

THE EFFECTS OF MANAGEMENT POLICY ON THE PERFORMANCE OF ISLAMIC BANKS

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This study examines the effects of management controlled variables on the performance of Islamic banks. Management controlled variables are related to assets, liabilities and expenses management. This study indicates that three major investment activities are revenue generating activities for Islamic banks, whereas savings and investment deposits are costs to the banks. As expected, total expenses are positively correlated with profitability.

1. INTRODUCTION

Since the first institution was established in 1963, Islamic banks have gained a footing in almost every Muslim majority country and in a few non-Muslim countries. Not only do Islamic banks provide profit-sharing (instead of predetermined interest payments) banking facilities, they are also expected to undertake business and trade activities on the basis of fair and legitimate profits. In such banks, ensuring fair practices in dealings with customers and shareholders takes centerstage, more so than in conventional banking where much fair practice needs to be imposed by external regulation.

While there is an abundance of literature on performance studies, these studies are confined to conventional banks. Similar studies have not been conducted using Islamic banks as samples. The objective of this study is to examine the relationship between internal variables and the performance of Islamic banks in a manner analogous to such studies conducted with conventional banks. This paper is divided into five sections: the literature review on internal determinants of bank performance is highlighted in section two; section three explains the critical performance areas of an Islamic bank; section four examines the methodology used in analysing the relationship between the variables used in this study and the performance indicators of Islamic banks; section five elaborates on the findings; and section six concludes this study. The words in italics in this paper are the Arabic words widely used in Islamic banking literature.

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2. LITERATURE REVIEW

Among the researchers who have studied the effects of internal determinants on bank profitability are Hester and Zoellner (1966), Haslem (1968,1969), Fraser and Rose (1971), Fraser, Philips and Rose (1974), Heggsted (1977), Mullineaux (1978), Kwast and Rose (1982), Smirlock (1985), Bourke (1989), Molyneux and Thornton (1992), and Stienherr and Huveneers (1994). Most of these studies were conducted using American data except studies conducted by Bourke (1989), Molyneux and Thornton (1992) and Stienherr and Huveneers (1994) in which international data were used.

Hester and Zoellner (1966) studied the relationship between balance sheet items and the earning of 300 banks in Kansas City and Connecticut. They found that changes in balance sheet items had a significant impact on a bank's earnings. While all asset items obtained positive results, liability items such as demand, time and saving deposits adversely affected profits. Haslem (1968) used 64 operating ratios in order to measure the effects of management, size, location and time on the profitability of commercial banks. Haslem's findings indicated that all variables tested were significantly related to profitability. Fraser and Rose (1971) found that loan rate, time deposit rate, loan-to-deposit ratio, service charges and portfolio selection had no effect on profitability. Fraser, Philips and Rose (1974) considered operating costs, deposit and loan compositions as factors within the control of management. They found that the factor which had the biggest influence on bank performance is bank cost followed by the bank's deposit and loan composition. Mullineaux (1978) used a profit-function approach in his study and found that balance sheet structure had a significant impact on profitability and, depending on the nature of the balance sheet items, the relationship can be either negative or positive.

With regard to deposit structure, Heggsted (1977) found that banks heavily committed to time and savings deposits earned considerably lower returns than banks which have a higher dependence on demand deposits. Smirlock (1985) confirmed that demand deposits were a cheaper source of funds and had a positive impact on bank profits. Kwast and Rose's (1982) study, however, claims that operating efficiency had nothing to do with profitability. They found no compelling evidence that high-profit banks were characterized by a greater level of efficiency than low-profit banks.

Bourke (1989) was the first researcher to include internal variables in a profitability study involving cross-country data. The internal variables used were capital ratios, liquidity ratios and staff expenses, and the dependent variables comprised the net profit before taxes against a total capital ratio, and the net profit before taxes against a total assets ratio. All the internal variables related positively to profitability. Molyneux and Thornton (1992) duplicated Bourke's study using all European banks as their sample and found similar results. Stienherr and Huveneers (1994) studied the performance of banks in the United States, Great Britain, Western Europe and Japan. They found that overhead expenditures were positively correlated significantly with profitability. Liquidity relationship was significant in only certain countries. Similarly, investment in equity was positively correlated in certain samples but had an adverse relationship with others.

3. PERFORMANCE CRITICAL AREAS

In general, the findings of conventional banking research have indicated that internal determinants of bank profitability (which are definitionally within the control of bank management) are important, and contribute significantly towards a bank's profitability. Although a review of the literature has defined the variables and their effects on bank performance, this does not mean that the variables used in those studies are applicable to this study. Re-examination is needed to evaluate their suitability and applicability in an Islamic banking context since doctrinal differences between Islamic and conventional banks are widely recognized. As was suggested by Hassan (1993), Islamic banks should be considered as a different industry compared to conventional banks. These two types of banks have different objectives, rely on different economically-based concepts and have different sets of operations. Notwithstanding the opinion of Hassan, a number of areas within the control of management are hypothesised to have influence on the performance of Islamic banks.

LIQUIDITY

As is the case with conventional banks, the demand and savings deposit facilities at Islamic banks carry the unqualified obligation to pay currency or its equivalent whenever it is requested. For notice and investment account facilities, a short grace period is normally required prior to any withdrawal: this practice is encouraged on account of the greater stability that this generates for the whole system. If a bank is unable to meet demand, customer confidence will be shattered and ultimately the bank will be left with no alternative but to close its doors as happens under conventional banking regulations.

At the same time, Islamic banks are profit-seeking enterprises, striving to increase profitability for the benefit of both shareholders *and* those who have placed their deposits under the various profit-sharing schemes. This requires the holding of a sufficient volume of assets that prove to be both safe and productive of satisfactory yields. Islamic banks must, therefore, maintain an adequate degree of liquidity while at the same time addressing the longer term problems of obtaining profits. This places a *moral* obligation on management to work for shareholders *and* customers. This is at least in theory a major differentiating element.

Conventional banking theory, however, postulates that the return on assets tends to vary inversely with the degree of liquidity and safety. Thus, the more suitable an asset is to fulfill a bank's liquidity needs, the less likely it is to contribute much to a bank's earnings, and vice versa. By adapting this theory to an Islamic banking context, we could say that any Islamic bank which holds an excessive amount of liquid assets will be able to meet all of its obligations, but make less profits. On the other hand, if the bulk of the funds is directed into high yielding assets, and is therefore illiquid and risky, the bank will make more profits but at the same time might endanger itself by not being able to fulfill its promise to pay cash when called upon to do so.

CAPITAL STRUCTURE

Just like a conventional bank, the capital structure of an Islamic bank generally comprises four principal accounts, namely capital stock, surplus, reserves and undivided profit.

The amount of capital maintained by a conventional bank serves two purposes. First, it represents the owners' stake in their businesses and it is assumed that the bank management will undertake a careful policy not only to safeguard this stake, but to ensure sufficient returns for the investment made by these owners. Second, it serves as a buffer to protect depositors. In the case of loss or liquidation, the claims of depositors are satisfied before those of the stockholders. Thus, the higher the amount of capital injected by the owners, the more confident customers will be and the more deposits they will place at the bank.

Banking theory postulates that higher bank capital decreases returns to the owners but at the same time decreases the risk for the bank's depositors and the banking system as a whole. This theory, however, may not be applicable to the Islamic banking system for two reasons. First, there are no pre-determined rates of returns given to the depositors as is the case for the conventional banking system. Almost all Islamic banks provide savings and investment account facilities on the basis of *mudaraba* (trust finance). Under this principle, depositors will share with the bank any profit derived from business activities which utilise their money based on a pre-agreed ratio. Therefore, more income received by the bank means more returns to the depositors. In the case of loss, depositors will also have to bear losses and the bank will not refund to the depositors any of their money. This means that there is an automatic correction or cushioning effect during periods of economic recession.

Second, unlike conventional banks which may combine both shareholders' capital and depositors' funds, Islamic banks operate in a different manner. There are two common methods used by Islamic banks in deploying depositors' and shareholders' funds. First is the pool-system in which depositors' and shareholders' funds are combined together and used for a particular business venture. Returns from this project will be shared by both depositors and shareholders. Second, a particular project may be financed solely by depositors' funds. In this second case, returns from a project will go directly into a depositor's account and the bank will receive a small portion of those returns as a management fee. In view of these arrangements, there is a strong possibility that the amount of capital held by an Islamic bank has no relationship to its profitability.

DEPOSIT STRUCTURE

As in the case with deposit facilities at conventional banks, Islamic banks also offer three deposit facilities to their customers, namely current, savings and investment account facilities. Current account holders are allowed to withdraw their funds at any time without notice. Islamic banks would usually guarantee the funds deposited into this kind of account and no returns are given to depositors as is the case in most conventional banks (except in the cases of a few banks in developed countries where a small interest is paid). Unlike

savings account facilities at conventional banks, where depositors are automatically rewarded upon placement of their funds, rewards to savings account holders are dependent on the *Shariah* (Islamic laws) principles which are adopted by Islamic banks when offering this facility. When *wadiah* (trusteeship) or *qard hassan* (benevolent loan) are used, the returns are entirely at the discretion of the banks. In the case of *mudaraba*, returns are based on two factors: a pre-agreed profit-sharing ratio and the profit earned from the deployment of the deposited money.

Investment account facilities offered by Islamic banks are compatible with the fixed or time deposit facilities at conventional banks except that there is no pre-determined interest rate attached to deposits. Generally, there are three types of investment account facilities available at Islamic banks: investment accounts based on time (eg three months, six months, nine months, one year, etc); investment accounts based on notice (notice must be given by customers prior to any withdrawal); and specific investment accounts or deposits for specific projects or purposes. All these investment account facilities are governed by the principle of *mudaraba*.

Besides these three types of deposit facilities, Islamic banks are permitted to raise funds by way of issuing investment certificates that carry no fixed returns. The tenure of these certificates can vary from one to five years or even longer. The principles of *qard hassan* and *mudaraba* are usually applied to these kinds of facilities.

Banking theory postulates that banks with a high percentage of saving and time deposits would have less profit. Since Islamic banks are giving rewards to saving and investment account holders, it seems quite appropriate to assume that this theory is applicable to Islamic banks as well as conventional banks.

FINANCING STRUCTURE

A deviation from the classical theory of a firm, which posits that firms aim simply to maximise profits, is that conventional banks are expected to consider three important factors when acquiring earning assets: profitability, liquidity and safety. In view of their similarity in operations, Islamic banks are also expected to conform to these three principles in their procurement of assets.

Unlike conventional banks, which are free to extend loans to any sectors or to make any investment in primary or secondary capital and financial markets, the financing activities of Islamic banks are tailored in accordance with the *Shariah*. The *Shariah* prohibits Muslims from becoming involved in activities which have an element of interest. In other words, financial instruments or derivatives associated with interest issued or sold in the primary and secondary markets are strictly prohibited for Islamic banks. Similarly, economic activities such as trades which promote obscenity, the manufacture, sale and transportation of liquor, fortune-telling and drawing lots, prostitution and adultery, and the making and selling of idols are considered unlawful in Islam. Hence, these are investment activities to which an Islamic bank would not lend.

The *Shariah* outlines three categories of banking principles, that is, principles that are based on profit-sharing, principles that are based on fixed charges, and a charge-free principle to be adopted by Islamic banks in their financing activities. The principles of *mudaraba* (trust-finance) and *musharaka* (joint-venture) fall within the category of profit-sharing, whereas principles such as *murabaha* (cost-plus), *bai-mua'zzal* (deferred payment), *ijara* (lease or hire-purchase), and *ijara wa-iktina* (lease purchase) belong to the category of fixed charges or mark-up. The principle of *qard hassan* is the only principle within the category of a charge-free principle (further details on these principles are available elsewhere, eg Haron, 1995).

Incomes from investment and financing activities received by Islamic banks are very much in line with the amount of funds allocated in those three categories of principles listed above. Profit-sharing activities are risky and full of uncertainty. Therefore, the amount of returns from these ventures is unpredictable and uncertain. The more the profits which are made by the business venture, the more the profit which not only flows to the user of the funds, but also to the bank. The fixed charges principles are very similar to the activities of conventional banks in terms of their simplicity, minimal risk, and pre-determined fixed rates of return (Mirakhor, 1989). Therefore, the amount of profits from these kinds of activities is easily quantifiable and is based on the total funds employed and the mark-up policy adopted by the bank. Finally, benevolent loans (another banking activity) are basically extended by Islamic banks to fulfill their moral and social obligations. Generally, the total funds involved are negligible and have no significant effect on performance.

PROFIT-SHARING RATIO AND MARK-UP POLICY

Banking theory postulates that the wider the margin between borrowing and lending, the more profits for the bank. Competitive markets for both sources of funds and users of funds, however, constrain the bank's ability to earn a higher interest margin. Instead of an interest margin, a profit-sharing ratio margin is the appropriate measure that can be used by Islamic banks in maximizing returns. This ratio will determine the share of profits received or losses to be borne by both parties. For example, the higher the ratio for the depositors the higher the portion of profits the depositors will get, and vice versa. Similar to financing facilities, if the ratio is to the advantage of the customer, a bigger portion of the profits will go into his pockets, and vice versa as well.

A similar principle applies to mark-up policies. The mark-up is a process in which an Islamic bank will require its customers to pay a certain amount of money over and above the cost of goods sold by the bank to them, providing profits for the bank and the reimbursement of whatever expenses were incurred while providing that service. This mark-up process is usually based on a percentage. Therefore, the higher the percentage of mark-up imposed by the bank, the higher the profits that the Islamic banks will generate.

EXPENDITURE ITEMS

The expenditure items that fall within the control of Islamic bank management can be broadly divided into three categories: staff expenses, provision for loan losses, and other general expenses. Expenses, such as payments for income tax and *zakat* (wealth tax) are considered statutory expenses and beyond the control of management. The cardinal rule of financial analysis states that the effectiveness and efficiency of bank management is reflected by the amount of expenditure incurred in a particular reporting period. In the case of making provisions for loan losses, for example, the amount set aside for these expenses is reflected in the quality of existing financing or in the investments undertaken by the bank. Similarly, for staff and other expenses, the more expenses incurred by the bank, the less profit the bank will generate.

4. METHODOLOGY

Taking the existing literature and the elaboration presented in section three into consideration, this study chose the following independent variables as policy measures of an Islamic bank.

1. LIQ : Total financing as a percentage of total deposits;
2. CRTA : Total capital and reserves as a percentage of total assets;
3. DECA : Total deposits in current accounts as a percentage of total assets;
4. DESA : Total deposits in savings accounts as a percentage of total assets;
5. DEIA : Total deposits in investment accounts as a percentage of total assets;
6. FIPS : Total funds in profit-sharing principles as a percentage of total assets;
7. FIMK : Total funds in mark-up principles as a percentage of total assets;
8. FIIV : Total funds in investment activities as a percentage of total assets;
9. IFIN : Incomes from financing activities as a percentage of total financing;
10. IBNK : Bank's share of income as a percentage of total savings and investment deposits;
11. TEXP : Total expenditure as a percentage of total assets;
12. SEXP : Staff expenses as a percentage of total assets;
13. PEXP : Provision for loan losses as a percentage of total assets; and
14. OEXP : Other expenses as a percentage of total assets.

The balance sheet management policies are represented by the variables LIQ, CRTA, DECA, DESA, DEIA, FIPS, FIMK and FIIV, whereas proxies for the income statement management policies comprise IFIN, IBNK, TEXP, SEXP, PEXP, and OEXP. The total incomes received by the bank (TITA), the bank's portion of income after payment to depositors (BITA), and net profit before tax (BT TA) will be used as proxies for profitability. These profitability measures are deflated against total assets. Ratios which measure the returns to shareholders are considered insignificant for this study for reasons already presented earlier.

The data used for this study are from a pooled time series cross-sectionally: the data are taken from the annual reports of Islamic banks in selected Muslim countries. The list of participating banks and the periods for which data were collected appears in Appendix 1. An advantage of using panel data is that more observations on the explanatory variables are available. This has the effect of helping overcome the inherent multicollinearity which probably exists between the independent variables. Since this study involves cross-country data, a dummy variable model will be applied (Griffiths, et al, 1993). A general statement of the model is represented by:

$$y_{it} = \beta_0 + \gamma_2 D_2 + \gamma_3 D_3 + \dots + \gamma_J D_J + \beta_1 X_{it,1} + \beta_2 X_{it,2} + \dots + \beta_k X_{it,k} + \varepsilon_{it} \quad (1)$$

$i = 1, 2, \dots, J$
 $j = 1, 2, \dots, 13$
 $t = 1, 2, \dots, T$

The dummy variables element as represented by $\gamma_j D_j$, $\beta_k X_{it,k}$ is for the independent variables, J represents the number of banks and T is for the total number of observations for each bank. This model implies that marginal effects β_k are the same across all banks. That is, a one unit change in variable X_k has the same effect on profit for all banks. However if the dummies are included, it means that a different intercept applies to each bank. Therefore, the model for each bank is as follows:

$$\text{Bank 1: } y_{it} = \beta_0 + \beta_1 X_{it,1} + \beta_2 X_{it,2} + \dots + \beta_k X_{it,k} + \varepsilon_{it} \quad (2.1)$$

$$\text{Bank 2: } y_{it} = (\beta_0 + \gamma_2) + \beta_1 X_{it,1} + \beta_2 X_{it,2} + \dots + \beta_k X_{it,k} + \varepsilon_{it} \quad (2.2)$$

.

$$\text{Bank J: } y_{it} = (\beta_0 + \gamma_j) + \beta_1 X_{it,1} + \beta_2 X_{it,2} + \dots + \beta_k X_{it,k} + \varepsilon_{it} \quad (2.j)$$

The above models indicate that for a given value of each regressor $X_1, X_2, \dots, X_k$, the average level of profit is different for each bank. The inclusion of dummies is verified using the F-test based on the following hypothesis (Doran & Guise, 1984):

H_0 : average level of profit is same for each bank ($\gamma_2 = \gamma_3 = \dots = \gamma_j = 0$)

H_1 : average level of profit is not same for each bank ($\gamma_2 = \gamma_3 = \dots = \gamma_j \neq 0$)

In the case where H_0 is rejected, dummies should be included in the equation, for it represents the most appropriate model which produces efficient results. On the other hand, if H_0 is accepted, the following model is applied.

$$y_{it} = \beta_0 + \beta_1 X_{it,1} + \beta_2 X_{it,2} + \dots + \beta_k X_{it,k} + \varepsilon_{it} \quad (3)$$

5. FINDINGS

The results of the F-test which measures the applicability of dummies in all profitability measure equations (TITA, BITA and BTTA) used by this study are reported in Table 1 below.

As indicated in Table 1, except for regression 2 (BITA) where the ordinary least square method is used for predicting the relationship between policy measures and profitability of Islamic banks, the dummy variable model is considered a better model for regressions 1 (TITA) and 2 (BTTA). Results for all regression runs are reported in Table 2.

As indicated in Table 2, this study found that liquidity (LIQ) had a significant positive relationship with all profitability measures. Each 1% increase in liquidity will increase TITA by 0.029%, and 0.025% and 0.037% for BITA and BTTA respectively. With regard to the effect of liquidity, conventional banking theory postulates that liquidity has a negative relationship with profitability. The positive sign of the coefficient is due to the usage of a ratio to measure the effect of liquidity on profitability. Since the total financing over the total deposits (a reciprocal of the normal liquidity ratio, ie total liquid assets over the total assets) ratio was used, the positive sign means the bigger the ratio, the more financing is given to the customers and the more profits for the bank. This finding is similar to the findings of Molyneux and Thornton (1992) and Stienherr and Huveneers (1994), but anomalous to the findings of Bourke (1989).

In line with the findings of Bourke (1989), Molyneux and Thornton (1992) and Stienherr and Huveneers (1994), this study also found a significant positive relationship between

TABLE 1
THE RESULTS FOR STATISTICAL TEST WHICH VALIDATE
THE INCLUSION OF DUMMY VARIABLES

Equation	F-value	p-value	Critical value at 5%	Results
1. TITA ^a	9.1636	0.0000	≈ 1.8750	Reject H_0
2. BITA ^b	1.3777	0.1903	≈ 1.8750	Accept H_0
3. BTTA ^c	2.6250	0.0045	≈ 1.8750	Reject H_0

a: Total income

b: Income after payment to depositors

c: Net profit before tax

TABLE 2
ESTIMATES OF THE RELATION BETWEEN PROFITABILITY AND POLICY MEASURES VARIABLES

Equation	LIQ	CRTA	DECA	DESA	DEIA	FIPS	FIMK	FIIV	IFIN	IBNK	TEXP	SEXP	PEXP	OEXP	AdjR ²	F
1. TITA	0.029 ^b (2.113)	-0.039 (-1.542)	-0.021 (-0.707)	0.013 (0.416)	0.021 (0.875)	-0.036 (-0.882)	0.021 (0.940)	-0.040 ^a (-2.675)	0.251 ^a (5.789)	0.011 (1.430)	0.874 ^a (5.624)	0.004 (0.189)	-0.004 (-0.165)	-0.014 (-0.605)	0.863	199.7 ^a
2. BITA	0.025 ^a (2.789)	0.019 (1.198)	0.042 ^b (2.284)	0.009 (0.442)	0.010 (0.682)	-0.033 (-1.280)	-0.011 (-0.811)	-0.010 (-1.057)	0.045 ^c (1.659)	0.007 (1.543)	0.953 ^a (9.714)	-0.013 (-0.992)	-0.007 (-0.442)	-0.004 (-0.277)	0.881	150.2 ^a
3. BTTA	0.037 ^a (4.032)	0.033 ^b (1.948)	0.040 ^b (2.101)	0.001 (0.059)	0.009 (0.562)	-0.085 ^a (-3.108)	-0.013 (-0.928)	-0.009 (-0.915)	0.067 ^b (2.370)	0.006 (1.207)	-0.097 (-0.954)	-0.019 (-1.164)	-0.003 (-0.165)	0.005 (0.342)	0.562	20.32 ^a

a: Significant at a 0.01 % level

b: Significant at a 0.05 % level

c: Significant at a 0.10 % level

t statistics in parentheses and constant omitted

capital structure (CRTA) and BTTA. Each 1% increase in capital will increase profit before tax by 0.033%. Interestingly, though the relationship between CRTA and TITA is at an insignificant level, the negative sign for its coefficient means that an injection of 1% of additional capital will reduce the total income received by the bank by 1.542%.

The effects of fund-source management policy on profitability are indicated by three variables, that is, current (DECA), savings (DESA) and investment (DEIA) accounts. Most previous studies found that savings and time (fixed) deposits had an inverse relationship with profitability and a positive relationship for the current account deposits. As indicated in Table 2, almost all fund-source management variables had a insignificant relationship with profitability measure ratios. DECA was the only variable which had a significant relationship with BITA and BTTA. Each 1% increase in current accounts will increase the bank's portion of income by 0.042% and profit before tax by 0.040%. This finding is in line with the finding of Smirlock (1985). Like current accounts at conventional banks, this facility is considered a cost-free service to the Islamic bank. It is expected that the more the funds deposited into this account the more the profit that would accrue to Islamic banks. An interesting finding is the increase in income which occurred for BITA and BTTA and not for TITA. This indicates that an increase in current accounts does not generate more income for the bank as a whole but operates as a cost saving measure only, since no rewards are paid to the account holders. In the case of DESA and DEIA, the relationship with profitability is not in line with the common belief that the more the funds which are deposited into these accounts, the less the profit which flows to the bank. Contrary to this opinion, Smirlock (1985) would have us believe that an increase in savings and fixed deposits will generate more income to the bank. The findings of this study, in terms of the Islamic banking system, tend to confirm Smirlock's view.

Another interesting finding offered by this study is in the area of fund-use management. Previous studies indicated that asset items display a positive relationship with profitability. This study, however, found an inverse relation between fund-use management variables and profitability measure ratios in almost all cases. This inverse relation warrants further explanation. For example, funds invested in profit-sharing activities (FIPS) will not generate immediate returns to the bank. This is because the calculation of profit usually takes place upon completion of a project or after a one-year period. Therefore, any increase in funds using this concept will be immediately followed by a decrease in the percentage of profitability measures. In the case of funds invested in Islamic securities or other investment activities (FIIV), the insignificant amount of funds channeled by Islamic banks into these activities could be the likely reason for this inverse relationship. The only variable that conforms to the normal banking theory is FIMK (funds invested in marked-up activities) which has a positive relationship with TITA. Though this relationship is insignificant, it indicates that an increase of funds in marked-up activities will generate more income to the Islamic banks. Interestingly, the increase in income as a result of marked-up activities is to the advantage of depositors. An inverse relationship between FIMK and both BITA and BTTA is an indicator that an increase in FIMK will reduce a bank's portion of income and the net profit before tax.

This study also found that the percentage of income from financing activities (IFIN) had a positive significant effect on all profitability measures. Each 1% increase in the percentage of income from financing activities will result in an increase in the percentage of TITA, BITA and BTTA by 0.251%, 0.045% and 0.067% respectively. This finding suggests that the incremental increase of the banks' income from financing activities seems to indicate that the profit-sharing ratio between Islamic banks and the users of funds is in the banks' favour. In the case of the profit-sharing ratio between banks and depositors, however, it seems to be to the benefit of both parties though the relationship was not significant.

In the case of total expenses (TEXP), the higher the income, the higher the expenses that are incurred by Islamic banks. This finding is in line with findings of conventional banking studies and is expected. The relationship between profitability measures and other expense variables (SEXP, PEXP and OEXP) is inconsistent though at an insignificant level. The majority of the variables, however, had an inverse relation with profitability.

6. CONCLUSIONS

This study is a modest attempt to establish the first empirical evidence on the effects of management policy on the performance of Islamic banks. The findings of this study suggest that all three sources of funds for Islamic banks are positively related with profitability. These findings serve as an indicator that the more the deposits placed by depositors with the bank, the more the income received by the bank. This study also validates the current practices of Islamic banks which use mark-up principles in their financing activities. This is because an application of profit-sharing principles will have an inverse relationship with profitability.

This study also provides information on the impact of the profit-sharing ratio agreement between the banks and the providers of funds and between the bank and the users of funds. The profit-sharing ratio between banks and the users of funds seems to be very favourable to the bank, whereas the profit-sharing ratio between the banks and the providers of funds indicates a mutual advantage. In terms of expenses management, this study offers no peculiar findings. The positive relationship between profitability and total expenses is the normal characteristic of a firm. The similarity of results between asset-liability management and profitability for both conventional and Islamic banks is a strong indicator that many of the tools and techniques developed in conventional banking literature are potentially suitable for an Islamic banking environment. Therefore, further studies which involve asset-liability management of an Islamic bank are considered one of the more interesting and promising areas for future research. Some econometric refinements are also encouraged so that the results presented in this paper can be made more robust.

APPENDIX 1

LIST OF PARTICIPATING ISLAMIC BANKS AND YEARS OF DATA

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

REFERENCES

1. Bell, Frederick W and Murphy, Neil B, 1969, Impact of market structure on the price of commercial banking services, *Review of Economics and Statistics*, 51, 210-13.
2. Bond, Richard E, 1971, Deposit composition and commercial bank earnings, *Journal of Finance*, 26, 39-50.
3. Bourke, Philip, 1989, Concentration and other determinants of bank profitability in Europe, North America and Australia, *Journal of Banking and Finance*, 13, 65-79.
4. Emery, John T, 1971, Risk, return and the morphology of commercial banking, *Journal of Financial and Quantitative Analysis*, 6, 763-76.
5. Doran, H E and Guise, J W, 1984, *Single Equation Methods in Econometrics: Applied regression analysis*, UNE Publishing Unit, Armidale.
6. Fraser, Donald R and Rose, Peter S, 1971, More on banking structure and performance: The evidence from Texas, *Journal of Financial and Quantitative Analysis*, 6, January, 601-11.
7. Fraser, D R, Philips W, Jr and Rose, P S, 1974, A canonical analysis of bank performance, *Journal of Financial and Quantitative Analysis*, 9, 287-95.
8. Griffiths, W E, Hill, R C and Judge, G G, 1993, *Learning and Practising Econometrics*, New York, John Wiley & Son.
9. Haron, Sudin, 1995, The framework and concept of Islamic interest-free banking, *Journal of Asian Business*, 11, 26-39.
10. Haslem, John A, 1968, A statistical analysis of the relative profitability of commercial banks, *Journal of Finance*, 23, 167-76.

11. Haslem, John A, 1969, A statistical estimation of commercial bank profitability, *Journal of Business*, 42, 22-35.
12. Hassan, Naim A, 1993, Measurement of financial performance of Islamic banks vis-a-vis western-type commercial banks: Some conceptual differences, a paper presented at an International Conference on Islamic Banking, Sydney, November.
13. Heggstad, Arnold A, 1977, Market Structure, Risk, and Profitability in Commercial Banking, *Journal of Finance*, 32, 1207-16.
14. Hester, Donald D. and Zoellner, John F, 1966, The relation between bank portfolios and earnings: An econometric analysis, *Review of Economics and Statistics*, 48, 372-86.
15. Kwast, Mayron L and Rose, John T, 1982, Pricing, operating efficiency, and profitability among large commercial banks, *Journal of Banking and Finance*, 6, 233-54.
16. Mirakhor, Abbas, 1987, Short-term Assets Concentration and Islamic Banking, in Mohsin S Khan and Abbas Mirakhor, eds, *Theoretical Studies in Islamic Banking and Finance*, Houston, Institute for Research and Islamic Studies.
17. Molyneux, Philip and Thornton, John, 1992, Determinants of European bank profitability: A Note, *Journal of Banking and Finance*, 16, 1173-8.
18. Mullineaux, Donald J, 1978, Economies of scale and organizational efficiency in banking: A profit-function approach, *Journal of Finance*, 33, 259-80.
19. Short, Brock K, 1979, The relation between commercial bank profit rates and banking concentration in Canada, Western Europe, and Japan, *Journal of Banking and Finance*, 3, 209-19.
20. Smirlock, Michael, 1985, Evidence on the (non) relationship between concentration and profitability in banking, *Journal of Money, Credit, and Banking*, 17, 69-83.
21. Stienherr, A. and Huveneers, Ch, 1994, On the performance of differently regulated financial institutions: Some empirical evidence, *Journal of Banking and Finance*, 18, 271-306.
22. Vernon, Jack R, 1971, Separation of ownership and control and profit rates, the evidence from banking: Comment, *Journal of Financial and Quantitative Analysis*, 6, 615-25.