ISLAMIC FINANCE-ECONOMIC GROWTH NEXUS IN BANGLADESH: AN ARDL APPROACH

Nazreen Tabssum Chowdhury

Postgraduate student at Kulliyah of Economics and Management Sciences, International Islamic University Malaysia.

Muhamad Abduh

Lecturer of Islamic Economics Program, Ibn Khaldun University, Bogor.
PhD holder from Kulliyah of Economics and Management Sciences, International Islamic University Malaysia.

Abstrak

Tidak seperti sistem perbankan sebelumnya, pada saat ini ada sejumlah Bank Syariah beroperasi dengan menawarkan berbagai macam produk syariah di dunia. Beberapa negara memperkenalkan sistem perbankan syariah lebih awal dari negara lain. Akan tetapi produk dan jasa yang ditawarkan oleh Bank Syariah sedikit berbeda antara satu negara dengan negara lainnya. Bank-bank Syariah telah beroperasi di Bangladesh sejak tiga dekade terakhir bersamaan dengan bank konvensional. Penelitian ini bertujuan untuk menguji hubungan antara perkembangan perbankan syariah dengan pertumbuhan suatu negara, dengan mengambil sampel negara Bangladesh, dengan cara melihat sifat hubungan efek jangka panjang pada perekonomian. Pertanyaan dalam penelitian ini adalah "Apakah bank-bank syariah di Bangladesh memberikan kontribusi dalam pertumbuhan ekonomi negara itu yaitu dengan adanya peningkatan kinerja? Dan apa hubungan antara pengembangan bank syariah dengan pertumbuhan ekonomi Bangladesh? ". Data kuartal digunakan dari periode Q1: 2004 ke Q2: Lag 2011. Auto Regressive Distributed Lag (ARDL) bound testing technique for cointegration diaplikasikan untuk memperkirakan hubungan jangka panjang. Hubungan jangka panjang ditemukan dalam pembiayaan syariah dan pertumbuhan ekonomi.

Kata kunci: Bangladesh, pembiayaan syariah, pertumbuhan ekonomi, ARDL

Abstract

Unlike previous banking system, today there are several Islamic Banks are operating by offering various kinds of Islamic products in the world. Some countries introduced Islamic Banking system earlier than others but the products and the services which are offered by Islamic Banks are slightly different from one country to another. Islamic banks have been operating in Bangladesh from last three decades together with the conventional banks. This research aimed to examine the relationship between Islamic banking developments to the country's growth from evidence of Bangladesh. By looking at the relationship tried to examine the nature of the relationship long run effects on economy. The research questions were "does Islamic banks in Bangladesh contribute in country's economic growth by increasing performance? And what kind of relationship exists between Islamic banks

development and Bangladesh's economic growth?". Quarterly data were used from the period of Q1:2004 to Q2:2011.Auto Regressive Distributed Lag (ARDL) bound testing technique for cointegration was applied to estimate the long run relationship. A long run relationship was found between Islamic financing and economic growth which shows demand following relationship.

Keywords: Bangladesh**,** Islamic financing, economic growth, ARDL

I. Introduction

The key economic growth in Bangladesh is banking sector which contributes a lot in country's GDP as well as employment. More than 90% of financial assets of Bangladesh are owned by bank. Ali and Howlader (2005), Rashid and Nishat (2009), 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. At present banking sector stands at over 6% growth in its contribution in GDP (Bangladesh Bank Annual Report, 2005). Bangladesh has a mixed banking system consists of national, private, foreign, Islamic and conventional banks. All stakeholders, owners, customers, investors, employees depend on the banks performance. Bangladesh bank is the central bank of Bangladesh with the power of monetary policies of the Government and all commercial banks. But from last three decades Islamic banks have improved a new dimension in banking system based on religious standard. As Bangladesh is the third largest Muslim countries with 80% of Muslim of whole population, Islamic banks have a great priority in the current banking system. It is important for Bangladesh to provide more Islamic banks with innovative products in this competitive market against conventional banks.

Global Islamic financial services industry grew at a rate of 10-15% during1995 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). Due to increasing number of Islamic banks, it is necessary to find the role of Islamic banks to the economy.

Abduh and Omar, (2010), stated that between financial development and economic growth; three kind of relationships can be found like supply leading, demand leading and bi-directional relationship. Now it needs to identify which relationship belongs to Islamic banks and economic growth from Bangladesh perspectives. Due to differences among Islamic products in different countries the relationship between IBF and economic growth found for Malaysia, Jordan and Indonesia might not be same for Bangladesh.

There is no works done in this field from the Bangladesh perspectives, no research sincerely compares the GDP with the growth of Islamic banks activities. As a result this gap should work out for future prospects of Islamic banks in Bangladesh.

II. Literature Review

Patrick (1966), Calderón. and Liu (2002), stated that in the time of economic development real capital formation can be rise by supply leading financial development. Investors and savers get new opportunities from innovation and development of new financial services which introduce self sustained economic growth. Authors also mentioned that the financial intermediaries affect a lot to developing countries which show the casual relationships by financial depth. As a result developing country like Bangladesh has more room for the development of financial sectors and economic growth. To measure the financial development first measure can be the ratio of broad money (M2) to GDP (M2/GDP) and second can be is the ratio of credits provided by financial intermediaries to the private sector to GDP (CREDIT/GDP). Authors also suggested to look at the other variables like initial

human capital, initial income level, a measure of government size and so on.(Patrick ,1966), (Calderón. & Liu ,2002)
Rioja and Valev, (2003), use generalized method of moments (GMM) dynamic panel techniques with large panel data set of 74countries from1961 to 1995 period to know the relationship of financial development and economic growth. They found that the effect of financial development takes place by capital accumulation in less developed economies.
Abduh and Omar, (2010), calculated Islamic banks total financing [ln(*fin*)] and gross domestic product [ln(*gdp*)] with gross fixed capital formation [*gfcf*] to measure the relationships from the evidence of Indonesia.
Following the previous works this research will answer the question: what is the contribution of the development of Islamic bank on Bangladesh's economy.

Islamic banks in Bangladesh

The aim of Islamic economics as observed by Molla et.al (1988) is not only the elimination of interest based transactions and the introduction of the zakah (contribution to poor) system but also the establishment of just and balanced social order free from all kinds of exploitation.
The Islamic banking system is highlighted in the World Development report (1989, Box 6.3), as under; "Islamic banks offer savers risky open-ended mutual fund certificates instead of fixed-interest deposits. The objectives of Islamic banks in Bangladesh are not only interest free banking system also to establish welfare of social economy from the religious point of view and to contribute towards establishment of an Islamic economic system in the country.
Islami Bank Bangladesh Limited (IBBL) was established on March 13, 1983 but started functioning with effect from March 30, 1983. This Bank is the first interest-bank in South East Asia. It is committed to conduct all banking and investment activities on the basis of interest-free profit-loss sharing system. IBBL is a public limited company with limited liability under the companies Act, 1913; it is a joint venture multinational bank with sixty four percent of equity being contributed by the foreign sources.

Performances of Islamic Banks in Bangladesh

It is clear that the performances of Islamic banks in Bangladesh are improving time by time. In this case, Islami Bank Bangladesh Limited (IBBL) and Al-Arafah Islami Bank Limited (ALBI) will be taking as an example even though there are numbers of Islamic banks in Bangladesh. It is obvious to see that total deposits in IBBL are increasing from Tk. 70,552.65 million in 2003 to Tk. 244,292.14 million in 2009 due to growing in number of deposit account holders from 1,994,266 in 2003 to 4,361,896 in 2008 but slightly decrease to 4,272,123 in 2009. Total income also keeps increasing from Tk. 6,710.44 million in 2003 to Tk. 25,403.86million in 2009. Total investment go up from Tk. 62,755.90 million in 2003 to Tk. 255,272.41 million in 2009 and number of shareholders rise to 52,164 in 2009 from 14,196 in 2003. Moreover, numbers of employees increase to 9,588 since the number of branches grow to 231 in 2009.[1]

As for the performance of Al-Arafah Islami Bank Limited (ALBI), total deposits increase from Tk. 10,108.28 million in 2004 to Tk. 29,690.12 million in 2008. Total income increase more than three times from Tk. 1,120.85 million in 2004 to Tk. 4,387.26 million in 2008. Furthermore, total investment increase from Tk. 8,150.16 million in 2004 to Tk. 29,723.79 million in 2008 and numbers of shareholders become double from 5,379 in 2004 to 10,664 in 2008. The numbers of employees also increase as the branches grow more.[2]

[1] Appendix 1
[2] Appendix 2

Bangladesh Bureau of Statistics' (BBS) estimates temporarily that total consumption increased considerably to 81.01percent in FY 2009-10 from 79.91 percent in FY 2008-09. Investment also increased to 24.96 percent of GDP (20.19 percent for private investment and 4.77 percent for public investment) in FY2009-10 from 24.37 percent in FY2008-09. The rates of domestic and national savings were valued to be 18.99 and 28.75 percent of GDP in FY 2009-10. According to Ahmed, et.al (2006) and Hassan et.al (2007), Bangladesh Islamic banks have better performance in loan recovery and other various financial measures than the conventional banks.

Table 1: Islamic Bank Statistics in Bangladesh

Indicator	June 2006	June 2007
Number 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 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	0.95

Source: Annual Report of Bangladesh Bank, Various Editions (Rashid. M; Hassan. K. M and Ahmed. F)

From the above discussion it is clear that there is a rapid growth of Islamic banks and Islamic windows in Bangladesh from last two decades. All the previous works done on the development, performance, challenges and the whole picture of Islamic banking based on Bangladesh, But no research has been concentrate on the 28^{th} years of Islamic banks development in Bangladesh towards the contribution of economic growth.

III. Data And Research Methodology

One of the most difficult parts in the research is to find the suitable methodology to reach the objective of the research. The consistent data with the appropriate methodology is compulsory for all empirical study. The basic ingredients of the research are proper methodology, suitable data matching with methodology, hypotheses and so on. This section discuss about the data speciation, data sources, data description and the methodology itself. All tests run by Eviews 6.

Data sources

The quarterly time series data from Q1:2004 to Q2:2011 has been used for the research. The choice of the period was determined by the availability of data. The data were taken from world development indicators (WDI), World Bank, handbook of statistics on Bangladesh economy, Bangladesh Bank and last but not the least International financial statistics (IFS).

Description of the data

The crucial part of the research methodology is to decide the proper dependent and independent variables. There are so many indicators to measure the role of Islamic banks and economic growth. But from the literature review most of the researcher used per capita

GDP as economic growth and GFCF, TRADE also as in king and Levine (1993), Furkani & Mulyany (2009) and so on. Following the common trend, we measure GDP per capita for economic growth[3]. Again different indicators are available to measure financial development. The proper measure of financial development still needs empirical study due to different opinions among researchers.

Deogratias .D (2010) mentioned in his article by inspired with Levine (1997) many researchers used the ratio of monetary aggregates (M1, M2 or M3) to GDP as the ratio of liquid liabilities to GDP. But Hassan and Jung-Suk (2007) argued that other monetary aggregates like M1 and M2 perhaps poor indicators in economies with underdeveloped financial system. Firdu and Struthers (2003) explained details about the weakness of the broad money. They mentioned that expansion of credit may not be pondered in the movements of the money supply in financially deregulated economies with important capital inflows as foreign funds are excluded from it by definition. The ratio of liquid liabilities which indicates the level of the liquidity provided to the economy has a weakness as it does not reflect the allocation of savings (Karima and Holden, 2001)

Now in our research to measure Islamic banking role we use total financing, total deposits as two represents of Islamic banking.

Methodology

By using ARDL model we have following two equations:

$$lngdp_t = \alpha_0 + \sum_{i=1}^{p} \alpha_1 \, ln\, gdp_{t-i} + \sum_{i=0}^{q} \alpha_2 \, ln\, tdib_{t-i} + \sum_{i=0}^{r} \alpha_3 \, ln\, tfib_{t-i} + \upsilon_t \ldots\ldots\ldots 1$$

$$lntfib_t = \alpha_0 + \sum_{i=1}^{p} \alpha_1 \, ln\, tfib_{t-i} + \sum_{i=0}^{q} \alpha_2 \, ln\, gdp_{t-i} + \upsilon_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 2$$

Where, lngdp : natural logarithm of real gdp , lntfib : natural logarithm of Islamic banks' total financing, lntdib : natural logarithm of Islamic banks' total deposits, α's, = coefficients , u= disturbance term. A research hypothesis is all the variables are positively affect Bangladeshi economic growth.

Test for Stationarity Check

To study the relationship between Islamic banking and economic growth the first step is to find the series are stationary or non stationary. There can be many reasons like seasonal affects, trend, and shocks behind non stationary. To get the proper results these reasons should be removed from time series. Economic theory suggests that this should be a growing non-stationary process (Escudero. S.W; 2000). Unit root test is helping to identify the variables are stationary or non stationary. The unit root test for all variables can be carried out using Augmented Dickey-Fuller (ADF, 1986) and Phillips-Perron (P-P) and so on after collecting all the necessary data. ADF and Phillips-Perron (P-P) are similar but PP includes an automatic correction for auto correlated residuals. To test ADF and PP, logarithms of time series are taken. In the case of GDP, economic theory suggests the most important issue is to determine the source of the non stationary rather than testing for stationary (Escudero. S.W; 2000).

Test for Cointegration

Cointegration is referring to a long run relationships among non-stationeries. Co-integration test decides whether the long-term relationship occurs in variables or not. When the

[3] Gross domestic product (GDP) represents the income level of a particular country within a certain time range.

variables have cointegration relationship even though both are non stationary, its mean there is some long run equilibrium relationship which is stationary. This long run relationship is represented by the linear combination implicit in the cointegration relationship (Dolado. A.J, Gonzalo & Marmol ;1999). ARDL Autoregressive Distributed Lag (ARDL) is a new method proposed by Pesaran et al. (2001) to get out of the problems in the existing processes. It is applicable even if the sample size is small. ARDL is used for both testing the long-run relationship and estimating the long-run parameters. The choice of this test is based on the following considerations. Firstly, unlike most of the conventional co integration processes, which are valid for large sample size, the bound test is suitable for a small sample size study (Pesaran, *et al*., 2001). Given that our sample size is limited with a total of 30 observations only, conducting bounds test will be appropriate. Secondly, ARDL cointegration test is relevant in spite of of whether all the variables are I(0) or I(1) or some are I(0) and some are I(1). Therefore, no pre-testing for unit root is necessary. As a result, the following autoregressive distributed lag, ARDL model will be estimated in order to test the co integration relationship between economic growth and Islamic financing indicators. Using Wald-F test[4] we can Compare the test with the Lower and Upper critical values (Bounds testing procedure) as given by Pesaran et al. or Narayan(2004). If F-stat exceeds upper bound then there is cointegration. If F-stat is below the lower bound means there is no cointegration and within the bounds ,it is inconclusive .

Test for Granger Causality

To determine the direction of the relationship between variables, Granger Causality test should be employed. The objective is to find out if changes in one variable do affect changes in another variable and vice versa. (Deogratias .D ;2010).

IV. Empirical Interpretations

Table 2: Descriptive statistics

Descriptive Statistics								
	N	Median	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
GDP(LNY)	30	7.111114	6.692164	7.869241	7.130525	0.316496	0.561629	2.702335
Total deposits by Islamic Banks	30	10.21843	9.302875	11.12822	10.25616	0.520919	-0.045208	1.987873
Total financing by Islamic Banks	30	10.11308	9.172114	11.01555	10.15696	0.531522	-0.146975	2.023292

Mean is the informative measure of “central tendency” of the variable. It is always use for descriptive statistic. From the description of the variable we can know about the shape of its

[4] in Eviews: Coefficient Restriction Test

distribution. It refers to the frequency of values of the variables from different range. As normal distributions are absolutely zero so if the skewness is different from zero then the distribution is asymmetrical. On the other hand if kurtosis is different from zero then the distribution is flatter or peaked than normal.

Table 3: Explanatory Granger Causality Test

Null hypothesis	F - statistic	Probability
Islamic bank deposit does not Granger Cause GDP	8.75826	0.0015
GDP does not Granger Cause Islamic bank deposit	0.56265	0.5773
Islamic banks financing does not Granger Cause GDP	4.61968	0.0206***
GDP does not Granger Cause Islamic banks financing	16.6716	3.00E-05***
Islamic banks financing does not Granger Cause Islamic bank deposit	0.01349	0.9866
Islamic bank deposit does not Granger Cause Islamic banks financing	8.3319	0.0019***

Note:*** significant at 1% level;** significant at 5% level;* significant at 10% level.

In this research first we run granger causality test to determine the direction of the relationship between variables. Table 2 describes the result of this test from where we can see for first null hypothesis it is significant at 1%level, so we can reject null hypothesis. Therefore Islamic banks deposit has a relationship with economic growth. Again Islamic banks financing and GDP has vice versa relation as they are significant at 1% level where null hypothesis rejected. At the end Islamic banking deposits influence Islamic financing at 1% level. The granger causality test reveals that Islamic banking deposits and financing influences positively economic growth.

Even though the ARDL framework does not involve pre testing variables to be done, the unit root test could convince as to whether or not the ARDL model should be used. From the unit root test we can see that both tests agree that TFIB (total financing by Islamic bank) is I(1), that is, non-stationary in level but stationary in first difference. And other two variables have unit root problem at level while stationary in first difference.

Table 4:Unit Root Test

Variable	Augmented DF		Phillips-Perron	
	I (0)	I (1)	I (0)	I (1)
Gross domestic product growth (GDP)	2.478414	-0.392207	3.619327	-6.097257***
Total Financing Islamic bank (TFIB)	-1.722389	-4.238739***	-1.30731	-8.142566***
Total Deposit Islamic bank (TDIB)	-0.91264	-5.383101	-1.099067	-5.413616***

The next step is estimating the long-run relationship in equation (1) and equation 2. The ARDL approach has two steps to calculate F-statistic for cointegration. The first step is to select the lag length of ARDL model and we choose lag length 2 by referring to minimum value of AIC (Akaike Information Criteria) and SBC lag-length criteria technique. F-statistic Results in Table-4 are to take decision about the existence of co integration among the variables. The calculated F-statistic for equation (1) is 4.149 which is higher than lower bound critical value at 5 percent (3.538) and upper bound critical value at 10 percent (3.695) using restricted intercept and no trend. For equation (2) calculated F- statistic is 9.022204 also greater than lower and upper bound critical value at 10 percent, 5percent both in restricted intercept and trend or no trend. By reviewing the Table, It proves that null hypothesis of no co integration between Islamic finance and GDP is rejected in various level of significant and the results suggest that there exist a long-run relationship between Islamic banking and growth rate of real per capita GDP.

Table 5: F-statistic of cointegration relationship and bound critical values

Equation	Lag	F-Statistic	Sig. Level	Bound Critical Values*			
				Restricted intercept and no trend		Restricted intercept and trend	
				I(0)	I(1)	I(0)	I(1)
(1)	1	4.1497	1%	5.155	6.265	6.183	7.873
			5%	**3.538**	4.428	4.267	5.473
			10%	**2.915**	**3.695**	**3.437**	4.470
(2)	1	9.022204	1%	**6.027**	**6.760**	**8.170**	9.285
			5%	**4.090**	**4.663**	**5.395**	**6.350**
			10%	**3.303**	**3.797**	**4.290**	**5.080**

Note: * based on Narayan (2004), the number of regressor, k = 1,2

The coefficients of long run relationship between economic growth and Islamic bank financing plus Islamic banks deposits variables are reported in table 5. Total deposit by Islamic bank is appeared to have positive and significant impact on economic growth. This study found no evidence of the positive effect of total financing by Islamic banks and in the case it found the effect to be negative.

The variable of Islamic financing appears to be significant in equation (2) and its sign is consistent. It is consistent because Islamic financing shows demand following relationship towards economic growth. Positive relationship means the better the growth of the economy, the more develop the Islamic financial system. However, we find evidence that economic growth important for the development of Islamic financial system.

Table 6: Long Run model

	Dependent variables	
	LNGDP	LNTFIB
Coefficient of LNTDIB	2.391846	_
Coefficient of LNTFIB	-1.363034	_
Coefficient of LNGDP	_	1.120173

V. Discussion of Findings

The tests discovered a long-run relationship between the per capita GDP and the total deposits of Islamic banks. But for first equation, coefficient test shows that there is negative relationship with total financing and economic growth. Our finding is similar with Deidda & Fattouh (2001) where showed low income countries do not have significant relationship between financial development and economic growth. Again the results are also consistent with demetraides & hussein (1996) who fail to find cointegration between finance and growth in one third of the developing countries. Xu (2000) found that countries concentrated in the low or lower income group display negative effects of financial development on the growth of economy. In the equation 2 show a positive relation of GDP on Islamic finance. Islamic financing refers to demand following relationship with GDP. Demand following relationship states that a high economic growth may create demand for certain financial instruments and arrangements and the financial markets are effectively response to these demands and changes.

According to Rashid. M (2009) Islamic banking sectors have been enduring from investing their fund because of lack of local capital market. Also unawareness and less understanding closed the credit disbursement. As a result Islamic banks have lowest asset ratio compared to other industry average. Long operation of Islamic microcredit in Bangladesh has not been noticed properly by majority of the clients and Islamic banks. Due to non performing loans Islamic banks suffer a lot. it is being difficult to survive for Islamic banks against conventional banks due to rapid change of loans and advances and less costly supply of fund. Again Sarkar.A,[5] mentioned that Islamic banks are facing challenges due to Absence of an organized Islamic inter-bank money market, Absence of full-fledged legal framework for Islamic banking, Shortage of trained and efficient manpower committed to Islamic banking, Lack of co-ordination and co-operation among the Islamic banks, Lack of Shariah-compatible regulatory and supervisory standards, Inappropriate organization of the Shariah Councils and weak follow-up of the Shariah implementation status of the Islamic banks, Lack of corporate governance in the Islamic banks.

VI. Limitation

First limitation of this study is unavailability of quarterly GDP of Bangladesh from 2004-2011, for that reason we need to calculate weighted average GDP with adjustment of total assets . At this stage of current research, we did not look through error correction modeling and use explanatory granger causality which is not sufficient to imply true causality. But in near future it also requires to discuss about error correction modeling. In this research we did not include all areas of Islamic banking and country's economic growth. We only considered two variables due to data restriction & small time frame is compare to other studies. Other than that, this study has done only for Bangladesh. Lacks of data availability make our study more constrain for deepening the research.

VII. Policy Recommendations

The intervention of government or monetary authority could affect the relationship between Islamic financing and economic development. Government through central bank can adjust the liquidity level in the equity market and then influence the ability of Islamic banking institutions in supplying their funds.

Through increase in the number of Islamic banks and by offering new innovative Islamic products Bangladesh can help Islamic financial system to speed up. Government should

[5] Md. Abdul Awwal Sarker, *Islamic Banking In Bangladesh:Performance, Problems & Prospects,* International Journal of Islamic Financial Services Vol. 1 No.3

concentrate more on development of Islamic banks and open at least one branch in each district. Also should encourage more commercial banks to come out with Islamic windows beside conventional banking systems. This may be allowed Bangladesh to be an Islamic banking hub among the world of financial services. Bangladesh Government should bring in a strict guideline for Islamic banks with shariah compliance. It should come out with a separate legal advisory board to superior performance of Islamic banks. Islamic banks also need government help to reduce their liquidity crisis by distinguish money market instrument.

VIII. Areas for Further Research

Further study should be done by comparing with other countries Islamic banking development with Bangladesh. Then also by using different variables and different method can be used to measure the consistency of the results. Including the different time frame can also contribute to diverse results. In fact, a cross-sectional study would be more interesting, to evaluate how developing country's Islamic financial system works and how they are contributing to economic growth.

IX. Conclusion

This research was designed to examine the relationship of economic growth and Islamic banking in the context of Bangladesh during the period of 2004-2011. As there are three kind of relationships among economic growth and financial development indicators, we found a demand following relationship between Bangladesh economic growth and Islamic financing in the long run. Our results suggest that in Bangladesh Islamic banking and finance direct by economic growth. Therefore Bangladesh Government should take the Islamic banking sector as a pillar financial development to replace non performing industrial sector. Therefore if the financial systems of Bangladesh introduce new sectors of Islamic banking and give more prioritize towards Islamic banking then in the long run economic growth will be positively effect by IBF. Therefore, Islamic banks in Bangladesh can provide efficient banking services if they are supported with proper banking laws and regulations. Even under conventional framework, they can perform very well. So if Islamic banks can operate with standardize and appropriate banking system, the banking sector will develop and improve in a short time.

References

Abduh, Muhamad and Omar, Mohd Azmi, (November 25, 2010). *" Does Islamic Bank Promote Economic Growth and Poverty Reduction in Indonesia? An ARDL Bound Testing Approach",* Available at SSRN: http://ssrn.com/abstract=1716028

Ahmad, A.U.F., (2010). "*Developments in Islamic Banking Practice: The Experience of Bangladesh"*. Boca Raton, Florida.

Ahmad, A. U. F., & Hassan, M. K. (2007). "*Regulation and Performance of Islamic Banking in Bangladesh*". Thunderbird International Business Review, 49(2), 251-277.

Ahmed, Ausaf., (1995). "*The Evolution of Islamic Banking*". In Encyclopedia of Islamic Banking and Insurance, Institute of Insurance, London.

Ahmed, E., Rahman, Z., & Ahmed, R. I. (2006). Comparative analysis of loan recovery among nationalized, private, and Islamic commercial banks of Bangladesh. BRAC University Journal , III(1), 35

Al-Arafah Islami Bank Limited, http://www.al-arafahbank.com/glance.php accessed 24th March, 2011

Alam.M.N., "*Islamic banking in Bangladesh: A case study of IBBL".* International Journal of Islamic Financial Services Vol. 1 No.4

Ali.A.J.M & Munawar. I., (2001), "*Islamic Banking: Answers to Some Frequently Asked Questions"*, Occasional Paper No. 4, 2001, Islamic Research and Training Institute, IDB

Brooks,C.(2008) , "*"Introductory Econometrics for Finance", 2nd Ed. The ICMA Centre,* University of Reading Cambridge University Press

Calderón, César and Liu, Lin. (2002), *"The direction of causality between financial development and economic growth"*, Working Paper No.184, Central Bank of Chile.

Deidda, Luca and Fattouh, Bassam. (2002), "Non-linearity between finance and growth", *Economics Letters*, Vol. 74, pp.339-345.

Deogratias,D(2010); "*Financial Development And Economic Growth: The Case Of Rwanda"*

Dolado . J. J, Gonzalo.J & Marmol.F (1999), "*Cointegration*".

Fisman, Raymond and Love, Inessa. (2003*), "Financial dependence and growth revisited"*, NBER Working Paper, No. 9582.

Furqani, Hafas and Mulyany, Ratna. (2009), "*Islamic banking and economic growth: Empirical evidence from Malaysia"*, Journal of Economic Cooperation and Development, Vol. 30 No. 2, pp.59-74.

Islami Bank Bangladesh Limited, http://www.islamibankbd.com/performance.php accessed 24th March, 2011.

http://www.bankersbd.com/bank-jobs/shahjalal-islami-bank-limited.html accessed 24th March, 2011.

http://www.eximbankbd.com/php/static/history_back.php accessed 24th March, 2011.

Khan. N.S.M., Hassan.K.M., and Shahid.I.A., "*Banking bevavior of Islamic Bank Customers in Bangladesh".*

Majid, Shabri A. and Kassim, Salina. (2010), *"Islamic finance and economic growth: The Malaysian experience",* Paper presented in Kuala Lumpur Islamic Finance Forum, Kuala Lumpur, 2-5 August 2010.

Narayan, P. K. (2004), "*Reformulating critical values for the bounds F-statistics approach to cointegration: An application to the tourism demand model for Fiji",Discussion Papers*, Department of Economics, Monash University, Australia.

Rashid, M., and Nishat. A., (2009), "*Disparity of Performance Indicators of Islamic Banks:Study on Bangladesh".* International Journal of Business and Management Vol. 4, No. 8

Rioja, Felix and Valev, Neven. (2002), "*Finance and the sources of growth at various stages of economic development"*, Working Paper 02-17, Andrew Young School of Policy Study, Georgia State University

Saifullah. Md., (2010). *Superiority of conventional banks & Islamic banks of Bangladesh*: *A comparative study*. International Journal of Economics and Finance Vol. 2, No. 3

Sarkar, M.A.A., *Islamic banking in Bangladesh: performance, problems & prospects*. International Journal of Islamic Financial Services Vol. 1 No.3

Sukmana, Raditya and Kassim, Salina.(2010), "*Roles of the Islamic banks in the monetary transmission process in Malaysia",* International Journal of Islamic and Middle Eastern Finance and Management Vol. 3 No. 1 pp. 7-19

Walter Sosa Escudero.S.W (2000), "*A Primer on Unit-Roots and Cointegration*"

APPENDIX-1

ISLAMI BANK BANGLADESH LIMITED (IBBL)

	Year	2003	2004	2005	2006	2007	2008	2009
1.	Total Deposits (mil Taka)	70,552.65	88,452.18	108,261	132,814.00	166,812.78	200,725.00	244,292.14
2.	Total Investments (mil Taka)	62,755.90	83,893.63	102,145	123,959.00	174,365.55	198,763.00	255,272.41
3.	Total Income (mil Taka)	6,710.44	8,262.73	10,586.78	14,038.30	17,699.51	23,454.00	25,403.86
4.	No. of deposit account holder	1,994,266	2,291,269	2,705,180	3,207,131	3,802,709	4,361,896	4,272,123
5.	Number of Shareholders	14,196	15,892	17,201	20,960	26,488	33,686	52,164
6.	Number of Employees	4,673	5,306	6,202	7,459	8,426	9,397	9,588
7.	Number of Branches	141	151	169	176	186	196	231

APPENDIX-2

AL-ARAFAH ISLAMI BANK LIMITED (ALBI)

	Year	2004	2005	2006	2007	2008
1.	Total Deposits (mil Taka)	10,108.28	11,643.66	16,775.34	23,009.13	29,690.12
2.	Total Investments (mil Taka)	8,150.16	11,474.41	17,423.19	22,906.37	29,723.79
3.	Total Income (mil Taka)	1,120.85	1,452.68	2,172.48	2,955.61	4,387.26
8.	No. of deposit account holder	-	-	-	-	-
9.	Number of Shareholders	5,379	5,402	4,487	12,013	10,664
10.	Number of Employees	803	771	912	1,033	1,080
11.	Number of Branches	40	41	46	46	50