Impact of short and medium term investment concentration on earnings and dividend distribution: Evidence from Islamic Banks in Bangladesh

Md. Amzad Hossain
Department of Economics & Banking
International Islamic University Chittagong (IIUC), Bangladesh

Mohammad Rokibul Kabir
School of Business Administration, East Delta University, Bangladesh

Abstract
The aim of Islamic banking is to ensure interest-free banking system. To achieve the aim, Islamic banks use various modes of transactions as replacement of interest based system. Among the modes, some are short term and medium term and some are long-terms in nature. The study aimed at evaluating different investment modes to find investment concentration of Islamic banks in their portfolio. Secondary sources of data have been used to facilitate the research where a few persons were interviewed for some first-hand data related to investment modes. This study revealed that the investment portfolio of Islamic banks in Bangladesh mainly concentrates on short and medium-term investment which contributes to earning reasonable returns. These reasonable returns ensure stable dividend to the shareholders of Islamic banks in Bangladesh. This paper also discovered a significantly higher return of short and medium period investment than long-term based investment.

Keywords Islamic Bank, Investment portfolio, Short and medium term investment, Returns, Dividend

Paper type Research paper

1. Introduction

Islamic banking system is unique in nature because of its operational activities. Islamic banks utilize Islamic modes of financing on two sides: the sides of liabilities and the side of assets. On the liabilities side, the Mudarabah mode is frequently used. The bank and the client share profit in accordance with the ratios agreed upon. The current account which is treated in Islamic banking system as Wadiah account, which balance is treated as the loan from the clients to the bank and therefore the client bears no return. Islamic banks have various types of investment

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modes which are used in the assets sides. Islamic banking system has been operating in Bangladesh since 1983 through the establishment of Islamic Bank Bangladesh Ltd. After that, significant numbers of full-fledged Islamic banks have been incorporated in this country. Besides these Islamic banks, some conventional banks are providing Islamic products and services by opening new windows. Total deposits of the Islamic banks and windows in 2013 stood at Tk. 1.198 trillion, holding market share of 19.3%. In 2014, according to Bangladesh Bank source, the net profit of Islamic banks had a growth of 10.4 percent year-on-year. The success of Islamic banking system is eye-catching. The recent cost of funding of Islamic banks in Bangladesh is 9.45% compared to 11.21% of conventional banks. It may be due to its earnings stability. This paper, thus, has highlighted the earning stability of Islamic banks of Bangladesh with special references on short and mid-term investment.

This paper has been structured into eight sections. Where next section highlights literature review and hypothesis development, section III explains methodology of the study, section IV highlights modes of investment of the Islamic banks, section V highlights investment performance of Islamic banks of Bangladesh, section VI highlights results analysis of hypotheses, section VII highlights the conclusion and policy recommendation and finally VIII highlights limitation of the study and scope of further research.

2. Literature review and hypotheses development

Basically, Islamic financial institutions follow two financing techniques: the profit and loss sharing (PLS) and markup (MUP) principles (Zaher & Hassan, 2001). Khan (1983) studied over UAE, Jordan, Sudan, Bahrain, Egypt and Kuwait and found that Islamic financial institutions concentrate their investments in trade finance and real estate investments which are the short and medium-term investment. In the study of Iqbal and Mirakhor (1987) same findings were shown that is the investment of Islamic financial institutions is short-term oriented. The studies of Khan (1986), Man (1988) and many other also found that Islamic financial institutions have a strong concentration on short and medium-term investment. Earlier researches of Khan (1986); Iqbal and Mirakhor (1987) and Man (1988) claimed that Islami Bank Bangladesh Ltd. invests more on short term and medium term projects than long-term investment and have better earning from short and medium-term investment.

Therefore the first and second hypotheses have been developed in the following way:

H_1: Short-term investments generate more earnings than long-term investment.

H_2: Short-term and medium-term investments play a greater role in generating earnings than long-term investments.

A dividend is a portion of earning of a business entity. A lot of dividend policy theories were established over time including dividend irrelevance theory (Modigliani & Miller, 1961), bird in hand theory (Gordon, 1963 and Lintner, 1962), signaling theory (Ross, 1977), bankruptcy theory, agency theory (Rozeff, 1982), clientele theory (Richardson Pettit, 1977). Conventional banks distribute higher dividends when they earn the higher profit and lagged dividend of Islamic banks shows a positive significant relationship with dividend payout (Sh & Hadi, 2013). Most managers believe that investors prefer more or stable dividend policy because the stability of dividend policy ensures the investors about the performance of a particular firm (Lintner 1956). Based on that the third hypothesis has been designed in the following way:

H3: Earning stability of short-term and mid-term investment of Islamic banks of Bangladesh ensures stable dividend distribution.

3. Methodology of the study

This study covers only six Islamic banks of Bangladesh among eight Islamic banks and others have been excluded due to the new establishment (Union Bank Ltd.) and data insufficiency (ICB Islami Bank Ltd.). The study covers time series data over the year from 2009 to 2013.

Model specification

To test hypotheses of this study, F-test and T-test have been used:

For the first hypothesis

To test the first hypothesis that is short-term investments generate more earnings than long-term investment, the following regression has been run. The regression model was also used by the Hassan, Farhat and Al-Zu'bi (2003).

$EPS_t = \alpha_1 + \beta_1 STA_{i,\, t-1} + \beta_2 LTA_{i,\, t-1} + \varepsilon_{i,t}$

Where,

EPS_t = earning per share in the time period t to represent earning of Islamc banks

$STA_{i,\, t-1}$ = short term investment ratio to total assets in the period t-1

$LTA_{i,\, t-1}$ = long term investment ratio to total assets in the period t-1

$\varepsilon_{i,t}$ = error term

For the second hypothesis

To test the hypothesis that short-term and medium-term investments play a greater role in generating earnings than long-term investments, the following regression was run. The regression model was also used by the Hassan, Farhat and Al-Zu'bi (2003).

$EPS_{i,\, t} = I + \beta_1 SMTA_i + \beta_2 LTTA_i + \varepsilon_{i,t}$

$EPS_{i,\, t}$ = earning per share in time period t

$SMTA_{i,\, t}$ = the ratio of short & medium term investments to total assets

$LTTA_{i,\, t}$ = the ratio of long-term investments and total assets

$\varepsilon_{i,t}$ = error term

For the third hypothesis

To test the third hypothesis that is the dividend distribution stability of Islamic banks in Bangladesh the following regression has been run. The regression model also was used by the Lintner (1956) and Hassan, Farhat and Al-Zu'bi (2003).

$DPS_{i,t} = \alpha_1 + \beta_1 DPS_{i,\, t-1} + \beta_2 EPS_{i,\, t-1} + \varepsilon_{i,t}$

Where,

$DPS_{i,t}$ = dividend per share in time period t

$DPS_{i,\, t-1}$ = dividend per share in time period t-1

$EPS_{i,\, t-1}$ = earning per share in time period t

$\varepsilon_{i,t}$ = error term

4. Modes of investment practices by Islamic banks

a. Sharing mechanism

In this way, profits and losses the business are mutually shared by the two or more persons/institutions. The particular forms of this method practiced by the Islamic banks are:

Mudarabah

Mudarabah is derived from the Arabic word, meaning that a contract between two parties where one party provides capital (Rabb-al-Maal) to another party for the purpose of engaging in business with a view to sharing profits on a mutual basis agreed upon.

Musharakah

Musharakah is derived from the Arabic word "Sharikah", meaning partnership. In this form, both partners participate in the management and provision of capital and also share in the profit and loss.

Muzara'a

It is a contract where one person works in the land of another person in return for a pre-agreed share in the production of the land. The contract has two forms: in one form, the landowner supplies the seeds and machinery and employs any person as his agent to work on the lad in exchange for a pre-agreed share of the produce of the land and in the second form, the seeds and machinery are supplied by the employee as a tenant who also cultivates the land in exchange for pre-agreed share of the produce of the land.

Musaqat

It is a contract, in which one person waters and nurtures an orchard or a tree of another person in return for a pre-agreed share of the production of the orchard or the tree.

b. Ijarah nechanism

In this method, non-Fungible goods are leased out for a specific period for a fixed rental. Following forms are practiced by the Islamic banks:

Ijarah

Ijarah is Arabic term, meaning that to give something on the rental basis. It is actually a sale of services used by the purchaser. The lessor retains the ownership of the asset with all rights as well as the responsibilities.

Financial lease

A financial lease is a non-cancellable agreement between the parties for leasing a specific asset to the lessee for a term. End of the contract, the asset reverts to the lessor.

Operating lease
It differs with the financial lease in two ways; first, it is cancelable and second, the lessor remains all responsibilities for all expenses of the asset.

Ijarah-wa-Iqtina
It includes first an undertaking by the bank to purchase an asset specified by the customer and then lease out the asset to the customer and lastly handed over the ownership of the asset to the customer.

Hire purchase under Shirkatul Milk
In this form, bank and client provide equity in equal or unequal for purchasing a real asset. It includes three types of transaction mechanisms: Shirkah, Ijarah and Bai. Shirkah is a partnership contract in which two or more person agree to undertake a joint venture, providing equity, taking the risk, managing the business and distributing profit as per agreed upon. Ijarah mode was earlier stated. Bai is a contract between a buyer and seller under which the ownership of certain assets, transferred from the seller to the buyer in exchange for a fixed price paid by the buyer.

c. Bai mechanism
It involves buying directly or indirectly, through an agent, of goods and services by the bank, and selling of the same. This buying and selling take various forms:

Bai Muajjal
Muajjal is derived from Arabic word "Ajal", means fixed period. It is a contract between bank and client where the bank sells certain goods, purchased as per the specification of the client at an agreed price payable within a fixed future date a in lump sum or in fixed installments.

Bai Murabaha
As like as BaiMuajjal, it is a contract where a bank sells certain goods to the buyer at a cost-plus an agreed profit payable on the spot or on some date in the future.

Bai Musawamah
It means bargaining sale, where the seller is not obliged to disclose the price of the assets but in Murabaha, a buyer knows the cost of the underlying asset.

Bai Salam
Salam means "advance". In this form, the seller undertakes to supply some specific goods to the buyer at a future date in exchange for an advanced price fully paid on the spot.

Bai Istisna
Istisna is derived from the Arabic word "sana", means manufacturing. It is a contract where an order is placed by the buyer to manufacture goods, specified by the buyer, deliver the same to the buyer within the fixed period. Buyer may pay the full amount of in advance or installment basis.

Bai Dayn
Dayn means debt. It is like as bill of exchange of conventional bank. If a person has a debt from another person and he/ she sells it to another person at a discount.

Bai Istijrar
Istijrar derives from the word of "Zarra", meaning to purchase goods from time to time in different quantities. This type of contract is usually used when the different quantities are repetitively purchased.

Jualah
It is a contract where buying and selling is based on commission or fee.

5. Investment performance of Islamic banks of Bangladesh
This section will highlight the overall investment scenario of the six Islamic banks out of eight Islamic banks. In this study, two Islamic banks have been excluded due to data insufficiency. Total investment of Islamic banks has been categorized into three forms, namely: short term, medium term and long term. Here short-term investment has been considered those investments which maturity period is not more than one year; medium-term period has been considered those investments which maturity period is over one year but not more than five years and finally, long-term period has been considered those investments which maturity period is more than five year.

The average investment of short-term investment of Al-Arafah Islami Bank Ltd. is Tk. 54,498.01 million compared to Tk. 15,638.30 million of medium-term and 8,967.06 million of long-term investment (see Table-1 in the appendix). The average investment of short-term investment of EXIM Bank Ltd. is Tk. 66,965.84 million which is higher than medium and long-term investment. The average long-term investment of EXIM

Bank Ltd. is Tk. 19,489.91 million compared to the medium-term investment of Tk. 18,278.96 (see Table 2 in the appendix). The average short-term investment of First Security Islami Bank Ltd. is Tk. 40, 270.62 million compared to Tk. 23,177.73 million of medium-term and Tk. 10,796 million of long-term investment (see Table-3 in appendix). Islami Bank Bangladesh Ltd. has the biggest portion of average short-term investment which is Tk. 1,68,017.36 million compared to Tk. 74,207.32 million of long-term investment and Tk. 52,378.92 million of medium-term investment (see table-4 in the appendix). Social Islami Bank Ltd. has the lowest average long-term investment which is Tk. 2,150.21 million compared to Tk. 45,823.41 million of short-term investment and Tk. 7, 849.74 million of medium-term investment (see Table 5 in the appendix).The average short-term investment of Shahjalal Islami Bank Ltd. is Tk. 49,798.55 million compared to Tk. 15,150.37 million of medium-term investment and Tk. 8,627.55 million of long-term investment (see Table 6 in the appendix).

From the Table 7 in the appendix it has been seen that average investment of the short term period which is Tk.70,895 million, is higher than the medium (Tk. 22,079 million) and long-term (Tk. 18,340.37 million) period. The average growth rate (26.25%) of short-term period investment is almost nearest to long-term (26.90%) period investment.

6. Results and discussions

In this section, the results of different hypotheses have been highlighted.

First hypothesis

From the result (see Table 8 in the appendix) of the first hypothesis, it has been seen that the P value is 0.02 which less than 0.05. Since, the null hypothesis is rejected which may indicates that short-term investment generates more earnings than long-term investment. β_1 is the indicator of the ratio of short-term investment to total assets and which value is 0.746 compared to β_2 (the indicator of the ratio of long-term investment to total assets) of 0.028.

Second hypothesis

From the result (see Table 9 in the appendix) of the second hypothesis, it has been seen that the P value is 0.011 which is less than 0.05 which has rejected the null hypothesis that is short-term and medium-term investments play a greater role in generating earnings than long-term investments. β_1 is the indicator of the ratio of short and medium-term investment to total assets and which value is 0.640 compared to β_2 (the indicator of the ratio of long-term investment to total assets) of 0.537.

Third hypothesis
From the result (see Table 10 in the appendix) of the third hypothesis, it has been seen that the P value is less than 0.05 which has accepted the true hypothesis that is the dividend stability of Islamic banks in Bangladesh. The Islamic banks of Bangladesh follow stable dividend policy due to reasonable return from the short and medium-term investment.

7. Conclusion and policy recommendation
The empirical results of this study found that Islamic banks follow stable dividend policy with the reasonable return on the investments. The study also found that Islamic banks of Bangladesh concentrate their investments on short and medium-term investment than long-term investment. The returns from short and medium-term investment enable the Islamic banks of Bangladesh for establishing stable dividend policy. In the absence of efficient capital market long-term funding is quite difficult and in this situation, the banks are the only source of long-term funding (Iqbal & Mirakhor, 1987). Without existing exposure to longer-term risk-return sharing financing, a tendency exists among the bankers that concentrate them into short-term financing (Iqbal & Mirakhor, 1987). In this way, many profitable projects may be rejected due to insufficient financing. The Islamic banks should composite their investment portfolio through various tiers. That fulfills the actual need of demander as well as the bias against Musharakah and Mudarabah will be removed. Excessive concentration on short and medium-term financing may increase the cost of funding because to cope with the benefit from this type of investment Islamic banks incurs more cost in liability side which may result the lower profitability. So, Islamic banks should minimize the cost of funding by mobilizing funds with variation both in liability and assets side.

8. Limitations and further research
The first limitation of this study is data insufficiency. Only five years data were used to interpret the results. Further study may include more data. The second limitation of this study is the sample size. Among eight Islamic banks, only six Islamic banks were used where one (Union Bank Ltd.) was excluded due to the new establishment in 2013 and another one (ICB Islamic Bank Ltd.) was excluded due to data insufficiency of data. Further

study may include all Islamic banks of Bangladesh by incorporating two Islamic banks which were excluded due to data insufficiency.

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Corresponding author

Md. Amzad Hossain can be contacted at: sazzad.amzad@yahoo.com

Appendix

Table 1: Al-Arafah Islami Bank Ltd. (Million, BDT)

Year	Short-Term investment	Medium-Term investment	Long-Term investment
2009	19172.27	9456.60	7505.21
2010	26754.14	16826.30	10002.52
2011	36767.82	25328.87	11337.13
2012	85382.51	12560.48	8707.43
2013	104413.30	14019.09	7283.00
Mean	54498.01	15638.27	8967.06
SD	38004.53	6033.79	1712.45
Max	104413.30	25328.87	11337.13
Min	19172.27	9456.60	7283.00

Source: Bank's Annual Report

Table 2: Export Import (EXIM) bank of Bangladesh Ltd. (Million, BDT)

Year	Short-Term investment	Medium-Term investment	Long-Term investment
2009	41572.87	10259.65	16777.40
2010	59996.91	13204.76	20094.98
2011	61534.29	12700.27	25465.07
2012	77562.45	25697.65	14959.89
2013	94162.69	29532.49	20152.20
Mean	66965.84	18278.96	19489.91
SD	19842.05	8701.40	4012.05
Max	94162.69	29532.49	25465.07
Min	41572.87	10259.65	14959.89

Source: Bank's Annual Report

Table 3: First Security Islamic Bank Ltd. (Million, BDT)

Year	Short-Term investment	Medium-Term investment	Long-Term investment
2009	21005.1	12089.46	5631.32
2010	28272.24	16272.07	7579.59
2011	37679.39	21686.35	10101.59
2012	52235.86	30064.30	14004.07
2013	62160.53	35776.45	16664.81
Mean	40270.62	23177.73	10796.28
SD	16912.80	9734.15	4534.21
Max	62160.53	35776.45	16664.81
Min	21005.10	12089.46	5631.32

Source: Bank's Annual Report

Table 4: Islami Bank Bangladesh Ltd. (Million, BDT)

Year	Short-Term investment	Medium-Term investment	Long-Term investment
2009	107703.4	38441.96	68470.48
2010	168187.1	20053.18	74984.87
2011	196700	39231.02	69909.53
2012	181384.1	82343.34	77401.9
2013	186112.2	81825.12	80269.82
Mean	168017.36	52378.92	74207.32
SD	35237.02	28182.46	4973.58
Max	196700.00	82343.34	80269.82
Min	107703.40	20053.18	68470.48

Source: Bank's Annual Report

Table 5: Social Islami Bank Ltd. (Million, BDT)

Year	Short-Term investment	Medium-Term investment	Long-Term investment
2009	20694.43	4979.51	906.65
2010	33433.71	2676.74	569.84
2011	39468.68	9229.47	5210.43
2012	65561.96	6770.17	3692.85
2013	69958.26	15592.81	371.26
Mean	45823.41	7849.74	2150.21
SD	21198.20	4950.31	2176.77
Max	69958.26	15592.81	5210.43
Min	20694.43	2676.74	371.26

Source: Bank's Annual Report

Table 6: Shahjalal Islami Bank Ltd. (Million, BDT)

Year	Short-Term investment	Medium-Term investment	Long-Term investment
2009	27341.79	10570.60	6045.87
2010	38215.39	14774.44	8450.25
2011	50128.07	19379.99	11084.40
2012	60499.71	22456.17	13229.04
2013	72807.77	8570.66	4328.18
Mean	49798.55	15150.37	8627.55
SD	17906.17	5823.93	3619.08
Max	72807.77	22456.17	13229.04
Min	27341.79	8570.66	4328.18

Source: Bank's Annual Report

Table 7: Average investment and growth of investment of Islamic banks in Bangladesh

Year	2009	2010	2011	2012	2013	Mean	SD
SHT	39581.60	59143.25	70379.70	87104.40	98269.10	70895.63	23081.29
Growth (%)		49.42	19.00	23.76	12.82	26.25	16.08
MT	14299.60	13967.92	21259.30	29982.00	30886.10	22079.00	8170.11
Growth (%)		-2.32	52.20	41.03	3.02	23.48	27.19
LT	17556.20	8450.25	22184.70	21999.20	21511.60	18340.37	5844.91
Growth (%)		-51.87	162.53	-0.84	-2.22	26.90	93.48

'SHT' = Short-term investment,
'MT' = Medium-term investment,
'LT' = Long-term investment
Source: Researchers' calculation

Table 8: Results of first hypothesis

Adjusted R^2	F value	Significance Value	α	β_1	β_2
0.76	48.13	0.02	2.450	0.746	0.028

Source: Researchers' calculation

Table 9: Results of second hypothesis

Adjusted R^2	F value	Significance Value	α	β_1	β_2
0.56	35.37	0.011	30.16	0.640	0.537

Source: Researchers' calculation

Table 10: Results of third hypothesis

Adjusted R^2	F value	Significance Value	α	β_1	β_2
0.743	42.83	0.00	1.125	0.796	0.362

Source: Researchers' calculation