Relationship between market share and profitability: A study on Islamic banks of Bangladesh

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Abstract

This study is conducted to examine the effects of market share on profitability. A panel data covering 8 full-fledged Islamic banks of Bangladesh and the period 2011-2020 is used for the analysis. Based on Hausman test, random effects model is chosen to estimate the effects of market share. Market share is represented in terms of asset as well as deposit. To measure profitability, return on equity is used. Investment is used as control variable. Time dummies are also used to account for time effects. Findings suggest that one percentage point increase in market share in terms of asset leads to 3.73 percentage points increase in ROE. Besides, if market share in terms of deposit increases by one percentage point, ROE increases by 3.14 percentage points. Based on these findings, Islamic banks of Bangladesh should consider increase in market share as one of the effective ways to enhance profitability.

Keywords   Market share, Profitability, ROE, ESH

Paper type   Research paper

1. Introduction

The portion of a market possessed by a particular company means market share that has been considered strength of any business organization for achieving profit. Banking sector is one of the most essential elements of Bangladesh economy like any other country. Bangladesh has an assorted banking sector consisting of 6 state owned commercial banks (SCBs), 3 specialized development banks (DFIs), 41 private commercial banks (PCBs) and 9 foreign commercial banks (FCBs). There are 8 completely Islamic banks as well as 16 traditional banks have Islamic banking window according to Bangladesh Bank annual report 2019-2020. Conventional banks operate on interest-based system whereas Islamic banks (IBs) conduct their business in compliance with the principles of Islamic Shari'ah. In Bangladesh, Islamic banking system was introduced in 1983 and since then Islamic banking has been playing a significant role across different economic and

social sectors of Bangladesh. Whether Islamic banks will be able to continue playing such great role in the coming years will be partly determined by their profitability.

2. Hypothesis of the study

According to the efficient structure hypothesis (ESH) proposed by Demsetz (1973) and Peltzman (1977), market share has a positive impact on profitability. Given the increasing demand for Islamic banking in Bangladesh, examining if this hypothesis is true is significantly important. If data is found to support this hypothesis, Islamic banks may be advised to consider puting effort to increase market share as a way of raising profitability.

3. Objectives

The main objective of the study is to identify the impact of market share on Islamic banks profitability. More specifically, the objectives are:
   a. To assess the market share regarding total assets and total deposits of Islamic banks.
   b. To assess the profitability regarding ROA and ROE of Islamic banks.
   c. To evaluate the influence of market share on profitability of Islamic banks.

4. Overview of market share and profitability of Islamic banking industry in Bangladesh

There are 8 commercial banks that can be considered full-fledged Islamic banks. In 2020, they hold 21.67 percent and 24.27 percent of the total banking sector of Bangladesh regarding total assets and total deposits, respectively (Annual Report of Bangladesh Bank 2019-2020 and 8 Islamic banks 2020). So, it can be said that Islamic banking holds a handsome market share in terms of assets and deposits of total banking industry.

Table 1 provides a simple picture of market share hold by different Islamic banks in the years 2011 and 2020. It is evident from the table that market share of all banks except ICB Islami Bank Ltd. and Shahjalal Islami Bank Ltd. have undergone an increase in terms of both asset and deposit.

Table 1: Market share position of Islamic banks in Bangladesh

Banks	Market share in terms of asset		Market share in terms of deposit	
	2011	2020	2011	2020
Islamic Bank Bangladesh Ltd.	6.63	8.26	7.58	9.37
ICB Islamic Bank Ltd.	0.31	0.06	0.28	0.10
Social Islami Bank Ltd.	1.44	2.25	1.48	2.56
Al-Arafa Islami Bank Ltd.	1.82	2.44	1.82	2.59
First Security Islamic Bank Ltd.	1.55	2.90	1.73	3.40
Export Import Bank of Bangladesh Ltd.	2.21	2.83	2.39	3.13
Shahjalal Islami Bank Ltd.	1.83	1.71	1.84	1.74
Union Bank Ltd.	0.21*	1.22	0.19*	1.37

Source: calculated by author with the data presented in respective banks' annual reports of the years 2011 and 2020.
* For UBL, since 2011 data is not available, 2013 data is mentioned.

Table 2 presents profitability scenario of different Islamic banks in Bangladesh. Unlike market share scenario, with a few exceptions profitability scenario in 2020 is much meagre compared to 2011.

Table 2: Profitability scenario of Islamic banks in Bangladesh

Banks	Return on equity		Return on asset	
	2011	2020	2011	2020
Islamic Bank Bangladesh Ltd.	17.42	5.18	1.35	0.35
ICB Islamic Bank Ltd.	-23.63	-1.53	-9.97	-1.66
Social Islami Bank Ltd.	11.51	8.78	1.28	0.40
Al-Arafa Islami Bank Ltd.	18.34	10.10	2.06	0.61
First Security Islamic Bank Ltd.	12.75	15.56	1.75	0.60
Export Import Bank of Bangladesh Ltd.	14.91	9.42	1.65	0.61
Shahjalal Islami Bank Ltd.	13.80	11.08	1.26	0.68
Union Bank Ltd.	1.94*	17.67	1.44*	0.51

Source: calculated by author with the data presented in respective banks' annual reports of the years 2011 and 2020.
* For UBL, since 2011 data is not available, 2013 data is mentioned.

Combining changes in market share scenario and profitability scenario gives a preliminary impression that increased market share causes profitability to fall. However, such generalization based on observations on only two-year data and without controlling for observed and unobserved heterogeneities is likely to be spurious. Suitable econometric treatment is required to make more reliable conclusion.

5. Literature review

A good number of studies show the positive influence of market share on profitability of business firm. From a study on 57 companies, Buzzell, Gale, and Sultan (1975) found a positive correlation between market share and return on investment (ROI). They also discuss the reasons of market share as economies of scale, market power and quality of management. Conducting a meta-analysis on 276 share - profitability findings from 48 studies, Szymanski, Bharadwaj, and Varadarajan (1993) concluded that market share positively affects business profitability. Wernerfelt (1986) analyzed when and to what extent market share is profitable to a firm and suggest that when a firm in a stable position, asymmetric equilibrium, a higher market share will correspond to a higher profit. Genchev (2012) conducted a study on 22 banks over the period of 2006 to 2011 and determined that market share and profitability of banks are positively related and statistically significant. Using panel data regression analysis of 101 commercial banks of Indonesia from a period of 2001 to 2012, Jumono, Achsani, Hakim, and Fidaus (2015) found that individual market share of deposit and individual market share of credit are not significantly related to ROA. Using multiple regression analysis of 10 commercial banks of Nigeria from a period of 2003 to 2011, Etale, Bingilar, and Ifurueze (2016) showed that market share represented by deposit customers (DC) and loan customers (LC) have positive relationship with profitability of the banking sector in Nigeria.

There are only a few studies that focus on Bangladesh case. Two important such studies are Ahmed (2012) and Samad (2008). Both studies deal with the whole banking studies in Bangladesh. While Ahmed (2012) concludes that market share does not determine profitability, Samad (2008) found positive relation between market share and profitability using pooled data.

From the above review, at least two shortcomings of the current literature are apparent. First, studies dealing with Bangladesh case are only a few. Second, no study looks into the relationship between market share and profitability in Islamic banking industry. This analysis is an effort to reduce this gap in the literature.

6. Methodology
6.1. Data and variables

The study has been conducted based on a panel data for the period 2011-2021 collected from secondary sources. The sources include the website of Bangladesh Bank and annual reports of respective banks. The

sample consists of 8 Islamic banks. Variables on which data are collected are return on equity (ROE), total assets, total deposits and total investment. Market share regarding asset is calculated by dividing respective bank's total asset by total asset in the banking industry. Market share regarding deposit is calculated similarly. Profitability is proxied by ROE. While market share is used as the main explanatory variable, total investment is used as a control variable which has impact on both market share and profitability of a bank. To have a clearer picture, summary statistics of the variables are provided in Table 3.

Table 3: Summary statistics of variables

Variables	Mean	Standard deviation	Minimum	Maximum
Return on investment	9.15	7.12	-23.63	18.34
Asset share (% of total asset in the banking sector)	2.36	1.98	0.066	8.26
Deposit share (% of total deposit in the banking sector)	2.58	2.23	0.0985	9.372
Investment (in billion Taka)	214.59	207.75	7.31	1035.29

Source: Author's own calculation

6.2. Sample
As mentioned earlier, there are 8 full-fledged Islamic banks in Bangladesh. Besides, 16 conventional banks including two foreign commercial banks have Islamic banking wings. For the ease of data collection, only 8 full-fledged Islamic banks (13.56 percent of 59 scheduled banks) have been included in the sample.

6.3. Empirical strategies
Since the data is panel data, there may be temptation to use pooled regression. But because of unobserved heterogeneity using pooled regression may lead to inappropriate estimation. One important cause that may give rise to unobserved heterogeneity is managerial ability. A managerial team with higher ability may lead to higher market share as well as higher profitability. To control for such heterogeneity, this study performs estimation of random effects (RE) model. One other method of addressing heterogeneity is fixed effects (FE) method. However, Hausman test indicates that in our case RE model is more appropriate than FE model. Since there is a possibility that heteroscedasticity and serial autocorrelation exist, standard errors are made robust by performing clustering using our panel variable Banks.

The basic model we use can be represented by the following equation:

$$ROE_{it} = \beta_0 + \beta_1 x_{it} + \beta_2 Inv_{it} + \sum_{j=2012}^{2020} \alpha_j d_j + a_i + u_{it} \quad (1)$$

where *ROE* and *Inv* stand for return on equity and total investment, respectively. *x* stands for market share. *a* represents unobserved effects. *u* is error term. *i* and *t* are individual bank and time, respectively. *j* indicates year and *d* is year dummy. As previously mentioned, market share is represented by asset share and deposit share. For each of these two variables a separate estimation is performed. Time dummies are used in the models to account for time effects, if there is any.

7. Findings

Important results obtained from the RE estimations are reported in Table 4. Columns 1-3 contain the results for the model in which market share is measured in terms of asset. Similarly, Columns 4-6 reports the results for the model in which market share is measured in terms of deposit. The coefficients of asset share and deposit share are found to be 3.732 and 3.143, respectively. Both of them are statistically significant at the 10% level of significance. The coefficient of asset share indicates that ROE increases by 3.732 percentage points as a result of a one percentage point increase in market share in terms of asset. Similarly, the coefficient of deposit share suggests that a one percentage point increase in market share in terms of deposit causes 3.143 percentage point increase in ROE. These findings clearly supports the efficient structure hypothesis (ESH).

Table 4: RE estimation results

Dependent variable: ROE

Independent variables	Market share model in terms of asset			Market share model in terms of deposit		
	Coefficient	Robust standard error	p-value	Coefficient	Robust standard error	p-value
	(1)	(2)	(3)	(4)	(5)	(6)
Asset share	3.732*	2.053	0.069			
Deposit share				3.143*	1.755	0.073
Investment	-0.033**	0.014	0.016	-0.031**	0.013	0.018

* and ** indicate statistical significance at the 10% and 5% levels of significance.

8. Summary and conclusions

Considering the importance of searching for sustainable ways to raise profitability, this study is pursued to verify whether market share has a significant influence in increasing return of Islamic banks in Bangladesh. Using a panel data covering 8 full-fledged Islamic banks of the period

2011-2020, this study performs estimation of random effects (RE) models. Decision to estimate RE model instead of fixed effects (FE) model comes from the results of Hausman test. This test indicates that in our case RE model is better that FE model.

Findings suggest that efficient structure hypothesis (ESH) is true for the Islamic banking industry of Bangladesh. That means an Islamic bank with higher market share has higher profitability. In particular, one percentage point increase in market share in terms of asset leads to 3.73 percentage points increase in ROE. Besides, if market share in terms of deposit increases by one percentage point, ROE increases by 3.14 percentage points. The positive impact of market share on profitability is perhaps because of the fact that banks with higher market share are more efficient.

These findings have important policy implications. Islamic banks can be advised to consider putting efforts to increase market share as one of the ways to increase profitability. While making policies that are supposed to increase market share of different Islamic banks, the relevant cost-benefit analysis must account for profitability premium that the policies may give rise to.

References

Ahmed, M. M. (2012). Market structure and performance of Bangladesh banking industry: A panel data analysis. *Bangladesh Development Studies, 35*(3), 1-18.

Buzzell, R. D., Gale, B. T., & Sultan, R. G. (1975). Market share-a key to profitability. *Harvard Business Review, 53*(1), 97-106.

Bangladesh Bank (BB). (2019-2020). *Bangladesh Bank Annual Report.* Dhaka: BB.

Demsetz, H. (1973). Industry structure, market rivalry, and public policy. *Journal of Law and Economics, 16*(1), 1-9.

Etale, L. M., Bingilar, P. F., Ifurueze, M. S. (2016). Market share and profitability relationship: A study of the banking sector in Nigeria. *International Journal of Business, Economics and Management, 3*(8), 103-112.

Genchev, E. (2012). Effects of Market Share on the Bank's Profitability. *Review of Applied Socio-Economic Research, 3*(1), 87-95.

Jumono, S., Achsani, N. A., Hakim, D. B., & Fidaus, M. (2015). Market concentration, market share, and profitability (Study at Indonesian Commercial Banking in the period of 2001-2012). *Asian Social Science, 11*(27), 18-27.

Peltzman, S. (1977). The gains and losses from industrial concentration. *Journal of Law and Economics, 20*(2), 229-263.

Samad, A. (2008). Market structure, conduct and performance: Evidence from the Bangladesh banking industry. *Journal of Asian Economics, 19*(2), 181-193.

Szymanski, D. M., Bharadwaj, S. G., & Varadarajan, P. R. (1993). An analysis of the market share-profitability relationship. *Journal of Marketing, 57*(3), 1-18.

Wernerfelt, B. (1986). The relationship between market share and profitability. *Journal of Business Strategy, 6*(7), 67-74.

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