Measurement of Islamic Banks Performance Using a *Sharīʿah* Conformity and Profitablity Model

Mudiarasan Kuppusamy, Ali Salman Saleh and *Ananda Samudhram*

Abstract: This paper used a composite set of financial indicators (conventional and Islamic) to examine the financial performance of four Islamic banks from Malaysia, Bahrain, Kuwait and Jordan during the period 2001–2004. In doing so, it develops a *Sharīʿah* Conformity and Profitability (SCnP) model that incorporates the profitability orientation of conventional accounting performance measures with the *Sharīʿah* compliance orientation indices for assessing the socio-economic obligations of Islamic banks. It uses a performance evaluation method based on performance measures such as return on assets, return on equity, profit and margin indicators, and others. We found that the majority of the sample Islamic banks achieved high profitability and good *Sharīʿah* compliance. However, one bank experienced low profitability and weak *Sharīʿah* compliance. This finding indicates that the sample Islamic banks have a high growth in profitability and in credit facilities. Several recommendations on improving the financial performance of Islamic banks are discussed in the paper.

JEL Classification: G21, L2, O53, P43, P47.

I. Introduction

The growth of Islamic banking institutions has been phenomenal over the years. Today there are more than 500 Islamic banks and financial institutions

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world-wide with an asset base of about US$1 trillion (The Banker, 2009). The significance of Islamic banks in enhancing economic development is undeniable. Their role as shareholders and creditors of firms has increased the popularity and viability of Islamic banking in many countries, including Western ones.

The size of Islamic banking operations is growing rapidly across the globe, at an estimated rate of 15 per cent annually. This demonstrates the acceptance of the Islamic finance model throughout the world. Generally, investors in conventional banks are primarily concerned with making profits, irrespective of *Sharīʿah* principles. However, this is not the case with investors in Muslim Islamic finance. According to Shahul *et al.* (2003), most Muslim investors are not only concerned with the dividend and capital return from their investment, but also with the whereabouts of their investment, including where it has been invested. Such concern is in line with the *Sharīʿah* principles (or Islamic law) which promotes justice and social welfare through obedience to God's commandments. Wealth needs to be shared in a fair manner among the Muslims.

Competition in the Islamic banking sector has intensified, mainly due to various internal factors (such as the banks' management policy, firm ownership structure, investment and expenditure policies) and external factors (such as political environment, technological advancement and deregulation policies). Such competition influences the growth and performance of these banks. A diligent measurement or monitoring of the financial performance of Islamic banks can help to determine the banks' potential capacity and prospects. This is vital for managerial and regulatory purposes as well. Bank regulators, depositors and managers have different needs and objectives. For example, depositors are concerned about the financial stability of a bank since a financially unsound bank does not guarantee good returns. Bank regulators are concerned about monitoring the performance of financial institutions in order to protect the interest of the public as a whole. Managers on the other hand, are concerned about obtaining reports on the performance of banks on a regular basis to assess the current state of their business and plan for the future.

Bank performance in general can be evaluated using financial ratios such as liquidity ratios, profitability ratios and others (Sabi, 1996; Saleh and Zeitun, 2007; Samad and Hassan 1999). However, evaluating Islamic banks' performance is far more complex and demanding as these banks' performance is not only tested by their profitability level but also their

relative compliance with *Sharīʿah* principles. This study accordingly proposes an alternative performance measurement approach for Islamic banks using a set of combined indicators from both conventional (financial performance) and *Sharīʿah* principles (social obligations) – the *Sharīʿah* Conformity and Profitability (*SCnP*) Model. The *SCnP* Model is used in this paper to measure the performance of four Islamic banks from Malaysia, Bahrain, Kuwait and Jordan over the period 2001 to 2004. The idea for this model emerged based on the question of whether conventional financial indicators such as Return on Assets (*ROA*), Return on Equity (*ROE*) and Profit Margins (*PM*) can be used to gauge the performance of Islamic banks, or should there be a different set of indicators suitable for Islamic banking institutions?

Most existing empirical studies have employed conventional financial indicators to measure performance of Islamic banks (see, for example, the studies by Bashir, 1999; Agarwal and Yousef, 2000). Only a few studies have used Islamic based indicators to determine the performance of Islamic banks (*e.g.* Shahul *et al.*, 2003). None of these studies however has employed a combined model that measures performance of Islamic banks. Here, we argue that the financial performance of Islamic banks should be done using a combined set of indicators (conventional and Islamic), since these do not overlap and essentially evaluate two different aspects of Islamic banks. The study as presented here is a preliminary work that tests the basic validity of the *SCnP* model, using selected banks and variables. Much further work needs to be done to address this issue comprehensively. For instance, using a much larger sample banks is vital. However, our limited resources at this stage do not permit us to conduct an in-depth survey to further validate our model. We intend to continue our research on this issue extensively as resources permit.

Following this introductory Section 1, Section 2 develops the conceptual framework used in the study. Section 3 discusses the methodology. The empirical results and findings are reported in Section 4. Conclusion and suggestions in regard to the performance of Islamic banks are discussed in Section 5, as are directions for future research on this topic.

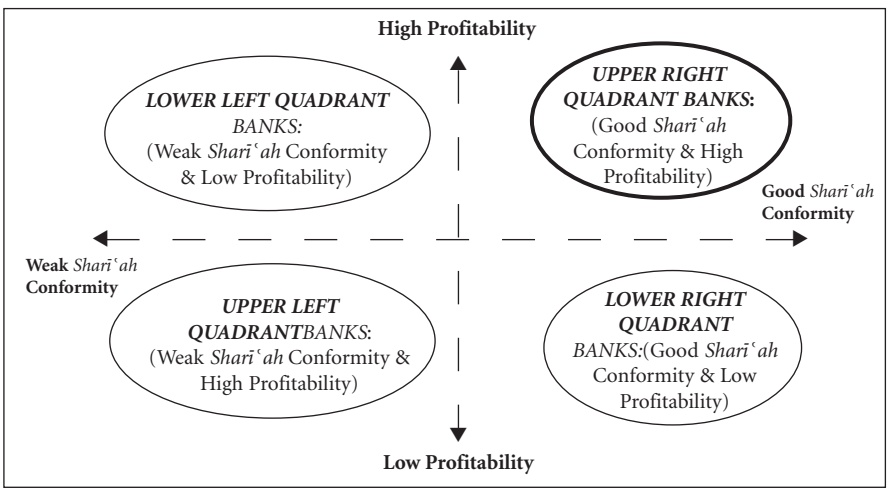
II. Conceptual Framework: The *Sharīʿah* Conformity and Profitability Model

The conceptual framework developed in this study is based on the idea that Islamic banks operate with some similarities to conventional banks,

but with a significant emphasis on social equity and *Sharīʿah* principles. Accordingly, measurement of their performance should be based on these principles. Earlier literature has emphasized the need for performance indicators appropriate for Islamic banking environment.

From the Western or conventional banking perspective, performance measures such as the *ROA*, *ROE* and *PM* are sufficient indicators of profitability, business strength and stability. Appropriate indicators of the performance of Islamic banks on the other hand emphasize the extent to which the banks have adhered to *Sharīʿah* principles. The two kinds of measures can be combined to create a framework that assists Islamic banks to measure and benchmark their performance in terms of profitability and conformity to *Sharīʿah* principles. Further, this framework is an indication of strengths and weaknesses of the Islamic banks and offers strategic directions for further improvement. The framework is graphically depicted in Figure 1 below.

Figure 1: *Sharīʿah* Conformity and Profitability (SCnP) Model



The basic idea here is that the financial performance of Islamic banks can be measured using both conventional and Islamic financial indicators. *Sharīʿah* conformity can be gauged by using the following indicators:

(i) Islamic investment ratio
(ii) Islamic income ratio
(iii) Profit sharing ratio

The profitability of the banks can be measured using the following indicators:

(i) Return on asset
(ii) Return on equity
(iii) Profit margin ratio

Several measures of *Sharīʿah* conformity are discussed in the literature (see Maali *et al.* 2003). Our initial analysis of Islamic banks' annual reports indicated that while some banks provide detailed and elaborate information on most *Sharīʿah* dimensions of their business, others do not. This is consistent with the findings of Maali *et al.* (2003). Thus, we selected only three main financial indicators that are common across all Islamic banks, assuming that these indicators will serve as a suitable proxy for the *Sharīʿah* compliance measure. The three indicators are the Islamic Investment ratio, the Islamic Income ratio and the profit-sharing ratio. Three popular conventional measures of profitability, namely, *ROA*, *ROE* and *PM* are employed as indicators of profitability.

Employment of both approaches provides a better measure of the banks' financial performance that can be segregated into four quadrants to provide deeper insights into the performance from both the profitability and the *Sharīʿah* compliance perspectives.

As shown in Figure 1, banks that fall in the Upper Left Quadrant (*ULQ*) have high profitability but weak *Sharīʿah* conformity. This implies that Islamic investment, Islamic income and profit-sharing ratios in these banks are low. But the *ROA*, *ROE* and *PM* ratios are high. Islamic banks in the Lower Left Quadrant (*LLQ*) normally have weak *Sharīʿah* conformity and low profitability. These banks generally perform poorly in Islamic investment, Islamic income and profit-sharing ratios, and also have weak *ROA*, *ROE* and *PM* ratios. Upper Right Quadrant (*URQ*) Islamic banks usually have both good *Sharīʿah* conformity and high profitability level. All the Islamic and conventional financial ratios are high in these Islamic banks. Banks in the lower right Quadrant (*LRQ*) have good *Sharīʿah* conformity but low profitability. This means that the Islamic financial ratios are high while the conventional ratios are low. The ideal position for Islamic banks is to be in the *URQ* position, as this is where both *Sharīʿah* conformity and profitability levels are high.

It is worth noting here that the computation of the *Sharīʿah* and profitability indices is measured by summing the individual indicators, and

averaging them out with equal weightage. This ensures consistency in the treatment of the *Sharīʿah* and profitability measures.

III. Methodology

This discussion of the methodology applied in this paper focuses on the *Sharīʿah* conformity financial indicators and the profitability indicators.

3.1. *Sharīʿah* Conformity Indicators

3.1.1. Islamic investment ratio

The Islamic investment ratio examines the percentage of investment invested in *ḥalāl* products. This is because Islamic principles encourage *ḥalāl* trade but prohibit any transaction that involves *ribā*, *gharar* and gambling (*maysir*).

Only investment that is considered *ḥalāl* (according to Islamic principles) is utilized in computing the Islamic investment ratio. It is the bank's obligation to disclose truthfully investments that are considered *ḥalāl*. Failure to disclose such information might mislead investors and may portray an inaccurate picture of the bank's activities. Therefore banks are required to disclose truthfully any investment that is considered *ḥalāl*. The Islamic investment ratio can be computed using the following formula:

$$\textit{Islamic Investment} = \frac{\textit{Islamic Investment}}{\textit{Islamic Investment and non-Islamic Investment}}$$

3.1.2. Islamic income ratio

The Islamic income ratio measures the percentage of Islamic income over total income. Islamic income is income derived from investments that comply with *Sharīʿah* principles. Some scholars have argued that Islamic banks that have income derived from prohibited sources must disclose the details of such sources, including how they were utilized. In addition, the procedures to prevent dealings prohibited by the *Sharīʿah* need to be laid down (Shahul *et al.*, 2003). Islamic income ratio can be computed as follows:

$$\textit{Islamic Income} = \frac{\textit{Islamic Income}}{\textit{Islamic Income} + \textit{non-Islamic Income}}$$

3.1.3. Profit-sharing ratio

Profit sharing is one of the main objectives of Islamic banking. The profit sharing ratio determines how far Islamic banks have successfully met the objective of sharing wealth with investors. We can derive the following ratio in this regard.

$$Profit\ Sharing\ Ratio = \frac{Muḍārabah+Mushārakah}{Total\ Financing}$$

The result of the ratio clearly shows how banks have performed in terms of profit sharing activities for a period of four years, and whether the trend in such business is increasing, decreasing or stagnant.

3.2. Profitability Indicators

Financial performance of banks can be evaluated using many financial indicators such as liquidity ratios, profitability ratios and others (see, for example, Samad and Hassan, 1999; Saleh and Zeitun, 2007). However, in this paper we use three major profitability indicators to evaluate the financial performance of Islamic banks, namely ROA, ROE and Profit margin.

3.2.1. Return on assets (ROA)

One common measure of a bank's performance is the ratio of income to average total assets, both before tax and after tax (*ROA*). This ratio measures the ability of a bank to generate income relative to average total assets. *ROA* examines the profit earned per dollar of assets that reflect the management ability to utilize a bank's financial and real investment resources to generate profits. Hence, this ratio can be derived as below:

$$IROA = \frac{Net\ Income}{Average\ Total\ Assets}$$

3.2.2. Return on equity

ROE is defined as net income (after interest and taxes) divided by the common stockholders' equity. It measures how effectively a bank uses its shareholders funds. This ratio can be determined as follows:

$$ROE = \frac{Net\ Income}{Stockholders'\ Equity}$$

3.2.3. Profit margin

PM is computed by dividing profits by total operating revenue and thus they express profits as a percentage of total operating revenues. In general, the profit margin reflects a bank's ability to produce a product or service at a low cost or a high price. This ratio can be calculated using the following formula:

$$\textit{Profit Margin Ratio} = \frac{\textit{Net Income}}{\textit{Total Operating Revenue}}$$

3.3. Data Source and Sample Banks

The data utilized in this study was compiled from the annual report for each of the following Islamic banks over the period of 2001-2004. The data was limited to this period mainly because these are the only years that the annual reports are consistently accessible. A total of four Islamic banks, Bahrain Islamic Bank from Bahrain (Bank A), Kuwait Finance House from Kuwait (Bank B), the Jordan Islamic Bank for Finance and Investment (Bank C) from Jordan (Bank C) and Bank Islam Malaysia (Bank D) from Malaysia were used as the sample. It is important to note here that these four banks were first to operate in these countries and have succeeded in achieving high growth and supporting all economic sectors in the country. Initially our sample size consisted of 25 Islamic banks from all over the world. However, after a thorough analysis of the annual reports, we found that not all the banks had disclosed the required Islamic variables. Thus, we selected only four Islamic banks, the ones that disclosed all the required variables consistently in all four years of the period studied.

IV. Islamic Banks Financial Performance: Empirical Findings and Discussions

Figure 2 indicates the scatter plot chart for Islamic banks' financial performance in the year 2001. As shown, Bank A (Bahrain Islamic Bank, Bahrain) and Bank B (Kuwait Finance house, Kuwait) were clustered in the upper right quadrant of the chart, denoting that these banks have good *Sharīʿah* conformity and high profitability. Note that Bank B's position in this quadrant is very near to the borderline, approaching upper left quadrant.

Bank C (the Jordan Islamic Bank for Finance and Investment, Jordan) is placed in the upper left quadrant of the chart. This shows that this bank had weak *Sharīʿah* conformity but high profitability. Bank D (Bank Islam Malaysia, Malaysia) is placed in the lower left quadrant of the scatter plot. This indicates that it combined weak *Sharīʿah* conformity with low profitability during the year 2001.

Figure 2: Financial Performance of Islamic Banks in 2001

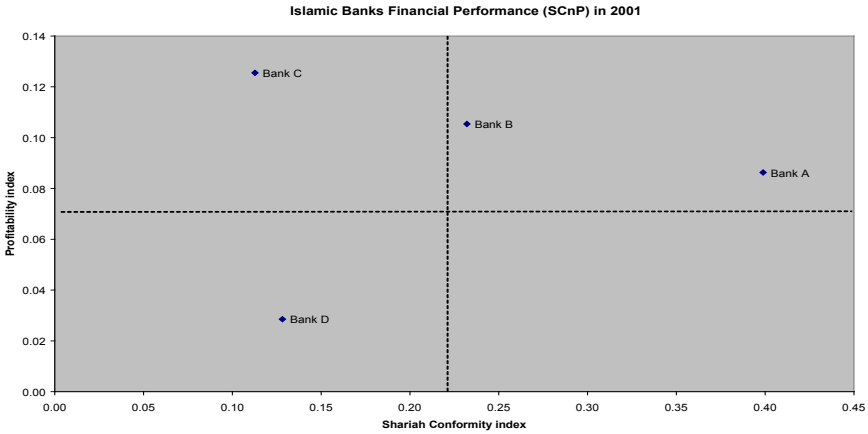


Figure 3 shows the scatter chart for the Islamic banks financial performance in the year 2002. Similar to the earlier period, Bank A (Bahrain) is again placed in the upper right quadrant of the chart. It can be argued that the *Sharīʿah* conformity of this bank was very good. Bank B (Kuwait) which was in the upper right quadrant in 2001, has moved to upper left quadrant of the chart in 2002, where Bank C (Jordan) is placed, though it enjoyed somewhat higher profitability than Bank B (Kuwait). We note that Bank B's (Kuwait) *Sharīʿah* compliance dropped in this year. Bank D (Malaysia) is still placed in the lower left quadrant of the chart.

Figure 3: Islamic Banks Financial Performance in 2002

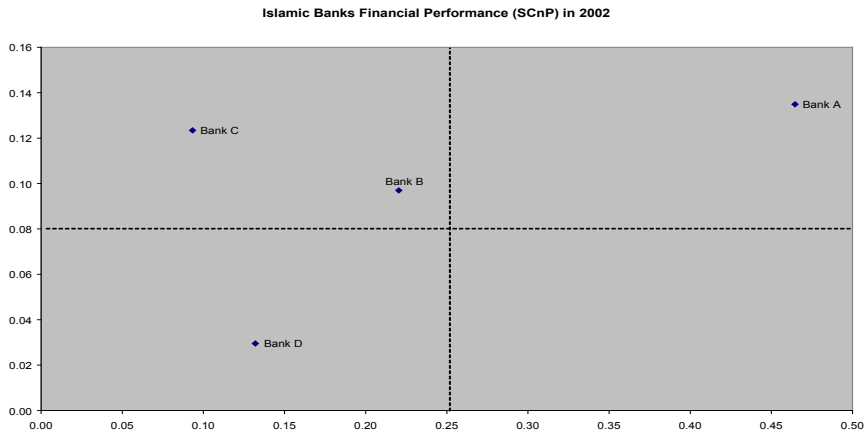


Figure 4 presents the scatter chart for financial performance of the four Islamic banks in 2003. Bank A (Bahrain) is still placed in the upper right quadrant of the chart. Bank B (Kuwait) and C (Jordan) also remain in the upper left quadrant of the chart (similar to the year 2002). Bank B's (Kuwait) profitability has improved and it overtook Bank C (Jordan) in this regard in the year 2003. Bank D (Malaysia) is still placed in the lower left quadrant of the chart.

Figure 4: Islamic Banks Financial Performance in 2003

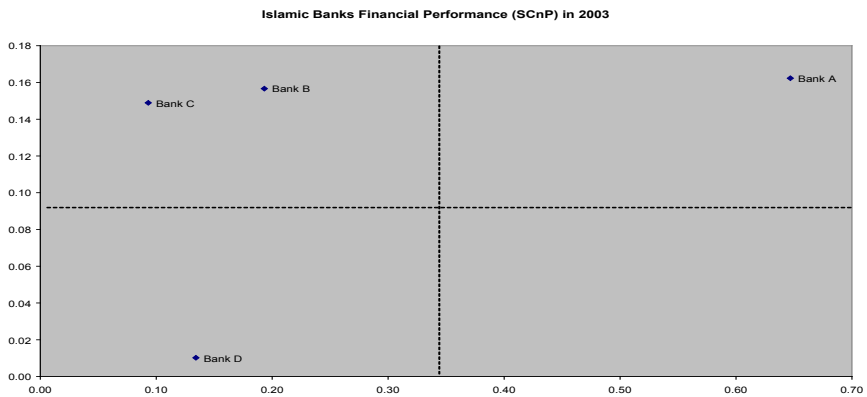
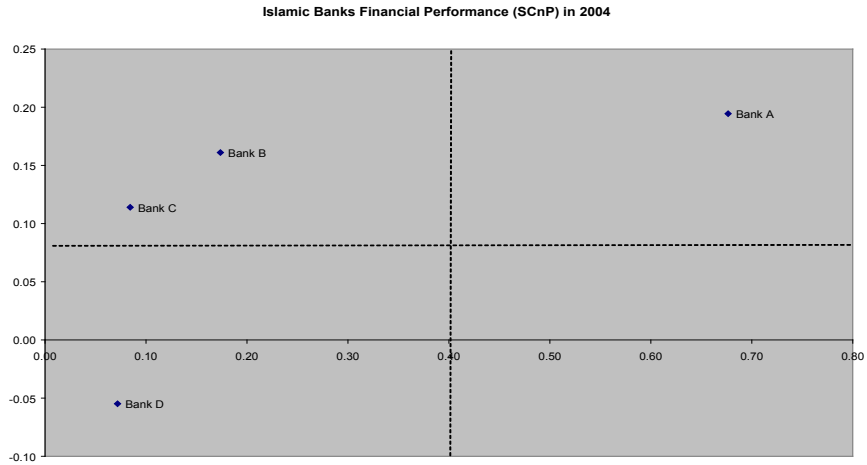


Figure 5 provides the Islamic financial performance chart for the sample banks in 2004. Based on Figure 5, we observe that not much change has taken place in terms of the Islamic banks' performance since 2004. Bank A (Bahrain) is still placed in the upper right quadrant, while Bank B (Kuwait) and C (Jordan) are in the upper left quadrant of the chart in 2004. It can be seen that Bank C's (Jordan) profitability declined in this year. Meanwhile, Bank D's (Malaysia) financial performance in 2004 was poor – its profitability went down to the negative region as a result of weak financial management and heavy non-performing loans (NPL) during this period.

Based on the above findings, we can discuss the following points. First, we note that banks are located at different positions on the *SCnP* model in each year. These positions indicate the Islamic banks' current financial performance and *Sharīʿah* conformity levels. This finding assists in identifying banks that have good and weak *Sharīʿah* compliance, as well as low and high profitability. Subsequently, strategy formulations customized to the banks' situation can be attempted.

Figure 5: Islamic Banks Financial Performance in 2004



Second, the *SCnP* model also provides a dynamic analysis of banks' progress over a period of time. For instance, we were able to note that Bank B's (Kuwait) conformity has deteriorated while its profitability has improved over the years. Thus, managers, investors and policymakers need to be concerned with conformity issues for Bank B (Kuwait). Similarly, there will be potential profitability and conformity issues in Bank C (Jordan). Bank A (Bahrain) has maintained its excellent position and becomes a benchmark institution for the other banks in the sample. However, Bank D (Malaysia) has both conformity and profitability problems, which need to be addressed as soon as possible.

V. Conclusion

The objective of this study was to measure the performance of four selected Islamic banks from Bahrain, Kuwait, Jordan and Malaysia, using a combined conventional and Islamic financial measure, the *SCnP* model. We argued that we should use two sets of measurements (conventional and Islamic) that can be combined into a single framework and used to examine the financial performance of Islamic banks. Using this model allows us to identify the current position of the selected banks in regard to two important dimensions, namely the conformity to *Sharīʿah* principles and profitability. The *SCnP* model separates and identifies four different types of Islamic banks, namely:

(i) Highly profitable banks that have good *Sharīʿah* compliance
(ii) Highly profitable banks that have weak *Sharīʿah* compliance,
(iii) Less profitable banks that have good *Sharīʿah* compliance
(iv) Less profitable banks that have weak *Sharīʿah* compliance.

As indicated earlier, being placed in the upper right quadrant of the chart indicates that the Islamic banks were highly profitable (high performers) and showed a high level of compliance with *Sharīʿah* principles. These are the ideal banks, the ones that showed strong profitability levels while also being in full compliance with *Sharīʿah*-based business practices. All banks should strive to be in this quadrant. The banks that are already in this category should endeavour to maintain their current activities, including continued investment in *Sharīʿah* compliant projects such as those based on *murābaḥah, bayʿ bi-thaman ājil* and *ijārah.*

The upper left quadrant represents banks that are very profitable, but weak in conforming to *Sharīʿah* principles. Since profitability is not generally a major issue for banks in this quadrant, significant emphasis should be given to compliance with *Sharīʿah* requirements. Here, banks should examine product and investment mixes while seeking to divest from non-*Sharīʿah*-based activities in favour of *Sharīʿah*-based ones. They should strive to avoid business transactions that are forbidden, including activities that involve interest (*ribā*) and risky or ambiguous sales (*gharar*). Thus, they should divest from certain activities such as interest-based hire purchase transactions in favour of those that conform to profit sharing arrangements. In short, these banks should strive to move directly towards the upper right quadrant position.

Banks in the lower right quadrant conform strongly to good *Sharīʿah* practices, but they suffer from poor profitability. The strategic management thrust should be to bring these firms to profitability, while maintaining the high conformity to *Sharīʿah* principles. The strategies undertaken should shift the bank's position up to the upper quadrant. For example, Islamic banks in this quadrant can undertake detailed analysis of higher margin products and conduct product pruning, so that less profitable lines are divested, while being mindful of social obligations. This in turn will help the bank to move into the best quadrant.

Finally, the banks in the lower left quadrant perform poorly in both profitability measures and conformity to *Sharīʿah* principles. Strategic concern here includes addressing profitability issues and the lack of *Sharīʿah*

conformity. Banks in this category should examine their products for both profitability and conformity to *Sharīʿah*-based practices, and modify, prune, acquire or establish new lines that will effectively shift the entities upwards along a diagonal pointing to the upper right quadrant. These banks should conduct a comprehensive study of their product lines, and carefully review if forbidden (*ḥarām*) products that involve *ribā* and *gharar* are being offered. They should strive to replace these with *Sharīʿah*-compliant (*ḥalāl*) financial products such as those encompassing the concepts of *murābaḥah, ijārah, mushārakah* and *muḍārabah.*

In essence, this framework fulfils four purposes. First, it helps Islamic banks to assess their current status with regards to profitability and compliance with *Sharīʿah*-based business practices. Secondly, it identifies weaknesses in the banks. Thirdly, it suggests the direction for strategic planning and action, whether the focus should be on changing product mixes to improve profitability or *Sharīʿah*-compliance or both. Finally, the SCnP model provides a continuous performance assessment tool that allows managers and policymakers to assess whether the strategic plans have been successful or not. Viewing the extent to which the bank has moved in the intended direction after implementation of the strategic plans can identify even partial success, and the extent of it.

The future research directions for this study are twofold. First, this study is limited in terms of data sample. We found that quite a number of banks in our initial sample did not disclose sufficient information regarding financial *Sharīʿah* compliance for us to compute the necessary ratios. As such, a more detailed study would require an extensive survey to be carried out to obtain a larger dataset. This would enable us to magnify the validity of the *SCnP* model. Second, adding a greater number of indicators in both the *Sharīʿah*-compliance and conventional profitability dimensions can further refine this model. Such indicators include social responsibility metrics (*e.g.* resources set aside for protection of the environment) and ratios that show equitable wealth distribution (*e.g.* the wage policies of the business and the difference between the highest and lowest remuneration for employees) as well as the debt cycle and the cash cycle. These additional factors should help to provide a deeper insight into the *Sharīʿah*-conformity and profitability of Islamic banks.

However, most of these indicators are not easily available from the annual reports of the Islamic banks. Thus, it would be better if Islamic accounting standards make it mandatory to include these measures in

financial institutions' annual reports. It is well worth noting that, one of the criticisms of current Western or conventional accounting reports is that non-financial metrics that provide a better indication of business health and social responsibilities are missing. The incorporation of appropriate non-financial metrics in Islamic accounting provides an opportunity for Islamic accounting to get ahead of its Western counterpart.

References

Aggarwal, R., and Yousef, T. (2000). "Islamic Banks and Investment Financing," *Journal of Money, Credit, and Banking*, 32 (1), pp. 93-120.

Bashir, A. (1999). "Risk and Profitability Measures in Islamic Banks: The Case of Two Sudanese Banks", *Islamic Economic Studies*, 6 (2), pp.1-24.

Hassan, M. K. and Bashir, A. M. (2003). *Determinants of Islamic Banking Profitability*. ERF Paper. Available at:<URL:http://www.erf.org>, Access Date: 7th November, 2006.

Maali, B.; Casson, P. and Napier, C. (2003). *Social Reporting by Islamic Banks*. Discussion Paper in Accounting & Finance, University of Southampton.

Sabi, M. (1996). "Comparative Analysis of Foreign and Domestic Bank Operation in Hungary", *Journal of Comparative Economics*, 22 (2) April, pp. 179-188.

Saleh, A. S. and Zeitun, R. (2005) "The Development of Islamic Banking in Lebanon: Prospects and Future Challenges", *Review of Islamic Economics*, 9 (2), pp. 77-91.

Saleh, A. S. and Zeitun, R. (2007). "Islamic banks in Jordan: Performance and Efficiency Analysis", *Review of Islamic Economics*, 11 (1), pp. 41-62.

Samad A. and Hassan, M. K. (1999). "The Performance of Malaysian Islamic Banks During 1984-1997: An Exploration Study", *International Journal of Islamic Financial Services*, 1 (3), pp. 1-14.

Shahul, H.; Wirman, A.; Alrazi, B.; Nazli, M. N., and Pramono, S. (2003). A*lternative Disclosure and Performance Measures for Islamic Banks*. Available at: <URL: http://www.iiu.edu.my/iaw>.