial banks those are listed with Dhaka Stock Exchange for 2001 to 2006. Banks were then categorized based on generations; the first generations (banks inaugurated in the 80s'), second generations (banks started in during 90s') and the third generations (banks launched after 90s'); and also based on whether they are operating on Islamic or conventional principles. A list of these banks is given in the annexure. Seven return and five risk ratios were calculated. BOX 01 below shows the list of return and risk ratios. Return ratios are related to profitability and efficiency. For Risk ratios, this study has only measured credit and capital, two very important, risks of commercial banks.

#### Insert BOX 1 here

Common size income statement and balance sheet were also prepared to see the impact of specific return and risk issues on the banks' operation. Mean of ratios and common size percentages were calculated for three generations individually, for Islamic banks and also for the entire banking industry during years 2001 to 2006. Common size income statement was prepared by dividing all the income statement items with Interest Income. Common size balance sheet was prepared by dividing all the balance sheet items, assets, liabilities and owners' equity, with total assets.

##### 4.1 Return Ratios

An Earnings per Share (EPS) measures the net income every share, which consequences in direct income allocated to shareholders if 100% distributed in Annual General Meeting (AGM). No investor hates direct income to go up and therefore it has direct impact on the market price of the share as well. Therefore, it shows the operational and market efficiency for a company. Therefore, higher the EPS better seems to be the performance of the company. However, higher EPS would reduce Price Earnings multiples. However, obviously higher P/E ratio shows eagerness of the investors for the share of the company. Perhaps one of the best measures of investment-profitability relationship is Return on Asset (ROA). Higher the ROA, higher return on investment and the expected benefit. Another important measure of profitability is the Return on Equity (ROE) ratio, which is mainly investigated to see how much is the earnings for the shareholders. Higher ROE would motivate the investors to buy shares of the company, which will eventually increase the market value of the company. Net Interest Margin (NIM) measures the amount of operating income to earning asset. Higher the NIM ratio, higher is the quality of the management decision. Because higher operating income is the result of higher interest income or comparative lower interest expense, which is charged upon the earning assets such as Call Money, Short-term Investment, and loans and investment. Net Profit Margin (NPM) is nevertheless another measure of profitability, which is calculated by dividing net income after tax with interest income. NPM results in the measure of net profit on total revenue. Higher NPM ratio shows better expense and revenue management from the part of the management. Last Return Ratio, Efficiency Ratio, shows how total input and output in the banking process are managed. The ratio is calculated by dividing input (Expenses and Provisions) with the output (Net interest income and other operating income). Therefore, lower efficiency ratio satisfies the investors' with a positive node on the better quality of the management.

##### 4.2 Risk Ratios

Banks manage risk. The birthplaces of these risks are credit disbursement, deposit collection, international commitments through Letter of Credit activities, changes in interest rates (rate of return) on loans and deposits, sudden breakdown of systems and operations. Capital Adequacy Ratio (CAR) measures the amount of capital reserve held for every unit of Risk-Weighted Asset (RWA). Higher percentage of CAR would not directly reduce the credit risk but would help to survive out of temporary credit disturbances since capital works as a cushion against risk. Non-Performing Loans (NPL) to Total Loans ratio indicates the level of direct credit risk. Higher Credit to deposit ratio shows that the management has been extremely efficient in deploying higher amount of deposit in earning asset. However, higher Credit to Total Asset ratio might increase the chances on being looser, otherwise with effective

governance and control. Consequently, combination of Credit to Total Asset, Credit to Deposit and Non-Performing Loans to Total Loans ratio will determine the level of credit risk for any bank. For in-depth credit risk analysis, we have also considered provision for bad loans (Classified Loans) to Total Loans ratio. Higher the percentage of provision kept, lower is the risk to the investors. This would motivate the investors to deposit more with the bank. However, higher provision kept sometimes give negative signal to the markets regarding the increasing amount bad loans, which might consume way investor’s funds.

The study has followed a simple method. After calculating the return and risk ratios for different generations of banks, we have calculated the mean and standard deviation of ratios for six years from 2001 to 2006. Coefficient of variance (CV) for both return and risk ratios were calculated using the following equation. CV measures the unit of standard deviation for per unit of mean, which will determine the riskiness of the variable. A ratio with higher CV indicates higher elasticity, therefore, higher risk.

$$CV = \frac{\sigma_{it}}{\mu_{it}} \dots\dots\dots (1)$$

In above equation (Equation Number 01),  $\sigma_{it}$  is the standard deviation of any ratio  $i$  for any specific time  $t$ .  $\mu_{it}$  represents mean of any ratio  $i$  for any specific time  $t$ . CVs’ of different ratios can be ranked (\* = highest to # = lowest) to see which bank or category of banks are risky, less risky or highly risky. CV also gives future direction on how should these banks operate to get rid of the present situation. Same procedure has been followed for Common Size Income Statement and Balance Sheet figures (in decimal format). CV of Common Size statement figures were ranked for better interpretation of the data. The report was concluded reporting potential of generating more returns and riskiness of Islamic banks based on ranking of the mean ratios (return and risk ratios) and CV of ratios and CV of Common size figures.

**5. Results**

*(Insert Table 4 Here)*

*5.1 Mean and Standard Deviation of the Ratios (2001 to 2006)*

To analyze the return part of banks, this study has considered Earning per Share (EPS), Price Earnings Ratio (P/E), Return on Asset Ratio (ROA), Return on Equity (ROE), Net Interest Margin (NIM), Net Profit Margin (NPM) and Efficiency Ratio.

Table 04 shows that Banks in Generation 01 had the highest Mean EPS of 156.265 and the lowest mean EPS (42.780) is with Generation 03 Banks. Islamic banks had the highest mean P/E ratio of 185.74 times and Generation 03 was the lowest with 5.547 times. The Generation 03 Banks had the highest Mean ROA (1.5%), ROE (2.42%) and NPM (18%), and the Generation 01 Banks had the lowest ROA and ROE ratios of 0.6% and 12.7% respectively. The Islamic Banks had the lowest mean NPM ratio of 8.4%. The entire competing groups (G1, G2, G3, Islamic Banks and Industry Average) were indifferent on Net Interest Margin (NIM) ratio, which is close to Industry average (2.6%). Since efficiency ratio shown in negative form, higher the efficiency ratio will reduce performance; Generation 02 Banks was in good position with the lowest Efficiency ratio (47.8%) and Generation 01 Banks was in worse position with highest Efficiency ratio of 72.0%. Islamic banks performed averagely with ROA, ROE and Efficiency ratio.

To analyze the Risk part of the banks, Capital Adequacy Ratio (CAR), Non-Performing Loans to Total Loans (NPL to TTL), Credit to Deposit, Credit to Total Asset and Provisions for Classified Loans to Gross Loan (Prov. For CL to Gross Loans) were undertaken.

From Table-04, Generation 03 Banks had the highest mean CAR and Credit to Deposit ratios, of 10.8% and 79.2% respectively, whereas Generation 01 Banks had the lowest CAR of (9.0%), Credit to Deposit Ratio (76.9%) and Credit to Total Asset Ratio (62.3%) ratios. However, Generation 01 banks had the highest “NPL to TTL” Ratio and “Prov. for CL to Gross Loan” Ratio of 13.8% and 1.3% respectively. Islamic Banks were in moderate position in terms of every risk ratio, but have the highest position only in Credit to Total Asset ratio (67.9%). As stated earlier, higher credit to total asset ratio is a cross-road ratio, which represents a positive sign since the earnings may increase but will be a negative one with the increase of credit/ default risk.

Islamic banks had the highest standard deviation of EPS (213), NPM (8.8%) and P/E ratio (429) and moderate deviation (at par with the industry) in ROA, ROE, NIM and Efficiency Ratio. Islamic banks have been always doing better with Capital Adequacy Ratio, which shows the lowest standard deviation of 0.9%. Except credit to deposit ratio (11.5%), Islamic banks on average are performing moderate in all other risk ratios (NPL to Total Loans ratio, Credit to total asset ratio and provision for classified loans to total loan ratio).

*(Bring Table 5 Here)*

### 5.2 Coefficient of Variance (CV) of the Ratios (2001 to 2006)

Coefficient of Variance (CV) for different ratios is shown in Table 05. Higher CV signifies higher risk for per unit of mean. From the table of 'CV of Return Ratios', it is seen that the Generation-3 Banks have in overall best position with a lowest CV from among the options of Bank. In Generation-3 Banks, the CV of EPS, P/E, ROA, ROE, NIM and NPM ratios are 0.15, 0.97, 0.07, 0.11, 0.09 and 0.08 respectively. The Islamic banks put in worst position with highest CV in EPS (1.91), P/E (2.31), ROA (0.70) and NPM (0.95) ratios. In case of Generation-1 Banks, it falls in best position with lowest CV in Efficiency ratio (0.13), but places in worst position with highest CV in ROE and NPM ratios, 0.44 and 0.44 respectively. Only Generation-2 Banks places in worst position with highest CV in Efficiency ratio, 0.63.

From the Table of 'CV of Risk Ratios', CV of Risk Ratios are almost relatively same with each other options and not vary deviates from the Industry Average, except 'NPL to TTL' and 'Prov. for CL to Gross Loan'. For both ratios, Generation-1 Banks are in worst position with highest CV 0.64 and 0.40 respectively. In case of NPL to TTL, Generation-2 Banks are in a best position with lowest CV (0.29), and in case of Prov. for CL to Gross Loan, Islamic Banks are in relatively good position with lowest CV, 0.25.

*(Insert Table 8 Here)*

### 5.3 Mean and Standard Deviation of Common Size Items

#### 5.3.1 Balance Sheet

Cash and cash equivalents are the highest with Islamic banks (23%, which is 8% higher than the industry average), since they have limited freedom of investing their reserve funds in marketable securities. Unfortunately, the standard of cash and equivalent is the second highest with Islamic banks (5% against an industry average of 4%). This variation elucidates that customers withdraw fund very frequently, which may increase liquidity risk. Total loans and investment (*investment for Islamic banks*) is observed to be the lowest for all Islamic banks during 2001 to 2006 (70% against an industry average of 74%). Standard deviation of loans and investment is also higher than industry average (8% against an industry average of 7%). This variation says that under competitive environment, Islamic banks would be in trouble with profitability ratios, which is already shown in Table 04 (Means and standard deviation of return ratios).

Islamic banks are mostly liability dependent (96% debt and only 4% of equity, whereas industry average of capital structure is 94:6%). This would create positive pressure on liquidity risk of the bank. Due to higher number of branches scattered throughout the country, Islamic banks' deposit amounted 87% compared a lower industry average of 82%. However, the standard deviations of deposits and liabilities were on an average 1% higher than the industry averages for the same during 2001 to 2006.

#### 5.3.2 Income Statement

For preparing common size income statement, we have divided all the items with interest income (Table 08). Let us compare Total operating income as a percentage of interest income with total operating expenses as a percentage of interest income for industry average and Islamic banks. The ratio is 2.29 times for the industry but 2.10 times for the Islamic banks (with the same level of standard deviations for both the industry and the Islamic banks). This means, for the same level of operating income, Islamic banks had higher level of operating expenses or vice versa. This is again pointing towards a possible reduction of profitability, which is supported by the data in Table 08. Net income to interest income rate is 10% for Islamic banks, whereas the ratio is 4% higher for the industry. Generation 3 banks crossed the benchmark by another 3% (means, 17% is the net income to interest income ratio). The situation was even worse when the standard deviation of net income to interest income ratio was as high as 7% for the Islamic banks compared to only 3% for the industry and 2% for the third generation banks. One might argue that even if the net income to interest income ratio is the lowest but the retained earnings to interest income ratio is one of the highest for the Islamic banks. One answer could be that investors were deprived off the higher level of income or the Islamic banks saved larger amount for further development. However, the standard deviation for retained earnings to interest income ratio (6% for Islamic banks and only 2% for the industry) has proved that Islamic banks should be more careful with investor management strategy. Investors should have been receiving higher amount of profit. Last but not the least, the provision for classified loans to interest income ratio was 3% lower for the Islamic banks compared to industry average (8%). This shows that amount invested was recovered at a higher level of success (standard deviation for provision against classified loan is only 1%), since higher level of provision gives negative signal to the market.

*(Insert Table 09 here)*

### 5.4 Coefficient of Variance (CV) of Common Size Income statement and Balance Sheet

Islamic banks are in awful form due to the highest amount of variation in most of the balance sheet items. However, the risk is significantly lower with common size income statement (Table 09). Except cash and total deposit, Islamic banks were facing tremendous pressure in maintaining an optimal balance of assets, liabilities over 2001 to 2006. Interest expense to interest income ratio (CV = .08) and Retained earnings to interest income ratio (CV = 0.58) were two places

where Islamic banks were having trouble. However, with other income and expense figures, CV of Islamic banks were under control. This analysis concludes that Islamic banks should concentrate on interest expenses, dividend and equity management and asset management.

(Insert Table 10 here)

### 5.5 Ranking the Mean of the Ratios (2001 to 2006)

Islamic banks on average performed mediocre compared to other groups. However, the average P/E ratio has been the highest for Islamic banks and Net Profit Margin was the worst with Islamic Banks. On an average for return ratios, Generation 3 banks can be said to be efficient compared to other groups and the Generation 1 banks are inefficient in most of the cases.

As stated earlier Islamic banks are distress with their risk ratios. They have the worst performance in 3 out of 5 risk ratios. Capital Adequacy ratio should be higher for all the banks to consume marginal credit risk. However, Islamic banks have had the lowest Capital Adequacy Ratio (CAR). Higher credit to total asset ratio escalates amount of credit risk. As a result, a lower credit to total asset ratio was expected. Percentage of credit to total asset for Islamic banks was approximately 68%, which was the highest among all other groups. It is worth mentioning here that higher credit to total asset may increase profitability, nevertheless, we have considering potential credit risk of the banks and higher credit compared to asset growth may increase number of defaulters. Amount of Non-performing loans was also elevated for Islamic banks (second highest of 7.5%, where highest was 13.8% and lowest was 5.3%). In view of the fact that, credit to total asset and percentage of non-performing loans are giving bad indicators for Islamic banks, it is expected the banks should have higher provision (reserve) against classified (non-performing loans) loans. Unfortunately, provision against bad loans is the lowest for several banks in Bangladesh and Islamic banks were in that list. The percentage of provision to gross loan was only 0.6% for Islamic banks whereas the highest amount of reserve was 1.3% for generation 1 banks.

## 6. Concluding Remarks

### 6.1 Summary of the Findings

The following points came out while analyzing the findings of this study:

1. Revenue management of Islamic banking sector countenance trouble during 2001-2006. Even with higher level of EPS and P/E ratio; lower efficiency ratio, NPM and NIM ratios will raise questions against expected development of shareholders' value maximization. Moreover, majority of return indicators such as EPS, P/E, ROA, and NPM resulted strayed from the industry average.
2. Operating efficiency illustrated less variation even though interest expense (expenses due to profit paid to the depositors) has turned aside the highest. Change in cost of deposit is an usual approach of Islamic banking since it cannot be fixed. However, change in the amount of total interest expense surfaces the question of inefficiency. Deviation with income statement of Islamic Banks was lower than that of the contestants, which shows less riskiness of operating results.
3. Investments and liabilities of Islamic banks appeared off-putting. It is furthermore unlikely that Islamic banks have invested in call money market while the conventional environment prevailing. Investment in loans and advances was the highest deviating factor along with borrowings, total liabilities, and total equity. Change in total equity has engrossed concentration because of the highest deviation of retained earnings each year. Even though the EPS was one of the highest, retained earnings has been very much low for the Islamic banking sectors representing less concern for owners. Deviation in loans and investment has occurred due to less awareness creation among the investors.
4. Due to unavailability of local capital market, Islamic banking sectors have been suffering from investing idle fund in liquid venture. The largest source of fund was deposit followed by a tiny portion of equity capital. Unless there is diversity of sources of fund for Islamic banks, there will be instability prevailing in all stock market related ratios like P/E ratio, Return of Equity Ratio and capital adequacy ratio. Islami Bank Bangladesh Limited has recently issued a Mudaraba Perpetual Bond, however the performance of the bond as yet is below standard.
5. Lack of awareness and understanding clogged the ways of credit disbursement for Islamic banks. Credit to total asset ratio has been the lowest for Islamic banks compared to other generations and industry average. Islamic microcredit operation has been started long ago, which has been however mostly unnoticed by majority of the customers.
6. Islamic banks have performed poorly in terms of the percentage of non-performing loans, which has increased the requirement for income cut to escalate the amount of provision against classified loans (bad loans).

## 6.2 Discussions of the recommended guidelines

Inconsistency in operation has been the biggest finding for Islamic banks in Bangladesh. Sudden change in loans and advances and less costly supply of fund will threaten the survival of Islamic banks against giant conventional counterparts. Even though change is inevitable for regular style of Islamic banking, however, inconsistency is the problem. To reduce these disparities of performance on common grounds, the following guidelines are recommended:

1. Increasing the efficiency of the working procedure by clearly stating the goals/targets along with the presence of effective incentive mechanism.
2. Establishing early warning system and training the employees/managers to provide feedback on possible shift in values with respect to riskiness in certain highlighted areas such as Net Income, Interest expense (profit paid to depositors/ investors), interest income (profit earned from investment) and loans and advances.
3. Hiring and developing efficient employees, not just anybody spirited by the virtue of Islam, but with education and experience in Banking, economics and finance.
4. Increase in interest expense and deviations in loans and advances give notions of changes in customer perception. Islamic banks must publicize their ideas to the people irrespective of whether Muslim or non-Muslim along with necessary awareness creation program, if possible training program using Electronic and Print Media, to increase public understanding. Research on customer preference should be carried out on a regular basis to oversee the disparity occurring in the mind of the people.
5. The purpose of rigorous and objective analysis to develop a quality-credit culture should be brought in. This will ensure justification of non-performing loans from the past year and will edify the mistakes to recover the situation for the next years. Establishment of an effective corporate governance culture along with shariah principle is a vital requirement to reduce the credit risk, since the rule of thumb for Islamic banking is the business guided by Shariah Principles not just by the efficiency of the practice.
6. Government should introduce a precise guideline for Islamic banks; however a separate law may provide better result, and they also should monitor the deviations with respect to industry. About the cost of deposit, which can be fixed for conventional banks very easily by the central bank, Government should provide an explicit procedure of deploying market forces into actions on common grounds for both Islamic and conventional banks. A separate money market mechanism for Islamic banks may result in lower idle fund in the balance sheet, which may also help to reduce liquidity crisis of Islamic banks.
7. Marketing programs should be increased to aware the market about the utility of the services offered by Islamic banks.

## References

- Ahmad, A. U. F., & Hassan, M. K. (2007). Regulation and performance of Islamic banking in Bangladesh. *Thunderbird International Business Review*, 49(2), 251-277.
- Ali, A., & Howlader, R. A. (2005). *Banking Law and Practice*. Agami Prakashoni, Dhaka, Bangladesh.
- Athanassopoulos, A.D., & Labroukos, N.S. (1999). Corporate customer behavior towards financial services: empirical results from the emerging markets of Greece. *International Journal of Bank Marketing*, 17(6).
- Bangladesh Bank. "Schedule Bank Statistics," Various Editions.
- Bangladesh Bank. (2005). *Annual Report of Bangladesh Bank*, Bangladesh Bank, Dhaka, Bangladesh.
- Bangladesh Bank. (2007). *Press relies on new capital requirement for commercial banks by Banking Regulatory and Policy Department*. [Online] Available: [www.bangladesh-bank.org](http://www.bangladesh-bank.org) (Retrieved from January 2008).
- Berger, A.N., & Humphrey, D.D. (1997). Efficiency of financial institutions: International Survey and directions for future research. *European Journal of Operation Research*, 98, 175-212.
- Bonin, J.P., & B. Leven (1996). Polish Bank Consolidation and Foreign Competition: Creating a Market-Oriented Banking Sector. *Journal of Comparative Economics*, 23, 52-72.
- Chapra, M. U. (1985). *Towards a just monetary system*. Leicester, UK: Islamic Foundation.
- Gerlach, S., & Wensheng, P. (2003). Bank lending and property prices in Hong Kong. *HKIMR Working Paper*, 12/2003.
- Gunay, E. N. O. (2004). The Impact of Deregulation on Market Structure and Performance in the Turkish Banking Industry. *Economic Review*, 15(2).
- Harker, P.T., & Zenios, S. A. (1999). *Financial Institutions: Efficiency, Innovation, Regulations*. In Press, Cambridge University Press, Cambridge, U.K.



- Hassan, M. K., & Tariq, H. (1992). Performance evaluation of private sector commercial banks. *Indian Journal of Economics*, 73(289), 159–180.
- Hempel, G. H., & Simonson, D.G. (1999). *Bank Management: Text and Cases*. Wiley and Sons, 5<sup>th</sup> Ed.
- Huda, S., Chisty, K. K. S., and Rashid, M. (2007). An Evaluation of the Role of Technology and Relationship on Banking: Study in Bangladesh. *BRAC University Journal*, 4(2), 41-53.
- IFSB website. (2008). Islamic financial services industry development: ten-year framework and strategies. Joint initiative by *Islamic Development Bank (IDB)*, *Islamic Financial Services Board (IFSB)*, *Islamic Research and Training Institute (IRTI)*. Downloaded from the following link of IFSB [Online] Available: <http://www.ifsb.org/index.php?ch=4&pg=140> (Retrieved from January 1, 2008)
- Jackson, W. (1975). Commercial Bank Regulation, Structure and Performance. *The Journal of Finance*, 30(3).
- Johnston, B., & Buttle, J. (2001). A Performance Analysis of Major Banks in Australia. *Asia Money*, A Report Published by Arthur Andersen.
- Jiang, G., Tang, N., Law, E., & Sze, A. (2003). Determinants of bank profitability in Hong Kong. *Hong Kong Monetary Authority Research Memorandum*. [Online] Available: [http://www.info.gov.hk/hkma/eng/research/RM\\_on\\_Bank\\_Profitability.pdf](http://www.info.gov.hk/hkma/eng/research/RM_on_Bank_Profitability.pdf)
- Kumbhakar, S.C, & Sarkar, S. (2003). Deregulation, Ownership and Productivity Growth in the Banking Industry: Evidence from India. *Journal of Money, Credit and Banking*, 35(3).
- Kwan, S. (2002). The X-efficiency of commercial banks in Hong Kong. *HKIMR Working Paper*, 12.
- Mansur, I., Zangeneh, H., & Zitz, M. S. H. (1993). The association between banks' performance ratios and market determined measures of risk. *Applied Economics*, Vol. 25, pp. 1503-1510.
- Mangla, I. Y., & Uppal, J. Y. (1990). Islamic banking: A survey and some operational issues. *Research in Financial Survey*, 2(179), 185- 215.
- Soteriou, A., & Zenios, S. A. (1999). Efficiency, Profitability, and Quality in the Provision of Banking Services. *Working Paper in Department of Public and Business Administration*, University of Cyprus, Nicosia, Cyprus.
- Seiford, L. M., & Zhu, J. (1999). Profitability and Marketability of the Top 55 U.S. Commercial Banks. *Management Science*, 45(9), 1270-1288.
- Sarker, A. A. (1999). Islamic Banking In Bangladesh: Performance, Problems and Prospects. *International Journal of Islamic Financial Services*, 1(3).
- Siddique, S.R., & Islam, A.F.M.M. (2001). Banking sector in Bangladesh: Its contribution and performance. *Journal of Business Research*, 3, 63-73.
- Shu, C. (2002). The impact of macroeconomic environment on the asset quality of Hong Kong's banking sector. *Hong Kong Monetary Authority Research Memorandum*. [Online] Available: <http://www.info.gov.hk/hkma/eng/research/RM20-2002.pdf>.
- Tatje, G.E., & Lovell, C.A.K. (1999). Profits and Productivity. *Management Science*, 45(9), 1177-1193.

## Annexure 01: List of Banks based on Generations and Religious principles

<b>First Generation Banks</b>	
AB Bank Limited	
The City Bank Limited	
United Commercial Bank Limited	
National Bank Limited	
AL Baraka Islamic bank (ICB Islamic Bank)	Islamic Bank
IFIC Bank LIMITED	
Islami Bank Bangladesh LTD	Islamic Bank
Pubali Bank Ltd	
Uttara Bank Ltd	
<b>Second Generation Banks</b>	
Eastern Bank Limited	
National Credit & Commerce Bank Limited	
Prime Bank Limited	
South East Bank Limited	
Dhaka Bank Limited	
Al-Arafah Islami Bank Limited	Islamic Bank
Social Investment Bank Limited	Islamic Bank
Dutch-Bangla Bank Limited	
<b>Third Generation Banks</b>	
Mercantile Bank Limited	
Standard Bank Limited	
One Bank Limited	
EXIM Bank Limited	Islamic Bank (from 2003)
Bangladesh Commerce Bank Limited	
Mutual Trust Bank Limited	
First Security Bank Limited	
The Premier Bank Limited.	
Bank Asia Limited	
The Trust Bank Limited	
Shahjalal Bank Limited	Islamic Bank
Jamuna Bank Limited.	
Brac Bank Limited	

Table 1. Performance Highlights of Banking Sector of Bangladesh

Type	1998									
	No of Banks	Branch %		Deposit %		Credit %		% of NPL	CAR	LRR
		Rural	Urban	Rural	Urban	Rural	Urban			
NCB	4	63.81	36.19	29	71	18.88	81.12	35.6	5.2	24.4
DFI	4	87.55	12.45	51	49	38.54	61.46	59.1	6.9	16.6
PCB	30	27.15	72.85	10	90	2.17	97.83	26.3	9.2	24.8
FCB	12	0	100	0	100	0	100	0.1	17.1	39.8
Type	2004									
	No of Banks	Branch %		Deposit %		Credit %		% of NPL	CAR	LRR
		Rural	Urban	Rural	Urban	Rural	Urban			
NCB	4	63.37	36.63	24	76	11.98	88.02	21.15	4.1	22.8
DFI	5	88.63	11.37	43	57	46.54	53.46	23.37	9.1	11.2
PCB	30	25.81	74.19	5	95	2.28	97.71	4.67	10.3	23.1
FCB	10		100	0	100		100	-1.45	24.2	37.8

Source: Bangladesh Bank Annual Report, Schedule Bank Statistics; Various editions

CAR = Capital Adequacy Ratio. LRR = Liquid Reserve Ratio.

NCB = Nationalized Commercial Bank. DFI = Development Financial Institutions.

NPL = Non-Performing Loans. FCB = Foreign Commercial Bank.

PCB = Private Commercial Bank.

Table 2. Islamic Bank Statistics in Bangladesh

Factors	June 2006	June 2007
No of Banks	6	6
Conventional Banks providing Islamic Banking	10	10
No of Branches with Islamic Banks	308	330
Islamic Branches with Conventional Banks	20	21
% of Employees in Islamic Banking with Private Commercial Banks	27.73	27.73
% of Employees in Islamic Banking in Banking Industry	10.73	10.73
% of Islamic Deposit in Industry Deposits	9.67	14.3
% of Islamic Deposits in Private Banks' Deposit	28.46	23.6
% of Islamic Credit in Industry Credits	14.88	17.2
% of Islamic Credits in Private Banks' Credit	29.35	26.9
Investment-Deposit Ratio	0.92[0.59*]	0.95[0.77*]
Liquidity: Excess (+), Shortfall (-) % of the Private Banks' Liquidity	19.08[8.19*]	20.8[13.5*]

\* Ratio (inside bracket) of Islamic Banks of all Banks in the Industry.

Source: Annual Report, Bangladesh Bank, Various Editions.

Table 3. Return and Risk Ratios

<b>Return Ratios</b>										
<b>Ratio</b>	<b>2001</b>					<b>2002</b>				
	<b>G1</b>	<b>G2</b>	<b>G3</b>	<b>IA</b>	<b>IB</b>	<b>G1</b>	<b>G2</b>	<b>G3</b>	<b>IA</b>	<b>IB</b>
EPS	256	234	37	216	414	53	11	38	29	-186
P/E	4	69	2	41	5	728	3	2	244	1063
ROA	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00
ROE	0.22	0.28	0.27	0.26	0.17	0.09	0.27	0.28	0.22	0.27
NIM	0.06	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.02
NPM	0.13	0.17	0.18	0.17	0.10	0.06	0.08	0.17	0.10	-0.05
Efficiency	0.65	0.53	0.50	0.55	0.66	0.83	0.29	0.50	0.50	0.52
<b>Ratio</b>	<b>2003</b>					<b>2004</b>				
EPS	74	-24	54	29	-55	287	40	46	106	85
P/E	31	6	3	13	4	12	13	16	14	12
ROA	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.02	0.01	0.01
ROE	0.06	0.20	0.21	0.17	0.22	0.13	0.20	0.24	0.20	0.17
NIM	0.02	0.02	0.03	0.03	0.02	0.02	0.03	0.03	0.03	0.02
NPM	0.04	0.09	0.18	0.11	0.04	0.11	0.13	0.21	0.15	0.09
Efficiency	0.83	0.01	0.39	0.39	0.55	0.63	0.98	0.70	0.70	0.58
<b>Ratio</b>	<b>2005</b>					<b>2006</b>				
EPS	131	101	38	90	182	136	135	44	105	228
P/E	15	20	5	13	21	11	9	6	9	9
ROA	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01
ROE	0.11	0.19	0.23	0.18	0.20	0.16	0.20	0.23	0.20	0.21
NIM	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.03
NPM	0.10	0.16	0.17	0.14	0.16	0.14	0.16	0.16	0.15	0.16
Efficiency	0.72	0.55	0.45	0.57	0.51	0.66	0.51	0.44	0.52	0.47
<b>Risk Ratios</b>										
<b>Ratio</b>	<b>2001</b>					<b>2002</b>				
	<b>G1</b>	<b>G2</b>	<b>G3</b>	<b>IA</b>	<b>IB</b>	<b>G1</b>	<b>G2</b>	<b>G3</b>	<b>IA</b>	<b>IB</b>
CAR	0.09	0.12	0.10	0.11	0.09	0.09	0.10	0.09	0.09	0.07
NPL to TTL	0.22	0.06	0.06	0.10	0.07	0.24	0.08	0.08	0.12	0.10
Credit to Deposit	0.68	0.71	0.74	0.71	0.67	0.84	0.74	0.74	0.77	0.74
Credit to Total Asset	0.50	0.58	0.56	0.55	0.61	0.65	0.63	0.63	0.63	0.66
Prov. for CL to Gross Loan	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
<b>Ratio</b>	<b>2003</b>					<b>2004</b>				
CAR	0.09	0.11	0.13	0.11	0.09	0.07	0.09	0.09	0.09	0.09
NPL to TTL	0.19	0.07	0.06	0.10	0.09	0.09	0.08	0.07	0.08	0.11
Credit to Deposit	0.79	0.72	0.70	0.73	0.66	0.71	0.79	0.88	0.80	0.81

Credit to Total Asset	0.64	0.59	0.58	0.60	0.58	0.61	0.65	0.71	0.66	0.70
Prov. for CL to Gross Loan	0.02	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CAR	<b>2005</b>					<b>2006</b>				
	0.10	0.11	0.10	0.10	0.09	0.10	0.10	0.12	0.11	0.10
NPL to TTL	0.04	0.05	0.02	0.10	0.04	0.05	0.03	0.03	0.02	0.05
Credit to Deposit	0.79	0.89	0.86	0.85	0.91	0.80	0.89	0.83	0.84	0.93
Credit to Total Asset	0.66	0.72	0.72	0.70	0.75	0.68	0.74	0.70	0.71	0.77
Prov. for CL to Gross Loan	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.00

Source: Authors' Own Construction from the Data.

G1 = Generation 1, G2 = Generation 2, Generation 3, IA = Industry Average, IB = Islamic Banks

EPS = Earnings per Share, P/E = Price Earnings Ratio, ROA = Return on Asset, ROE = Return on Equity

NPM = Net Profit Margin, CAR = Capital Adequacy Ratio, NPL = Non-performing Loans, TTL = Total Loans

NIM = Net Interest Margin, CL = Classified Loan, Prov. = Provision

Table 4. Mean and Standard Deviation of the Ratios (2001 to 2006)

Mean of Return Ratios					
Ratio	G1	G2	G3	IA	IB
EPS	156.265	82.837	42.780	96.008	111.311
P/E	133.594	20.102	5.547	55.550	185.740
ROA	0.006	0.011	0.015	0.011	0.007
ROE	0.127	0.223	0.242	0.203	0.207
NIM	0.033	0.028	0.030	0.026	0.027
NPM	0.099	0.132	0.180	0.139	0.084
Efficiency	0.720	0.478	0.496	0.540	0.549
Mean of Risk Ratios					
Ratio	G1	G2	G3	IA	IB
CAR	0.090	0.104	0.108	0.102	0.087
NPL to TTL	0.138	0.063	0.053	0.087	0.075
Credit to Deposit	0.769	0.791	0.792	0.783	0.786
Credit to Total Asset	0.623	0.653	0.651	0.643	0.679
Prov. for CL to Gross Loan	0.013	0.006	0.006	0.008	0.006
Standard Deviation of Return Ratios					
Ratio	G1	G2	G3	IA	IB
EPS	95.395	94.321	6.525	68.819	213.148
P/E	291.186	24.857	5.402	93.288	429.860
ROA	0.003	0.003	0.001	0.002	0.005
ROE	0.056	0.039	0.027	0.033	0.038
NIM	0.014	0.004	0.003	0.011	0.006
NPM	0.038	0.038	0.015	0.025	0.080
Efficiency	0.092	0.323	0.108	0.100	0.066
Standard Deviation of Risk Ratios					
Ratio	G1	G2	G3	IA	IB
CAR	0.010	0.011	0.015	0.010	0.009
NPL to TTL	0.089	0.018	0.024	0.036	0.028
Credit to Deposit	0.061	0.082	0.072	0.056	0.115
Credit to Total Asset	0.064	0.064	0.072	0.059	0.077
Prov. for CL to Gross Loan	0.005	0.001	0.002	0.002	0.002

Source: Authors' own construction from the Data.

G1 = Generation 1, G2 = Generation 2, Generation 3, IA = Industry Average, IB = Islamic Banks

EPS = Earnings per Share, P/E = Price Earnings Ratio, ROA = Return on Asset, ROE = Return on Equity

NPM = Net Profit Margin, CAR = Capital Adequacy Ratio, NPL = Non-performing Loans, TTL = Total Loans

NIM = Net Interest Margin, CL = Classified Loan, Prov. = Provision

Table 5. Coefficient of Variance of the Ratios (2001 to 2006)

<b>Coefficient of Variance (CV) of Return Ratios</b>					
Ratio	G1	G2	G3	IA	IB
EPS	0.61	1.14	0.15#	0.72	1.91*
P/E	2.18	1.24	0.97#	1.68	2.31*
ROA	0.41	0.23	0.07#	0.16	0.70*
ROE	0.44*	0.18	0.11#	0.16	0.19
NIM	0.44*	0.14	0.09#	0.43	0.22
NPM	0.38	0.29	0.08#	0.18	0.95*
Efficiency	0.13	0.68*	0.22	0.18	0.12#

  

<b>Coefficient of Variance (CV) of Risk Ratios</b>					
Ratio	G1	G2	G3	IA	IB
CAR	0.11	0.10	0.14*	0.09#	0.10
NPL to TTL	0.64*	0.29#	0.45	0.42	0.37
Credit to Deposit	0.08	0.10	0.09	0.07#	0.15*
Credit to Total Asset	0.10	0.10	0.11	0.09#	0.11*
Prov. for CL to Gross Loan	0.40*	0.26	0.35	0.21#	0.25

Source: Authors' own construction from the Data.

G1 = Generation 1, G2 = Generation 2, Generation 3, IA = Industry Average, IB = Islamic Banks

EPS = Earnings per Share, P/E = Price Earnings Ratio, ROA = Return on Asset, ROE = Return on Equity

NPM = Net Profit Margin, CAR = Capital Adequacy Ratio, NPL = Non-performing Loans, TTL = Total Loans

NIM = Net Interest Margin, CL = Classified Loan, Prov. = Provision

\* Highest result of CV, which represents a bad sign, # lowest result of CV, which represents a good signal

Table 6. Common Size Balance Sheet

Items	2001					2002				
	G1	G2	G3	IA	IB	G1	G2	G3	IA	IB
Cash & Equivalent	0.16	0.25	0.20	0.21	0.31	0.13	0.19	0.18	0.17	0.25
Money at Call and Short Notice	0.05	0.06	0.06	0.06	0.01	0.05	0.04	0.04	0.05	0.01
Total Investment and Loans	0.59	0.64	0.64	0.63	0.63	0.65	0.72	0.73	0.70	0.70
Fixed Assets	0.02	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.02
Other Assets	0.06	0.03	0.06	0.05	0.03	0.05	0.03	0.04	0.04	0.03
Borrowings	0.03	0.06	0.09	0.06	0.00	0.01	0.03	0.03	0.03	0.00
Total Deposits	0.76	0.83	0.76	0.79	0.91	0.78	0.85	0.83	0.83	0.90
Total Liabilities	0.96	0.95	0.94	0.95	0.97	0.96	0.96	0.95	0.95	0.98
Total Equity	0.04	0.05	0.06	0.05	0.05	0.04	0.04	0.05	0.04	0.02
Statutory Reserve	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	2003					2004				
Cash & Equivalent	0.14	0.18	0.13	0.15	0.24	0.13	0.15	0.11	0.13	0.22
Money at Call and Short Notice	0.03	0.03	0.07	0.05	0.01	0.03	0.15	0.03	0.04	0.00
Total Investment and Loans	0.75	0.69	0.70	0.71	0.60	0.77	0.74	0.83	0.78	0.72
Fixed Assets	0.02	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.02
Other Assets	0.05	0.04	0.03	0.04	0.04	0.05	0.04	0.03	0.04	0.05
Borrowings	0.01	0.04	0.02	0.03	0.00	0.01	0.05	0.07	0.05	0.00
Total Deposits	0.81	0.84	0.82	0.82	0.88	0.85	0.83	0.81	0.83	0.87
Total Liabilities	0.96	0.95	0.92	0.94	0.97	0.95	0.95	0.93	0.94	0.96
Total Equity	0.04	0.05	0.08	0.06	0.03	0.05	0.05	0.07	0.06	0.04
Statutory Reserve	0.01	0.02	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.01
	2005					2006				
Cash & Equivalent	0.13	0.11	0.13	0.12	0.19	0.12	0.10	0.14	0.12	0.16
Money at Call and Short Notice	0.02	0.03	0.01	0.02	0.00	0.01	0.01	0.01	0.01	0.00
Total Investment and Loans	0.78	0.82	0.82	0.80	0.77	0.79	0.84	0.81	0.81	0.80
Fixed Assets	0.02	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01
Other Assets	0.06	0.03	0.03	0.04	0.03	0.05	0.03	0.03	0.04	0.04
Borrowings	0.02	0.05	0.03	0.03	0.03	0.01	0.02	0.03	0.02	0.03
Total Deposits	0.84	0.82	0.84	0.83	0.83	0.85	0.84	0.85	0.85	0.83
Total Liabilities	0.95	0.93	0.94	0.94	0.94	0.94	0.93	0.93	0.93	0.93
Total Equity	0.05	0.07	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07
Statutory Reserve	0.02	0.02	0.01	0.02	0.01	0.02	0.02	0.02	0.02	0.02

Source: Authors' own construction from the Data.

G1 = Generation 1, G2 = Generation 2, Generation 3, IA = Industry Average, IB = Islamic Banks



Table 7. Common Size Income Statement

Items	2001					2002				
	G1	G2	G3	IA	IB	G1	G2	G3	IA	IB
Interest Expense	0.70	0.71	0.72	0.71	0.74	0.71	0.78	0.71	0.74	0.84
Total Operating Income	0.76	0.55	0.63	0.63	0.50	0.73	0.46	0.62	0.58	0.38
Total Operating Expense	0.34	0.20	0.24	0.25	0.21	0.41	0.22	0.24	0.28	0.24
Provision Against Classified Loan	0.15	0.05	0.05	0.08	0.05	0.18	0.04	0.06	0.08	0.04
Total Provision	0.19	0.08	0.09	0.12	0.09	0.20	0.06	0.08	0.10	0.05
Provision for Tax	0.09	0.09	0.12	0.10	0.07	0.07	0.11	0.12	0.10	0.09
Net Profit / Loss After Tax	0.13	0.17	0.18	0.16	0.13	0.06	0.08	0.17	0.10	0.00
Appropriation	0.10	0.13	0.14	0.12	0.12	0.06	0.04	0.17	0.09	0.14
Retained Earnings	0.07	0.08	0.08	0.08	0.04	0.08	0.14	0.05	0.10	0.21
	2003					2004				
Interest Expense	0.71	0.76	0.60	0.69	0.81	0.71	0.73	0.68	0.71	0.77
Total Operating Income	0.74	0.50	0.57	0.58	0.44	0.89	0.57	0.72	0.70	0.48
Total Operating Expense	0.39	0.21	0.20	0.25	0.21	0.47	0.24	0.23	0.29	0.22
Provision Against Classified Loan	0.20	0.03	0.07	0.09	0.06	0.12	0.06	0.09	0.08	0.07
Total Provision	0.21	0.05	0.06	0.09	0.08	0.14	0.07	0.10	0.09	0.08
Provision for Tax	0.09	0.13	0.14	0.12	0.10	0.18	0.12	0.18	0.16	0.10
Net Profit / Loss After Tax	0.04	0.09	0.16	0.11	0.04	0.11	0.13	0.21	0.15	0.09
Appropriation	0.03	-0.02	0.19	0.07	0.09	0.10	0.01	0.24	0.11	0.15
Retained Earnings	0.07	0.09	0.14	0.10	0.16	0.08	0.05	0.03	0.05	0.07
	2005					2006				
Interest Expense	0.67	0.69	0.72	0.69	0.69	0.65	0.71	0.75	0.70	0.70
Total Operating Income	0.90	0.62	0.53	0.68	0.51	0.83	0.61	0.49	0.64	0.48
Total Operating Expense	0.47	0.23	0.20	0.30	0.21	0.48	0.21	0.19	0.29	0.18
Provision Against Classified Loan	0.16	0.06	0.03	0.09	0.06	0.06	0.04	0.03	0.04	0.04
Total Provision	0.18	0.09	0.07	0.11	0.06	0.07	0.07	0.06	0.07	0.05
Provision for Tax	0.14	0.14	0.15	0.14	0.14	0.14	0.16	0.13	0.14	0.14
Net Profit / Loss After Tax	0.10	0.16	0.17	0.14	0.16	0.14	0.17	0.15	0.15	0.16
Appropriation	0.13	0.10	0.11	0.12	0.08	0.06	0.10	0.09	0.08	0.06
Retained Earnings	0.05	0.06	0.09	0.07	0.07	0.10	0.09	0.08	0.09	0.11

Source: Authors' own construction from the Data.

G1 = Generation 1, G2 = Generation 2, Generation 3, IA = Industry Average, IB = Islamic Banks

Table 8. Mean of Common Size Items

<b>Mean of Common Size Balance Sheet (2001 to 2006)</b>					
<b>Items</b>	<b>G1</b>	<b>G2</b>	<b>G3</b>	<b>IA</b>	<b>IB</b>
Cash & Equivalent	0.14	0.16	0.15	0.15	0.23
Money at Call and Short Notice	0.03	0.05	0.04	0.04	0.00
Total Investment and Loans	0.72	0.74	0.75	0.74	0.70
Fixed Assets	0.02	0.01	0.01	0.01	0.01
Other Assets	0.05	0.03	0.03	0.04	0.04
Borrowings	0.02	0.04	0.05	0.04	0.01
Total Deposits	0.82	0.83	0.82	0.82	0.87
Total Liabilities	0.95	0.95	0.94	0.94	0.96
Total Equity	0.05	0.05	0.06	0.06	0.04
Statutory Reserve	0.02	0.02	0.01	0.01	0.01
<b>Mean of Common Size Income Statement (2001 to 2006)</b>					
<b>Items</b>	<b>G1</b>	<b>G2</b>	<b>G3</b>	<b>IA</b>	<b>IB</b>
Interest Expense	0.69	0.73	0.70	0.71	0.76
Total Operating Income	0.81	0.55	0.59	0.64	0.46
Total Operating Expense	0.43	0.22	0.22	0.28	0.21
Provision Against Classified Loan	0.15	0.05	0.05	0.08	0.05
Total Provision	0.17	0.07	0.08	0.10	0.07
Provision for Tax	0.12	0.12	0.14	0.13	0.10
Net Profit / Loss After Tax	0.10	0.13	0.17	0.14	0.10
Appropriation	0.08	0.06	0.16	0.10	0.11
Retained Earnings	0.08	0.09	0.08	0.08	0.11
<b>Standard Deviation of Common Size Balance Sheet (2001 to 2006)</b>					
<b>Items</b>	<b>G1</b>	<b>G2</b>	<b>G3</b>	<b>IA</b>	<b>IB</b>
Cash & Equivalent	0.01	0.06	0.03	0.04	0.05
Money at Call and Short Notice	0.02	0.05	0.02	0.02	0.01
Total Investment and Loans	0.08	0.08	0.08	0.07	0.08
Fixed Assets	0.00	0.00	0.00	0.00	0.00
Other Assets	0.00	0.01	0.01	0.00	0.01
Borrowings	0.01	0.01	0.03	0.02	0.02
Total Deposits	0.04	0.01	0.03	0.02	0.03
Total Liabilities	0.01	0.01	0.01	0.01	0.02
Total Equity	0.01	0.01	0.01	0.01	0.02
Statutory Reserve	0.00	0.00	0.00	0.00	0.00
<b>Standard Deviation of Common Size Income Statement (2001 to 2006)</b>					
<b>Items</b>	<b>G1</b>	<b>G2</b>	<b>G3</b>	<b>IA</b>	<b>IB</b>
Interest Expense	0.03	0.04	0.05	0.02	0.06
Total Operating Income	0.08	0.06	0.08	0.05	0.05
Total Operating Expense	0.05	0.02	0.02	0.02	0.02
Provision Against Classified Loan	0.05	0.01	0.02	0.02	0.01
Total Provision	0.06	0.02	0.02	0.02	0.02
Provision for Tax	0.04	0.02	0.02	0.02	0.03
Net Profit / Loss After Tax	0.04	0.04	0.02	0.03	0.07
Appropriation	0.04	0.06	0.06	0.02	0.04
Retained Earnings	0.02	0.03	0.04	0.02	0.06

**Source: Authors' own construction from the Data.**

*G1 = Generation 1, G2 = Generation 2, Generation 3, IA = Industry Average, IB = Islamic Banks*

Table 9. Coefficient of Variance (CV) of Common Size Items

<b>CV of Common Size Balance Sheet (2001 to 2006)</b>					
<b>Items</b>	<b>G1</b>	<b>G2</b>	<b>G3</b>	<b>IA</b>	<b>IB</b>
Cash & Equivalent	0.11#	0.35*	0.23	0.24	0.23
Money at Call and Short Notice	0.50	0.91	0.62	0.46#	1.20*
Total Investment and Loans	0.11	0.10	0.10	0.10#	0.11*
Fixed Assets	0.11	0.06#	0.15	0.07	0.22*
Other Assets	0.06#	0.19	0.34*	0.09	0.23
Borrowings	0.54	0.32#	0.58	0.42	1.41*
Total Deposits	0.05*	0.01#	0.04	0.02	0.04
Total Liabilities	0.01	0.01	0.01	0.01#	0.02*
Total Equity	0.16	0.18	0.17	0.14#	0.38*
Statutory Reserve	0.13#	0.18	0.23	0.16	0.28*
<b>CV of Common Size Income Statement (2001 to 2006)</b>					
<b>Items</b>	<b>G1</b>	<b>G2</b>	<b>G3</b>	<b>IA</b>	<b>IB</b>
Interest Expense	0.04	0.05	0.07	0.03#	0.08*
Total Operating Income	0.09	0.11	0.14*	0.08#	0.10
Total Operating Expense	0.13*	0.07#	0.11	0.08	0.08
Provision Against Classified Loan	0.33	0.26	0.42*	0.21#	0.26
Total Provision	0.33*	0.24	0.21	0.18#	0.23
Provision for Tax	0.36*	0.18	0.16#	0.19	0.28
Net Profit / Loss After Tax	0.38	0.31	0.11*	0.19#	0.66
Appropriation	0.46	1.02*	0.36	0.22#	0.34
Retained Earnings	0.22#	0.38	0.48	0.26	0.58*

**Source: Authors' own construction from the Data.**

G1 = Generation 1, G2 = Generation 2, Generation 3, IA = Industry Average, IB = Islamic Banks

\* = Highest result of CV, which represents a bad signal.

# = Lowest result of CV, which represents a good signal

Table 10. Mean Ranking of the Ratios

Mean of Return Ratios					
Ratio	G1	G2	G3	IA	IB
EPS	156.265(1)	82.837(4)	42.780(5)	96.008(3)	111.311(2)
P/E	133.594(2)	20.102(4)	5.547(5)	55.550(3)	185.740(1)
ROA	0.006(5)	0.011(2)	0.015(1)	0.011(3)	0.007(4)
ROE	0.127(5)	0.223(2)	0.242(1)	0.203(4)	0.207(3)
NIM	0.033(1)	0.028(3)	0.030(2)	0.026(5)	0.027(4)
NPM	0.099(4)	0.132(3)	0.180(1)	0.139(2)	0.084(5)
Efficiency**	0.720(5)	0.478(1)	0.496(2)	0.540(3)	0.549(4)

Mean of Risk Ratios					
Ratio	G1	G2	G3	IA	IB
CAR	0.090(4)	0.104(2)	0.108(1)	0.102(3)	0.087(5)
NPL to TTL**	0.138(5)	0.063(2)	0.053(1)	0.087(4)	0.075(3)
Credit to Deposit**	0.769(5)	0.791(2)	0.792(1)	0.783(4)	0.786(3)
<sup>1</sup> Credit to Total Asset**	0.623(1)	0.653(4)	0.651(3)	0.643(2)	0.679(5)
<sup>2</sup> Prov. for CL to Gross Loan**	0.013(5)	0.006(3)	0.006(2)	0.008(4)	0.006(1)

\*\* A Higher ratio might bring bad result.

<sup>1</sup> Higher Credit to Total Asset ratio would increase the chances of default risk, but will also increase the profitability. Since we are considering risk with this, higher result will be taken as worse performance.

<sup>2</sup> Higher amount of provision against classified loans give a bad signal to the market, since this may reduce profitability and it is a result of higher default risk. So, a higher figure will be considered as worse performance.

G1 = Generation 1, G2 = Generation 2, Generation 3, IA = Industry Average, IB = Islamic Banks

Source: Authors' own construction from the Data

**BOX 1. Return and Risk Ratios****Return Ratios**

1. Earnings Per Share =  $\frac{\text{Net Income}}{\text{No. of Share Outstanding}}$
2. Price Earning Ratio (P/E Ratio) =  $\frac{\text{Market Price Per Share}}{\text{Earnings Per Share}}$
3. Return on Asset =  $\frac{\text{Net Income}}{\text{Total Assets}} \times 100$
4. Return on Equity =  $\frac{\text{Net Income}}{\text{Total Equity}} \times 100$
5. Net Interest Margin =  $\frac{\text{Interest Income} - \text{Interest Expenses}}{\text{Call Money} + \text{ST Investment} + \text{Loan \& Advances}} \times 100$
6. Net Profit Margin (NPM) =  $\frac{\text{Net Income after Tax}}{\text{Interest Income}} \times 100$
7. Efficiency =  $\frac{\text{Total operating expense} + \text{Total provisions}}{(\text{Int. Inc} - \text{Int. Exp.}) + (\text{Investment Inc.} + \text{Commission} + \text{Other Opt. Inc.})} \times 100$

**Risk Ratios**

8. Capital Adequacy Ratio (CAR) =  $\frac{\text{Total Capital Reserve}}{\text{Total Risk Weighted Assets}} \times 100$
9. NPL to Total Loans =  $\frac{\text{Bad Loans}}{\text{Total Loans}} \times 100$
10. Credit to Deposit Ratio =  $\frac{\text{Total Loans}}{\text{Total Deposits}} \times 100$
11. Credit to Total Asset Ratio =  $\frac{\text{Total Loans}}{\text{Total Assets}} \times 100$
12. Provision for Classified Loans to Gross Loans =  $\frac{\text{Provision for Classified Loans}}{\text{Gross Loans}} \times 100$

Source: Hempel and Simonson (1999)