

COMPETITION AND OTHER EXTERNAL DETERMINANTS OF THE PROFITABILITY OF ISLAMIC BANKS

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In most of the Muslim countries, Islamic banks are operating side by side with conventional banks. This study examines the effects of competition and some other external factors on the profitability of Islamic banks. The banks chosen for this study were divided into two groups according to the market in which they operate. The study finds that Islamic banks in competitive market earned more than those which operate in a monopolistic market. Evidence was also found to support the hypothesis that the profit-loss sharing principle practiced by Islamic banks is beneficial to both depositors and the banks.

1. INTRODUCTION

The last two decades have witnessed the emergence of a number of Islamic banks, especially in the Muslim countries. Although all of these banks are governed by basically the same *shari'ah* law, they operate in various kinds of market structure. With the exception of Iran, Pakistan and Sudan - who have Islamized their entire financial systems - other Muslim countries use interest-based systems. In countries such as Bangladesh, Brunei, Indonesia, Jordan, Kuwait, Malaysia and the United Arab Emirates, an Islamic bank is given monopolistic status while in Bahrain, Egypt and Turkey there are numerous Islamic banks.

Economic theory postulates that market structure effects firm performance. Studies have been undertaken to examine the effects of market structure on the performance of conventional banks. Theories such as structure-conduct-performance, efficient-structure, risk-aversion and expense-preference were tested in the conventional banking system. Up to date, there has been little research on the performance of Islamic banks with respect to profitability. Nienhaus (1983) tried to link the profitability of Islamic banks with the market structure. Based on his simplistic equilibrium model, he postulated that the profit-sharing ratio (the percentage of profit paid by the entrepreneur) of Islamic banks was positively related to the lending rate of the conventional banks. Nienhaus (1983) not only suggested that Islamic

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banks use the interest rate as a basis for calculating their profit-sharing ratio, but also recommended that the profit-sharing ratio be equivalent to the interest rate offered by the conventional banks. He also believed that in the long run, interest-based banking was more successful than Islamic banking. Unfortunately, Nienhaus's hypotheses were not supported by any empirical evidence.

Both Siddiqi (1983) and Ahmad (1983) expressed reservations about the assumptions made by Nienhaus. Khan (1983) expanded Nienhaus's model and postulated that the average return of an Islamic bank in the long run will be higher than the interest rate. Khan believed that Nienhaus's argument was valid in the case where profit-sharing products were provided by conventional banks. Interestingly, Khan acknowledged that the profit-sharing ratio would have a positive relationship with interest rate but reiterated that the profit-sharing ratio would not necessarily be at the same level as the market rate as claimed by Nienhaus. Like Nienhaus, Khan's framework was not empirically verified.

The objective of this study is to examine the impact of competition and other factors which may influence the profitability of Islamic banks. With regard to competition, Islamic banks with monopolistic status need to compete only with the conventional banks, whereas others have to compete not only with other Islamic banks but also with the conventional banks. Therefore, it is interesting to know whether Islamic banks that enjoy monopolistic status are more profitable than those which have to compete with both conventional banks and other Islamic banks. This study also examines whether external variables that influence the profitability of conventional banks have similar impact on Islamic banks.

The paper is divided into five sections. The literature on profitability determinants is reviewed in section 2 to justify selected external variables. Section 3 explains the methodology used in testing the effects of competition and other external determinants on Islamic banks' profits. Section 4 elaborates on the results and section 5 gives the conclusions.

2. EXTERNAL DETERMINANTS OF BANK PROFITABILITY

The literature divides the determinants of conventional bank profitability into two categories: internal and external. Internal determinants of profitability comprise variables such as the sources and uses of funds management, capital and liquidity management, and expenses management. All of these internal variables are considered to be controllable by the management of a bank. External variables are those factors that are considered to be beyond the control of the management of a bank. Among the widely discussed external variables are competition, regulation, concentration, market share, ownership, scarcity of capital, money supply, inflation and size.

2.1 Competition

Although competition is considered in the literature as one of the important determinants of profit for conventional banks, debate in this area has not been fully resolved. Philips (1964) believed that public regulation, private organization and institutional market characteristics made industry performance insensitive to differences in market structure and made competition difficult to observe. In view of the difficulties of measuring the impact of competition, most banking researchers prefer to incorporate this aspect within the scope of market structure or regulations.

Emery (1971) was among the first researchers to measure the effect of competition on bank profitability. He used entry into the market as a proxy for competition. Emery's findings were that competition had no significant impact on profits. Rhoades (1980) examined the effect of new entry on competition. His results indicated that there was no relationship between entry and competition. Similarly, Lindley et. al. (1992) found a weak adverse relationship between competition and the rate of entry. Steinherr and Huveneers (1994) examined the impact of foreign banks on the profitability of domestic banks. They found that the existence of foreign banks produced an unwavering impact on the profitability of various types of banks.

2.2 Regulation

The banking industry is among one of the most heavily regulated industries in the world. The main reason for regulation is to provide a sound, stable and healthy financial system. Peltzman (1968) was among the first researchers to empirically test the effects of regulation on performance. Instead of profit, he used the bank's capital as a proxy for performance. Peltzman's findings indicated that a prohibition on interstate branching and legal restrictions on new entry had a significant impact on the market value of a bank's capital.

Fraser and Rose (1972) studied whether the opening of new institutions had any significantly adverse effect on the growth and profitability of competing institutions. They found that, despite some evidence of slowing in the growth rate of deposits, the profitability of existing institutions was not adversely affected by the opening of new branches by their competitors. The findings of Fraser and Rose, however, was not supported by McCall and Peterson (1977). Similarly, Mullineaux (1978) found that regulations on the setting-up of banks had a significant impact on profitability. The findings of McCall and Peterson (1977) and Mullineaux (1978) confirmed the studies of Vernon (1971) and Emery (1971). A similar approach was used by Smirlock (1985) and his results also confirmed Vernon's and Emery's findings.

2.3 Concentration

Concentration is defined as the number and size of firms in the market. The term

has emerged from the structure-conduct-performance (SCP) theory which is based on the proposition that market concentration fosters collusion among firms. The assumption is that the degree of concentration in a market exerts a direct influence on the degree of competition among its firms. Highly concentrated markets will lower the cost of collusion and foster tacit and/or explicit collusion on the part of firms. As a result of this collusion, all firms in the market earn monopoly rents. This theory was first used by researchers using manufacturing firm data and gained popularity among researchers in banking studies in the 1960s.

The effects of concentration on the banking structure were further expanded in the 1970s and continued into the 1980s. Heggsted (1979), in his survey of studies undertaken during 1961-1976, found that concentration had either a significant or a small effect on dependent variables such as profitability, loan rates, deposit rates and the number of bank offices in only 26 of the 44 banks studied. Similarly, Gilbert (1984) summarized the response of bank performance measures to a change in market concentration and found that in only 27 of the 56 studies reviewed did concentration significantly effect performance in the predicted direction.

Many have studied the effect of concentration on profitability, including Emery (1971), Fraser and Rose (1971), Vernon (1971), Heggsted (1977), Short (1979), Kwast and Rose (1982), Smirlock (1985), Bourke (1989), and Molyneux and Thornton (1992). While the findings of Heggsted, Kwast and Rose, Short, Bourke, and Molyneux and Thornton indicated that concentration had a significantly positive relationship with profits, a significant relationship, but in the opposite direction, was found in Vernon's study. The effect of concentration was insignificant in Emery's, Fraser and Rose's and Smirlock's studies.

2.4 Market Share

Market share is considered a determinant of profitability under the assumption that as a result of their efficiency, firms will obtain a bigger market share and increase their profitability. A bigger market share also means more power to a bank in controlling the prices and services it offers to its customers. Heggsted and Mingo (1976) found that the greater the market share, the greater a bank's control over its prices and the services it offers. Heggsted (1977) and Mullineux (1978), however, found that market share had an adverse relationship with profitability.

Short (1979) believed that some banks might sacrifice current profits by growing at a faster rate or expanding their market share with the intention of earning more profits in the future. He used the growth of assets rate as a proxy for measuring the effect of market share on profitability and found that growth of assets did not have a significant effect on profit. Smirlock (1985) not only believed that market share influenced profitability but that growth in the market created more opportunities for a bank and thus generated more profits. His finding indicated that growth had a significant positive relationship with profits.

2.5 Ownership

The effect of ownership on bank profitability is not fully resolved in the literature. In his study, Vernon (1971) examined the performance of management-controlled banks and owner-controlled banks. He found that owner-controlled banks did not earn higher rates of return on invested capital when compared to management-controlled banks. Mullineaux (1978) divided his sample into two: only-bank holding company banks and multi-bank holding company banks. He found that only-bank holding company banks were more profitable than their counterparts.

Short (1979) believed that government ownership would have an impact on profitability, on the grounds that government banks are non-profit oriented banks. He found that the government ownership variable was significant and moved negatively with profits, thus confirming the hypothesis that higher the amount of a bank's capital owned by the government increases, the lower the profits generated by those banks. Both Bourke (1989) and Molyneux and Thornton (1992) included government ownership in their studies. While Bourke's result indicated a weak inverse relationship, a significant positive relationship was found by Molyneux and Thornton.

2.6 Scarcity of Capital

The usage of scarcity of capital as one of the determinants of profitability was introduced by Short (1979). He believed that scarcity of capital can be used to measure the economy-wide profitability of all industries in a particular country. In his study, Short used both central bank discount rates and the interest rates on long-term government securities. He found that these variables had a significant positive relationship with profitability. Short's hypothesis was further tested by Bourke (1989) and Molyneux and Thornton (1992). The findings of these two studies also found that capital scarcity had a significant positive relationship with profitability.

2.7 Money Supply

Bourke (1989) also believed that market expansion could produce a capability for earning increased profits. In his study, Bourke used the annual growth in money supply as a proxy for growth in the market. He found that money supply had a significant positive relationship with profits. Molyneux and Thornton (1992), who replicated Bourke's study, found a similar result.

2.8 Inflation

The effect of inflation on bank profitability was first discussed by Revell (1980). He believed that inflation could be a factor in the variations in a bank's profitability. This hypothesis was empirically tested by Bourke (1989) and Molyneux and Thornton (1992). Using the consumer price index (CPI) as a proxy for inflation, both studies

found that inflation had a significant relationship with profits. Although the first empirical testing on inflation was done by Bourke (1989), Heggsted (1977) in his study had tried to measure the effect of inflation on profitability indirectly. He used per capita income as an independent variable instead of using the CPI. Heggsted's finding, however, did not indicate any relationship between per capita income and a bank's profitability.

2.9 Economies of Scale and Bank Size

Economies of scale are commonly defined as reductions in the cost per unit of a product being manufactured and sold. Economic theory suggests that if an industry is subject to economies of scale, larger institutions will be more efficient and can provide services at a lower cost, *ceteris paribus*. Since large banks are assumed to enjoy economies of scale, they are able to produce their outputs or services more cheaply and efficiently than can small banks. As a result, large banks will earn higher rates of profit if entry is impeded. The effect of economies of scale on profitability, however, has not been fully resolved by researchers in banking.

Emery (1971) and Vernon (1971) were among the earliest researchers to link bank size with profitability. Emery classified his sample according to total assets and found that the larger banks had greater returns. Similarly, Vernon used total assets as a proxy for size but found that there was no significant relationship between size and profitability. Vernon's finding was confirmed by Heggsted (1977), Kwast and Rose (1982) and Smirlock (1985).

Short (1979) found that the relationship between the profit rates of 60 banks and the growth of assets was significant but inverse. Molyneux et. al. (1994), who examined the competitive conditions of European banking for the four-year period from 1986 to 1989, also included bank assets as an independent variable. Their regression results, however, produced inconsistent results among countries as well as within countries from one year to another. Stienherr and Huveneers (1994) also included the size of banks as one of the independent variables in their profitability study and found that it had mixed effect on the performance of various groups of banks.

3. METHODOLOGY

The data for this study is a pooled time series and cross-section taken from the annual reports of Islamic banks from various Islamic countries. (A list of participating banks and the years of data involved are given in Appendix I). Islamic banks from Bangladesh, Jordan, Kuwait, Malaysia, Tunisia and the United Arab Emirates are labeled as monopolistic banks, whereas those from Bahrain, Sudan and Turkey are competitive banks. Although Sudan has Islamization in its entire banking system, this study considers Islamic banks in Sudan as banks which operate in the competitive banking environment. This is largely because the data used in this study was taken

when Sudan used a dual banking system. Unlike Iran and Pakistan where Islamization of banking system is going on on a continuous basis, Sudan first tried to convert their banking system in 1984 but the attempt was half-hearted (Ahmed, 1990). The second attempt began in 1994 and it was reported that the Islamization process was well-organized (Ahmad, 1994). Since the objective of this paper is to examine the performance of Islamic banks in a dual-banking environment, no banks from Pakistan and Iran are included in this study.

The independent variables for this study are as follows:

1. MKTPL: A dummy variable representing two different markets, 1 - when a bank operates in a monopolistic market; and 0 otherwise.
2. MKTSH: Market share (total deposits of an Islamic bank as a percentage of a country's total deposits),
3. INT: The discount rate for each country for each year (IMF),
4. MON: Growth in money supply (M_2) for each country for each year (IMF),
5. CPI: Percentage increase in the consumer price index for each country for each year (IMF),
6. Log Size: Total assets in common currency (US dollar)- in logarithms.

Market place (MKTPL) is used to measure both competition and regulation. Islamic banks which operate in monopolistic markets are hypothesized as being more profitable than those which operate in the competitive environment. This variable also serves as an indicator which validates the protectionist policy applied by some Muslim governments to Islamic banks operating in their countries. As in the case of research involving conventional banks, market share (MKTSH) is considered as a proxy for efficiency. The bigger share means more profits to the Islamic banks. In addition to total deposits placed by customers at Islamic bank, this study will also use changes in money supply (MON) as variables which measure the capability of Islamic banks to increase profits. The interest rate (INT) which was used by previous researchers is considered a variable which measures the scarcity of capital in the economy. Though Islamic banks are said to have no direct relationship with interest-bearing instruments, but as institutions within the country's financial system, the profitability of Islamic banks is expected to be influenced by the total capital available in the market. In the case of conventional banks, the decrease or increase in the discount rates by the central bank is the signal for them to fix their lending rate. Similarly, the rates also influenced the rates given to the depositors. The inclusion of interest rate in the model will test the opinions of Nienhaus (1983) and Khan (1983). Finally, this study will also examine the effect of inflation on the profitability of Islamic banks. Just like the previous studies, consumer price index (CPI) is used as a proxy for inflation.

Although concentration is considered by many researchers as one of the factors that has a direct influence on a bank's profitability, this factor will not be included in this

study for a number of reasons. Firstly, the data for total Islamic bank deposits or total assets (to compute concentration ratio) is not available. Secondly, six out of fourteen banks in the study operate in monopolistic market, thereby negating the use of concentration. And finally, the results of earlier studies generally indicate that concentration tends to have insignificant impact on profitability. Since most Islamic banks are privately owned, the ownership factor is also excluded in this study.

There are many profit ratios which measure firm's performance. Some of the ratios, however, are either beyond the scope of this study or insignificant in value. The following ratios are considered relevant and are used as proxies for profitability:

1. TITA: Total income as a percentage of total assets.
2. BITA: Bank's portion of income as a percentage of total assets.
3. BTTA: Net profit before tax as a percentage of total assets.
4. BTCR: Net profit before tax as a percentage of capital and reserves.

Total income as a percentage of total assets ratio (TITA) is considered sufficient to capture the impact of external determinants on a bank's profitability. While BITA (bank's portion of income as a percentage of total assets) will capture the effect of profit-sharing ratio between banks and the depositors, BTTA (net profit before tax as a percentage of total assets) is used to measure the effect of expenditure on a bank's profitability. The effects of external variables on the returns to shareholders is measured by the net profit before tax as a percentage of capital and reserves ratio (BTCR). This ratio is considered appropriate because many of the samples (especially from the Middle East countries) operate in tax-free countries.

Since the study combines cross-sectional and time-series data, a dummy variable model is used with the assumption that all behavioral differences between individual banks and over time are captured by the intercept (Griffiths et. al., 1993). This assumption is to be validated by the following statistical model:

$$y_{it} = \beta_0 + \gamma_2 D_2 + \gamma_3 D_3 + \dots + \gamma_j D_j + \beta_1 X_{it,1} + \beta_2 X_{it,2} + \dots + \beta_k X_{it,k} + \varepsilon_{it}$$

where y_{it} is the dependent variable, β_0 is an intercept for the base bank, γ_2 , γ_3 , and γ_j determine the contribution of the dummy variables D_2 , D_3 and D_j , Dummy variable for each bank is defined as $D_2 = 1$ and 0 (bank 2 = 1, and 0 otherwise), $D_3 = 1$ and 0 (bank 3 = 1, and 0 otherwise), and $D_j = 1$ and 0 (bank j : 1, and 0 otherwise), and j is the number of banks included in the study (i.e. 14 banks). Independent variables are represented by $X_{it,1}$, $X_{it,2}$ and $X_{it,k}$, β_1 , β_2 , and β_k determine the contribution of independent variables $X_{it,}$ and $k =$ the total number of independent variables. While i represents the number of observations, t is the number of observations for a particular bank (time series data) and ε_{it} is an error term.

If it is true that $\gamma_2 = \gamma_3 = \dots = \gamma_j$, the following OLS model will be used:

$$y_{it} = \beta_0 + \beta_1 X_{it,1} + \beta_2 X_{it,2} + \dots + \beta_k X_{it,k} + \varepsilon_{it}$$

4. FINDINGS

The regression results of dummy variable model indicated that $\gamma_2 = \gamma_3 = \dots = \gamma_{14}$. Therefore, the usage of OLS model is considered efficient to provide a useful estimation for this study (regression results for dummy variables are not reported because they are not significant). The OLS results are reported in Table 1, and Table 2.

Table 1 presents the relationship between various profitability variables of Islamic banks and external determinants. Most of the earlier findings indicated that interest rates (INT), money supply (MON), inflation (CPI) and size (Log SIZE) have a significant positive relationship with profitability. Except for money supply which had an insignificant relationship, a significant positive relationship with total incomes of Islamic banks (TITA) was also found for the other three variables. For example, as indicated in equation 1, each 1% increase in interest rate is seen to improve the total incomes of Islamic banks by 0.096%. Interestingly, the theory which posits that the bigger the share of a bank in the market the more profitable it would be, is not applicable to Islamic banks. This study found that the market share variable (MKTSH) had a significant inverse relationship with total incomes. As indicated in equation 1 of Table 1, each 1% increase in market share will reduce the Islamic banks' income by 0.261%.

There is not much deviation between equation 1 and equation 2 of Table 1. Although the sign of regression coefficients for capital scarcity, inflation and size moved in the opposite direction, these movement were not statistically significant to make any conclusion. The changes in the direction for these variables, however, was confirmed by equation 3. Interestingly, all variables in equation 3 had a significant relationship with net profit before tax (BTTA). While market share, interest rate and money supply were positively related to profitability, both inflation and size moved towards an opposite direction. Like equation 2, almost all variables in equation 4 of Table 1 were statistically insignificant to provide useful inferences.

There are some interesting findings in Table 1 which deserve further elaboration. Firstly, with regard to the market share, although conventional banking theory postulates that the bigger the market, the more profit the banks, this theory is not necessarily true for Islamic banks. Similarly, an inverse relationship between profitable market share does not mean that Islamic banks are less successful than interest-based banks as suggested by Nienhaus. In fact, a significant positive relationship between market share and profitability as shown in equation 3 is an indicator that effectiveness and efficiency are taking place in Islamic banks. Similarly, a significant positive relationship between size (Log SIZE) and TITA is an indicator that economies of scale exist in Islamic banks.

There are two possible reasons for why market share is inversely related to profitability. Firstly, Islamic banks are known for having limited investment opportunities (Ahmad, 1987). Although Islamic banks are able to expand their market share, they are still unable to convert those funds into earning assets. Secondly, Islamic banks tend to

concentrate on short-term financing. Theoretically, this type of investment generates less income. Therefore, while conventional banks concentrate on high earning assets, Islamic banks remain conservative in their activities. As a result of this strategy, income received by these banks is comparatively lower than their counterpart.

Another interesting phenomenon to observe is a sudden change in the regression coefficient of Log SIZE from positive to negative. This variable had a positive relationship with TITA but an opposite relationship with the other three profitability measures. This finding indicates that while the bigger the size, the more the total income of the bank, but this does not mean that the net income to the bank will increase. As indicated in equation 3, each 1% increase in size will decrease net income before tax to total assets by 0.7%. This finding suggests that more income was channeled to the depositors. Thus, the profit-sharing concept between banks and depositors plays an important role in determining the level of income to the Islamic banks.

In the case of interest rates, the result of this study could be used to support both Nienhaus's and Fahim Khan's assumption. As indicated in Table 1, a significant positive relationship between interest rate and profitability variables was found in the first three important equations. Therefore, an increase in interest rate means more profit to the Islamic banks, and vice versa.

Table 1
Estimates of Relation between Profitability of
Islamic Banks and External Variables

	MKTSH	INT	MON	CPI	Log SIZE	R ²	f
TITA	-0.261 ^a (-3.980)	0.096 ^a (2.015)	-0.045 (-1.442)	0.085 ^c (1.824)	1.464 ^a (2.343)	0.825	31.97 ^a
BITA	-0.033 ^a (-2.588)	0.062 ^a (2.428)	0.007 (0.478)	-0.035 (-1.401)	-0.393 (-1.378)	0.673	13.92 ^a
BTTA	0.121 ^a (9.820)	0.051 ^b (2.171)	0.296 ^b (2.107)	-0.063 ^a (-2.756)	-0.747 ^a (-2.839)	0.764	23.40 ^a
BTCR	0.120 (0.933)	0.187 (0.719)	0.016 (0.100)	0.034 (0.138)	-6.693 ^b (-2.306)	0.516	6.09 ^a

Notes:

a: Significant at a 1% level

b: Significant at a 5% level

c: Significant at a 10% level

t statistics in parentheses

Intercept omitted for reasons of space

Table 2 reports the impact of competition (MKTPL) on the profit levels of Islamic banks. The effect of competition, however, is not consistent for all profitability variables. As indicated by equation 1, competition has no effect on total incomes received by Islamic banks in both monopolistic and competitive markets. Based on equation 2, it seems that depositors in competitive markets are better rewarded than their counterparts. The positive relationship between MKTPL and BITA means, at any point of time and a given scenario, Islamic banks in monopolistic markets are better off by 0.6% than banks in the competitive market. This is in line with classical economic theory which says that under monopolistic conditions, a firm's welfare is maximized.

With regard to equation 3, it seems that Islamic banks in a competitive market are better managed than those in the monopolistic markets. This finding is also in line with general belief. Those businesses which operate in a competitive environment must be alert to the changes and produce innovative strategies and policies, if they wish to remain in the market place. The finding in equation 4 confirms that shareholders of monopolistic banks are better rewarded than those in the competitive market. Under any given scenario, incomes received by shareholders of monopolistic banks are 6.67% higher than their counterparts.

Table 2
The Effect of Competition on Islamic Banks and Estimates of Relation between Profitability and External Variables

	MKTPL	MKTSH	INT	MON	CPI	Log SIZE	R ²	f
TITA	-0.958 (-1.456)	-0.289 ^a (-4.259)	0.074 (1.500)	-0.046 (-1.468)	0.095 ^b (2.026)	1.802 ^a (2.721)	0.830	27.40 ^a
BITA	0.640 ^c (1.805)	-0.017 (-1.166)	0.076 ^a (2.897)	0.007 (0.469)	-0.041 ^c (-1.662)	-0.596 ^b (1.967)	0.688	12.46 ^a
BTTA	-0.581 ^c (-1.777)	0.106 ^a (7.404)	0.038 (1.545)	0.029 ^b (2.148)	-0.057 ^a (-2.511)	-0.562 ^b (-2.010)	0.774	20.53 ^a
BTCR	6.673 ^c (1.850)	0.279 ^c (1.819)	0.341 (1.265)	0.013 (0.086)	-0.031 (-0.124)	-8.814 ^a (-2.895)	0.543	5.797 ^a

Notes:

a: Significant at a 1% level

b: Significant at a 5% level

c: Significant at a 10% level

t statistics in parentheses

Intercept omitted for reasons of space

5. CONCLUSIONS

This study provides empirical evidence on the determinants of profitability for Islamic banks. While interest rate inflation and size have significant positive impact on the profits of conventional banks, similar results were found for Islamic banks in this study. In the case of market share and money supply, these variables were found to have an adverse effect on profits. These results are opposed to the findings of earlier studies. This study found that there was no significant variation in earnings between Islamic banks in competitive and monopolistic markets. However, there was strong evidence to indicate that firm's and shareholders' welfare was maximized in the monopolistic market. On the contrary, a depositor's welfare was paramount to Islamic banks in the competitive market. The results of this study indicate that banks in a competitive market were better managed than their counterparts. Therefore, it is obvious that protectionist policies adopted by some Muslim governments is inappropriate and can distort future development of Islamic banking. Establishment of more Islamic banks will give more benefits to the depositors.

Appendix I

List of Participating Islamic Banks and Years of Data

1.	Al-Baraka Islamic Investment Bank of Bahrain	1984 - 1994
2.	Bahrain Islamic Bank	1987 - 1994
3.	Bank Islam Malaysia Berhad	1985 - 1994
4.	Beit Ettamwill Tounsi Saudi of Tunisia	1986 - 1992
5.	Dubai Islamic Bank	1984 - 1992
6.	El Gharb Islamic Bank of Sudan	1986 - 1993
7.	Faisal Finance Institution of Turkey	1985 - 1993
8.	Faisal Islamic Bank of Kibris	1986 - 1993
9.	Faisal Islamic Bank of Sudan	1984 - 1992
10.	Faysal Islamic Bank of Bahrain	1984 - 1994
11.	Islami Bank Bangladesh Limited	1984 - 1994
12.	Jordan Islamic Bank	1984 - 1994
13.	Kuwait Finance House	1982 - 1994
14.	Tadamon Islamic Bank of Sudan	1984 - 1993

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